Saginaw City Council
Regular Meeting Agenda

Andersen Enrichment Center
120 Ezra Rust Dr.
May 18, 2026
6:30 PM

Prayer and Pledge of Allegiance

Roll Call

Announcements

Public Hearings

1. Fiscal Year 2026-2027 Proposed Budget and Property Tax Millage.
2. Special Assessment District for a Police and Fire Millage for Fiscal Year 2026-2027.
3. Downtown Development Authority District Millage to be levied on properties within the district.
4. The proposed Drinking Water Fund (DWSRF) Project Planning Document Amendment.

Public Input

(A list will be provided following submittal deadline.)

Remarks of Council

Reports From Manager

1. Cross Connection Control Program, Michael Samson, Maintenance and Service Division.

Consent Agenda

1. Approve the May 6, 2026 regular council meeting minutes.
2. Approve the Amendment to Parking Lease Agreement with Spicer Group Inc. for the use of 112 spaces of the City-owned parking lot located at 220 Baum Street.
3. Approve the amendments to the 2025/2026 Approved Budget for the listed funds. This adjustment is required to recognize any errors, omissions, or changes that have occurred within the month of April.
4. Approve the blanket purchase orders for the specified vendors for a total of $216,500 for various parts, supplies, equipment, and repairs for the Fire Department for FY2027, pending budget approval.

5. Approve the blanket purchase orders for each of the vendors listed below for a total amount of $61,900 for various parts and supplies that personnel need to operate and maintain the Police Department for FY2027, pending budget approval.

6. Approve the Agreement with Saginaw Transit Authority and Regional Services (STARS) for the installation and maintenance of bus shelters and benches within designated City of Saginaw public road rights-of-ways.

7. Approve the purchase with Precision Fleet Image for $41,094 for repair services for collision damage to Packer Truck 76-0705, as specified, for the Public Services Department, Motor Pool Division.

8. Approve the blanket purchase orders to the primary suppliers of local fleet vehicle services in the amounts listed below, totaling $422,000 for various vehicle services and repairs for the Public Services Department, Motor Pool Division for FY2027 pending budget approval.

9. Approve the blanket purchase order with Larry's Auto Supply for $8,000 for the purchase of various shop supplies, for the Public Services Department, Motor Pool Division for FY2027 pending budget approval.

10. Approve the blanket purchase order with Elite Aerial Compliance for $5,500 for annual inspection services for the Public Services Department, Motor Pool Division for FY2027 pending budget approval.

11. Approve the purchase with Alta Equipment Company for $2,608 for a 12" Linear Transducer part for the Public Services Department, Motor Pool Division.

12. Approve the blanket purchase orders to primary suppliers of local fleet parts and supplies for a total of $400,000 for vehicle parts and supplies for the Public Services Department, Motor Pool Division for FY2027, pending budget approval.

13. Approve the purchase with MTech Company for $224,500 for a 2027 Maintainer Valve Turner Truck for the Public Services Department, Maintenance and Service Division.

14. Approve the blanket purchase with Certified Abatement Services, Inc. for $5,000 for the abatement, hauling and disposal of asbestos-containing materials for the Public Services Department, Maintenance and Service Division for FY2027 pending budget approval.

15. Approve the blanket purchase orders for a total annual amount not to exceed $750,000 with the primary suppliers of water main appurtenances, brass fittings, and water service lines for the Public Services Department, Maintenance and Service Division for FY 2027 pending budget approval.

16. Approve the blanket purchase orders with primary suppliers for a total annual amount not to exceed $150,000 for sanitary sewer and storm sewer appurtenances for the Public Services Department, Maintenance and Service Division, for FY 2027, pending budget approval.

17. Approve the blanket purchase orders for the specific vendors for a total amount of $173,000. for hot and cold mix asphalt, trees, and various concrete supplies to maintain streets throughout the city for the Public Services Department, Streets Division FY2027, pending budget approval.

18. Approve the blanket purchase orders for the specified vendors for a total amount of $116,500 for the purchase of various parts and supplies for the Public Services Department, Traffic Engineering Division, for FY2027, pending budget approval.

19. Approve the contract with L. D'Agostini & Sons, Inc. for $2,684,776 for the North Mason Watermain & Dead-End Looping project for the Public Services Department, Engineering Division.

20. Approve the purchase with Holzberg Communications Inc. for $2,728 for an LMI Ferric Pump for the Water and Wastewater Treatment Services Department, Water Treatment Division.

21. Approve the blanket purchase orders for the specified vendors for a total amount of $52,000 for various network and server parts and supplies that are needed to operate and maintain the Water and Wastewater Treatment Services Department, Instrumentation and Process Controls Division for FY2027, pending budget approval.

22. Approve the blanket purchase orders for the specified vendors for a total amount of $153,000 for services needed for the Water and Wastewater Treatment Services Department, Wastewater Treatment and Pumping, and Remote Facilities Divisions, for FY2027, pending budget approval.

23. Approve the contract with John E. Green Company, for $1,981,940 for the WTP Sodium Hypochlorite & Lime Feed Improvements project for the Water and Wastewater Treatment Services Department, Water Treatment Division.

24. Approve the blanket purchase orders for the specified vendors for a total amount of $282,800 for the purchase of various parts and supplies that plant personnel need to operate and maintain the Water and Wastewater Treatment Services Department, Wastewater Treatment and Pumping and Remote Facilities Divisions, for FY 2027, pending budget approval.

25. Approve the purchase with Monarch Welding and Engineering Inc., for $52,800 for 20" piping replacement for the Water and Wastewater Services Department, Treatment and Pumping Division.

26. Approve the contract with Super Construction LLC, for $1,526,335 for the Lead Service Line Replacement (C-1725) project for the Public Services Department, Engineering Division.

27. Approve the blanket purchase orders for the specified vendors for a total amount of $180,000, for various parts, supplies, electrical, and mechanical repair services that will be needed to operate and maintain the Water and Wastewater Treatment Services Department, Water Treatment Division for FY2027, pending budget approval.

Board/Commission/Committee Reports

Appointment of Board/Commission/Committee Members

1. Approve the reappointment of Susanne Smokoska to the Human Planning Commission with a term to expire April 1, 2028.

2. Approve the reappointment of Ronald Wheatley to the Housing Board of Appeals with a term to expire April 1, 2028.

3. Approve the appointment of Tobias Young to the Riverfront Development Commission with a term to expire May 1, 2031.

4. Approve the appointment of Donald Watson to the Saginaw Housing Commission with a term to expire May 1, 2031.

Ordinance Introduction

Ordinance Adoption

1. An ordinance to amend §153-2.2 “Definitions,” §153-3.1.C(3) “Special Land Uses,” §153-3.1.F(2) “Permitted Uses,” and by adding new section §153-4.35 titled “Micro Dwelling Unit/Micro Dwelling Unit Development” of Chapter 153, “Zoning Code,” of Title XV, “Land Usage,” of the City of Saginaw Code of Ordinances, O-204.

Resolutions

1. Approve the Fiscal Year 2026-2027 Proposed Budget and Property Tax Millage.

2. Approve the Special Assessment District for a Police and Fire Millage for Fiscal Year 2026-2027.

3. Approve the Downtown Development Authority District millage to be levied on properties within the district.

4. Adopt the final Project Planning Document Amendment for Water Main Improvements and designate an Authorized Project Representative.

5. Tentatively Award A Construction Contract For N. Mason Water Main & Dead-End Looping Dwsrf 7900.01 (C-1724)

6. Tentatively Award A Construction Contract For Water System Improvements For Lead Service Line Replacements (C-1725)

7. Authorize the Issuance Of Water Supply System Junior Lien Revenue Bonds, Series 2026

Unfinished Business

Miscellaneous Business

Adjournment

Timothy Morales
City Manager

Accessibility Notice:
If you require accommodations to attend or participate in this meeting due to a disability, please contact the City Clerk's Office at (989) 759-1480 ext. 6 or visit in person at:

Saginaw City Hall
1315 S. Washington Ave.
Saginaw, MI 48601

Advance notice is appreciated to allow time to make arrangements.

To view tonight's presentations, scan the QR code or follow the link below.
saginaw-mi.com/presentations

CITY OF SAGINAW
PUBLIC HEARING NOTICE

Notice is hereby given that subject to the provision of the City Charter, a public hearing will be held on the proposed Fiscal Year 2026-2027 Budget of the City of Saginaw before its final adoption by the City Council of the City of Saginaw.

THE PROPERTY TAX MILLAGE RATE PROPOSED TO BE LEVIED TO SUPPORT THE PROPOSED BUDGET WILL BE A SUBJECT OF THIS HEARING.

Said public hearing will be held at the Andersen Enrichment Center, located at 120 Ezra Rust Drive, Saginaw MI 48601 at 6:30 p.m. on Monday, May 18, 2026. At this time residents are invited to present to the Council oral and/or written comments and to ask questions on the proposed budget for Fiscal Year 2026-2027.

A copy of the proposed Fiscal Year 2026-2027 municipal budget will be available for public inspection seven days prior to the hearing in the Office of the City Clerk in City Hall from 8:00 a.m. to 4:00 p.m. on weekdays.

Kristine Bolzman, MiPMC/CMC
City Clerk

IF YOU ARE DISABLED AND NEED ACCOMMODATION TO PROVIDE YOU WITH AN OPPORTUNITY TO PARTICIPATE OR OBSERVE IN PROGRAMS, SERVICES, OR ACTIVITIES, PLEASE CALL THE SAGINAW CITY CLERK AT 989.759.1480.

Posted: _____
By: __kb_____

PUBLIC HEARING NOTICE

SPECIAL ASSESSMENT DISTRICT FOR A POLICE AND FIRE MILLAGE

In compliance with requirements of Act 267, P.A. 1976,
the following notice is published

Notice is hereby given that the Saginaw City Council has scheduled a public hearing to determine the amount of the special assessment required and to be levied in the special assessment district for a police and fire millage.

The public hearing will be held Monday, May 18, 2026, at 6:30 p.m. at the Andersen Enrichment Center, located at 120 Ezra Rust Drive, Saginaw, MI 48601. All interested parties are invited to attend and provide input.

Kristine Bolzman, MiPMC/CMC
City Clerk

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Posted: _____
By: __kb_____

CITY OF SAGINAW

PUBLIC HEARING NOTICE

DOWNTOWN DEVELOPMENT AUTHORITY DISTRICT MILLAGE

In compliance with requirement of Act 267, P.A. 1976,
the following notice is published

Notice is hereby given that the Saginaw City Council has scheduled a public hearing to receive comments on the Downtown Development Authority District millage to be levied on properties within the district.

The public hearing will be held Monday, May 18, 2026, at 6:30 p.m. at the Andersen Enrichment Center, located at 120 Ezra Rust Drive, Saginaw, MI 48601. All interested parties are invited to attend and provide input.

Kristine Bolzman, MiPMC/CMC
City Clerk

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Posted: _____
By: __kb_____

CITY OF SAGINAW

PUBLIC HEARING
SAGINAW CITY COUNCIL

In compliance with requirements of Act 267, P.A. 1976, the following notice is posted:

NOTICE OF PROJECT PLANNING DOCUMENT AMENDMENT PUBLIC HEARING

Notice is hereby given that the Saginaw City Council will hold a public hearing on May 18, 2026, at 6:30 p.m. regarding the proposed Drinking Water State Revolving Fund (DWSRF) Project Planning Document Amendment for the purpose of receiving comments from interested persons. These will be presented at the Regular Council meeting on May 18, 2026, at 6:30 p.m. at the Anderson Enrichment Center, 120 Ezra Rust Drive, Saginaw, MI 48601.

A copy of the draft DWSRF Project Planning Document Amendment will be available for public review at the Clerk's office and on the City's website at https://www.saginaw-mi.com/DocumentCenter/View/6180/Saginaw-DWSRF-Amendment-05-18-2026-PDF.

All interested parties are invited to submit written comments on the draft Project Planning Document Amendment. Written comments may be emailed to Mike Grenier, Director of Water & Wastewater Treatment Services, at mgrenier@saginaw-mi.com. Written comments must be received no later than May 18, 2026, at 12:00 p.m. to be considered part of the public record.

The DWSRF Project Planning Document Amendment includes the addition of the following water main projects to the City Only portion of the original Project Planning Document submitted to Michigan Department of Environment, Great Lakes, and Energy (EGLE) in 2024.

Fiscal Year Scheduled Project	Water Main	Total Project Costs
FY2027	Sheridan Avenue – Hess Avenue to Rust Avenue (M-46)	$3,510,000
FY2027	East Genesee Avenue – Janes Avenue to Hartsuff Street	$4,680,000

The City of Saginaw has previously adopted a rate increase each year starting 2024 through 2027. Therefore, the debt service for the DWSRF loan is reflected in the rates adopted.

There are no negative long-term impacts associated with the proposed DWSRF projects. The construction activities would have only a short-term disruption.

Kristine Bolzman, MiPMC/CMC
City Clerk

IF YOU ARE DISABLED AND NEED ACCOMMODATION TO PROVIDE YOU WITH AN OPPORTUNITY TO PARTICIPATE OR OBSERVE IN PROGRAMS, SERVICES, OR ACTIVITIES, PLEASE CALL THE SAGINAW CITY CLERK AT 989.759.1480.

Posted: _____ By: _____

A Regular Meeting of the Council of the City of Saginaw, Michigan, was held Wednesday, May 6, 2026, at 6:30 p.m. at the Andersen Enrichment Center, 120 Ezra Rust Drive, Saginaw, Michigan.

Prayer and Pledge of Allegiance

Mayor Moore offered a prayer and led the pledge of allegiance of the United States of America.

Roll Call

Mayor Moore called the meeting to order. Council Members present: Tobias Young, Jacinta Seals, Michael Balls, Priscilla Garcia, Heidi Wiggins, Carly Hammond, Brenda Moore: 7. Council Members absent: Bill Ostash, Eric Braddock Sr.:2.

Announcements

City Clerk Kristine Bolzman announced the following:

- The City's Convenience Station will be open this Saturday from 8:00 a.m. to noon. Residents may utilize the station to drop off bulky or miscellaneous items for disposal.
- The Spring Team Up to Clean Up event is Saturday, May 9, from 9:00 a.m. to noon. The event will begin and end at the Public Works building where lunch will be served. Those wishing to sign up to volunteer may do so by contacting the City Manager's Office.

Council Member Ostash entered the meeting at 6:36 p.m.

Council Member Hammond read a proclamation declaring May 2026 as "Mental Health Month." City resident, Anna, accepted the proclamation.

Public Hearings

Clerk Bolzman announced the Public Hearing regarding the 2026-2027 Community Development Block Grant Program Emergency Solutions Grant Program, HOME Investment Partnership Program. Mayor Moore called for public comments. Alexis Farrell-Rodriguez, Valerie Toney, Kanah Franklin and Jeffrey Bulls offered comments. Mayor Moore called for public comments two additional times. No further comment was made.

Moved by Council Member Seals, seconded by Council Member Wiggins to close the public hearing. 8 ayes, 0 nays, 1 absent. Motion approved.

Public Input

Members of the public that addressed the Council: Jessica Chandler, Melanie Velasco.

Council Remarks

Remarks were heard from the following Council Members: Wiggins, Hammond, Young, Seals, Balls, Ostash, Garcia, and Mayor Moore.

Council Member Hammond left the meeting at 7:07 p.m. and returned at 7:12 p.m.

Reports from Manager

City Manager Tim Morales reported updates regarding various projects.

Council Member Balls left the meeting at 7:20 p.m. and returned at 7:21 p.m.

Manager Morales introduced Alexis Farrell-Rodriguez, AICP, NCI, Senior Planner, McKenna Associates, Inc. Ms. Farrell-Rodriguez presented an update on the Five-Year Consolidated Plan and the Annual Plan for the Community Development Block Grant Program.

Manager Morales introduced Yolanda Bland, Director of the Office of Management and Budget. Ms. Bland provided an overview of the Fiscal Year 2026-2027 Proposed Budget.

Consent Agenda:

Council Member Balls, seconded by Council Member Seals to approve the consent agenda, allowing room for exceptions. No exceptions were made. 8 ayes, 0 nays, 1 absent. Motion approved.

1. Approve the April 27, 2026 regular meeting minutes.

2. Approve the amendments to the FY 2026 Approved Budget to recognize changes that have occurred during the March period.

3. Approve the acceptance of a donation of $1,250 from Covenant HealthCare to assist the City of Saginaw's 2026 Family Play Date Series. Further, approve a budget adjustment to recognize these funds.

4. Approve to increase the purchase order with AKT Peerless Environmental Services by $5,000, for a new total of $30,000, for FY 2027, pending budget approval, for Inspection of Environmentally Hazardous Materials for Residential and Commercial Demolition services, for the Neighborhood Services and Inspections Department, Inspections Division.

5. Approve the blanket purchase order with ServPro of Saginaw for $20,000 for emergency board up services for FY 2027, pending budget approval, for the Neighborhood Services and Inspections Department, Inspections Division.

6. Approve the purchase with Rohde Brothers Excavating Inc. for a total amount not to exceed $195,000 for FY 2027, pending budget approval, for demolition services for the Neighborhood Services and Inspections Department, Inspections Division.

7. Approve the purchase with Yeager Asphalt, Inc. for $4,550 to crack fill, seal coat, and line stripe the south parking lot at the Public Services building for the Public Services Department, Facilities Division.

8. Approve the purchase with Mega Mini Trucks LLC for $27,730 for a replacement utility vehicle for the Public Services Department, Cemeteries Division.

9. Approve the purchase with Fredrickson Supply for $606,536 for a 2026 900 Eco 12-Yard Combination Sewer Cleaner for the Public Services Department, Maintenance and Service Division.

10. Approve the professional services agreement with Bendzinski & Co., Municipal Financial Advisors for $31,000 to act as the registered municipal advisors for the City in connection with the issuance of bonds for the City's water supply system.

11. Approve the Amendment to the Standard Wholesale Raw Water Service Agreement between the Saginaw-Midland Municipal Water Supply Corporation and Bay County.

Resolutions

Moved by Council Member Seals, seconded by Mayor Pro Tem Garcia to adopt a resolution approving the Community Development Block Grant Program Submission Program for Year 2026-2027. 8 ayes, 0 nays, 1 absent. Motion approved.

Moved by Council Member Balls, seconded by Council Member Seals to adopt a resolution approving the HOME Program Submission Program for Year 2026-2027. 8 ayes, 0 nays, 1 absent. Motion approved.

Moved by Council Member Balls, seconded by Mayor Pro Tem Garcia to adopt a resolution approving the HOMELESS Assistance Program Emergency Solutions Grant Submission Program for Year 2026-2027. 8 ayes, 0 nays, 1 absent. Motion approved.

Adjournment

Moved by Council Member Balls, seconded by Council Member Seals to adjourn the meeting at 9:07 p.m. 8 ayes, 0 nays, 1 absent. Motion approved.

Submitted by,

Kristine Bolzman, MiPMC/CMC
City Clerk

Council Communication

Item Number: 2.

Date: May 18, 2026

From: Timothy Morales, City Manager

Subject: Amendment to Spicer Group Parking Lease Agreement

Prepared By: Cassandra (Cassi) Zimmerman, Director of Planning & Economic Development

Manager's Recommendation:

Approve the Amendment to Parking Lease Agreement with Spicer Group Inc. for the use of 112 spaces of the City-owned parking lot located at 220 Baum Street.

Justification:

In 2023, the City of Saginaw was approached by Spicer Group, which wished to utilize a portion of the city-owned parking lot at 220 Baum Street. A previous parking agreement was approved by City Council in August 2023 and amended in August 2024 and August 2025.

The need for Spicer to use this lot arises from an increase in employment at their downtown Saginaw location. In the last few years, Spicer has added approximately 60 jobs. The parking spaces will be utilized by employees working downtown.

The agreement provides that Spicer may lease 82 parking spaces for the two (2) year term of the agreement at the approved pay rate of $30 per space, per month, totaling $2,460 per month, plus any additional property taxes that accrue due to the private use of the parking lot, which will expire in August 2027. The proposed amendment will add 30 spaces for one hundred and twenty (120) days to accommodate decreased on-street parking due to their façade project as well as their summer intern program. These additional parking spaces will be charged at the same pay rate of $30 per space, per month, totaling $900 per month.

The agreement also provides that Spicer Group will indemnify and hold harmless the City against any and all liability, loss, damage, costs or expenses caused by the use of the lot.

I have approved this agreement as to substance and the City Attorney as to form.

Council Action:

Motion to approve the recommendation of the City Manager.

Attachments:

1. 2026_Spicer_Group_Temporary_Amendment

THIRD AMENDMENT TO PARKING AGREEMENT

This Third Amendment to the City of Saginaw Parking Agreement dated August 21, 2023 ("Agreement"), as amended on August 12, 2024, and August 21, 2025, is entered into this 18th day of May, 2026, by the CITY OF SAGINAW ("City"), a Michigan municipal corporation, 1315 South Washington Avenue, Saginaw, Michigan 48601 and SPICER GROUP, INC. ("Spicer"), a corporation formed under the laws of the State of Michigan, 230 S. Washington Avenue, Saginaw, Michigan 48607.

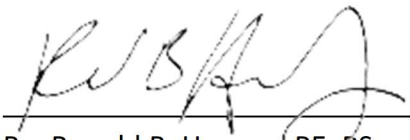
City and Spicer mutually agree that the Agreement is modified as follows:

> City shall lease to Spicer an additional 30 spaces for a total of 112 spaces in the Lot. The term of this Third Amendment shall be one hundred and twenty (120) days.

In all other respects, the terms and conditions of the Agreement, as amended, shall continue unchanged and in full force and effect.

The parties have executed this Third Amendment the day and year first written above.

SPICER GROUP, INC.

By: 

By: Ronald B. Hansen, PE, PS
Its: President/CEO

CITY OF SAGINAW

By: _____

Timothy Morales, City Manager

Council Communication

Item Number: 3.

Date: May 18, 2026

From: Timothy Morales, City Manager

Subject: Approve the amendments to the FY 2026 Approved Budget to recognize changes that have occurred during the April period.

Prepared By: Yolanda Bland, Director of OMB

Manager's Recommendation:

Approve the amendments to the 2025/2026 Approved Budget for the listed funds. This adjustment is required to recognize any errors, omissions, or changes that have occurred within the month of April.

Justification:

The 2025/2026 annual budget will be adjusted in accordance with Public Act 2 of 1968, Uniform Budgeting and Accounting Act, the City Charter; and the approved 2026 Budget Resolution, which states that the City Manager must provide budget adjustments to City Council quarterly and/or as needed. As a result of the City Manager's monthly analysis for April, the below-mentioned budget adjustments take into consideration any errors, omissions, or changes in the funding levels and expenditure approved by the City Council as prescribed by the City Charter.
In review of the General Fund, it is recommended that this fund be increased by $988,224 from $47,043,274 to $48,031,498.

- A budget adjustment is required to recognize $35,000 from the approved Victim Services Grant for continued services. Community Public Safety – Police is utilizing the remainder of the funds prior to September 30, 2026. Revenues will be recognized in the General Fund Revenues, State Grant – Victim Services Division Account No. 101-000.00-541.007 in the amount of $35,000. To offset this increase in revenues, there will be the same increase to Community Public Safety – Police, MCOLES Victim Services Division, Professional Services Account No. 101-307.30-801.000.
- On April 27, 2026, City council approved the $19,300 purchase of rifles and rifle accessories for Community Public Safety – Police. The budget adjustment was omitted from the purchase request. This budget adjustment is to recognize the use of Ruttledge Fund for the purchase of these rifles and accessories. Expenditures will be realized in the General Fund, Community Public Safety – Police, Police Building Management Division, Capital Outlay less than $5,000 Account No. 101-303.00-971.000 of $19,300. To offset the increase in expenditures, there will be the same increase to the General Fund Revenues, Fund Equity Account No. 101-000.00-969.000.

- A budget adjustment is required to recognize $1,229 reimbursement from Homeland Security for training for Community Public Safety – Police. Revenues will be recognized in the General Fund Revenues, Reimbursement – PD Account No. 101-000.00-676.020 of $1,229. To offset the increase in revenues, there will be the same increase to the Community Public Safety – Police – Police Administration Division, Training and Development Account No. 101-305.00-957.003.
- In May of 2026, the city received the Public Safety Revenue Sharing from the State of Michigan in the amount of $932,695. This revenue sharing payments are based on each local unit's share of violent crime counts as certified by the Michigan Department of State Police for calendar year 2022, 2023, and 2024. These funds can be utilized for public safety initiatives to improve recruitment or retention, training programs, equipment purchases, programs designed to reduce identified risks to public safety, crime diversion programs, operational emergency medical or firefighter services, and capital improvements to public safety buildings/structures. Revenues will be recognized in the General Fund Revenues; State Grants Account No. 101-000.00-543.003 of $932,695. To offset the increase in revenues, there will be the same increase to the General Fund, Community Public Safety – Police, Police Administration Division, Professional Services Account No. 101-305.00-801.000.

The Sewer Operations and Maintenance Fund (590), it is recommended that this fund should be increased by $3,216,257, from $56,276,955 to $59,493,212. This adjustment is required to recognize the annual depreciation cost. Expenditure will be realized in the Administration Division, Depreciation Account No. 590-537.02-968.000 in the amount of $3,216,257. To offset the increase in expenditures, there will be an increase to the following unanticipated revenues – Reimbursements Account No. 590-000.00-676.000 of $19,126, Gain/Loss on Equipment Account No. 590-000.00-673.000 of $19095, Sale of Property Items Account no. 590-000.00-693.003 of $48,193, IPP Fines and Surcharges Account No. 590-000.00-657.005 of $16,967, Sale of Junk Account No. 590-000.00-626.012 of $8,951, Materials and Services Account No. 590-000.00-630.009 of $95,318 as well as a use of Retained Earnings Account No. 590-000.00-969.000 of $3,017,558.

In review of the Water Operations and Maintenance Fund (591), it is recommended that this fund should be increased by $2,600,852, from $78,245,674 to $80,846,526. This adjustment is required to recognize the annual depreciation cost. Expenditures will be realized in the Administration Division, Depreciation Account No. 590-537.02-968.000 in the amount of $2,600,852. To offset the increase in expenditures, there will be an increase to the following unanticipated revenues – Gain/Loss on Equipment Account No. 591-000.00-673.000 of $33,895, Sale of Junk Account No. 591-000.00-626.012 of $13,313, Dividends Account No. 591-000.00-666.000 of $90,473, Gain/Loss on Investments Account No. 591-000.00-675.014 of $6,381 as well as a use of Retained Earnings Account No. 591-000.00-969.000 of $2,456,790.

The Public Works Building Fund (601) should be increased by $76,670 from $648,454

to $725,124. This increase is to recognize the 2023 Energy Efficiency and Conservation Block Grant Program grant allocation. These funds were provided to states, local governments, and tribes for energy efficiency and conservations projects. These funds will be utilized to replace the flat black rubber roof over the office area of the Public Works Building with a flat white rubber roof. Revenues will be recognized in this fund's Other Federal Grant Account No. 601-000.00-505.002 in the amount of $76,670. To offset the increase in revenues, there will be the same increase to this fund's Repairs and Replacement Account No. 601-441.00-974.000.

Council Action:

Motion to approve the recommendation of the City Manager.

Attachments:

None

Council Communication

Item Number: 4.

Date: May 18, 2026

From: Timothy Morales, City Manager

Subject: Blanket Purchase Orders for FY2027

Prepared By: Brandon Hausbeck, Fire Chief

Manager's Recommendation:

Approve the blanket purchase orders for the specified vendors for a total of $216,500 for various parts, supplies, equipment, and repairs for the Fire Department for FY2027, pending budget approval.

Justification:

Time and experience have shown that certain vendors reliably provide the lowest price on certain parts, supplies, and equipment. Fire department personnel will continue to solicit quotes for items purchased to ensure that we obtain the lowest possible price. Issuing individual purchase orders is costly and administratively time consuming; therefore, we are requesting authorization to issue blanket purchase orders as follows:

Vendor	Amount	GL Account #
Municipal Emergency Services	$15,000	101-344.01-742.000
Municipal Emergency Services	$5,000	101-344.01-805.000
Municipal Emergency Services	$43,000	101-346.00-728.000
American Red Cross	$4,000	101-346.00-957.003
CFS Inspections, Inc.	$4,000	101-344.01-805.000
Kurtz-Hillman Tire Center	$5,000	101-347.01-931.000
M&R Auto Electronics	$5,000	101-347.01-931.000
Best Price Services, LLC	$3,000	101-347.01-931.000
Maqueen Emergency Group	$2,500	101-344.01-930.000
Front Line Services	$45,000	101-347.01-930.000

Apollo Fire Apparatus Repair	$30,000	101-347.01-930.000
Scientific Brake	$10,000	101-347.01-930.000
W.W. Williams	$15,000	101-347.01-930.000
Michigan Truck Spring	$10,000	101-347.01-930.000
Cummins Bridgeway	$10,000	101-347.01-930.000
Bauer Built Tire & Service	$10,000	101-347.01-930.000

These vendors meet all requirements of §14.33, "Vendors," of "Purchasing, Contracting, and Selling Procedure," of Chapter 14, "Finance and Purchasing," of Title I, "Administrative Code," of the Saginaw Code of Ordinances, O-204.

Funds are budgeted in the General Fund, Community Public Safety Fire, Fire Suppression Division, Parts and Supplies Account No. 101-344.01-742.000 $15,000, Operating Services Account No. 101-344.01-805.000 $9,000, General Repairs Account No. 101-344.01-930.000 $2,500; Fire Training Division, Clothing Supplies Account No. 101-346.00-728.000 $43,000, Training & Development Account No. 101-346.00-957.003-CPRTNG $4,000; Fire Apparatus Operation/Maintenance Division, Motor Vehicle Repairs Account No. 101-347.01-931.000 $143,000, pending FY27 budget approval.

Council Action:

Motion to approve the recommendation of the City Manager.

Attachments:

None

Council Communication

Item Number: 5.

Date: May 18, 2026

From: Timothy Morales, City Manager

Subject: Police Department Blanket Purchase Orders for FY2027

Prepared By: Brian Rowell, Administrative Professional

Manager's Recommendation:

Approve the blanket purchase orders for each of the vendors listed below for a total amount of $61,900 for various parts and supplies that personnel need to operate and maintain the Police Department for FY2027, pending budget approval.

Justification:

Time and experience have shown that certain vendors reliably provide the lowest price on certain parts and supplies. These include ballistic vests and carriers, online investigative services, in-car camera repair services, janitorial services, and police vehicle car wash services. Police personnel will continue to solicit quotes for items purchased to ensure that we obtain the lowest possible price. Issuing individual purchase orders is costly and administratively time consuming; therefore, we are requesting authorization to issue blanket purchase orders as follows:

Vendor	Amount	GL Account #
Angel Armor, LLC	$19,000	101-303.00-728.000
DataWorks Plus, LLC	$2,400	101-303.00-801.000
Lansing Uniform Company	$24,000	101-303.00-728.000
Lexis Nexis Risk Solutions	$2,500	101-310.00-805.000
M&R Auto Electronics	$6,000	262-312.01-974.000
Nagel & Shippers Products	$4,000	101-303.00-735.000
Paxon Oil Company	$4,000	101-303.00-805.000

These vendors meet all requirements of §14.33, "Vendors," of "Purchasing, Contracting, and Selling Procedure," of Chapter 14, "Finance and Purchasing," of Title I, "Administrative Code," of the Saginaw Code of Ordinances, O-204.

Funds are budgeted in the General Fund, Community Public Safety – Police, Police Building Management Division, Clothing Supplies, Account No. 101-303.00-728.000 $43,000; Cleaning Supplies, Account No. 101-303.00-735.000 $4,000; Operating Services, Account No. 101-303.00-805.000 $4,000; Professional Services, Account No. 101-303.00-801.000 $2,400 pending FY27 budget approval.

Funds are also budgeted in the General Fund, Community Public Safety – Police, Police Investigation Division, Operating Services, Account No. 101-310.00-805.000 $2,500 pending FY27 budget approval.

Funds are also budgeted in the Saginaw Police, Drug Forfeiture Fund, Repairs and Replacements, Account No. 262-312.01-974.000 $6,000 pending FY27 budget approval.

Council Action:

Motion to approve the recommendation of the City Manager.

Attachments:

None

Council Communication

Item Number: 6.

Date: May 18, 2026

From: Timothy Morales, City Manager

Subject: Agreement with the Saginaw Transit Authority and Regional Services

Prepared By: Phillip (Phil) Karwat, Director of Public Services

Manager's Recommendation:

Approve the Agreement with Saginaw Transit Authority and Regional Services (STARS) for the installation and maintenance of bus shelters and benches within designated City of Saginaw public road rights-of-ways.

Justification:

STARS plans to install new bus shelters and benches, and refurbish other bus shelters, at various bus stops within the city. While some bus shelters and benches will be installed on private property, most will be installed within the public road right of way.

STARS shall, at its expense, install, construct and maintain the bus shelters and benches, and commits to raising funds for the long-term care and maintenance of the bus shelters and benches. The City Engineer will review and approve the location of each bus shelter and bench, and all plans, drawings and dimensions, prior to the installation and construction.

Continued maintenance of the shelters and benches will be at no cost to the City.

I have approved the Agreement as to substance and the City Attorney as to form.

Council Action:

Motion to approve the recommendation of the City Manager.

Attachments:

1. Bus Shelter Signed Agreement with City 5-7-26

Statement of Agreement

This Agreement is made this _____ day of _____, 2026, by and between the CITY OF SAGINAW ("City"), a Michigan municipal corporation, 1315 South Washington Avenue, Saginaw, Michigan 48601 and SAGINAW TRANSIT AUTHORITY AND REGIONAL SERVICES ("STARS"), a regional transportation authority formed under the laws of the State of Michigan, 615 Johnson Street, Saginaw, Michigan 48607.

Whereas, City is the owner and custodian of certain real property and public right-of-way located throughout the City of Saginaw; and,

Whereas, STARS desires to construct and maintain bus shelters and benches in the City's right-of-way in various locations throughout the City.

Therefore, it is hereby agreed by both parties:

1. STARS shall, at its sole expense, install, construct, and maintain bus shelters and benches at various locations in the City's right-of-way.
2. STARS commits to raising funds for and undertaking any activities associated with the long-term care and maintenance of the bus shelters and benches.
3. City shall have the right to approve the location of each bus shelter or bench prior to STAR's installation and construction of same; no bus shelter or bench shall be installed or constructed in any location not approved by the City Engineer. The proposed locations of the bus shelters and benches is attached to this Agreement as Exhibit A.
4. City shall have the right to approve all plans, including drawings and dimensions, for each bus shelter or bench to be installed or constructed in the City's right-of-way; no bus shelter or bench shall be installed or constructed prior to the approval of such plans by the City Engineer.
5. All activities of STARS will first be presented to and approved by City Engineer to ensure that the proposed work is consistent with the plans, goals, and objectives of City. STARS shall not commence any work until written approval of such plans is obtained from the City Engineer.
6. STARS shall have the responsibility of ensuring that all of its activities (or the activities of its contractors or agents) are properly permitted and supervised and comply with all applicable Federal, State, or City ordinances and other applicable laws and regulations.
7. STARS shall ensure its (or its contractors or agents) efforts do not disrupt normal activities or services nor jeopardize public safety. STARS (and its contractors and agents) will act responsibly and safely in conducting its activities under this Agreement.
8. STARS will hold harmless, indemnify and defend City, its officers, agents, and employees, from any and all claims, actions, damages or expenses, including attorney fees, arising directly or indirectly from any negligence or willful misconduct of STARS (or its contractors or agents) in connection with its duties or activities hereunder.
9. Any activities performed hereunder by STARS shall be at STAR's sole expense and at no cost to City.

10. The Agreement shall continue from the date first set forth above until terminated. Either party may terminate this Agreement at any time and for any reason upon ninety (90) days' written notice to the other. In the event STARS is unable or fails to comply with the requirements of this Agreement, City may terminate the Agreement immediately upon written notice to STARS. Within one hundred and twenty (120) days of such termination, STARS shall remove any bus shelters or other fixtures from the City's right-of-way.
11. The provisions of this Agreement shall be severable and if one or more provisions should be declared invalid, the remaining provisions shall remain in full force and effect.
12. This Agreement shall be governed, construed, enforced, and interpreted in accordance with the laws of the State of Michigan. The parties agree that any action to enforce this Agreement may be brought in any state or federal court that has subject matter jurisdiction and is located in, or whose district includes, Saginaw County, Michigan.
13. This Agreement represents the entire Agreement between the parties and supersedes any and all prior Agreements and understandings, and shall not be modified except in writing, signed by both parties.
14. The parties acknowledge that the persons signing below execute this Agreement with the requisite authority.

The parties hereto have executed this Agreement the day and year first above written.

City of Saginaw

_____
Timothy Morales, City Manager

Saginaw Transit Authority and Regional Services

_____
Amy Bidwell, Executive Director

Council Communication

Item Number: 7.

Date: May 18, 2026

From: Timothy Morales, City Manager

Subject: Vehicle Repair Service for Precision Fleet Image

Prepared By: Alex Niedecken, Motor Pool Administrator

Manager's Recommendation:

Approve the purchase with Precision Fleet Image for $41,094 for repair services for collision damage to Packer Truck 76-0705, as specified, for the Public Services Department, Motor Pool Division.

Justification:

On January 8, 2026, an estimate was provided by Precision Fleet Image regarding collision-related damages for repair involving unit 76-0705. These damages are required to be repaired to maintain continued vehicle operation and ensure road safety compliance. A Blanket PO was increased to Precision Fleet on February 9, 2026 by City Council for these repairs. However, the repairs will not be completed prior to the end of this fiscal year end and blanket POs cannot be carried forward into the next fiscal year. Therefore, creating a separate PO for this repair is necessary and in accordance with purchasing guidelines.

During the waiting period, an insurance claim was submitted and has been approved, with the intent of covering a portion of the repair expenses. The final amount will be determined upon completion of the vehicle. Precision Fleet Image is one of the primary vendors for this type of heavy-duty vehicle repair for the City.

This vendor meets all requirements of §14.33, "Vendors," of "Purchasing, Contracting, and Selling Procedure," of Chapter 14, "Finance and Purchasing," of Title I, "Administrative Code," of the Saginaw Code of Ordinances, O-204.

Funds are budgeted in the Motor Pool Operation Fund, Garage Operations Division, Motor Vehicle Repairs Account No. 661-272.03-931.000.

Council Action:

Motion to approve the recommendation of the City Manager.

Attachments:

None

Council Communication

Item Number: 8.

Date: May 18, 2026

From: Timothy Morales, City Manager

Subject: Blanket Purchase Order – Shop Supplies

Prepared By: Alex Niedecken, Motor Pool Administrator

Manager's Recommendation:

Approve the blanket purchase orders to the primary suppliers of local fleet vehicle services in the amounts listed below, totaling $422,000 for various vehicle services and repairs for the Public Services Department, Motor Pool Division for FY2027 pending budget approval.

Justification:

The City's Municipal Garage requires the services of local vendors for various repairs of fleet vehicles from July 1, 2026, to June 30, 2027. There is no feasible means to predetermine what type of services will be needed including suspension, engine, upholstery repairs, etc. These are random services that are needed in any given time. Issuing individual purchase orders is costly and administratively time-consuming. The Municipal Garage personnel will price quote individual services and select the lowest and best vendor for each service, with the cost charged to the respective blanket purchase order. It is clearly in the best interest of the City to continue this procedure for Fiscal Year 2027 as follows:

Vendor	Cost
AIS Equipment, Co. Bridgeport, MI	$20,000
Engel's Auto Body Saginaw, MI (out city)	$30,000
Garber Chevrolet Saginaw, MI (out city)	$35,000
Garber Dodge Chrysler Saginaw, MI (out city)	$10,000
Geyer's Pennzoil Saginaw, MI (in city)	$10,000

Interstate Truck Source Saginaw, MI (out city)	$20,000
Jack Dohney Northville, MI	$10,000
LaFontaine of Birch Run Birch Run, MI	$20,000
MacQueen Lake Orion, MI	$2,000
McDonald Ford Saginaw, MI (out city)	$15,000
Michigan Cat Saginaw, MI (out city)	$15,000
Midstate Collision Freeland, MI	$45,000
MTech Cleveland, OH	$20,000
Michigan Truck Spring Saginaw, MI (out city)	$10,000
Muffler man (J.O Service) Saginaw, MI (in city)	$2,500
Precision Fleet Image Saginaw, MI (out city)	$10,000
Schaefer & Bierlein CDJRF Frankenmuth, MI	$10,000
Truck & Trailer Specialties Howell, MI	$15,000
Versalift Shelby Township, MI	$2,500
Wieland Truck Center Saginaw, MI (out city)	$60,000

Wilson Ford Saginaw, MI (out city)	$10,000
W.W Williams Buena Vista, MI	$50,000

These vendors meet all requirements of §14.33, "Vendors," of "Purchasing, Contracting, and Selling Procedure," of Chapter 14, "Finance and Purchasing," of Title I, "Administrative Code," of the Saginaw Code of Ordinances, O-204.

Funds are budgeted in the Motor Pool Operation Fund, Garage Operations Division, Motor Vehicle Repairs Account No. 661-272.03-931.000 pending FY27 budget approval.

Council Action:

Motion to approve the recommendation of the City Manager.

Attachments:

None

Council Communication

Item Number: 9.

Date: May 18, 2026

From: Timothy Morales, City Manager

Subject: Blanket Purchase Order – Shop Supplies

Prepared By: Alex Niedecken, Motor Pool Administrator

Manager's Recommendation:

Approve the blanket purchase order with Larry's Auto Supply for $8,000 for the purchase of various shop supplies, for the Public Services Department, Motor Pool Division for FY2027 pending budget approval.

Justification:

The City's Municipal Garage frequently requires the purchase of various supplies and small equipment from Larry's Auto Parts to support the maintenance and repair of the City's fleet vehicles from July 1, 2026, to June 30, 2027. The Garage purchases items such as small batteries, gloves, drain pans, floor dry, and similar products from Larry's Auto Parts. Issuing individual purchase orders for each transaction is costly and administratively time-consuming. Municipal Garage personnel will continue to obtain price quotes for parts and supplies and award purchases to the lowest and best vendor for each item. This approach accurately reflects the previous year's expenditures and remains in the best interest of the City for Fiscal Year 2027.

This vendor meets all requirements of §14.33, "Vendors," of "Purchasing, Contracting, and Selling Procedure," of Chapter 14, "Finance and Purchasing," of Title I, "Administrative Code," of the Saginaw Code of Ordinances, O-204.

Funds are budgeted in the Motor Pool Operation Fund, Garage Operations Division, Parts and Supplies Account No. 661-272.03-742.000 pending FY27 budget approval.

Council Action:

Motion to approve the recommendation of the City Manager.

Attachments:

None

Council Communication

Item Number: 10.

Date: May 18, 2026

From: Timothy Morales, City Manager

Subject: Blanket Purchase Order for Elite Aerial Compliance, Garage Service

Prepared By: Alex Niedecken, Motor Pool Administrator

Manager's Recommendation:

Approve the blanket purchase order with Elite Aerial Compliance for $5,500 for annual inspection services for the Public Services Department, Motor Pool Division for FY2027 pending budget approval.

Justification:

The City's Municipal Garage is required to conduct annual inspections for all aerial lift trucks, scissor lifts, and crane trucks in accordance with Occupational Safety and Health Administration (OSHA) standards, including 29 CFR 1926.453 and 29 CFR 1926 Subpart CC. Elite Aerial Compliance will be the primary provider for all aerial lift inspections. The City has a total of fifteen vehicles and pieces of equipment that require annual inspections. Any vehicles that undergo repairs to components identified during inspection must be reinspected in accordance with OSHA 1926.1412(f).

This vendor meets all requirements of §14.33, "Vendors," of "Purchasing, Contracting, and Selling Procedure," of Chapter 14, "Finance and Purchasing," of Title I, "Administrative Code," of the Saginaw Code of Ordinances, O-204.

Funds are budgeted in the Motor Pool Operations Fund, Garage Operations Division, Operating Services Account No. 661-272.03-805.000 pending FY27 budget approval

Council Action:

Motion to approve the recommendation of the City Manager.

Attachments:

None

Council Communication

Item Number: 11.

Date: May 18, 2026

From: Timothy Morales, City Manager

Subject: Repair Part for Durapatcher Vehicle

Prepared By: Alex Niedecken, Motor Pool Administrator

Manager's Recommendation:

Approve the purchase with Alta Equipment Company for $2,608 for a 12” Linear Transducer part for the Public Services Department, Motor Pool Division.

Justification:

The City’s Municipal Garage requires this part to service a unit known as a Durapatcher. This unit is used daily during the summer months to assist with maintaining roadways and addressing surface defects such as potholes. The vehicle currently requires repairs to become operational again due to components causing stowage and cradling issues with the front swing arm, which has also led to secondary issues.

Alta Equipment Company is the sole authorized dealer for Cimline, Inc., the manufacturer of this part. Costs could be subjected to increase due to estimated shipping and handling.

This vendor meets all requirements of §14.33, "Vendors," of "Purchasing, Contracting, and Selling Procedure," of Chapter 14, "Finance and Purchasing,” of Title I, "Administrative Code," of the Saginaw Code of Ordinances, O-204.

Funds are budgeted in the Motor Pool Operations Fund, Garage Operations Division, Motor Vehicle Supplies Account No. 661-272.03-737.000.

Council Action:

Motion to approve the recommendation of the City Manager.

Attachments:

None

Council Communication

Item Number: 12.

Date: May 18, 2026

From: Timothy Morales, City Manager

Subject: Blanket Purchase Orders for Vehicle Parts and Supplies

Prepared By: Alex Niedecken, Motor Pool Administrator

Manager's Recommendation:

Approve the blanket purchase orders to primary suppliers of local fleet parts and supplies for a total of $400,000 for vehicle parts and supplies for the Public Services Department, Motor Pool Division for FY2027, pending budget approval.

Justification:

The City's Municipal Garage requires the purchase of a vast array of original equipment manufacturer/distributor vehicle parts and supplies for the maintenance of the fleet vehicles from July 1, 2026 to June 30, 2027. A yearly contract proposal is not feasible because it is not possible to determine the parts and quantities that will be required in any given period. Issuing individual purchase orders is costly and administratively time-consuming. The Municipal Garage personnel will price quote parts and award purchases to the lowest and best vendor for each item. It is clearly in the best interest of the City to continue this procedure for Fiscal Year 2027 as follows:

Vendor	Cost
AIS Equipment Co. Bridgeport, MI	$25,000
Bauer Built Tire Saginaw, MI (out city)	$95,000
Environmental Equipment Sales Columbus, OH	$10,000
Garber Chevrolet Saginaw, MI (out city)	$15,000
Garber Chrysler Jeep Ram (GCJR) Saginaw, MI (out city)	$5,000
Interstate Truck Source Inc. Saginaw, MI (out city)	$10,000

Jack Doheny Supplies Northville, MI	$10,000
Larry’s Auto Supply Saginaw, MI (in city)	$65,000
M Tech Co. Cleveland, OH	$20,000
Mc Donald Ford Freeland, MI	$20,000
Michigan Cat Saginaw, MI (out city)	$15,000
Michigan Truck Equipment Inc. Saginaw, MI (in city)	$2,500
Michigan Truck Spring Saginaw, MI (out city)	$2,500
Ritter Technology LLC. Saginaw, MI (out city)	$12,000
Shults Equipment Ithaca, MI	$6,000
Schaefer & Bierlein CDJRF Frankenmuth, MI	$5,000
Scientific Brake & Equipment Co. Saginaw, MI (in city)	$10,000
Spartan Distributors Inc. Detroit, MI	$7,000
Truck and Trailer Specialties Inc. Dutton, MI	$25,000
Wieland Truck Center Saginaw, MI (out city)	$40,000

These vendors meet all requirements of §14.33, "Vendors," of "Purchasing, Contracting, and Selling Procedure," of Chapter 14, "Finance and Purchasing,” of Title I, "Administrative Code," of the Saginaw Code of Ordinances, O-204.

Funds are budgeted in the Motor Pool Operation Fund, Garage Operations Division, Motor Vehicle Supplies Account No. 661-272.03-737.000 and will be accounted for in the Motor Pool Operation Fund, Inventory Account No. 661-000.00-110.001 pending FY27 budget approval.

Council Action:

Motion to approve the recommendation of the City Manager.

Attachments:

None

Council Communication

Item Number: 13.

Date: May 18, 2026

From: Timothy Morales, City Manager

Subject: Maintainer Valve Turner Truck - Maintenance and Service

Prepared By: Alex Niedecken, Motor Pool Administrator

Manager's Recommendation:

Approve the purchase with MTech Company for $224,500 for a 2027 Maintainer Valve Turner Truck for the Public Services Department, Maintenance and Service Division.

Justification:

On May 1, 2026, a quote was received to purchase a Maintainer Valve Turner Truck for the Maintenance and Service Division. The current truck is becoming increasingly difficult to maintain and is no longer cost-effective.

Valve Turner Trucks are critical assets to the City's fleet and overall operations. These vehicles frequently operate throughout the entire day, particularly during emergency events, and must be maintained in a constant state of readiness. As a result, they accumulate some of the highest mileage and operating hours within the fleet.

Daily operations include inspecting contractor work, marking City utilities per MISS DIG requirements, operating hydrants, assisting with sewer-related projects, retrieving sewer grates and manhole/catch basin lids, and operating large water main valves. All of these functions are essential to maintaining and protecting the City's infrastructure. This purchase will be made using a government procurement contract of CoPro+ 2023-JC-060-M.

This vendor meets all requirements of §14.33, "Vendors," of "Purchasing, Contracting, and Selling Procedure," of Chapter 14, "Finance and Purchasing," of Title I, "Administrative Code," of the Saginaw Code of Ordinances, O-204.

Funds are budgeted in the Water Operations and Maintenance Fund, Surplus Division, Vehicles Account No. 591-546.01-982.000 $112,250.00 and the Sewer Operations and Maintenance Fund, Surplus Division, Vehicles Account No. 590-546.02-982.000 $112,250.00.

Council Action:

Motion to approve the recommendation of the City Manager.

Attachments:

None

Council Communication

Item Number: 14.

Date: May 18, 2026

From: Timothy Morales, City Manager

Subject: Blanket Purchase Order for Asbestos Abatement, Hauling and Disposal

Prepared By: Wayne Tornberg, Assisstant Superintendent of Maintenance & Service

Manager's Recommendation:

Approve the blanket purchase with Certified Abatement Services, Inc. for $5,000 for the abatement, hauling and disposal of asbestos-containing materials for the Public Services Department, Maintenance and Service Division for FY2027 pending budget approval.

Justification:

The City of Saginaw is required by the State of Michigan to replace all lead service lines and/or galvanized service lines that are or once were connected to lead. During the replacement process, the Maintenance and Service Division has recently discovered asbestos containing pipe wrap on an internal plumbing system. The abatement, hauling and disposal of this hazardous material must be conducted by a licensed and certified abatement contractor.

In addition to the scheduled water line replacements, the Maintenance and Service Division encounters asbestos containing water main piping during emergency water main repairs. These situations also require a qualified contractor for the proper hauling and disposal of these hazardous materials.

Certified Abatement Services, Inc. is a qualified contractor with prior experience in hauling and disposing of asbestos material for the City of Saginaw. Establishing a blanket purchase order will allow the Maintenance and Service Division to respond promptly and efficiently to both planned and emergency situations where asbestos materials are present.

This vendor meets all requirements of §14.33, "Vendors," of "Purchasing, Contracting, and Selling Procedure," of Chapter 14, "Finance and Purchasing," of Title I, "Administrative Code," of the Saginaw Code of Ordinances, O-204.

Funds are budgeted in the Water Operation and Maintenance Fund, Maintenance and Service Division, Operating Services Account No.591-541.01-805.000 $2,500.00 and the Water Operation and Maintenance Fund, Lead & Copper Service Line Maintenance Division, Operating Services Account No.591-543.00-805.000 $2,500.00, pending FY27 budget approval.

Council Action:

Motion to approve the recommendation of the City Manager.

Attachments:

None

Council Communication

Item Number: 15.

Date: May 18, 2026

From: Timothy Morales, City Manager

Subject: Blanket Purchase Orders for Water Main Appurtenances, Brass Fittings and Water Service Line Components

Prepared By: Wayne Tornberg, Assisstant Superintendent of Maintenance & Service

Manager's Recommendation:

Approve the blanket purchase orders for a total annual amount not to exceed $750,000 with the primary suppliers of water main appurtenances, brass fittings, and water service lines for the Public Services Department, Maintenance and Service Division for FY 2027 pending budget approval.

Justification:

The Maintenance and Service Division requires the ability to purchase various water main appurtenances throughout the fiscal year. These items are essential to the daily operations involved in the maintenance, repair, and emergency response services for approximately 425 miles of water main in the distribution and transmission systems.

Due to the nature of maintenance work, it is critical that these materials be readily available. Establishing a fixed annual contract is not feasible because of inconsistent manufacturer lead times and supply chain volatility. While some vendors maintain an inventory of frequently used items, their pricing may vary slightly based on availability and supply levels.

To ensure both cost efficiency and operational readiness, the Maintenance and Service Division is requesting a blanket purchase order with each of the listed vendors. This will allow staff to obtain multiple price quotes as needed and award individual purchases to the vendor offering the best combination of price, availability, and delivery timeline for the required item. This approach ensures the Division can maintain uninterrupted service to the community while responsibly managing funds. The following is a list of the primary suppliers:

ETNA Supply	Not to exceed $250,000.00 for FY 2027
Ferguson Waterworks	Not to exceed $250,000.00 for FY 2027
Michigan Pipe & Valve	Not to exceed $250,000.00 for FY 2027

These vendors meet all requirements of §14.33, "Vendors," of "Purchasing, Contracting,

and Selling Procedure," of Chapter 14, "Finance and Purchasing," of Title I, "Administrative Code," of the Saginaw Code of Ordinances, O-204.

Funds are budgeted in the Water Operation and Maintenance Fund, Maintenance and Service Division, Parts and Supplies Account No. 591-541.01-742.000 $350,000, Water Operation and Maintenance Fund, Lead & Copper Service Line Maintenance Division, Parts and Supplies Account No. 591-543.00-742.000 $400,000. All inventory items purchased will be accounted for in the Water Operation and Maintenance Fund Water Inventory Account No. 591-000.00-110.002 pending FY27 budget approval.

Council Action:

Motion to approve the recommendation of the City Manager.

Attachments:

None

Council Communication

Item Number: 16.

Date: May 18, 2026

From: Timothy Morales, City Manager

Subject: Blanket Purchase for Combination and Storm Sewer Appurtenances

Prepared By: Wayne Tornberg, Assisstant Superintendent of Maintenance & Service

Manager's Recommendation:

Approve the blanket purchase orders with primary suppliers for a total annual amount not to exceed $150,000 for sanitary sewer and storm sewer appurtenances for the Public Services Department, Maintenance and Service Division, for FY 2027, pending budget approval.

Justification:

The Maintenance and Service Division requires the ability to purchase various sanitary and storm sewer appurtenances throughout the fiscal year. These items are essential to the daily operations involved in the maintenance, repair, and emergency response services for approximately 332 miles of sanitary and storm sewer infrastructure.

Due to the nature of maintenance work, it is critical that these materials be readily available. Establishing a fixed annual contract is not feasible because of inconsistent manufacturer lead times and supply chain volatility. While some vendors maintain an inventory of frequently used items, their pricing may vary slightly based on availability and supply levels.

To ensure both cost efficiency and operational readiness, the Maintenance and Service Division is requesting a blanket purchase order with each of the listed vendors. This will allow staff to obtain multiple price quotes as needed and award individual purchases to the vendor offering the best combination of price, availability, and delivery timeline for the required item. This approach ensures the Division can maintain uninterrupted service to the community while responsibly managing funds. The following is a list of the primary suppliers:

ETNA Supply	Not to exceed $50,000.00 for FY 2027
Ferguson Waterworks	Not to exceed $50,000.00 for FY 2027
Michigan Pipe & Valve	Not to exceed $50,000.00 for FY 2027

These vendors meet all requirements of §14.33, "Vendors," of "Purchasing, Contracting, and Selling Procedure," of Chapter 14, "Finance and Purchasing," of Title I, "Administrative Code," of the Saginaw Code of Ordinances, O-204.

Funds are budgeted in the Sewer Operation and Maintenance Fund, Maintenance and Service Division, Parts and Supplies Account No. 590-541.02-742.000 $150,000. All inventory items purchased will be accounted for in the Water Operation and Maintenance Fund Water Inventory Account No. 590-000.00-110.002 pending FY27 budget approval.

Council Action:

Motion to approve the recommendation of the City Manager.

Attachments:

None

Council Communication

Item Number: 17.

Date: May 18, 2026

From: Timothy Morales, City Manager

Subject: Blanket Purchase Orders for FY 2027

Prepared By: Phillip (Phil) Karwat, Director of Public Services

Manager's Recommendation:

Approve the blanket purchase orders for the specific vendors for a total amount of $173,000. for hot and cold mix asphalt, trees, and various concrete supplies to maintain streets throughout the city for the Public Services Department, Streets Division FY2027, pending budget approval.

Justification:

These vendors are either a sole source or continually provide the lowest prices and quality products giving us the ability to streamline procurement for recurring needs, significantly reducing administrative costs and processing time for individual orders. We are requesting authorization to issue blanket purchase orders as follows:

Vendor	Amount	GL Account #
Ace Saginaw Paving Co.	$100,000.00	202-449.02-743.000 (35%) 203-449.02-743.000 (65%)
Unique Paving Materials	$50,000.00	202-449.02-743.000 (80%) 203-449.02-743.000 (20%)
Hymmco	$13,000.00	202-449.02-742.000 (80%) 203-449.02-742.000 (20%)
Abele’s Greenhouse	$5,000.00	202-449.02-738.000 (100%)
Kluck’s Nursery	$5,000.00	202-449.02-738.000 (100%)

These vendors meet all requirements of §14.33, "Vendors," of "Purchasing, Contracting, and Selling Procedure," of Chapter 14, "Finance and Purchasing,” of Title I, "Administrative Code," of the Saginaw Code of Ordinances, O-204.

Funds are budgeted in the Major Street Fund, Routine Maintenance Division, Nursery Supplies Account No. 202-449.02-738.000 $10,000.00, Parts and Supplies Account No.

202-449.02-742.000 $10,400.00 and Street and Road Materials Account No. 202-449.02-743.000 $75,000.00, and the Local Streets Fund, Routine Maintenance Division, Parts and Supplies Account No. 203-449.02-742.000 $2,600.00 and Street and Road Materials Account No. 203-449.02-743.000 $75,000.00, pending FY 2027 budget approval.

Council Action:

Motion to approve the recommendation of the City Manager.

Attachments:

None

Council Communication

Item Number: 18.

Date: May 18, 2026

From: Timothy Morales, City Manager

Subject: Blanket Purchase Orders for FY2027

Prepared By: Joseph (Joe) Nugent, Traffic and Electrical Administrator

Manager's Recommendation:

Approve the blanket purchase orders for the specified vendors for a total amount of $116,500 for the purchase of various parts and supplies for the Public Services Department, Traffic Engineering Division, for FY2027, pending budget approval.

Justification:

Time and experience have shown that certain vendors reliably provide the lowest price on certain parts and supplies. Traffic personnel will continue to solicit quotes for items purchased to ensure that we obtain the lowest possible price. Issuing individual purchase orders is costly and administratively time-consuming; therefore, we are requesting authorization to issue blanket purchase orders as follows:

Vendor	Amount	GL Account #
Carrier & Gable Inc.	$22,000.00	202-447.03-742.000 (73%) 203-447.03-742.000 (27%)
Home Depot #2714	$2,500.00	101-448.00-742.000 (50%) 202-447.03-742.000 (50%)
Lightle Enterprises of Ohio LLC	$5,000.00	202-447.03-742.000 (50%) 203-447.03-742.000 (50%)
MD Solutions Inc	$20,000.00	203-447.03-742.000
Marshall Campbell	$6,000.00	101-448.00-742.000 (50%) 202-447.03-742.000 (25%) 203-447.03-742.000 (25%)
Osburn Associates, Inc.	$15,000.00	202-447.03-742.000 (50%) 203-447.03-742.000 (50%)
Power Line Supply	$5,000.00	101-448.00-742.000

Sign Solutions USA LLC	$5,000.00	202-447.03-742.000 (50%) 203-447.03-742.000 (50%)
Standard Electric	$6,000.00	101-448.00-742.000 (50%) 202-447.03-742.000 (25%) 203-447.03-742.000 (25%)
3M Company	$15,000.00	202-447.03-742.000 (75%) 203-447.03-742.000 (25%)
Vulcan Signs	$15,000.00	202-447.03-742.000 (50%) 203-447.03-742.000 (50%)

These vendors meet all requirements of §14.33, "Vendors," of "Purchasing, Contracting, and Selling Procedure," of Chapter 14, "Finance and Purchasing," of Title I, "Administrative Code," of the Saginaw Code of Ordinances, O-204.

Funds are budgeted in the General Fund, Department of Public Services, Street Lighting Division, Parts and Supplies Account No. 101-448.00-742.000 $12,250.00 pending FY27 budget approval.

Funds are also budgeted in the Major Street Fund, Traffic Engineering Division, Parts and Supplies Account No. 202-447.03-742.000 $51,500.00 pending FY27 budget approval.

Funds are also budgeted in the Local Street Fund, Traffic Engineering Division, Parts and Supplies Account No. 203-447.03-742.000 $52,750.00 pending FY27 budget approval.

Council Action:

Motion to approve the recommendation of the City Manager.

Attachments:

None

Council Communication

Item Number: 19.

Date: May 18, 2026

From: Timothy Morales, City Manager

Subject: N. Mason Water Main & Dead-End Looping (C-1724)

Prepared By: Travis Hare, City Engineer

Manager's Recommendation:

Approve the contract with L. D'Agostini & Sons, Inc. for $2,684,776 for the North Mason Watermain & Dead-End Looping project for the Public Services Department, Engineering Division.

Justification:

On May 6, 2026, the City received 6 qualified bids for the North Mason Water Main & Dead-End Looping C-1724 project. The project includes the installation and connection of water main south of Maine Street on the northside of the Huron & Eastern railroad connecting the dead-end watermains from A Street to Larch Street, and the replacement of existing watermain on North Mason Street from Houghton Avenue to State Street (M-58). The project also includes the rehabilitation of various pavement surfaces, HMA removal, concrete work, earthwork, subbase, aggregate base, curb and gutter, sidewalks and ADA ramps on N. Mason Street from Houghton Street to State Street (M-58).

In March 2025, the City submitted an application, to receive funding through the Michigan Department of Environment, Great Lakes and Energy (EGLE), for a principal forgiveness loan from the Drinking Water State Revolving Fund (DWSRF). In September 2025, the City was awarded a $6,845,000 loan for this project. $1,574,350 of the awarded amount is considered a principal forgiveness loan, meaning the City would not have to pay it back. The total loan amount includes the watermain replacement on Perkins Street from E. Genesee to 17th as well, which was previously approved by Council on April 13, 2026 as part of an MDOT Cost Agreement for that road reconstruction project. A resolution is on the agenda for tentative award of the construction contract for these water system improvements, as required by EGLE.

The following is a tabulation of the bids received:

Vendor	Cost
L D'Agostini & Sons Inc Macomb, MI	$2,684,776.00

Springline Excavating LLC Farmington Hills, MI	$2,749,160.55
Rohde Bros. Excavating, Inc. Saginaw, MI (Out-City)	$2,782,215.
L.A. Construction Flint, MI	$2,865,710.84
Champagne & Marx Excavating, Inc. Saginaw, MI (Out-City)	$2,962,149.5
Eric Construction Inc. St Charles, MI	$3,255,166.50

This vendor meets all requirements of §14.33, "Vendors," of "Purchasing, Contracting, and Selling Procedure," of Chapter 14, "Finance and Purchasing," of Title I, "Administrative Code," of the Saginaw Code of Ordinances, O-204.

Water funding contingent upon issuance of DWSRF bonds. Funds will be budgeted in the FY 2027 Water Operations and Maintenance Fund, Water Refunding Bonds Division, Construction Projects Account No. 591-550.00-955.003 $2,500,176, the Sewer Operations and Maintenance Fund, Surplus Division, Construction Projects Account No. 590-546.02-955.003 $38,050, and the Major Street Fund, Street Project Division, Street Resurfacing Account No. 202-451.00-955.002 $146,550, upon issuance of the DWSRF bonds and approval of the FY 2027 budget.

I have approved the contract as to substance and the City Attorney as to form.

Council Action:

Motion to approve the recommendation of the City Manager.

Attachments:

1. C-1724 N Mason WM and Dead-End Looping DWSRF 7900_01

CITY OF SAGINAW
1315 S WASHINGTON AVE
SAGINAW MICHIGAN 48601

C-1724
N. Mason WM & Dead-End Looping
DWSRF #7900.01

BID OPENING WEDNESDAY, MAY 6, 2026 @ 3:00 PM

Council Meeting May 18, 2026
L D'Agostini & Sons Inc
$2,684,776.00

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CONTRACT

CITY OF SAGINAW, MICHIGAN

This Contract is entered into on this 18 day of May, 2026, between L D'Agostini & Sons Inc of 15801 23 Mile Rd Macomb, Mi 48042 (hereinafter "Contractor"), and the City of Saginaw, 1315 S. Washington Avenue, Saginaw, Michigan 48601 (hereinafter "City"), for **N. Mason WM & Dead-End Looping DWSRF #7900.01, (C-1724)**

WHEREAS, Contractor, at a regular meeting of the Council of the City of Saginaw, held on May 18, 2026, was awarded the contract for furnishing the necessary labor, equipment, materials, and construction for the completion of N. Mason WM & Dead-End Looping DWSRF #7900.01, (C-1724)

Contractor, in consideration of the Agreement herein made by the City, agrees with the City as follows:

Article 1. SUBJECT MATTER. Contractor shall furnish all the materials, except those specified to be furnished by the City, and perform all the work N. Mason WM & Dead-End Looping DWSRF #7900.01, (C-1724)**,** as listed on the Table of Contents, and as shown on the drawings prepared by the Department of Public Services, Engineering Division, and described in the specifications, and in accordance with the general conditions, the general instructions to bidders, the notice inviting sealed proposals and the proposal, all of which are hereby made a part of this Contract by reference as though fully set forth herein. The Contractor acknowledges Contractor has received a copy of all such documents.

Article 2. COMMENCEMENT OF WORK. The Contractor shall start work as specified in the Progress Clause**,** or as directed by the City Engineer and the work shall be carried on with due diligence, at such points and at such times and seasons, and with such force and in such manner as to secure the completion in accordance with the Progress Clause, the time of beginning, rate of progress and the time of completion being essential conditions of this Contract.

Article 3. PAYMENT. It is hereby mutually agreed that the City shall pay, and the Contractor receive, the sum of **$2,684,776.00,** same being the amount named in the Contractor's proposal or bid as full compensation for labor and materials required in executing all the work contemplated in this Contract, subject to additions and deductions, as provided in the specifications.

Article 4. ESTIMATES. The City hereby agrees to make payment under the restrictions and limitations herein contained, from time to time, on account of performance of this contract, by orders drawn upon the proper fund of the City, paying NINETY PERCENT (90%) thereof on the basis of estimates made by the Department of Public Services & Engineering semi-monthly as the work progresses, and approved by the City Engineer. Said estimates shall be made in writing and shall only include work done and material in place and shall not include completed work which, in the opinion of the City Engineer, is not advisable, for the protection of the City, at that time to

make payment on, and such estimates may be altogether withheld when, in the opinion of the City Engineer, work does not progress in accordance with the provisions of this Contract; and the making and furnishing of such estimates shall not be deemed or construed as an acceptance of any part of the work under this Contract. The City Engineer may authorize the reduction of the amount so withheld so that total payment equals NINETY-FIVE PERCENT (95%) of the estimate where the City Engineer shall find that the retention of FIVE PERCENT (5%) of the estimate is sufficient to protect the City, but the total amount so retained shall not in any event be reduced to less than FIVE PERCENT (5%) of the contract price above stated.

Article 5. RETENTION OF MONEYS. In addition to the TEN PERCENT (10%) of contract price above retained, to insure the completion of the work, the City reserves the right to retain at all times from the estimates, an amount sufficient to pay and discharge all debts incurred by Contractor, or subcontractor, for labor performed in the progress of the work, and for material purchased and used, and, at its discretion, to pay the same to the parties entitled thereto, and charge the same against the contract price.

Article 6. SEPARATE CONTRACTS. Where two or more separate proposals are grouped together herein, it is expressly agreed that each of said proposals shall constitute a separate contract and that all of the terms, conditions, and provisions of this Contract shall apply to each of said proposals to the same extent and in the same manner as though each of said proposals had been the subject of a separate contract.

Article 7. PUBLIC ACT 524 of 1980. Notwithstanding any provision herein to the contrary, this agreement is subject to 1980 PA 524, which statute is incorporated herein and made a part hereof by reference. Contractor hereby agrees that the City may, at its option, submit the following matters to dispute resolution by an agent agreed to or selected in accordance with the procedures set forth in the statute:

A. At any time during the term of the contract, to determine whether there has been a delay for reasons that were within the control of the Contractor, and the period of time that delay has been caused, continued, or aggravated by actions of the Contractor.
B. At any time after ninety-four percent (94%) of work under the Contract is in place, whether there has been an unacceptable delay by the Contractor in performance of the remaining six percent (6%) of work under the Contract. The agent shall consider the terms in the Contract and procedures normally followed in the industry and shall determine whether the delay was for failure to follow reasonable improvement practices in the industry for completion of the project.

The agent shall have all the rights, powers and duties specified in the statute.

Article 8. ACCEPTANCE AND FINAL PAYMENT. The final payment, including any retainage previously withheld, shall be payable on the approval and acceptance of the work by the City Engineer.

The payment of the final amount due under this Contract, and the adjustment and payment of all bills rendered for the work done in accordance with any alterations of same, shall release the City from any and all claims or liability on account of work performed or materials furnished under the Contract, or any alterations thereof.

The City of Saginaw has an income tax. All successful bidders will be subject to income tax withholdings and compliance is mandatory.

As part of the consideration for this Contract, the undersigned does hereby agree to have withheld from any payments due them, any amounts for taxes, fees or other charges due the City of Saginaw.

By their signatures below, the parties certify the persons signing on behalf of their respective party has the authority to do so. The parties hereto have executed this Contract the day and year first above written.

L D'AGOSTINI & SONS INC

By: _____

Name: Michael D'Agostini

Title: Secretary/Treasurer

CITY OF SAGINAW

By: _____

Timothy Morales
City Manager

LDS.

Sealed Bid Enclosed

COPY

From:

L. D'Agostini and Sons, Inc.

15801 23 Mile Rd
Macomb, MI 48042

This Bid is Submitted to:
City of Saginaw
1315 S. Washington Avenue
Saginaw, MI 48601

Project Name:
C-1724 N. Mason WM & Dead-End Looping DWSRF #7900.01

Bid Due: Wednesday, May 6, 2026 at 3:00 PM

THE AMERICAN INSTITUTE OF ARCHITECTS

AIA Document A310

Bid Bond

KNOW ALL MEN BY THESE PRESENTS, that we

L. D'Agostini & Sons, Inc.
15801 Twenty-Three Mile Road,Macomb Township, MI 48042

as Principal, hereinafter called Principal, and

Liberty Mutual Insurance Company
175 Berkeley Street,Boston, MA 02116

a corporation duly organized under the laws of the State of **Massachusetts**
as Surety, hereinafter called Surety, are held and firmly bound unto

City of Saginaw
1315 S. Washington Avenue,Saginaw, MI 48601

as Obligee, hereinafter called Obligee, in the sum of **Five Percent of Accompanying Bid**

Dollars (**5% of Bid**

for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for (Here insert full name, address and description of project)

C-1724 - N. Mason WM & Dead-End Looping DWSRF #7900.01

NOW, THEREFORE, if the Obligee shall accept the bid of the Principal and the Principal shall enter into a Contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the Work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed this **5th** day of **May**, **2026**.

L. D'Agostini & Sons, Inc.

(Witness) (Principal) (Seal)

Michael D'Agostini (Title) Secretary Treasurer

Liberty Mutual Insurance Company

(Witness) (Surety) (Seal)

Holly Nichols, Attorney in Fact (Title)

POWER OF ATTORNEY

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

Certificate No: 8213450-013068

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Nicholas Ashburn; Robert D. Heuer; Paul H. Hurley; Michael D. Lechner; Mark Madden; Richard McGregor; Holly Nichols; Jason Rogers

all of the city of Rochester state of MI each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 25th day of March, 2025.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

By: _____
Nathan J. Zangerle, Assistant Secretary

State of PENNSYLVANIA
County of MONTGOMERY ss

On this 25th day of March, 2025 before me personally appeared Nathan J. Zangerle, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at Plymouth Meeting, Pennsylvania, on the day and year first above written.

Commonwealth of Pennsylvania - Notary Seal
Teresa Pastella, Notary Public
Montgomery County
My commission expires March 28, 2029
Commission number 1126044
Member, Pennsylvania Association of Notaries

By: _____
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV – OFFICERS: Section 12. Power of Attorney.
Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII – Execution of Contracts: Section 5. Surety Bonds and Undertakings.
Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation – The President of the Company, acting pursuant to the Bylaws of the Company, authorizes Nathan J. Zangerle, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 5th day of May, 2026.

By: _____
Renee C. Llewellyn, Assistant Secretary

LMS-12873 LMIC OCIC WAIC Multi Co 02/24

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

For bond and/or Power of Attorney (POA) verification inquiries, please call 610-832-8240 or email HOSUR@libertymutual.com.

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

Certification Regarding Debarment, Suspension, and Other Responsibility Matters

The prime contractor must provide a completed *Certification Regarding Debarment, Suspension, and Other Responsibility Matters Form* with its bid or proposal package to the owner.

The prospective participant certifies, to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in transactions under federal nonprocurement programs by any federal department or agency;

(2) Have not, within the three-year period preceding the proposal, had one or more public transactions (federal, state, or local) terminated for cause or default; and

(3) Are not presently indicted or otherwise criminally or civilly charged by a government entity (federal, state, or local) and have not, within the three-year period preceding the proposal, been convicted of or had a civil judgment rendered against it:

(a) For the commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public transaction (federal, state, or local) or a procurement contract under such a public transaction;

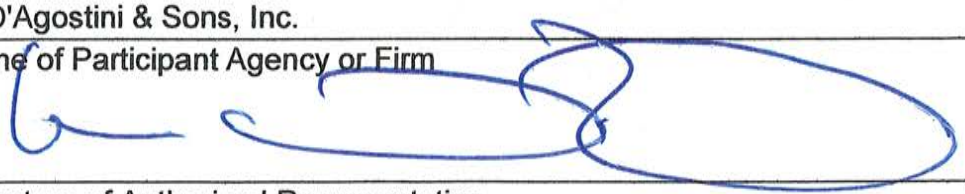
(b) For the violation of federal or state antitrust statutes, including those proscribing price fixing between competitors, the allocation of customers between competitors, or bid rigging; or

(c) For the commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false statements, or receiving stolen property.

I understand that a false statement on this certification may be grounds for the rejection of this proposal or the termination of the award. In addition, under 18 U.S.C. §1001, a false statement may result in a fine of up to $10,000 or imprisonment for up to five years, or both.

Michael D'Agostini, Secretary/Treasurer
Name and Title of Authorized Representative

L. D'Agostini & Sons, Inc.
Name of Participant Agency or Firm



5/5/2026
Signature of Authorized Representative — Date

☐ I am unable to certify to the above statement. Attached is my explanation.

If this page is not signed and included with your bid, it will be disqualified.

CITY OF SAGINAW PURCHASING OFFICE
1315 S. WASHINGTON AVENUE
SAGINAW, MICHIGAN 48601

TO: PROSPECTIVE BIDDERS
SUBJECT: ADDENDUM Form B02 #1 C-1724 N. Mason WM & Dead-End Looping DWSRF #7900.01

Information disclosed and/or questions raised since issuance of documents to bidders requires that a change be made in the subject bid as shown on this form:
CHANGES:

No. 1) Bid Opening Changed to Wednesday, May 6, 2026

Questions to be directed to Travis J. Hare, P.E. via email engineer@saginaw-mi.com before 3:00p.m. on April 29, 2026.

NOTE: SIGN ADDENDUM AND SUBMIT SAME WITH BID.

I Michael D'Agostini **certify that I have read this ADDENDUM and that the bid, as submitted, reflects the changes described in this addendum.**

Bidder shall sign Addendum and submit it with bid.

L. D'Agostini & Sons, Inc.
(Company's Name)

15801 23 Mile Road, Macomb Twp, MI 48042
(Address)

(Signature)

Secretary/Treasurer
(Title)

If this page is not signed and included with your bid, it will be disqualified.

CITY OF SAGINAW PURCHASING OFFICE
1315 S. WASHINGTON AVENUE
SAGINAW, MICHIGAN 48601

TO: PROSPECTIVE BIDDERS
SUBJECT: ADDENDUM Form B02 #2 C-1724 N. Mason WM & Dead-End Looping DWSRF #7900.01

Information disclosed and/or questions raised since issuance of documents to bidders requires that a change be made in the subject bid as shown on this form:
CHANGES:

No. 1) **Removed AIS requirements from EGLE Equivalency template page 89 of 257**

No. 2) **Q & A attached (1 page)**

Questions to be directed to Travis J. Hare, P.E. via email engineer@saginaw-mi.com before 3:00p.m. on April 28, 2026.

NOTE: SIGN ADDENDUM AND SUBMIT SAME WITH BID.

I Michael D'Agostini **certify that I have read this ADDENDUM and that the bid, as submitted, reflects the changes described in this addendum.**

L. D'Agostini & Sons, Inc.
(Company's Name)

15801 23 Mile Road, Macomb Twp, MI 48042
(Address)

Bidder shall sign Addendum and submit it with bid.

(Signature)

Secretary/Treasurer
(Title)

NOTICE TO BIDDERS

IRAN ECONOMIC SANCTIONS ACT:

The act provides that Iran linked businesses are ineligible from submitting a bid on the City's requests for proposals. The Act further provides that the City shall require all bidders to certify that they are not Iran linked businesses.

Definition: Iran linked businesses are those linked to the Iranian energy sector. An Iran linked business is specifically defined as:

i. A person engaging in investment activities in the energy sector of Iran, including a person that provides oil or liquefied natural gas tankers or products used to construct or maintain pipelines used to transport oil or liquefied natural gas for the energy sector of Iran.

ii. A financial institution that extends credit to another person, if that person will use the credit to engage in investment activities in the energy sector of Iran.

The provisions of the Act are only in effect if a country is a state sponsor of terror. A state sponsor of terror is defined as any country determined by the United States secretary of state to have repeatedly provided support for acts of international terrorism. Iran is currently on the US SOS state sponsor of terrorism list (http://www.state.gov/j/ct/list/c14151.htm), along with Cuba, Sudan, and Syria.

Michael D'Agostini

CITY OF SAGINAW, MICHIGAN
BID FORM

C-1724 N. Mason WM & Dead-End Looping DWSRF #7900.01

To the City of Saginaw Date: 5/5/2026

In response to your notice, the undersigned, hereinafter called the Contractor, hereby declares that the Contractor has read the "General Instruction to Bidders", "Sealed Bid Instructions" and "General Information", has examined the plans, specifications and the location of the work described herein, has reviewed the proposed Contract and its general conditions, and, is thus fully informed to the nature of the work and the conditions relating to its performance and further understands that the quantities shown hereon are approximate only and are subject to either increase or decrease.

The Contractor hereby proposes to furnish all the necessary equipment and tools, do all the work, furnish all the materials, except as otherwise specified and to complete the work herein described all in accordance with the Contract and its plans and specifications, of which this proposal is a part, for the unit prices named in the following itemized bid.

Prior to and contingent upon award of a contract of $50,000.00 or more, the undersigned further agrees to furnish a surety company performance bond in the sum of not less than 100 percent (100%) of the total amount of the contract company to secure the faithful performance of the Contract and, when required, a surety company labor and material bond in the sum of not less than 100 percent (100%) of the total amount of the Contract for the protection of subcontractors, labor and material suppliers, according to the laws of the State of Michigan at that time in effect. Said signed Contract, surety company bonds, and insurance shall be furnished within ten (10) days from date of notification by the Engineering Division of acceptance of the proposal submitted. The Contract cannot be fully awarded by City Council without the return of these executed documents.

In compliance with the requirements of said notice, this proposal is accompanied by an **original** bid bond, bank money order, certified check, or cashier's check in the sum of five percent (5%) of total bid to guarantee that a contract will be entered into if the above proposal is accepted, and the contract awarded to the undersigned.

52.222-21 Prohibition of Segregated Facilities.

As prescribed in 22.810(a)(1), insert the following clause:

Prohibition of *Segregated Facilities* (Apr 2015)

(a) *Definitions*. As used in this clause

Gender identity has the meaning given by the Department of Labor's Office of Federal Contract Compliance Programs, and is found at http://www.dol.gov/ofccp/LGBT/LGBT_FAQs.html.

Segregated facilities, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, *sexual orientation*, *gender identity*, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.

Sexual orientation has the meaning given by the Department of Labor's Office of Federal Contract Compliance Programs, and is found at http://www.dol.gov/ofccp/LGBT/LGBT_FAQs.html.

(b) The Contractor agrees that it does not and will not maintain or provide for its employees any *segregated facilities* at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where *segregated facilities* are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Opportunity clause in this contract.

(c) The Contractor *shall* include this clause in every subcontract and *purchase order* that is subject to the Equal Opportunity clause of this contract.

(End of clause)

Parent topic: 52.222 [Reserved]

	DESCRIPTION	APPX. QUANT.	UNIT	UNIT PRICE	BID AMOUNT
1	Mobilization, Max ($300,000.00)	1	Lump Sum	$200,000.00	$200,000.00
2	Railroad Protection, Huron and Eastern Railway	1	Allow	$10,000.00	$10,000.00
3	Pavement, Rem, Modified	6,500	Square Yard	$10.00	$65,000.00
4	Cold Milling HMA Surface, 1.5-inch	4,250	Square Yard	$8.00	$34,000.00
5	Sidewalk, Rem, Modified	625	Square Yard	$9.00	$5,625.00
6	Driveway, Rem	630	Square Yard	$10.00	$6,300.00
7	Curb and Gutter, Rem	1,090	Foot	$9.00	$9,810.00
8	Tree, Rem, 6 inch to 18 inch	8	Each	$800.00	$6,400.00
9	Tree, Rem, 19 inch to 36 inch	8	Each	$2,200.00	$17,600.00
10	Tree, Rem, 37 inch or Larger	3	Each	$4,500.00	$13,500.00
11	Clearing	0.1	Acre	$65,000.00	$6,500.00
12	Monument Preservation	14	Each	$900.00	$12,600.00
13	Monument Box	6	Each	$250.00	$1,500.00
14	Exploratory Investigation, Vertical	100	Foot	$100.00	$10,000.00
15	Gas and Water Shutoff, Adj, Modified	4	Each	$250.00	$1,000.00
16	Subgrade Undercutting, Type II, Modified	200	Cyd	$55.00	$11,000.00
17	Erosion Control, Inlet Protection, Fabric Drop	46	Each	$100.00	$4,600.00
18	Erosion Control, Silt Fence	180	Foot	$3.50	$630.00
19	Dr Structure, Rem	4	Each	$600.00	$2,400.00
20	Hydrant, Rem, Modified	12	Each	$1,000.00	$12,000.00
21	Abandon Existing Water Main, In Place	1	Lump Sum	$9,000.00	$9,000.00
22	Water Main, 12 inch, Tr Det G, Modified	105	Foot	$200.00	$21,000.00
23	Water Main, 8 inch, Tr Det G, Modified	3,660	Foot	$135.00	$494,100.00
24	Water Main, 6 inch, Tr Det G, Modified	520	Foot	$110.00	$57,200.00
25	Water Main, 8 inch, Tr Det F, Modified	1,070	Foot	$120.00	$128,400.00
26	Gate Valve and Box, 12 inch, Modified	2	Each	$5,000.00	$10,000.00
27	Gate Valve and Box, 8 inch, Modified	16	Each	$3,000.00	$48,000.00
28	Gate Valve and Box, 6 inch, Modified	2	Each	$2,200.00	$4,400.00
29	Live Tap, 20 inch by 8 inch	2	Each	$10,000.00	$20,000.00
30	Valve Box, Collar	12	Each	$200.00	$2,400.00
31	Hydrant, Complete, 6 inch	13	Each	$10,000.00	$130,000.00

32	Water Serv, Modified	21	Each	$2,800.00	$58,800.00
33	Water Serv, Long, Modified	30	Each	$4,000.00	$120,000.00
34	Water Serv, Private	15	Each	$5,500.00	$82,500.00
35	Connection to Existing 6 inch Water Main	13	Each	$4,500.00	$58,500.00
36	Connection to Existing 8 inch Water Main	4	Each	$5,000.00	$20,000.00
37	Connection to Existing 12 inch Water Main	4	Each	$7,000.00	$28,000.00
38	HMA, 5EMH	782	Ton	$130.00	$101,660.00
39	HMA, 4EMH	585	Ton	$123.00	$71,955.00
40	HMA, 3EMH	865	Ton	$122.00	$105,530.00
41	Hand Patching	220	Ton	$155.00	$34,100.00
42	Machine Grading, Modified	49	Station	$2,000.00	$98,000.00
43	Aggregate Base, 6 inch, Modified	1,120	Square Yard	$17.50	$19,600.00
44	Aggregate Base, 8 inch, Modified	5,335	Square Yard	$21.50	$114,702.50
45	Conc Pavt, Nonreinf, 7 inch, Modified	1,120	Square Yard	$59.50	$66,640.00
46	Detectable Warning Surface, Modified	135	Foot	$130.00	$17,550.00
47	Curb Ramp Opening, Modified	250	Foot	$29.00	$7,250.00
48	Sidewalk, Conc, 4 inch, Modified	3,620	Square Foot	$5.50	$19,910.00
49	Sidewalk, Conc, 6 inch, Modified	500	Square Foot	$6.50	$3,250.00
50	Curb Ramp, Conc, 7 inch, Modified	1,480	Square Foot	$7.50	$11,100.00
51	Driveway, Nonreinf Conc, 6 inch, Modified	350	Square Yard	$52.50	$18,375.00
52	Driveway Opening, Conc, Det M, Modified	100	Foot	$32.00	$3,200.00
53	Curb and Gutter, Conc, Det F4, Modified	1,090	Foot	$28.00	$30,520.00
54	Turf Establishment, Performance	5,250	Square Yard	$12.00	$63,000.00
55	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	45	Each	$235.00	$10,575.00
56	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	45	Each	$1.00	$45.00
57	Pedestrian Type II Barricade, Temp	20	Each	$195.00	$3,900.00
58	Minor Traf Devices, 2% Max	1	Lump Sum	$25,000.00	$25,000.00
59	Plastic Drum, Fluorescent, Furn	30	Each	$59.00	$1,770.00
60	Plastic Drum, Fluorescent, Oper	30	Each	$1.00	$30.00
61	Sign, Type B, Temp, Prismatic, Furn	640	Square Foot	$6.50	$4,160.00
62	Sign, Type B, Temp, Prismatic, Oper	640	Square Foot	$1.00	$640.00
63	Sign, Type B, Temp, Prismatic, Spec , Furn	70	Square Foot	$7.00	$490.00

64	Sign, Type B, Temp, Prismatic, Spec , Oper	70	Square Foot	$1.00	$70.00
65	Traf Regulator Control, 0.5% Max	1	Lump Sum	$15,000.00	$15,000.00
66	Sign, Portable, Changeable Message, Furn	3	Each	$4,850.00	$14,550.00
67	Sign, Portable, Changeable Message, Oper	3	Each	$100.00	$300.00
68	Sign, Type III, Erect, Salv	8	Each	$125.00	$1,000.00
69	Pavt Mrkg, Waterborne, 4 inch, White	600	Foot	$2.00	$1,200.00
70	Pavt Mrkg, Waterborne, 4 inch, Yellow	130	Foot	$2.00	$260.00
71	Pavt Mrkg, Waterborne, 2nd Application, 4 inch, White	600	Foot	$1.70	$1,020.00
72	Pavt Mrkg, Waterborne, 2nd Application, 4 inch, Yellow	130	Foot	$1.70	$221.00
73	Pavt Mrkg, Ovly Cold Plastic, 24 inch, Stop Bar	175	Foot	$23.00	$4,025.00
74	Pavt Mrkg, Ovly Cold Plastic, 6 inch, Crosswalk	1,530	Foot	$5.75	$8,797.50
75	Pavt Mrkg, Ovly Cold Plastic, Lt Turn Arrow Sym	1	Each	$250.00	$250.00
76	Dr Structure Cover, Type B, Modified	12	Each	$900.00	$10,800.00
77	Dr Structure Cover, Type D, Modified	3	Each	$925.00	$2,775.00
78	Dr Structure Cover, Type K, Modified	13	Each	$1,250.00	$16,250.00
79	Dr Structure, 48 inch dia, Modified	4	Each	$5,000.00	$20,000.00
80	Combined Sewer Manhole Cover, Adj, Case 1	21	Each	$1,000.00	$21,000.00
81	Dr Structure, Tap, 6 inch	1	Each	$2,000.00	$2,000.00
82	Sewer, 6 inch, SDR-26	45	Foot	$170.00	$7,650.00
83	Sewer Trap, 6 inch	3	Each	$105.00	$315.00
84	City Supplied Sign, Install	7	Each	$225.00	$1,575.00

TOTAL BID 2,684,776.00

In accordance with the provisions of "Public Act 524 of 1980".

I do hereby designate Michael D'Agostini (name of representative) to submit a written request for progress payment during the duration of this contract.

The Contractor shall start work as specified in the Progress Clause, or as directed by the City Engineer. In no case, shall any work commence prior to receipt of formal Notice to Proceed from the City.

The undersigned bidder does hereby declare that the bidder has the legal status checked below:

_____ Individual

_____ Partnership

__X__ Corporation

Incorporated under the laws of the State of Michigan

_____ Limited Liability Company

Formed under the laws of the State of _____

The undersigned does hereby agree to honor this bid until November 6, 2026

Michigan's Iran Economic Sanctions Act:
The signature below certifies your company is in compliance with the Michigan Iran Economic Sanctions Act as identified on page #39 of this document. Further information on this Act can be viewed at (http://www.state.gov/j/ct/list/c14151.htm and https://www.legislature.mi.gov/(S(anwpjcm0uyo1f2fhz0w1mlyq))/mileg.aspx?page=GetObject&objectname=mcl-Act-517-of-2012)

_____
(Signature)

Michael D'Agostini
(Printed name)

Secretary/Treasurer
(Title)

This sheet must be included, or the bid will be disqualified.

By submitting a response to this request for proposal, the Contractor agrees to the terms and conditions set forth herein. Any changes made to such terms and conditions by Contractor in its response may result, at the City's sole discretion, in the Contractor's disqualification.

The successful Contractor will conform to all Contract specifications and requirements which are attached and incorporated as part of this bid. The City reserves the right to accept or reject any and all bids, or parts thereof, and to waive any irregularities in the bid except those specifically mentioned in the sealed bid instructions. Additionally, (if applicable) we reserve the right to add or delete any items(s) and/or service from this bid to the best benefit of The City of Saginaw.

By signature, the Contractor acknowledges that the signer below has complete authority to execute the bid on behalf of the Contractor and that the bid is genuine and not collusive in any manner; and that no other bidders were improperly induced to refrain from bidding or induced to submit a sham bid; and that the Contractor agrees to have withheld from any payment due them, any amounts owed for taxes or other charges due the City of Saginaw; and that successful bidders are subject to mandatory City of Saginaw income tax withholdings.

Signed		Address	15801 23 Mile Road
Name	Michael D'Agostini	City, State, Zip	Macomb Twp, MI 48042
Title	Secretary/Treasurer	Telephone No:	586-781-5800
Company	L. D'Agostini & Sons, Inc.	Fax No.	586-781-5829
E-mail	MikeD@LDAgostini.com	Date:	5/5/2026

Check List

Iran Sanctions sheet Signed and included	(Yes)	No
Bid Form Signed and included	(Yes)	No
2nd Copy of Bid form included	(Yes)	No

Applies ONLY if an addendum(s) has been issued for this project

Addendum(s) Cover Sheet	Addendum No. 1 & 2	
#1 – 1st page is signed and included	(Yes)	No
#2 – 1st page is signed and included	(Yes)	No
#3 – 1st page is signed and included	Yes	No

This sheet must be included, or the bid will be disqualified.

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

Good Faith Efforts Worksheet

Bidder: L. D'Agostini & Sons, Inc.

Subcontract Area of Work (one per worksheet): Seeding/Mulching/Restoration

Outreach Goal: Solicit a minimum of three (3) DBEs via email/letter/fax. It is recommended that various sources be used to locate the minimum number of DBEs. The Michigan Department of Transportation (MDOT) website and www.sam.gov registries may be two resources used to find a minimum of three DBEs.

List the DBEs contacted for the above area of work and complete the following information for each.

Company Name	Contact Method	Date Contacted	Price Quote Received	Accepted or Rejected	If rejected, explain why
Please see attached					
Site Development	Building Connected & Fax	4/24/26	No		
Sommerset Paving	Building Connected & Fax	4/24/26	No	Rejected	Didn't want to bid
Chippewa Asphalt Paving	Building Connected & Fax	4/24/26	No	Rejected	Didn't want to bid

Explanation for Not Achieving a Minimum of Three Contacts; you may include a printout of the MDOT and www.sam.gov search results (attach extra sheets if necessary):

MITA DBE Posting Date (if applicable): 04/24/2026
(Attach a copy of the DBE advertisement)

Other Efforts (attach extra sheets if necessary):

Please include the completed worksheet and supporting documentation with the bid proposal.

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

Good Faith Efforts Worksheet

Bidder: L. D'Agostini & Sons, Inc.

Subcontract Area of Work (one per worksheet): Cold Milling

Outreach Goal: Solicit a minimum of three (3) DBEs via email/letter/fax. It is recommended that various sources be used to locate the minimum number of DBEs. The Michigan Department of Transportation (MDOT) website and www.sam.gov registries may be two resources used to find a minimum of three DBEs.

List the DBEs contacted for the above area of work and complete the following information for each.

Company Name	Contact Method	Date Contacted	Price Quote Received	Accepted or Rejected	If rejected, explain why
Please see attached					
Site Development	Building Connected & Fax	4/24/26	No		
Sommerset Paving	Building Connected & Fax	4/24/26	No	Rejected	Didn't want to bid
Chippewa Asphalt Paving	Building Connected & Fax	4/24/26	No	Rejected	Didn't want to bid

Explanation for Not Achieving a Minimum of Three Contacts; you may include a printout of the MDOT and www.sam.gov search results (attach extra sheets if necessary):

MITA DBE Posting Date (if applicable): 04/24/2026
(Attach a copy of the DBE advertisement)

Other Efforts (attach extra sheets if necessary):

Please include the completed worksheet and supporting documentation with the bid proposal.

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

Good Faith Efforts Worksheet

Bidder: L. D'Agostini & Sons, Inc.

Subcontract Area of Work (one per worksheet): Tree Removal

Outreach Goal: Solicit a minimum of three (3) DBEs via email/letter/fax. It is recommended that various sources be used to locate the minimum number of DBEs. The Michigan Department of Transportation (MDOT) website and www.sam.gov registries may be two resources used to find a minimum of three DBEs.

List the DBEs contacted for the above area of work and complete the following information for each.

Company Name	Contact Method	Date Contacted	Price Quote Received	Accepted or Rejected	If rejected, explain why
Please see attached					
Pro-Soil Site Services	Building Connected & Fax	4/24/26	No		
Weber Contracting	Building Connected & Fax	4/24/26	No	Rejected	Didn't want to bid
Wallington Construction	Building Connected & Fax	4/24/26	No	Rejected	Didn't want to bid

Explanation for Not Achieving a Minimum of Three Contacts; you may include a printout of the MDOT and www.sam.gov search results (attach extra sheets if necessary):

MITA DBE Posting Date (if applicable): 04/24/2026
(Attach a copy of the DBE advertisement)

Other Efforts (attach extra sheets if necessary):

Please include the completed worksheet and supporting documentation with the bid proposal.

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

Good Faith Efforts Worksheet

Bidder: L. D'Agostini & Sons, Inc.

Subcontract Area of Work (one per worksheet): Striping

Outreach Goal: Solicit a minimum of three (3) DBEs via email/letter/fax. It is recommended that various sources be used to locate the minimum number of DBEs. The Michigan Department of Transportation (MDOT) website and www.sam.gov registries may be two resources used to find a minimum of three DBEs.

List the DBEs contacted for the above area of work and complete the following information for each.

Company Name	Contact Method	Date Contacted	Price Quote Received	Accepted or Rejected	If rejected, explain why
Please see attached					
PK Contracting	Building Connected & Fax	4/24/26	No		
Jacklyn Contracting	Building Connected & Fax	4/24/26	No	Rejected	Didn't want to bid
Rally Point Partners	Building Connected & Fax	4/24/26	No	Rejected	Didn't want to bid

Explanation for Not Achieving a Minimum of Three Contacts; you may include a printout of the MDOT and www.sam.gov search results (attach extra sheets if necessary):

MITA DBE Posting Date (if applicable): 04/24/2026
(Attach a copy of the DBE advertisement)

Other Efforts (attach extra sheets if necessary):

Please include the completed worksheet and supporting documentation with the bid proposal.

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

Good Faith Efforts Worksheet

Bidder: L. D'Agostini & Sons, Inc.

Subcontract Area of Work (one per worksheet): Concrete Paving

Outreach Goal: Solicit a minimum of three (3) DBEs via email/letter/fax. It is recommended that various sources be used to locate the minimum number of DBEs. The Michigan Department of Transportation (MDOT) website and www.sam.gov registries may be two resources used to find a minimum of three DBEs.

List the DBEs contacted for the above area of work and complete the following information for each.

Company Name	Contact Method	Date Contacted	Price Quote Received	Accepted or Rejected	If rejected, explain why
Please see attached					
Medina Resources	Building Connected & Fax	4/24/26	No		
JB Contractors	Building Connected & Fax	4/24/26	No	Rejected	Didn't want to bid
Amalio Corporation	Building Connected & Fax	4/24/26	No	Rejected	Didn't want to bid

Explanation for Not Achieving a Minimum of Three Contacts; you may include a printout of the MDOT and www.sam.gov search results (attach extra sheets if necessary):

MITA DBE Posting Date (if applicable): 04/24/2026
(Attach a copy of the DBE advertisement)

Other Efforts (attach extra sheets if necessary):

Please include the completed worksheet and supporting documentation with the bid proposal.

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

Good Faith Efforts Worksheet

Bidder: L. D'Agostini & Sons, Inc.

Subcontract Area of Work (one per worksheet): Asphalt Paving

Outreach Goal: Solicit a minimum of three (3) DBEs via email/letter/fax. It is recommended that various sources be used to locate the minimum number of DBEs. The Michigan Department of Transportation (MDOT) website and www.sam.gov registries may be two resources used to find a minimum of three DBEs.

List the DBEs contacted for the above area of work and complete the following information for each.

Company Name	Contact Method	Date Contacted	Price Quote Received	Accepted or Rejected	If rejected, explain why
Please see attached					
Sommerset Paving	Building Connected & Fax	4/24/26	No		
Hutch Paving	Building Connected & Fax	4/24/26	No		
R&R Asphalt	Building Connected & Fax	4/24/26	No		

Explanation for Not Achieving a Minimum of Three Contacts; you may include a printout of the MDOT and www.sam.gov search results (attach extra sheets if necessary):

MITA DBE Posting Date (if applicable): 04/24/2026
(Attach a copy of the DBE advertisement)

Other Efforts (attach extra sheets if necessary):

Please include the completed worksheet and supporting documentation with the bid proposal.

mita DBE

L. D'Agostini & Sons, Inc. is soliciting cost proposals from qualified Disadvantaged Business Enterprises (DBE), which includes Minority Business Enterprises (MBE), Women Business Enterprises (WBE), and other entities defined as socially and/or economically disadvantaged.

Contact Information

Company: L. D'Agostini & Sons, Inc.
Address: 15801 23 Mile Road, Macomb Twp, MI 48042
Contact name: Aaron Carr
Contact phone: 5867815800
Contact fax: 5867815829
Contact email: AaronC@LDAgostini.com

Project Information

Project name: C-1724 N. Mason WM & Dead-End Looping DSWRF # 7900.01 - Saginaw
Project owner: City of Saginaw
Project location: Saginaw County, Michigan
Project highlights:

> Install & connect WM connecting the dead-end WM from A St. to Larch St. Replace existing WM on N. Mason St from Houghton Ave to State St (M-58).Including rehabilitation of various pavement surfaces, HMA removal, concrete work, earthwork, subbase, aggregate base, curb and gutter, sidewalks & ADA

Project categories:

N2	Clearing
B	Concrete Pavement
Ba	Concrete Pavement-Patching/Widening
Ea	Grading/Drainage Struct/Aggreg.Const.
H	Landscaping
J	Misc. Concrete Items
N93A	Pavements-Cold Milling
N93C	Pavements-Concrete Sawing
TVR	Rd Signs/Markers/Barricade-Dealer
I	Seeding/Sodding/Turf Establishment
K	Sewers/Watermains

Bid Information

Bid open: 5/5/2026 12:00am
Link to bid documents: BIDNET
Document address:
Respond by: 5/4/2026 12:00am

Additional Information

Posted date: 4/24/2026 11:43am

L. D'AGOSTINI & SONS, INC.

TRANSMISSION HEADER	
DATE:	4/24/2026
TO:	
COMPANY:	DBE Contractor
FAX NO.:	
RE:	
FROM:	Aaron Carr/Christina Moradian

Dear DBE Contractors:

We are soliciting cost proposals from qualified DBEs for the **C-1724 N. Mason WM & Dead-End Looping DSWRF # 7900.01 - Saginaw** Concrete Paving, Asphalt Pavement, Traffic Control, Striping, Tree Removal, Cold Milling, Seeding, Mulch and Restoration.

Upon your request, we can provide additional information regarding the Project that will assist your firm in preparing a cost proposal. Our bid is due to the Project owner, on **May 5, 2025 at 3:00 PM**. Ideally, we would request all cost proposals submitted **no later than 5:00 pm on May 4, 2025.**

If you have any questions or would like to request to review the bid documents, please contact our Project Manager Aaron Carr at AaronC@ldagostini.com or by phone at (586) 781-5800.

We look forward to hearing from you.

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15801 23 Mile Road
Macomb Township, MI 48042
Fax #: (586) 781-5829

Document Generation Date: April 24, 2026

DBE Firm Name	Certification Type	Name of the owner	Fax
Advanced Underground Inspection, LLC	Disadvantaged Business Enterprise (DBE)	Kathy Dickey	734-721-0082
All Star Power, LLC	MDOT Small Business Program (MDOT SBP)	Anne Joseph	
Astec Asphalt Inc.	MDOT Small Business Program (MDOT SBP)	Todd Wendorf	
Audia Concrete Construction, Inc.	Disadvantaged Business Enterprise (DBE)	Ronetta Audia	248-676-9720
Austin Morgan Contracting	Disadvantaged Business Enterprise (DBE)	Christie Rasins	
Bella Concrete Construction	MDOT Small Business Program (MDOT SBP)	Joseph Chudzinski	989-202-2741
Burman's Tree Services, LLC	MDOT Small Business Program (MDOT SBP)	Adam Burman	
CL Trucking & Excavating, LLC	MDOT Small Business Program (MDOT SBP)	Chad Listerman	616-527-8424
Causie Contracting, Inc	Disadvantaged Business Enterprise (DBE)	Sharolyn Arnett	5176763758
Dan K's Inc.	Disadvantaged Business Enterprise (DBE)	Nicole Keenan	734 671-2927
Dan's Excavating Service Inc.	MDOT Small Business Program (MDOT SBP)	Spence Tellkamp	231-834-0441
Diane Dukes, Inc.	MDOT Small Business Program (MDOT SBP)	Diane Dukes	231-796-6144
Eastern Asphalt Co, Inc.	MDOT Small Business Program (MDOT SBP)	Robert Myers	810-787-8222
Eminent Contracting, LLC	Disadvantaged Business Enterprise (DBE)	Cesar Mireles Jr.	
Epic Excavating, Inc.	Disadvantaged Business Enterprise (DBE)	Linda Den Hartigh	
Erie Construction, LLC	MDOT Small Business Program (MDOT SBP)	Jimmy DeAngelis	734-676-9137
Evergreen Tree & Restoration Inc.	Disadvantaged Business Enterprise (DBE)	Ashley Ebling	734-545-8664
F and M Concrete Construction LLC	Disadvantaged Business Enterprise (DBE)	Emily Holton	
Farrow Group, Inc.	Disadvantaged Business Enterprise (DBE)	Marja Farrow	313-259-7920
Fort Wayne Contracting, Inc.	Disadvantaged Business Enterprise (DBE)	Christopher R. Honore	313-447-2065
GM & Sons, Inc.	MDOT Small Business Program (MDOT SBP)	Hugo Gallegos	734-929-1265
John Henry Excavating, Inc.	MDOT Small Business Program (MDOT SBP)	Mary Henry	989-362-7040
L & O Construction LLC	Disadvantaged Business Enterprise (DBE)	Luis Valdez	
L.J. Construction, Inc.	MDOT Small Business Program (MDOT SBP)	Daniel Jocham	989-761-0132
Legacy Concrete, LLC	Disadvantaged Business Enterprise (DBE)	Kelly Blouw	
Lois Kay Contracting Company	MDOT Small Business Program (MDOT SBP)	Lois Kreager	989-753-4711
Lucy's Lawn Care and Snow Removal Corporation	Disadvantaged Business Enterprise (DBE)	Charles Lucy	877-476-8473
MRM Construction LLC	MDOT Small Business Program (MDOT SBP)	John Moretti	810-212-0022
Makaveli Construction & Associates, Inc.	Disadvantaged Business Enterprise (DBE)	Dawn Hart	
Marine City Nursery Co.	MDOT Small Business Program (MDOT SBP)	COURTNEY LABUHN	8107658806
Marshall Concrete, Inc	Disadvantaged Business Enterprise (DBE)	Jean Young	231-439-9509
Martin J. Concrete, Inc	Disadvantaged Business Enterprise (DBE)	Josh Juarez	616-997-6117
Martinez Concrete LLC	Disadvantaged Business Enterprise (DBE)	Abigail Martinez	
Medina Resources Group, LLC	Disadvantaged Business Enterprise (DBE)	Kimberly Medina	
Michigan Highway Contracting, Inc.	MDOT Small Business Program (MDOT SBP)	Theresa Morris	734-744-5447
Michigan Lawn Maintenance, Inc.	MDOT Small Business Program (MDOT SBP)	Scott H. Sherman	810-329-2676
Nashville Construction Company	MDOT Small Business Program (MDOT SBP)	Tammy S. Hulsebos	517-852-2240
Natural Environmental Reclamation Concepts, Inc	Disadvantaged Business Enterprise (DBE)	Ashley Sholtis	517-563-2899
Redford Cement Co	Disadvantaged Business Enterprise (DBE)	Jessica Mancini	313-937-5070

Remington Construction Company	MDOT Small Business Program (MDOT SBP)	David Remington	
Rigid Pavement Construction LLC	Disadvantaged Business Enterprise (DBE)	Julie Barratt	5179388219
S. Hayes, Inc.	MDOT Small Business Program (MDOT SBP)	Sarah Hayes	231-306-5926
Santos Cement 1 Inc.	MDOT Small Business Program (MDOT SBP)	Rafael Santos Jr	313-791-7049
Serratos Construction Inc	Disadvantaged Business Enterprise (DBE)	Miguel Serratos	248-347-8205
Sommerset Paving Companies, LLC	Disadvantaged Business Enterprise (DBE)	Louise Pernicano	734-527-6137
Supreme Construction & Restoration LLC.	Disadvantaged Business Enterprise (DBE)	Alfonso Reyna	
T&D Concrete Construction LLC	Disadvantaged Business Enterprise (DBE)	Ricky Torres	
The Isabella Corporation	MDOT Small Business Program (MDOT SBP)	Jeremy Zalud	989-773-2978
Thumb Area Excavating Services, LLC	MDOT Small Business Program (MDOT SBP)	Charles Hesslingisole	
Tim & Sons Construction, LLC	MDOT Small Business Program (MDOT SBP)	Kim Eishen	
Treeworks, Inc.	MDOT Small Business Program (MDOT SBP)	Rebecca Porter-Vice	
UPPER PENINSULA RUBBER CO. dba TUNNEL VISION PIPELINE SERVICES	MDOT Small Business Program (MDOT SBP)	GABRIEL KLOET	
USA Earthworks LLC	MDOT Small Business Program (MDOT SBP)	Ashley Double	
Warren Contractors & Development, Inc	MDOT Small Business Program (MDOT SBP)	James Cerullo	586-323-3351
Weick Bros, Inc.	MDOT Small Business Program (MDOT SBP)	Steven Weick	

* * * Communication Result Report (Apr. 24. 2026 12:57PM) * * *

1) LD&S Inc
2) L. D´Agostini and Son´s Inc

L. D'AGOSTINI & SONS, INC.

TRANSMISSION HEADER	
DATE:	4/24/2026
TO:	
COMPANY:	DBE Contractor
FAX NO.:	
RE:	
FROM:	Aaron Carr/Christina Moradian

Dear DBE Contractors:

We are soliciting cost proposals from qualified DBEs for the **C-1724 N. Mason WM & Dead-End Looping DSWRF # 7900.01** - Saginaw Concrete Paving, Asphalt Pavement, Traffic Control, Striping, Tree Removal, Cold Milling, Seeding, Mulch and Restoration.

Upon your request, we can provide additional information regarding the Project that will assist your firm in preparing a cost proposal. Our bid is due to the Project owner, on **May 5, 2025 at 3:00 PM**. Ideally, we would request all cost proposals submitted **no later than 5:00 pm on May 4, 2025.**

If you have any questions or would like to request to review the bid documents, please contact our Project Manager Aaron Carr at AaronC@ldagostini.com or by phone at (586) 781-5800.

We look forward to hearing from you.

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15801 23 Mile Road
Macomb Township, MI 48042
Fax #: (586) 781-5829

AN EQUAL OPPORTUNITY EMPLOYER

* * * Communication Result Report (Apr. 24. 2026 12:57PM) * * *

1) LD&S Inc
2) L. D´Agostini and Son´s Inc

Date/Time: Apr. 24. 2026 12:10PM

File No.	Mode	Destination	Pg(s)	Result	Page Not Sent
9581	Memory TX	3132597920	P. 1	OK	
		3134472065		OK	
		7349291265		E-2) 2) 2) 2) 2)	P. 1
		9893627040		OK	
		9897610132		OK	
		9897534711		OK	
		8774768473		OK	
		8102120022		OK	
		8107658806		OK	
		2314399509		E-3) 3)	P. 1
		6169976117		OK	
		7347445447		OK	
		8103292676		E-2) 2) 2) 2) 2)	P. 1
		5178522240		OK	
		5175632899		OK	
		3139375070		OK	
		5179388219		E-2) 2) 2) 2) 2)	P. 1
		2313065926		OK	
		3137917049		OK	
		2483478205		OK	
		7345276137		OK	
		9897732978		OK	
		5863233351		OK	

Reason for error
E. 1) Hang up or line fail
E. 2) Busy
E. 3) No answer
E. 4) No facsimile connection
E. 5) Exceeded max. E-mail size
E. 6) Destination does not support IP-Fax

* * * Communication Result Report (Apr. 24. 2026 12:45PM) * * *

1) LD&S Inc
2) L. D'Agostini and Son's Inc

Date/Time: Apr. 24. 2026 12:06PM

File No.	Mode	Destination	Pg(s)	Result	Page Not Sent
9580	Memory TX	17347210082	P. 1	E-3) 3)	P. 1
		8426769720		E-2) 2) 2) 2) 2)	P. 1
		9892022741		OK	
		6165278424		OK	
		5176763758		OK	
		7346712927		E-3) 3)	P. 1
		2318340441		OK	
		2317966144		E-2) 2) 2) 2) 2)	P. 1
		8107878222		OK	
		7346769137		E-3) 3)	P. 1
		7345458664		OK	

Reason for error
E. 1) Hang up or line fail
E. 2) Busy
E. 3) No answer
E. 4) No facsimile connection
E. 5) Exceeded max. E-mail size
E. 6) Destination does not support IP-Fax

L. D'AGOSTINI & SONS, INC.

TRANSMISSION HEADER	
DATE:	4/24/2026
TO:	
COMPANY:	DBE Contractor
FAX NO.:	
RE:	
FROM:	Aaron Carr/Christina Moradian

Dear DBE Contractors:

We are soliciting cost proposals from qualified DBEs for the **C-1724 N. Mason WM & Dead-End Looping DSWRF # 7900.01 - Saginaw** Concrete Paving, Asphalt Pavement, Traffic Control, Striping, Tree Removal, Cold Milling, Seeding, Mulch and Restoration.

Upon your request, we can provide additional information regarding the Project that will assist your firm in preparing a cost proposal. Our bid is due to the Project owner, **on May 5, 2025 at 3:00 PM.** Ideally, we would request all cost proposals submitted **no later than 5:00 pm on May 4, 2025.**

If you have any questions or would like to request to review the bid documents, please contact our Project Manager Aaron Carr at AaronC@ldagostini.com or by phone at (586) 781-5800.

We look forward to hearing from you.

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Macomb Township, MI 48042
Fax #: (586) 781-5829

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Building Connected Good faith report

Timestamp	Company	Name	Email	Phone	Enterprise Type	Bid Package	Subject	DBE Certificates
Apr 15, 2026 at 8:24 AM EDT	Sommerset Paving	Victor Pernicano	victor@getpaving.com	+1 734-646-5371	Disadvantaged Business Enterprise (DBE)	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	Sommerset Paving	Louise Sommersetpaving	louise.sommersetpaving@gmail.com	+1 734-929-0641	Disadvantaged Business Enterprise (DBE)	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	Mierzwa Paving	Mark Schwab	mschwab@mierzwainc.com			Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	Ace-Saginaw Paving Company	Michael Hlavacek	mhlavacek@acesaginawpaving.com	+1 810-238-1737	None	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	Ace-Saginaw Paving Company	Tom Gatza	flintquotes@acesaginawpaving.com	(810) 238-1737	None	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	Hutch Paving, Inc.	Michael Campbell	michael@hutchpaving.com	+1 586-427-7283	Small Business Enterprise (SBE)	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	Hutch Paving, Inc.	Charlie Pajares	charlie@hutchpaving.com	+1 947-517-3047	Small Business Enterprise (SBE)	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	Hutch Paving, Inc.	Mark Blackburn	mblackburn@hutchpaving.com	+1 734-575-8139	Small Business Enterprise (SBE)	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	Hutch Paving, Inc.	Sylvester Randolph	sylvester@hutchpaving.com	+1 248-875-2009	Small Business Enterprise (SBE)	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	Nagle Paving Company	John Girardot	johng@naglepaving.com	+1 248-553-0600	None	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	Nagle Paving Company	Mike Santi	msanti@naglepaving.com	+1 248-553-0600	None	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	Nagle Paving Company	Brad Badarak	brad@naglepaving.com	+1 248-765-1453	None	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	Best Asphalt Inc.	Barb Page	barb@bestasphaltinc.com	+1 734-729-9440	None	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	Best Asphalt Inc.	Mike Martin	mmartin@bestasphaltinc.com	+1 734-637-7186	None	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	Best Asphalt Inc.	keithu keithu	keithu@bestasphaltinc.com	+1 517-914-3251	None	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	Bowen Paving Inc.	mike bowen	mike@bowenpaving.com	+1 248-332-4956	Other	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	Bowen Paving Inc.	Jon Bazner	jon@bowenpaving.com	+1 248-332-4956	Other	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	Bowen Paving Inc.	nick vanblesbrouck	nvan@bowenpaving.com	+1 248-891-9105	Other	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	R&R Asphalt	Brad Hanson	brad@bestasphaltinc.com	+1 248-529-6005	Small Business Enterprise (SBE)	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	R&R Asphalt	ROGER REDMAN	roger@rrasphalt.com	+1 248-529-6005	Small Business Enterprise (SBE)	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	Michigan Paving and Materials Compar	Marlene VanPatten	mvanpatten@mipmc.com	+1 734-890-2378	None, Other	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	Michigan Paving and Materials Compar	Primary Contact	bidnetemails@mipmc.com	(734) 397-2050	None, Other	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	Chippewa Asphalt Paving Company	Josh Ayotte	josh@chippewaasphalt.com	+1 810-238-2660	Small Business Enterprise (SBE)	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	Asphalt Specialists LLC	Marcus Navetta	mnavetta@aslpaving.com		None	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	Asphalt Specialists LLC	Marc Navetta	estimating@asipaving.com	+1 248-334-4570	None	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	Asphalt Specialists LLC	David Bowser	dbowser@asipaving.com	+1 248-334-4570	None	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	DSP Constructors	Alfredo Campos	alfredoc@dspconstructors.com	+1 248-444-6342	None	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	Pavement Recycling Inc	Gary VanHevel	gary@pavementrecyclinginc.com	+1 810-724-8200	None	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	Titan Pavement	Dane Giese	dane@titansealcoating.com	+1 248-623-5043	None	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	Titan Pavement	Jon Bazner	jbazner@titanpavement.com	+1 248-520-4322	None	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	Eastern Asphalt	Tod Molesworth	tod@easternasphalt.com	+1 810-787-5500	Small Business Enterprise (SBE)	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	Eastern Asphalt	Will Fontana	wfontana@easternasphalt.com	+1 810-787-5500	Small Business Enterprise (SBE)	Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:24 AM EDT	R & R Asphalt	Brad Hanson	brad@rrasphalt.com	+1 248-529-6005		Asphalt Paving	Invitation to Bid	
Apr 15, 2026 at 8:32 AM EDT	DSP Constructors	Alfredo Campos	alfredoc@dspconstructors.com	+1 248-444-6342	None	Concrete Paving	Invitation to Bid	
Apr 15, 2026 at 8:32 AM EDT	Medina Resources Group LLC	Peter McClorey	p.mcclorey@medina-llc.com	+1 517-375-9368	Minority Business Enterprise (MBE), Disadvantaged Business Enterprise (DBE)	Concrete Paving	Invitation to Bid	Michigan Unified Certification Program | Disadvantaged Business Enterprise (DBE);National Minority Supplier Development Council | Minority Business Enterprise (MBE)
Apr 15, 2026 at 8:32 AM EDT	Medina Resources Group LLC	Gregory Dion	g.dion@medina-llc.com	+1 517-525-5652	Minority Business Enterprise (MBE), Disadvantaged Business Enterprise (DBE)	Concrete Paving	Invitation to Bid	Michigan Unified Certification Program | Disadvantaged Business Enterprise (DBE);National Minority Supplier Development Council | Minority Business Enterprise (MBE)
Apr 15, 2026 at 8:32 AM EDT	Medina Resources Group LLC	Benjamin Medina	b.medina@medina-llc.com	+1 517-404-3551	Minority Business Enterprise (MBE), Disadvantaged Business Enterprise (DBE)	Concrete Paving	Invitation to Bid	Michigan Unified Certification Program | Disadvantaged Business Enterprise (DBE);National Minority Supplier Development Council | Minority Business Enterprise (MBE)
Apr 15, 2026 at 8:32 AM EDT	La Mv Concrete LLC	Eduardo Rosas	eduardo@lamvconcrete.com	+1 989-409-6328		Concrete Paving	Invitation to Bid	
Apr 15, 2026 at 8:32 AM EDT	La Mv Concrete LLC	Paul Acciavatti	paul.acc@lamvconcrete.com			Concrete Paving	Invitation to Bid	
Apr 15, 2026 at 8:32 AM EDT	Metropolitan Concrete Corp.	Estimating Department	bids@metropolitanconcrete.com	+1 586-264-3370	None	Concrete Paving	Invitation to Bid	
Apr 15, 2026 at 8:32 AM EDT	Metropolitan Concrete Corp.	Andy Muzik	andy@metropolitanconcrete.com		None	Concrete Paving	Invitation to Bid	
Apr 15, 2026 at 8:32 AM EDT	Simone Construction Services	Ric Giles	ric@simonecompanies.com	+1 586-254-0690	None	Concrete Paving	Invitation to Bid	Michigan Unified Certification Program | Women-owned Business Enterprise (WBE)

Apr 15, 2026 at 8:32 AM EDT	Simone Construction Services	Joe Rubino	joe@simonecompanies.com	+1 586-254-0690	None	Concrete Paving	Invitation to Bid	Michigan Unified Certification Program | Women-owned Business Enterprise (WBE)
Apr 15, 2026 at 8:32 AM EDT	JB Contractors Inc	Bruce Abbott	jbcontractors@outlook.com	+1 734-363-7227	Minority Business Enterprise (MBE), Small Business Enterprise (SBE)	Concrete Paving	Invitation to Bid	
Apr 15, 2026 at 8:32 AM EDT	Merlo Construction Company, Inc.	Ray Merlo	ray@merlomi.com	+1 248-714-5486	None	Concrete Paving	Invitation to Bid	
Apr 15, 2026 at 8:32 AM EDT	Merlo Construction Company, Inc.	Brian Misaras	brianm@merlomi.com	+1 248-714-5486	None	Concrete Paving	Invitation to Bid	
Apr 15, 2026 at 8:32 AM EDT	Merlo Construction Company, Inc.	Lindsay Gerhardt	lindsayg@merlomi.com	+1 248-763-1614	None	Concrete Paving	Invitation to Bid	
Apr 15, 2026 at 8:32 AM EDT	Fessler & Bowman, Inc.	Estimating Department	estimating@fesslerbowman.com	+1 810-869-5419	None	Concrete Paving	Invitation to Bid	
Apr 15, 2026 at 8:32 AM EDT	Fessler & Bowman, Inc.	Colin Taft	ctait@fesslerbowman.com	+1 810-733-1313	None	Concrete Paving	Invitation to Bid	
Apr 15, 2026 at 8:32 AM EDT	Goretski Const.	Kyle Goretski	kg@goretskiconstruction.com	+1 248-685-1404		Concrete Paving	Invitation to Bid	
Apr 15, 2026 at 8:32 AM EDT	Goretski Const.	Tracey Urcheck	tracey@goretskiconstruction.com	+1 248-685-1404		Concrete Paving	Invitation to Bid	
Apr 15, 2026 at 8:32 AM EDT	GM & Sons Inc.	Karl Schweitzer	karl@gmandsons.com		None	Concrete Paving	Invitation to Bid	
Apr 15, 2026 at 8:32 AM EDT	GM & Sons Inc.	Sean Morrissey	sean@gmandsons.com	+1 734-929-1259	None	Concrete Paving	Invitation to Bid	
Apr 15, 2026 at 8:32 AM EDT	GM & Sons Inc.	Kurk Schweitzer	kurk@gmandsons.com	+1 734-929-1259	None	Concrete Paving	Invitation to Bid	
Apr 15, 2026 at 8:32 AM EDT	Florence	Jordan Sirhan	jordansirhan@florencecement.com (In	+1 586-997-2666		Concrete Paving	Invitation to Bid	
Apr 15, 2026 at 8:32 AM EDT	Florence Cement Co., Inc.		info@florencecement.com	+1 586-997-2666		Concrete Paving	Invitation to Bid	
Apr 15, 2026 at 8:32 AM EDT	Amalio Corporation	James Crimando	jcrimando@amaliocorp.com	+1 586-731-6804	Small Business Enterprise (SBE), Disadvantaged Business Enterprise (DBE), Other	Concrete Paving	Invitation to Bid	
Apr 15, 2026 at 8:32 AM EDT	Amalio Corporation	Michael Livernois	mlivernois@amaliocorp.com	+1 586-731-6804	Small Business Enterprise (SBE), Disadvantaged Business Enterprise (DBE), Other	Concrete Paving	Invitation to Bid	
Apr 15, 2026 at 8:32 AM EDT	Amalio Corporation	Ron Rende	rrende@amaliocorp.com	+1 586-731-6804	Small Business Enterprise (SBE), Disadvantaged Business Enterprise (DBE), Other	Concrete Paving	Invitation to Bid	
Apr 15, 2026 at 8:32 AM EDT	F&M Companies	sue fenn	estimating@fm-contractors.com	+1 586-731-6440	None	Concrete Paving	Invitation to Bid	
Apr 15, 2026 at 8:32 AM EDT	Timmer Construction Company	Donald Timmer	don@timmerconstruction.com	+1 248-478-9400		Concrete Paving	Invitation to Bid	
Apr 15, 2026 at 8:32 AM EDT	Mark Anthony Contracting, Inc.	James DeGowske	jim@macinc-mi.com (Invalid Email)	+1 248-606-7727		Concrete Paving	Invitation to Bid	
Apr 15, 2026 at 8:32 AM EDT	Florence Cement Co., Inc.	David Hill	davidhill@florencecement.com			Concrete Paving	Invitation to Bid	
Apr 15, 2026 at 8:36 AM EDT	Poco		pocoinc@sbcglobal.net	+1 734-397-1677		Traffic Control	Invitation to Bid	
Apr 15, 2026 at 8:36 AM EDT	State Barricades, Inc.	Tony Maggiano	tony@statebarr.com	+1 586-756-8282		Traffic Control	Invitation to Bid	
Apr 15, 2026 at 8:36 AM EDT	State Barricades		statebarr@statebarr.com (Invalid Email	(586) 756-8282		Traffic Control	Invitation to Bid	
Apr 15, 2026 at 8:36 AM EDT	Poco, Inc.	John Clarke	john.clarke@pocoinc.com	+1 734-397-1677		Traffic Control	Invitation to Bid	
Apr 15, 2026 at 8:36 AM EDT	Poco, Inc.	Tony Zaszczurynski	tonyzas@pocoinc.com	+1 734-397-1677		Traffic Control	Invitation to Bid	
Apr 15, 2026 at 8:36 AM EDT	Action Traffic Maintenance	Brenden Pudduck	brenden@actiontraffic.net	+1 810-287-3986	None	Traffic Control	Invitation to Bid	
Apr 15, 2026 at 8:36 AM EDT	Action Traffic Maintenance	Thomas Peake	tom@actiontraffic.net	+1 810-695-7516	None	Traffic Control	Invitation to Bid	
Apr 15, 2026 at 8:36 AM EDT	Action Traffic Maintenance	Russ Smith	russ@actiontraffic.net	+1 810-423-3806	None	Traffic Control	Invitation to Bid	
Apr 15, 2026 at 8:47 AM EDT	P & K Contracting, Inc.	Nick Shea	nick@pkcontracting.com (Invalid Email	+1 248-362-2130		Striping	Invitation to Bid	Port Authority of New York and New Jersey | Minority Business Enterprise (MBE);Port Authority of New York and New Jersey | Small Business Enterprise (SBE);Maine Department of Transportation | Minority Business Enterprise (MBE);New York City (New York) | Minority Business Enterprise (MBE)
Apr 15, 2026 at 10:10 AM EDT	Metropolitan Concrete Corp.	Kyle Finnerty	kyle@metropolitanconcrete.com	+1 586-264-3370	None	Concrete Paving	Invitation to Bid	
Apr 15, 2026 at 12:56 PM EDT	Fessler & Bowman, Inc.	Justin Missentzis	jmissentzis@fesslerbowman.com	+1 810-733-1313 ex	None	Concrete Paving	Invitation to Bid	
Apr 15, 2026 at 1:14 PM EDT	Heritage and Company, INC.	Dean Morales	estimating@heritageandcompany.com		Minority Business Enterprise (MBE)	Tree Removal	Invitation to Bid	National Minority Supplier Development Council | Minority Business Enterprise (MBE);National Minority Supplier Development Council | Minority Business Enterprise (MBE);National Minority Supplier Development Council | Minority Business Enterprise (MBE);National Minority Supplier Development Council | Minority Business Enterprise (MBE)

Apr 15, 2026 at 1:14 PM EDT	Heritage and Company, INC.	Paige VanValkenburg	pvanvalkenburg@heritageandcompany.com		Minority Business Enterprise (MBE)	Tree Removal	Invitation to Bid	National Minority Supplier Development Council | Minority Business Enterprise (MBE);National Minority Supplier Development Council | Minority Business Enterprise (MBE);National Minority Supplier Development Council | Minority Business Enterprise (MBE);National Minority Supplier Development Council | Minority Business Enterprise (MBE)
Apr 15, 2026 at 1:14 PM EDT	Owen Tree Service	Keith Gilley	kgilley@owentree.com		Small Business Enterprise (SBE)	Tree Removal	Invitation to Bid	
Apr 15, 2026 at 1:14 PM EDT	Owen Tree Service	Hope Parker	hparker@owentree.com	+1 810-724-6651	Small Business Enterprise (SBE)	Tree Removal	Invitation to Bid	
Apr 15, 2026 at 1:14 PM EDT	CHOP	Ben Euwema	beuwema@we-chop.com		Other, None	Tree Removal	Invitation to Bid	
Apr 15, 2026 at 1:14 PM EDT	CHOP	John Huizenga	john@we-chop.com	+1 616-648-4704	Other, None	Tree Removal	Invitation to Bid	
Apr 15, 2026 at 1:14 PM EDT	Active Tree Experts Inc	John Meyers	johnbmeyers@yahoo.com	+1 586-727-8770		Tree Removal	Invitation to Bid	
Apr 15, 2026 at 1:14 PM EDT	Active Tree Experts Inc	John Meyers	activetreeexpertsllc@gmail.com	+1 586-727-8770		Tree Removal	Invitation to Bid	
Apr 15, 2026 at 1:14 PM EDT	Heinz Tree Service Inc	Suzie DeSonia	suzie@heinztree.com	+1 989-754-8009	None	Tree Removal	Invitation to Bid	
Apr 15, 2026 at 1:14 PM EDT	Heinz Tree Service Inc	George Pappas	george@heinztree.com	+1 989-239-8220	None	Tree Removal	Invitation to Bid	
Apr 15, 2026 at 1:14 PM EDT	Inhabitect, LLC	Nathan Griswold	nate@inhabitect.com	+1 231-943-1434 ex	None	Tree Removal	Invitation to Bid	
Apr 15, 2026 at 1:14 PM EDT	Inhabitect, LLC	Jayly Lautner	jayly@inhabitect.com	(231) 943-1434 ext.	None	Tree Removal	Invitation to Bid	
Apr 15, 2026 at 1:14 PM EDT	Treeworks, Inc.	Jason R. Porter	office@treeworksmi.com	+1 616-837-1100		Tree Removal	Invitation to Bid	
Apr 15, 2026 at 3:46 PM EDT	Ace-Saginaw Paving Company	Jennifer Prill	jprill@acesaginawpaving.com		None	Striping	Invitation to Bid	
Apr 15, 2026 at 3:47 PM EDT	Asphalt Specialists LLC	Marcus Navetta	mnavetta@asipaving.com		None	Striping	Invitation to Bid	
Apr 15, 2026 at 3:47 PM EDT	Asphalt Specialists LLC	Marc Navetta	estimating@asipaving.com	+1 248-334-4570	None	Striping	Invitation to Bid	
Apr 15, 2026 at 3:47 PM EDT	Asphalt Specialists LLC	David Bowser	dbowser@asipaving.com	+1 248-334-4570	None	Striping	Invitation to Bid	
Apr 15, 2026 at 3:47 PM EDT	Yeager Asphalt	Nick Maguire	nick@yeagerasphalt.com	+1 989-484-6015	None	Striping	Invitation to Bid	
Apr 15, 2026 at 3:47 PM EDT	Yeager Asphalt	John Mantei	john@yeagerasphalt.com	+1 989-395-6930	None	Striping	Invitation to Bid	
Apr 15, 2026 at 3:47 PM EDT	Asphalt Management inc	kelly donahue	kdonahue@ami-mi.com	+1 810-659-5400		Striping	Invitation to Bid	
Apr 15, 2026 at 3:47 PM EDT	State Striping, LLC	Josh Bannister	joshb7211@gmail.com	+1 989-413-8132		Striping	Invitation to Bid	
Apr 16, 2026 at 10:48 AM EDT	Nagle Paving Company	Mickie Pierson	mpierson@naglepaving.com	+1 248-553-0600	None	Asphalt Paving	Invitation to Bid	
Apr 17, 2026 at 10:08 AM EDT	Sommerset Paving	Victor Pernicano	victor@getpaving.com	+1 734-646-5371	Disadvantaged Business Enterprise (DBE)	cold milling	Invitation to Bid	
Apr 17, 2026 at 10:08 AM EDT	Ace-Saginaw Paving Company	Michael Hlavacek	mhlavacek@acesaginawpaving.com	+1 810-238-1737	None	cold milling	Invitation to Bid	
Apr 17, 2026 at 10:08 AM EDT	Chippewa Asphalt Paving Company	Josh Ayotte	josh@chippewaasphalt.com	+1 810-238-2660	Small Business Enterprise (SBE)	cold milling	Invitation to Bid	
Apr 17, 2026 at 10:08 AM EDT	Unknown Company		jhillbrandt@asipaving.com (Invalid Email)			cold milling	Invitation to Bid	
Apr 17, 2026 at 10:08 AM EDT	Extreme Milling And Pulverizing	Scott Tinkey	scott@extrememandp.com	+1 517-999-4170		cold milling	Invitation to Bid	
Apr 17, 2026 at 10:08 AM EDT	Pavement Recycling Inc	cody vanhevel	cody@pavementrecyclinginc.com		None	cold milling	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Fessler & Bowman, Inc.	Estimating Department	estimating@fesslerbowman.com	+1 810-869-5419	None	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Heritage and Company, INC.	Paige VanValkenburg	pvanvalkenburg@heritageandcompany.com		Minority Business Enterprise (MBE)	Seeding/Mulching/Restoratior	Invitation to Bid	National Minority Supplier Development Council | Minority Business Enterprise (MBE);National Minority Supplier Development Council | Minority Business Enterprise (MBE);National Minority Supplier Development Council | Minority Business Enterprise (MBE);National Minority Supplier Development Council | Minority Business Enterprise (MBE)
Apr 17, 2026 at 10:10 AM EDT	Inhabitect, LLC	Nathan Griswold	nate@inhabitect.com	+1 231-943-1434 ex	None	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Dalco Services	Zack Williams	zwilliams@dalcoservicesllc.com	+1 586-876-4326 ex	Small Business Enterprise (SBE)	Seeding/Mulching/Restoratior	Invitation to Bid	United States Small Business Administration | Small Business Enterprise (SBE)
Apr 17, 2026 at 10:10 AM EDT	Murin Company	Ted Murin	murincompany@netscape.net	+1 989-781-1850		Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Munaco Landscape LLC	Jim Carabelli	jimc@munacolandscape.com	+1 586-781-3050	None	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	KLM Landscape	Kirk Knobloch	klm@klmlandscape.net	+1 586-752-5562	None	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Mikes Landscaping	Jake Reeser	mikeslandscaping1981@gmail.com	+1 810-658-9255		Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	United Lawnscape, LLC	Laura Boryn	construction@unitedlawnscape.com	+1 586-752-5000	None	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Metro Landscaping	John Zubkoff	zbassattacker@aol.com	+1 419-304-6615	None	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Hi-Tech Landscape & Irrigation	Michael Young	hitechlandscape@yahoo.com	+1 810-923-1782	Small Business Enterprise (SBE)	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Garpiel Group	Alexis Straebel	alexis@garpielgroup.com	+1 989-295-6910	Other	Seeding/Mulching/Restoratior	Invitation to Bid	

Apr 17, 2026 at 10:10 AM EDT	Pro-Soil Site Services	Jeff Kelly	jkelly@prosoil.us	+1 517-267-8767	Small Business Enterprise (SBE)	Seeding/Mulching/Restoratior Invitation to Bid	United States Small Business Administration | Small Business Enterprise (SBE);United States General Services Administration | Historically Underutilized Business Zones (HUBZone)
Apr 17, 2026 at 10:10 AM EDT	Pro-Soil Site Services	Alexis Tews	alexistews@prosoil.us	+1 517-267-8767	Small Business Enterprise (SBE)	Seeding/Mulching/Restoratior Invitation to Bid	United States Small Business Administration | Small Business Enterprise (SBE);United States General Services Administration | Historically Underutilized Business Zones (HUBZone)
Apr 17, 2026 at 10:10 AM EDT	Pro-Soil Site Services	Jonathan Schueller	jschueller@prosoil.us	+1 517-231-4744	Small Business Enterprise (SBE)	Seeding/Mulching/Restoratior Invitation to Bid	United States Small Business Administration | Small Business Enterprise (SBE);United States General Services Administration | Historically Underutilized Business Zones (HUBZone)
Apr 17, 2026 at 10:10 AM EDT	Great Oaks Landscape	Richard Tuttle	rtuttle@greatoakslandscape.com	+1 248-349-8555	None	Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Great Oaks Landscape	Joshua Mueller	jmueller@greatoakslandscape.com	+1 947-267-0770	None	Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Great Oaks Landscape	Dwight Pastean	dpastean@greatoakslandscape.com	+1 248-349-8555 ex	None	Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Great Oaks Landscape	Danny Roberts	droberts@greatoakslandscape.com (in	+1 248-349-8555	None	Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Green Scene Landscaping, Inc.	Jeff Adams	jadams@greenscenelandscaping.com	+1 989-772-0430		Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Salisbury Landscape Group	Jason Salisbury	jason@gosalisbury.com	+1 734-216-0950	None	Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Tri Valley Construction LLC	David Gilbert	trivalleyconstructionllc@gmail.com	+1 989-781-2900		Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Bay Landscaping, Inc.	Adam Wernecke	adamw@baylandscaping.net	+1 989-893-0000	None	Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Bell Landscaping	Ron Zolinski	ron@bellmichigan.com	+1 989-752-2641 ext. 103		Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Weiss Property Management	Jeff lang	jefflang@weisspm.com	+1 989-450-7022	None	Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Nichols Lawn Green	Brent Nichols	nichols.brent@yahoo.com	+1 989-280-7188		Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Dobis Landscaping	Gabe Dobis	info@dobislandscaping.com	+1 989-695-2515	Small Business Enterprise (SBE)	Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Ground Control Lawncare	Gilbert Lozano	glozanogc@gmail.com	+1 810-955-5872		Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Myers Landscape & Irrigation Service, Ir	Aaron Maltbie	myers_landscape@comcast.net	+1 810-659-3306	Small Business Enterprise (SBE)	Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Martha Brow Custom Builders LLC	Martha Brown	mmrsmjbrown@aol.com	+1 989-770-9915	Minority Business Enterprise (MBE), Disadvantaged Business Enterprise (DBE), Women Business Enterprise (WBE), Small Business Enterprise (SBE)	Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Marlo Company	Mark Boese	info@marlocompany.com	9897775098		Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Jonny Heinz Landscaping LLC	Cindy Heinz	cindyheinz@aol.com	+1 989-781-2264	Disadvantaged Business Enterprise (DBE)	Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Kokaly Lawn Sprinklers	Kirk Kokaly	kirk@kokalylawnsprinklers.com	+1 989-892-8337		Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Jacks Lawn Servicer	jack phillips	jphill1951@gmail.com	+1 989-751-4545	Other	Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	ODonnells Earthworks LLC	Stephen Munch	odonnellsearthworksbilling@yahoo.cor	+1 989-892-5333		Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Worley Landscaping	Kris Worley	krisworley@worleylandscaping.com	+1 989-239-3097	Small Business Enterprise (SBE)	Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Losey S Lawn And Landscape Inc	Brandon Losey	brandonlosey@hotmail.com	+1 517-204-5427	None	Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Reder Landscaping, inc.	Brian Weaver	bweaver@rederlandscaping.com	+1 989-835-8260		Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Pat S Gradall Service	Gordon Wentworth	patsgrgordon@gmail.com	+1 989-835-1022		Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Michigan Estimating	Isaac Bryant	plans@michiganestimating.com	+1 231-283-6996		Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Hard Rock Construction	Kraig Hovis	hrc.md1@gmail.com	+1 240-452-6181		Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Mid Thumb Materials, Inc	Michael Humphries	brineguy@gmail.com	+1 810-513-5862		Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Midland Fence Company	Ryan Hedrick	sales@midlandfencecompany.com	+1 1989832884 ext.	Small Business Enterprise (SBE)	Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Maple Hill Nursery	Chuck Servinski	maplehillm@aol.com	+1 989-835-4708	Small Business Enterprise (SBE)	Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Casillas customs	Alexander Casillas	casillascustoms@yahoo.com	+1 810-302-5325		Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	TCR Sealcoating	Nick Cummings	tcrinc.22@gmail.com	+1 810-347-0098		Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	DDL SOLUTIONS LLC	Dale Legrone	ddlsolutions3@gmail.com	+1 810-919-5235		Seeding/Mulching/Restoratior Invitation to Bid	National Minority Supplier Development Council | Minority Business Enterprise (MBE)
Apr 17, 2026 at 10:10 AM EDT	Sunburst Gardens, Inc.	Thomas Gross	sgardens@charter.net	+1 989-723-1632		Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Curbco	Curbco .	t.beardsley@curbco2121.com	+1 810-232-2121	Other	Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Twin City Landscaping	Mark Hahn	twincity@twinlawn.com	+1 989-681-4316		Seeding/Mulching/Restoratior Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Mid Michigan Turf Care Inc.	Ryan mmtcare2504@gmail.com	mmtcare2504@gmail.com	+1 989-723-7870	None	Seeding/Mulching/Restoratior Invitation to Bid	

Apr 17, 2026 at 10:10 AM EDT	C R Lawn Care	cody Rosenbum	crlawncare01@gmail.com	+1 810-625-7369	None	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Green Side Up	Keith Kolb	greensideupatma@yahoo.com	+1 989-463-3995		Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Green Side Up Landscape	James Leid	greensideupjim@yahoo.com	+1 989-463-3995	None	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	JB Erosion Control, Inc.		info@jberosioncontrol.com	+1 989-205-4444		Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Rock Bottom Stone Supply	Annette McKinney	annette@rbstonesupply.com	+1 586-255-5242		Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Atlas Outdoor	Thomas Elliott	tom@myatlasoutdoor.com	+1 810-877-8460	Other	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Crooked Tree Nursery	Nita Jones	nita@crookedtreenursery.com	+1 989-472-4408	Small Business Enterprise (SBE)	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Agroscaping, Inc.	joe kudwa	agroscaping@hotmail.com	+1 810-655-6654		Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Environment Site Consultants	Laura Marinack	esc_laura@comcast.net	+1 248-920-6065		Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Lowes Outdoor Service, Inc.	Michael Lowe	lowes.sprinklers@gmail.com	+1 810-691-9273		Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Big Johns Lawn Care Llc		bigjohnslawncarellc@gmail.com		Small Business Enterprise (SBE)	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Superior Lawn & Landscape, Inc.	Paul Phillips	pphillips@superiorlawnlandscape.com	+1 810-233-0233		Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Carson Site Prep LLC	Chad Carson	carsonsitepreplic@yahoo.com	+1 810-625-7535	Women Business Enterprise (WBE)	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	ENVIOUS LANDSCAPE & CONSTRUCTI	charlie leedle	enviouslandscape@gmail.com	+1 810-208-7822		Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Pacos Landscaping		pacolandscaping@gmail.com	+1 303-478-8132		Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	North Shade Lawn LLC	Dayne Haynes	northshadelawn23@gmail.com	+1 989-763-3899		Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Simtech Outdoor Solutions LLC	Bear Teachworth	bear@simtechoutdoor.com	+1 517-974-3447	Other	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	MotorCity HotShot Land Development	Cory Koernke	cory@michiganlandclearingservices.com			Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Trucordia MF	Jonathan Sheets	jonathan.sheets@trucordia.com	+1 517-237-4829		Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Horizon Landscape Inc	dave Lutomski	dave@horizonland.net	+1 810-217-6875		Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Upper Cut Tree Service And Land Clear	chris juarez	chris@uppercuttreeservice.net	+1 517-672-0459	None	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	MTH Landscaping Inc	Matt Horning	mthlandscaping@gmail.com	+1 810-404-7607	None	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Highlands Services LLC	Carl Pietila	carl.pietila@highlandservicesllc.com	+1 810-623-1088	None	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Artman's Nursery & Landscape Supply	Jenna Gill	jenna@artmanlandscape.com	+1 734-721-6610	None	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Land Visions	Brian Bertsch	brianbertsch@landvisions.net	+1 517-853-8725	Other	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	PEA Group	Brett Litogot	blitogot@peagroup.com	+1 810-599-7387	None	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Mr Winter Services, LLC	Jessie Markell	office@mrwintersnowservices.com	+1 517-694-3906	None	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Denno's Land Solutions	Timothy Denno	dennosland@gmail.com		Other, None	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	JL Land Services	John Lehman	jllandservices14@gmail.com	+1 586-273-6223 ext. 1		Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Midwest Landscape Group Inc.	Bruce Kilmer	bkilmer7406@comcast.net	+1 248-613-6584		Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Michigan Automatic Sprinkler	Matthew Haupricht	mhaupricht@miautosprinkler.com		None	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	FieldTurf, USA, Inc.	Michael Vincent	michael.vincent@fieldturf.com	+1 248-977-4388 ex	Other, None	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	AguaFina Gardens International	Carlos Medrano	carlos.medrano@aguafina.com		Small Business Enterprise (SBE)	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Troy Clogg Landscape Assoc. LLC	Dustin King	dustin.king@troyclogg.com	+1 248-207-6266	None	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Ewing	Kendall Chilek	kchilek@ewingirrigation.com	+1 210-268-8266	None	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	Fratello Concrete And Construction Inc	Mike Facciolla	mike@fratellocc.com	+1 248-989-0290		Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	NERC Inc	Mark Sholtis	nerc@plantingpros.com	+1 517-563-2898	Disadvantaged Business Enterprise (DBE)	Seeding/Mulching/Restoratior	Invitation to Bid	Michigan Unified Certification Program | Disadvantaged Business Enterprise (DBE)
Apr 17, 2026 at 10:10 AM EDT	J&C Land Management LLC	Joshua Jones	j.c.landmgmt@gmail.com	+1 989-239-7497		Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 17, 2026 at 10:10 AM EDT	advanced Outdoor Maintenance	Joe McFatridge	info@advlawn.com	+1 810-333-9543		Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 20, 2026 at 12:40 PM EDT	Sommerset Paving	Darren Duffiney	dduffiney@getpaving.com	+1 734-929-0641	Disadvantaged Business Enterprise (DBE)	cold milling	Invitation to Bid	
Apr 21, 2026 at 9:47 AM EDT	Merlo Construction Company, Inc.	Jack Krill	jkrill@merlomi.com	+1 248-714-5486	None	Concrete Paving	Invitation to Bid	
Apr 23, 2026 at 9:54 PM EDT	Sommerset Paving	Vincent Pernicano	vincent@getpaving.com	+1 734-330-3478	Disadvantaged Business Enterprise (DBE)	cold milling	Invitation to Bid	
Apr 24, 2026 at 10:19 AM EDT	Black Jack Asphalt	Austin Bitterman	blackjackasphalt@gmail.com	+1 989-297-8536	Small Business Enterprise (SBE)	Asphalt Paving	Invitation to Bid	
Apr 24, 2026 at 10:19 AM EDT	Black Armor Property Maintenance	Nicole Krug	blackarmorpm@gmail.com	+1 248-568-8936	Small Business Enterprise (SBE)	Asphalt Paving	Invitation to Bid	
Apr 24, 2026 at 10:19 AM EDT	Quality Asphalt Maintenance LLC	Shane Farlin	shane@quality-asphalt.com	+1 269-275-7823	Disabled Veteran Business Enterprise (DVBE)	Asphalt Paving	Invitation to Bid	
Apr 24, 2026 at 10:20 AM EDT	Eastern Asphalt	Tod Molesworth	tod@easternasphalt.com	+1 810-787-5500	Small Business Enterprise (SBE)	cold milling	Invitation to Bid	
Apr 24, 2026 at 10:20 AM EDT	Hutch Paving, Inc.	John Kruso	john@hutchpaving.com	+1 248-514-6295	Small Business Enterprise (SBE)	cold milling	Invitation to Bid	
Apr 24, 2026 at 10:20 AM EDT	R&R Asphalt	Dylan Taulbee	dylan@rrasphalt.com		Small Business Enterprise (SBE)	cold milling	Invitation to Bid	
Apr 24, 2026 at 10:20 AM EDT	Black Jack Asphalt	Austin Bitterman	blackjackasphalt@gmail.com	+1 989-297-8536	Small Business Enterprise (SBE)	cold milling	Invitation to Bid	
Apr 24, 2026 at 10:20 AM EDT	Site Development Inc	Brian Callaway	brian.callaway@sdevelop.com	+1 248-556-9213	None, Other, Small Business Enterprise (SBE)	cold milling	Invitation to Bid	
Apr 24, 2026 at 10:20 AM EDT	Allied Signs Inc.	Jim Fields	jim@alliedsignsinc.com	+1 586-791-7900	Small Business Enterprise (SBE)	cold milling	Invitation to Bid	
Apr 24, 2026 at 10:20 AM EDT	Quality Asphalt Maintenance LLC	Shane Farlin	shane@quality-asphalt.com	+1 269-275-7823	Disabled Veteran Business Enterprise (DVBE)	cold milling	Invitation to Bid	
Apr 24, 2026 at 10:21 AM EDT	Eastern Asphalt	Will Fontana	wfontana@easternasphalt.com	+1 810-787-5500	Small Business Enterprise (SBE)	Concrete Paving	Invitation to Bid	
Apr 24, 2026 at 10:21 AM EDT	Aristeo	Estimating Department	estimating@aristeo.com		Women Business Enterprise (WBE)	Concrete Paving	Invitation to Bid	Women's Business Enterprise National Council | Women-owned Business Enterprise (WBE)
Apr 24, 2026 at 10:21 AM EDT	Mc Vittie Construction	MICHAEL MCVITTIE	mcvittieconstruction@gmail.com	+1 989-859-3123	Small Business Enterprise (SBE)	Concrete Paving	Invitation to Bid	

Apr 24, 2026 at 10:21 AM EDT	True Line Commercial Construction	Chris Delusky	chrisd@buildtrueline.com	+1 248-801-9551	Small Business Enterprise (SBE)	Concrete Paving	Invitation to Bid	
Apr 24, 2026 at 10:21 AM EDT	Wallington Construction Company	Jim Wallington	wallingtoncc@aol.com	+1 810-614-0289	Small Business Enterprise (SBE)	Concrete Paving	Invitation to Bid	
Apr 24, 2026 at 10:21 AM EDT	Martha Brow Custom Builders LLC	Martha Brown	mmrsmjbrown@aol.com	+1 989-770-9915	Minority Business Enterprise (MBE), Disadvantaged Business Enterprise (DBE), Women Business Enterprise (WBE), Small Business Enterprise (SBE)	Concrete Paving	Invitation to Bid	
Apr 24, 2026 at 10:21 AM EDT	Black Jack Asphalt	Austin Bitterman	blackjackasphalt@gmail.com	+1 989-297-8536	Small Business Enterprise (SBE)	Concrete Paving	Invitation to Bid	
Apr 24, 2026 at 10:21 AM EDT	Mid State Builders	Dylan Niadna	dylann@midsb.com	+1 810-288-0586	Women Business Enterprise (WBE)	Concrete Paving	Invitation to Bid	
Apr 24, 2026 at 10:21 AM EDT	Markovich Custom Concrete LLC	Marco Emil Markovich	markovichservices@gmail.com	+1 810-288-0960	Small Business Enterprise (SBE)	Concrete Paving	Invitation to Bid	
Apr 24, 2026 at 10:21 AM EDT	PSS CONTRACTING LLC	Paul Schulz	psscontracting@yahoo.com	+1 810-614-3782	Small Business Enterprise (SBE)	Concrete Paving	Invitation to Bid	
Apr 24, 2026 at 10:21 AM EDT	J PEREZ CONSTRUCTION INC	aNNA DUNMIRE	jp@jperezconstruction.com	+1 810-233-8555	Small Business Enterprise (SBE)	Concrete Paving	Invitation to Bid	
Apr 24, 2026 at 10:21 AM EDT	LJ	Tom Blanton	tom.blanton@ljinc.biz		Women Business Enterprise (WBE)	Concrete Paving	Invitation to Bid	
Apr 24, 2026 at 10:22 AM EDT	met plus	Hasan Alkaya	metplusllc@gmail.com		Small Business Enterprise (SBE)	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 24, 2026 at 10:22 AM EDT	Advanced Green Roof	Jeremiah Johnson	jjohnson@agrgreen.com	+1 231-286-5905	Minority Business Enterprise (MBE)	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 24, 2026 at 10:22 AM EDT	C&J Bush Landscaping	Brandon Bush	brandonbush923@yahoo.com	+1 586-827-2031	Small Business Enterprise (SBE)	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 24, 2026 at 10:22 AM EDT	Wolf Creek Landscape Services, LLC	Tim Russell	wolfcreeklandscape@gmail.com	+1 616-837-6086	Small Business Enterprise (SBE)	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 24, 2026 at 10:22 AM EDT	Sinclair Recreation	Diane Sinclair	diane@sinclair-rec.com	+1 800-444-4954	Women Business Enterprise (WBE)	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 24, 2026 at 10:22 AM EDT	Americlean	Shannon Vizithum	americlean01@gmail.com	+1 616-298-9955	Women Business Enterprise (WBE)	Seeding/Mulching/Restoratior	Invitation to Bid	
Apr 24, 2026 at 10:22 AM EDT	MB Asphalt Maintenance	Mike Bunch	mbasphalt01@gmail.com	+1 810-625-7345	Small Business Enterprise (SBE)	Striping	Invitation to Bid	
Apr 24, 2026 at 10:22 AM EDT	Site Set Pro	Frank Erickson	eb@sitesetpro.com		Disabled Veteran Business Enterprise (DVBE), Small Business Enterprise (SBE)	Striping	Invitation to Bid	United States Small Business Administration | Service-Disabled Veteran Business Enterprise (SDVBE)
Apr 24, 2026 at 10:22 AM EDT	JACKLYN CONTRACTING LLC	Scott Jacklyn	jacklyncontracting@gmail.com	+1 586-634-9207	Small Business Enterprise (SBE)	Striping	Invitation to Bid	
Apr 24, 2026 at 10:23 AM EDT	Rally Point Partners, LLC	Juan Arreola	gabe.arreola@rallypp.com	+1 313-457-9790	Minority Business Enterprise (MBE), Small Business Enterprise (SBE), Disabled Veteran Business Enterprise (DVBE)	Striping	Invitation to Bid	United States Small Business Administration | Veteran Owned Small Business (VOSB)
Apr 24, 2026 at 10:23 AM EDT	Garrison Construction Group	cris cris	cris@garrison-cg.com		Disabled Veteran Business Enterprise (DVBE)	Striping	Invitation to Bid	
Apr 24, 2026 at 10:23 AM EDT	Quality Asphalt Maintenance LLC	Shane Farlin	shane@quality-asphalt.com	+1 269-275-7823	Disabled Veteran Business Enterprise (DVBE)	Striping	Invitation to Bid	
Apr 24, 2026 at 10:23 AM EDT	Site Development Inc	Estimating Department	bids@sdevelop.com	+1 248-583-1200	None, Other, Small Business Enterprise (SBE)	cold milling	Invitation to Bid	
Apr 24, 2026 at 10:23 AM EDT	Pro-Soil Site Services	Alexis Tews	alexistews@prosoil.us	+1 517-267-8767	Small Business Enterprise (SBE)	Tree Removal	Invitation to Bid	United States Small Business Administration | Small Business Enterprise (SBE);United States General Services Administration | Historically Underutilized Business Zones (HUBZone)
Apr 24, 2026 at 10:23 AM EDT	Pro-Soil Site Services	Jeff Kelly	jkelly@prosoil.us	+1 517-267-8767	Small Business Enterprise (SBE)	Tree Removal	Invitation to Bid	United States Small Business Administration | Small Business Enterprise (SBE);United States General Services Administration | Historically Underutilized Business Zones (HUBZone)
Apr 24, 2026 at 10:23 AM EDT	Weber Contracting	Ken Weber	kenweber92491@gmail.com	+1 989-482-4347	Small Business Enterprise (SBE)	Tree Removal	Invitation to Bid	
Apr 24, 2026 at 10:23 AM EDT	Wallington Construction Company	Jim Wallington	wallingtoncc@aol.com	+1 810-614-0289	Small Business Enterprise (SBE)	Tree Removal	Invitation to Bid	
Apr 24, 2026 at 10:23 AM EDT	AguaFina Gardens International	Carlos Medrano	carlos.medrano@aguafina.com		Small Business Enterprise (SBE)	Tree Removal	Invitation to Bid	
Apr 24, 2026 at 10:24 AM EDT	Superior Innovative Solutions LLC	Wendy Lewis	wendy.lewis@sisautomotive.com	+1 313-338-9600	Women Business Enterprise (WBE), Minority Business Enterprise (MBE), Small Business Enterprise (SBE), Other	Tree Removal	Invitation to Bid	National Minority Supplier Development Council | Minority Business Enterprise (MBE);National Women Business Owners Corporation | Women-owned Business Enterprise (WBE)
Apr 24, 2026 at 10:24 AM EDT	Quality Right Of Way Maintenance Inc	Melissa Miller	melissa@qrmincorp.com	+1 517-243-2446	Minority Business Enterprise (MBE), Women Business Enterprise (WBE)	Tree Removal	Invitation to Bid	
Apr 24, 2026 at 10:24 AM EDT	Hurst Contracting LLC	jake hurst	jake42hurst@gmail.com	+1 734-344-2529	Small Business Enterprise (SBE)	Tree Removal	Invitation to Bid	
Apr 24, 2026 at 10:24 AM EDT	Strength H2O	Scott Milbank	strengthh20@gmail.com	+1 313-903-1988	Small Business Enterprise (SBE)	Tree Removal	Invitation to Bid	Wayne County (Michigan) | Small Business Administration 8(a) Program

L. D'Agostini & Sons, Inc.

References

Genesee County Drain Commissioner
Division of Water and Waste Servies
Jeff Wright
G-4610 Beecher Road
Flint, MI 48532
(810) 732-7870

Karegnondi Water Authority
John O'Brien, PE
G-4610 Beecher Road
Flint, MI 48532-2617
(810) 701-6514
(810) 732-2409 Fax

AEW
Gordan Willson
51301 Schoenherr Road
Shelby Township, MI 48315
(586) 726-1234

Macomb County Drain
Stephen Downing
21777 Dunham Road
Clinton Township, MI 48036
(586) 469-6057

Guy Hurley LLC
989 E. South Blvd.
Rochester Hills, MI 48307
Paul Hurley
(248) 519-1400
(248) 519-1401 Fax

Flagstar Bank
5151 Corporate Drive
Troy, MI 48098
Ted Wahby, Jr.
(586) 580-9741
(800) 792-2190 e-Fax

Additional References available upon request

L. D'Agostini & Sons, Inc.

Current Projects

	Project Name & Location	Owner	Engineer	Contract Amount	Type of Work	Approx. Completion Date	Prime/Sub	% Completed	Key Personnel
24-03	MIDDD Drop Shaft Rehabilitation	Macomb Interceptor Drain Drainage District 21777 Dunham Road Clinton Twp, MI 48036 Contact: Steve Wagner, P.E. (586) 469-6134	FK Engineering 30425 Stephenson Highway Madison Heights, MI 48071 Contact: Zach Carr 248-817-2946	$ 3,936,875.00	The Project includes the following Work: • Bypass pumping of sewer flows to accomplish various rehabilitation • Installation of permanent underground bypass pipe and manholes at select locations • Cleaning of manhole structures and sewer segments at various metering locations in Macomb County, MI • Full structural rehabilitation of manhole structures and sewer segments at various metering locations in Macomb County, MI • New manhole flattops with aluminum or steel access hatches at select locations • Installation of Energy Dissipation Units in drop manholes at various metering locations in Macomb County, MI	Spring 2026	Prime	90%	PM: Aaron Carr PE: Anthony D'Agostini SD: Christina Moradian
24-04	Kearsley Creek Interceptor Phase 1D	Genesee County Drain Commissioner G-4610 Beecher Road Flint, MI 48532 Raysin Matt 7870 (810) 732-	Rowe Professional Services 540 South Saginaw Street, Suite 200 Flint, MI 48502 Contact: Kent Edwards 989-277-0659	$ 8,784,826.00	McClelland Road pump station, ancillary equipment and site improvements, and access drive off Dixie Highway. Construction of 5,500 feet of 8-inch, 10-inch, 18-inch and 24-inch sanitary sewer along the existing sanitary sewer route from the McClelland Road proposed pump station site north of McClelland Road northwesterly cross country and along August Lane to Slack Lake Drain, and along Slack Lake Drain easterly to the existing Woodfield pump station site. The sewer will be constructed by open cut, bore and jack and microtunnelling. Construction of 400 feet of 24-inch force main from the proposed McCelland Road pump station west to Dixie Highway. The force main will be constructed by open cut. Demolish existing Woodfield Pump Station.	Spring 2026	Prime	90%	PM: Aaron Carr PE: Anthony D'Agostini SD: Christina Moradian
24-05	Family Drive Water System Improvements	Village of Milford Atlantic Street 48381 Mike Karli	1100 Milford, MI Contact: 248-685-3055	OHM 34000 Plymouth Road Livonia, MI 48150 Contact: Matt Byrne (734) 522-6711	$2,956,925.50	Installation of submersible, vertical turbine pumps, with a new below grade concrete valve and meter vault to include piping, valves, magnetic flow meters and appurtenances; installation of power to the site; associated site improvements at the Family Drive well site; approximately 3,700 linear feet of 16-inch raw water transmission main; piping and valving modifications at the WTP	March 2026	Prime	95%	PM: Aaron Carr PE: Anthony D'Agostini SD: Christina Moradian

L. D'Agostini & Sons, Inc.

Current Projects

	Project Name & Location	Owner	Engineer	Contract Amount	Type of Work	Approx. Completion Date	Prime/Sub	% Completed	Key Personnel
24-08	DWS-970 Sewer Reconfiguation near Riverside Park - Detroit	Detroit Water & Sewerage Department 735 Randolph Street Detroit, MI 48226 313.267.8000	OHM 1145 Griswold, Suite200 Detroit, MI 48226 Contact Patrick Droze 313-481-1250	$ 6,274,863.50	The Project includes the following Work (all quantities approximate): - 3,200 feet of PVC (SDR-26) sanitary sewer ranging in size from 8-inch to 21-inch - 22 sanitary manhole structures - 3,300 feet of CIPP lining ranging from 10-inch to 36-inch - 20 Storm structures, including inlets, catch basins and manholes - 1775 feet of 12-inch storm sewer - 81,500 SF of pavement removal and replacement - 15 potential lead water service replacements	May 2026	Prime	50%	PM: Aaron Carr PE: Anthony D'Agostini SD: Christina Moradian
25-01	WRC Drain Board Walnut Lake No. 1 CAP Phase 1	Oakland County Water Resources Commissioner One Public Works Drive Building 95 West Waterford, MI 48328	Hubbell, Roth & Clark, Inc. 555 Hulet Drive Bloomfield Hills, MI 48303	$ 829,220.00	Improvement projects at three locations to improve the conveyance and capacity of the Evergreen-Farmington Sanitary Drain (EFSD) as part of the Walnut Lake #1 Pump Station Corrective Action Plan (C.A.P.) projects. This Project represents Phase one, which must be completed prior to the Phase 2 sewer reconstruction work. Phase #1 includes the following: 1) Construction of a temporary in-line flow sewer bypass conduit in the existing 54-inch diameter tunnel. This project requires Temporary Sewer Bypass pumping and flow control management with the Owner. 2) Relocating the existing GLWA OC-S-1 sewer meter to a new permanent location on Northland Park, so that Phase 2 work can commence under metered conditions. 3) Reconstructing manhole SOT060004 to commence raising the height of the sewer level sensor. 4) Performing structural and concrete work inside of the Melrose Weir Chamber to lower the weir height, based on engineered and modeled conditions. 5) Structural and site concrete work, grading, and restoration work.	Fall 2026	Prime	5%	PM: Aaron Carr PE: Anthony D'Agostini SD: Christina Moradian
25-03	District #3 WRRF Biosolids Handling Improvements, Phase 1	Genesee County Drain Commissioner G-4610 Beecher Road Flint, MI 48532 Matt Raysin (810) 732- 7870	Genesee County Drain Commissioner G-4610 Beecher Road Flint, MI 48532 Matt Raysin (810) 732-7870	$ 491,800.00	Construction of a new concrete Dissolved Air Flotation Thickening (DAFT) Waste Activated Sludge (WAS) Control Structure including magnetic flow meters, control valves, piping, electrical, controls and appurtenances. Piping modifications in the Sludge Thickening Building. Sitework including concrete curbs and gutter, HMA patching, spare electrical conduit, and site piping.	Spring 2026	Prime	90%	PM: Aaron Carr PE: Anthony D'Agostini SD: Christina Moradian

L. D'Agostini & Sons, Inc.

Current Projects

	Project Name & Location	Owner	Engineer	Contract Amount	Type of Work	Approx. Completion Date	Prime/Sub	% Completed	Key Personnel
25-04	PC-822 Brightmoor Green Infrastructure (Detroit)	Detroit Water & Sewerage Department 735 Randolph Street Detroit, MI 48226 313.267.8000	OHM 1145 Griswold, Suite200 Detroit, MI 48226 Contact Patrick Droze 313-481-1250	$ 2,187,644.00	The Project includes the following Work (all quantities approximate): - 319 square yards of HMA road pavement removal, 678 square yards of additional pavement removal (HMA over concrete base removal and concrete pavement), 144 square yards of sidewalk removal, 3.37 acres of clearing, 18 stormwater structures to be removed, 238 lineal feet of less than 24-inch storm sewer pipe to be removed; - 43.7 Tons of 36A HMA replacement, 72.9 Tons of 13A HMA replacement, 490 square yards of concrete road pavement and base replacement, 10 square yards of driveway concrete, 132 square yards of sidewalk, and 80 lineal feet of concrete curb installation; - Seven bioretention basins ranging in depth from 4 to 7 feet, for a total of 10,286 cubic yards of soil removal, 1,106 cubic yards of bioretention soil installed, 11,465 plantings, and 2.34 acres of lawn restoration; - 190 lineal feet of cross road drainage channel construction, 8 catch basins, 11 end sections with rip-rap and bar screens, 7 overflow structures, 837 lineal feet of 12-inch RCP storm sewer, 1,257 lineal feet of 6-inch PVC underdrain, 3 sanitary manholes to be built on existing rear yard combined sewer and one tap into an existing sanitary structure. The Bidder hereby agrees to perform all work assigned by the Engineer no matter where located. at the Unit Prices established	Winter 2027	Prime	5%	PM: Aaron Carr PE: Anthony D'Agostini SD: Christina Moradian
25-05	Biddestone Pump Station Replacement - WRC	Oakland County Water Resources Commissioner One Public Works Drive Building 95 West Waterford, MI 48328	DLZ 4494 Elizabeth Lake Road Waterford, MI 48328	$ 1,847,059.00	Pump Station Replacement	Summer 2026	Prime	5%	PM: Aaron Carr PE: Anthony D'Agostini SD: Christina Moradian

L. D'Agostini & Sons, Inc.
Current Projects

	Project Name & Location	Owner	Engineer	Contract Amount	Type of Work	Approx. Completion Date	Prime/Sub	% Completed	Key Personnel
25-06	Clinton River Streambank Stabilization Project	City of Rochedster Hills 1000 Rochester Hills Drive Rochester Hills, MI 48309	Hubbell, Roth & Clark, Inc. 555 Hulet Drive Bloomfield Hills, MI 48303	$ 7,564,000.00	This project involves streambank stabilization at two separate locations within the City of Rochester Hills, as described below. Part A. Innovation Hills Park Innovation Hills Park, located north of Hamlin Road between Crooks and Adams Roads. The eroded streambank is located on the east side of Turtle Trail, near the start of the Riverside Boardwalk. To stabilize the streambank, two (2) J-hook structures shall be installed within the stream, along with approximately 160 Linear feet of toe wood along the eroded streambank. An estimated eight (8) trees on the west bank are to be removed, ranging in size from 6 inches to 36 inches. The site restoration shall include planting 350 square yards of native seed mix along the stream side slope, and 500 square yards of lawn seed mix for the upland areas. Erosion control measures, including silt fence, turbidity curtains, sediment traps, and gravel access approaches shall be installed as shown in the plans. Part B. Eagles Landing The Eagles Landing site, located southwest of the intersection of Avon Road and Livernois Road. The eroded streambank is on the south bank of the stream. At this site, stream realignment will be performed by shifting the existing eroded outer bank toward the inner bank. This will be achieved by filling the outer bank up to the bankfull stage and grading the streambank at a 3:1 (H: V) slope. Earthwork will include approximately 4,000 cubic yards of fill and 2,200 cubic yards of cut. To stabilize the streambank, two (2) J-hook structures shall be installed within the stream, along with approximately 250 Linear feet of toe wood along the eroded streambank. An estimated four (4) trees on the north bank are to be removed, ranging in size from 6 inches to 36 inches. The site restoration shall include planting 2,500 square yards of native seed	Summer 2026	Prime	90%	PM: Aaron Carr PE: Anthony D'Agostini SD: Christina Moradian
25-07	Generator Ballistic Protection - GCDC	Genesee County Drain Commissioner G-4610 Beecher Road Flint, MI 48532 Matt Raysin (810) 732-7870	Genesee County Drain Commissioner G-4610 Beecher Road Flint, MI 48532 Matt Raysin (810) 732-7870	$ 116,176.62	Generator Ballistic Protection	Spring 2026	Prime	0%	PM: Aaron Carr PE: Anthony D'Agostini SD: Christina Moradian
25-08	East Hampton Storm Pump Station Rehabilitaton - Sterling Hgts	City of Sterling Heights 40555 Utica Road Sterling Heights, MI 48313 Contact: Erik Skurda 586-446-2741	AEW, Inc. 51301 Schoenherr Road Shelby Township, MI 48315 Contact: Paul Guinnane, PE 586-726-1234	$ 263,083.00	Renovate pump station wet well, modify electrical service and controls	December 2026	Prime	0%	PM: Aaron Carr PE: Anthony D'Agostini SD: Christina Moradian

L. D'Agostini & Sons, Inc.

Past Projects

(Additional History Upon Request)

Project Name & Location	Owner	Engineer	Contract Amount	Type of Work	Approx. Completion Date	Prime/Sub
Pleasant Avenue Pump Station	Drainage Board for LSCCWID 21777 Dunham Road Clinton Twp., MI 48036 Contact: Bryan Babcock (586) 445-5363	Anderson Eckstein and Westrick, Inc. 51301 Schoenherr Shelby Twp., MI 48315 Contact: Lyle Wynn (586) 726-1234	$ 757,310.00	Install Bypass pumping on an active sewer system. Demolish Sanitary Pump station whil emaintaining flow. Install new pump station, Wet well, Valve Vault and associated Mechanical and electrical.	2014	Prime
Lake Huron Water Supply Initiative	GCDC Division of Surface Water Management G-4608 Beecher Road Flint, MI 48532 Contact: Don Camp (810) 732-1590	Rowe Professional Services Company 540 S. Saginaw Street, Suite 200 Flint, MI 48502-1848 Contact: James Redding (810) 341-7500	$ 24,622,896.00	The installation of roughly 2,100 LF of 60" raw transmission main from the Lake Huron Pump Station into Lake Huron via microtunneling.	July 2016	Prime
Perry Street Sanitary Sewer	Water Resources Commissioner's One Republic Works Drive, Building 95 West Waterford, MI 48328-1907 Contact: Sid Lockhart, P.E. (248) 585-1082	Tetra Tech 710 Avis Drive, Ann Arbor, MI 48108 Contact: James Request (313) 670-4979	$ 3,882,417.00	All material, labor, and equipment to install HDPE Pipe via cut.	2015	Prime
KWA Water Supply Sys. #S-4001, Lake Huron Pump Station	GCDC Division of Surface Water Management G-4608 Beecher Road Flint, MI 48532 Contact: Don Camp (810) 732-1590	Rowe Professional Services Company 540 S. Saginaw Street, Suite 200 Flint, MI 48502-1848 Contact: James Redding (810) 341-7500	$ 11,058,636.00	All material, labor, and equipment to install a 60 MGD Firm Capacity Pump Station including four vertical turbine pumps, appurtenances, enclosure building, and a reinforced concrete wetwell structure ***with screening sytstem.*** The work includes site improvements, a meter vault, and approximately 820 LF of 66" steel pipe transmission main that will connect to Contract S-4002	May 2017	Prime
KWA Water Transmission Main 60" - S-4005	GCDC Division of Surface Water Management G-4608 Beecher Road Flint, MI 48532 Contact: Don Camp (810) 732-1590	Wade Trim 500 Griswold Avenue, Suite 2120 Detroit, MI 48226 Contact: Howie DuPrie (313) 961-3650	$ 16,234,432.00	All materials, labor, and equipment to install a 60" diameter raw water transmission main, including approximately 11.8 miles of 60" welded steel raw water transmission main, extending from the Intermediate Pump Station to Jefferson Road. This shall include installing standard hydrants, gate valves with blow off hydrants, air release valves, and corrosion test stations. Work shall also include, but is not limited to, gravel road removal and replacement; bituminous road removal and replacement; driveway removal and replacement, including driveway culverts; removal and replacement of designated cross culverts, including the installation of box culverts; maintenance of traffic/detour route; final restoration; and, clean-up. The Work also included the installation of approximately 1,300 feet of 60" diameter steel water transmission main on piles and saddles due to peat bog conditions in two separate locations. Contractor had to construct a sheet and waler TERS system in order to support the excavation at Cedar Creek.	June 2016	Prime
KWA Water Transmission Main 66" - S-4002	GCDC Division of Surface Water Management G-4608 Beecher Road Flint, MI 48532 Contact: Don Camp (810) 732-1590	Fleis & Vandenbrink Engineering, Inc. 9475 Holly Road, Suite 201, Grand Blanc, MI 48439 Contact: John Barber (810) 743-9120	$ 13,361,310.00	raw water transmission main, including approximately 11.8 miles of 66" welded steel raw water transmission main, extending along Fisher Road from the Lake Huron Pump Station to Bricker Road. This shall include installing standard hydrants, gate valves with blow off hydrants, air release valves, and corrosion test stations. Work shall also include, but is not limited to, open cutting the Black River for transmission line installation; bore and jack construction underneath 3 county roads; gravel road removal and replacement; asphalt road removal and replacement; driveway removal and replacement, including driveway culverts; removal and replacement of designated cross culverts, including the installation of box culverts; maintenance of traffic/detour route; final restoration; and, clean-up.	June 2016	Prime
Dearborn CSO Sewer Separation Phase 1A	City of Dearborn Dept. Public Works 16901 Michigan Avenue, Suite 19, Dearborn, MI 48126 Contact: M. Yunus Patel, City Eng. (313) 943-2145	CDM Michigan Inc. 645 Griswold Street, Detroit, MI 48226	$ 14,033,475.00	Project consisted of furnishing all labor, equipment, and material necessary to perform installation of new 12" to 108" diameter storm sewer conveyance pipes; installation of new 6" to 12" water main, valves, hydrants, appurtenances and service connections; installation of new 8" to 24" sanitary sewer main; abandonment of existing 54" and 36" diameter storm sewer siphons; pipe jacking beneath Ford Road and underneath Greenfield Road; demolition and abandonment of the existing Palmer Street pumping station including force main and 48" diameter RC interceptor in Palmer Avenue between the pumping station and Hubbard Drive; abandonment of the Palmer Avenue pumping station overflow structure; cleaning and CCTV inspection of new and existing sewers; restoration of Dearborn Ice Skating Center parking lot and access roadway; and roadway reconstruction including new roadways, sidewalks, and ADA compliant wheelchair ramps and driveway aprons.	2018	Prime
GCDC-WWS Finished Water Transmission 48" - S-5005	GCDC Division of Surface Water Management G-4608 Beecher Road Flint, MI 48532 Contact: Don Camp (810) 732-1590	Rowe Professional Services Company 540 S. Saginaw Street, Suite 200, Flint, MI 48502-1848 Contact: James Redding (810) 341-7500	$ 10,764,798.00	All materials, labor, and equipment to install a 48" diameter finished water transmission main, including approximately 6.0 miles of 48" welded steel finished water transmission main, extending from the Henderson Road Storage Facility to a location along south of the German and Stanley Road intersection. This shall include installing standard hydrants, gate valves, air release valves, manway access ports, and corrosion test stations. Work also included, but was not limited to, connection to existing mains; jack & bore of 60" casing pipe; site clearing and grubbing; dewatering; gravel road removal and replacement; HMA road removal and replacement; driveway removal and replacement, including driveway culverts; removal and replacement of designated cross culverts; wetland restoration; final restoration; and, clean-up.	2018	Prime

L. D'Agostini & Sons, Inc.

Past Projects

(Additional History Upon Request)

Project Name & Location	Owner	Engineer	Contract Amount	Type of Work	Approx. Completion Date	Prime/Sub
DWSD WS-703 Water Systems Improvements	Detroit Water & Sewerage Department 734 Randolph Street, Detroit, MI 48226 Contact: Mohamed Jaber, PE (313) 267-8354	Consulting Engineering Associates, Inc. 16580 Wyoming, Detroit, MI 48221 Contact: Bharat Doshi, PE	$ 9,300,000.00	The work consists of the replacement of existing 8", 12", and 16" water main, with approximately 29,100 LF of 8", 4,790 LF of 12", and 5,054 LF of 16" ductile iron water main with an 8-mil polyethylene wrap. The work also includes connecting the existing services and fire hydrants, replacing or installing the gate valves and gate boxes, constructing/furnishing and installing the new gate wells, repairing the existing gate wells, replacing fire hydrants and all the appurtenances, conducting hydrostatic test, chlorinating and flushing new water mains, repairing the stop boxes, road boxes, and gate boxes, replacing existing lead services, flushing existing services, and any other related work.	April 2019	Prime
M-53 & 33 Mile Road Connector	Macomb County Dept. of Roads 117 S. Groesbeck Highway, Mt. Clemens, MI 48043 Contact: Jeffrey J. Yakel, P.E. (586) 463-8671	Macomb County Dept. of Roads 117 S. Groesbeck Highway, Mt. Clemens, MI 48043 Contact: Jeffrey J. Yakel, P.E. (586) 463-8671	$ 2,052,960.00	Right turn lane construction along northbound M-53 Freeway, median turn around construction, new roadway (McKay Road) construction, roundabout construction (33 Mile Road & McKay Road intersection), widening of Structure B01 of 50015 which carries northbound M-53 Freeway over the East Pond Creek and final clean-up/restoration.	November 2018	Prime
Livernois Road / Gibson Drain	Oakland County Road Commission 31001 Lahser Road, Beverly Hills, MI 48025 Contact: Wayne Dabrowski (248) 294-9809	Oakland County Road Commission 31001 Lahser Road, Beverly Hills, MI 48025 Contact: Wayne Dabrowski (248) 294-9809	$ 567,467.00	The project consists of the removal of an existing 12' by 5' concrete box culvert with two 60" corrugated metal pipe extensions, and the installation of a 8' by 6' precast concrete box culvert, guardrail installation, other associated drainage improvements, and other associated HMA road work in Troy, Michigan.	October 2018	Prime
Farmington Hills 13 Mile Road / Drake to Farmington Rd	MDOT 425 W. Ottowa Street, Lansing, MI 48909	OHM 34000 Plymouth Road, Livonia, MI 48150 Contact: Kirk Cox (734) 522-6711	$ 3,154,509.00	1.00 mi of hot mix asphalt cold milling, resurfacing and widening for center left-turn lane, concrete curb, gutter, sidewalk and ramps, earth excavation, aggregate base, storm and sanitary sewer, drainage, box culvert and pedestrian signals on 13 Mile Road from Drake Road to Farmington Road in the city of Farmineton Hills. Oakland County.	October 2019	Prime
Storm Sewer Separation, Contract C5, Phase 2A	City of Dearborn 16901 Michigan Avenue, Dearborn, MI 48126 Contact: M. Yunis Patel (313) 943-2388	City of Dearborn 16901 Michigan Avenue, Dearborn, MI 48126 Contact: M. Yunis Patel (313) 943-2388	$ 3,540,499.00	7,500 l.f. 8" to 42" dia. Sanitary and Storm Sewer, 61 each Sanitary and Storm Manholes, Catch Basin and Inlets, 4,197 l.f. 6" to 8" dia. Water Main, 14 each 8" Gate Valve and Road Box/Gate Well, 11 each 6" dia. Fire Hydrant Assembly, 127 each Water Main Services, 16,120 s.y. Pavement, Removed and Replaced, 33,350 s.f. Sidewalk and Driveway, Removed and Replaced, 16,120 s.y. 6" Aggregate Base under pavement, 8,700 l.f. Subgrade Underdrain, 4,675 s.y. Topsoil and Sod 7,909 l.f. Video Inspection of Sewers. 535 l.f. Pavement Marking	October 2018	Prime
South Blvd & Beach Rd Meter Vault Rehab and PRV Facility Project	City of Troy, Purchasing Department 500 W. Big Beaver, Troy, MI Engineer:Hubbell, Roth & Clark	Hubbell, Roth & Clark 555 Hulet Drive, Bloomfield Hills, MI 48303 Contact: Brad Shepler, bshepler@hrc-engr.com	$ 912,502.00	***Renovate valve vault while maintainna critical water supply to community,*** contruction new PRV station and live Tap 16" watermian, LDS self perfiormed all the civil and mechaincal work and managed trades for the Veritcal portion of the project.	May 2020	Prime
23 Mile Rd. Watermain Replacement	Macomb Township 5411 Broughton Road, Macomb Township, MI 48042 Contact: Gerald Wangelin	Fishbeck, Thompson, Carr & Huber 46600 Romeo Plank Road, Suite 3, Macomb, MI 48042 Contact: Kevin R. Ostrowski, P.E.	$ 744,513.63	The project consists of installing approximately 2,100 lineal feet of 16-inch water main connecting to the existing 16-inch water main on the north side of 23 Mile Road, approximately 225 feet east of Commons Drive and approximately 50 feet east of McBride Drain. The project also includes approximately 55 lineal feet of 24-inch water main at the Card Road and 23 Mile Road intersection, in accordance with the Bidding Documents prepared by the Engineer.	October 2020	Prime

L. D'Agostini & Sons, Inc.

Past Projects

(Additional History Upon Request)

Project Name & Location	Owner	Engineer	Contract Amount	Type of Work	Approx. Completion Date	Prime/Sub
NE Sanitary Trunkline Phase 2A	Washington Township 57900 Van Dyke Avenue, Washington Township, MI 48094 Contact: Richard Amormino, Director of DPW (586) 677-4213	Giffels Webster 6303 26 Mile Road, Suite 100, Washington Twp., MI 48094 Contact: Brent Kraft, P.E. (586) 781-8950	$ 777,779.57	7,500 LF 8" to 42" dia. Sanitary and Stonn Sewer, 61 each Sanitary and Storm Manholes, Catch Basin and Inlets, 6" to 8" dia. Water Main, 4,197 LF 8" Gate Valve and Road Box/Gate Well, 6" dia. Fire Hydrant Assembly, 127 each Water Main Services, 16,120s.y.Pavement, Removed and Replaced, 33,350s.f.Sidewalk and Driveway, Removed and Replaced, 16,120s.y.6" Aggregate Base under pavement, 8,700l.f.Subgrade Underdrain, 4,675s.y.Topsoil and Sod, 7,9091.f.Video Inspection of Sewers., 535l.f.Pavement Marking	September 2021	Prime
NE Sanitary Trunkline Phase 2B	Washington Township 57900 Van Dyke Avenue, Washington Township, MI 48094 Contact: Richard Amormino, Director of DPW (586) 677-4213	Giffels Webster 6303 26 Mile Road, Suite 100, Washington Twp., MI 48094 Contact: Brent Kraft, P.E. (586) 781-8950	$ 4,728,428.60	Installation of approximately 2,000 LF of 15" PVC, 3,200 LF of 12" PVC, 1,300 LF of 10" PVC, 800 LF of 5" HDPE sanitary sewer, adjacent manhole structures, and sanitary leads from east of M53 west towards Van Dyke and north towards 31 Mile Road. Consists mostly of open cut with jack & bore for drain/roadway/utility crossings in multiple areas, along with driveway and structure replacement in open cut areas. The project also consists of a pump station and relevant force main crossing the Healy Drain.	March 2021	Prime
Dearborn Storm Sewer Contract C5, Phase 2C	City of Dearborn Department of Public Works 16901 Michigan Avenue, Suite 19, Dearborn, MI 48126 Contact: M. Yunus Patel, City Eng. (313) 943-2145	City of Dearborn Department of Public Works 16901 Michigan Avenue, Suite 19, Dearborn, MI 48126 Contact: M. Yunus Patel, City Eng. (313) 943-2145	$ 6,648,299.00	The work shall consist of excavation, disposal, grading, compacted backfill, trench bracing, concrete paving, reinforcing steel, miscellaneous iron, cold milling of asphalt surface, asphalt resurfacing, removal and/or replacement of bituminous & concrete pavement, sidewalks, sidewalk ramps, curbs, aprons, conduit, under drains, sanitary sewer, storm sewer and water main construction, testing and disinfection of water main, television inspection of sewers, installation of drainage structures, gate valve structures, and restoration.	August 2024	Prime
Flint Secondary Watermain	City of Flint 1101 S. Saginaw Street, Flint, MI 48502 Contact: Mike Brown	Wade Trim 555 S. Saginaw St., Suite 201, Flint, MI 48502 Contact: Jason Kenyon, P.E. (810) 235-2555	$14,725,899.33	Work shall include the construction of the Secondary Water Supply which will be approximately 30,000 lineal feet of 36-inch transmission main originating from the City of Flint's Water Treatment Facility (WTP) and connecting to the Genesee County Drain Commissioner's (GCDC's) North Water Loop near the intersection of Frances Road and Dort Highway, including all specified appurtenances. At either end of the transmission main Work will include the construction of a master meter vault, including meters, valves, instrumentation and SCADA for monitoring by the City, Genesee County Drain Commissioner, and the Great Lakes Water Authority. In addition to the Secondary Water Supply, other modifications will also be completed in a number of areas at the City's WTP, including work at Control Station #2 which will include removing and replacing sections of 36-inch and 60-inch PCC pipe, as well as meters and control valves; SCADA modifications to Control Station #3; the removal and replacement of a 24-inch double-acting altitude valve at the Tank House, including electrical and SCADA modifications; and meter replacement at the Pressure Reducing Pit, including electrical and SCADA modifications.	December 2022	Prime
Water Treatment Plant Phase 1 Improvements (South Lyon)	City of South Lyon 335 S. Warren St. South Lyon, MI 48178 Contact: Douglas Varney (517) 552 9199	Hubbel, Roth & Clark Buhl Building 535 Griswald, Suite 1650 Detroit, MI 48226 Contact: Noah H. Bednar (313) 463-5050	$ 3,455,894.18	Self performed earthwork and mechanical to a install 12" pipeline, live tap into the primary water supply for the city while maintainng flow. Construct a ***600,000 Gal storage tank, and renovate the existing station and tank in a phase sequence with no shut down***	May 2023	Prime
DWSD- PC-806, Charles Wright Academy (Detroit)	Detroit Water & Sewerage Department 734 Randolph St. Detroit, MI 48226 Contact: Barry Brown II (PSMG) (313) 267-8354	OHM 34000 Plymouth Rd. Livonia, MI 48150 Contact: Jon Daggy, P.E. (734) 522-6711	$ 1,918,303.00	Stormwater, Sanitary sewer, construction of bioretention basins, underdrains, landscape and misc. work.	Fall 2023	Prime
Martin Flushing Improvements	Martin Sanitary Drainage District 21777 Dunham Road, Clinton Township, MI 48036 Contact: Steve Wagner, P.E. (586) 469-6134	Anderson, Eckstein & Westrick, Inc. 51301 Schoenherr Road, Shelby Township, MI 48315 Contact: Paul Guinnane, P.E. (586) 855-9576	$ 610,049.64	The Project includes the following Work: • Installation of two 42"x42" hydraulically-operated, stainless steel sluice gates within an existing Retention Treatment Basin (RTB). • Construction of a 30" high concrete broad-crested weir within the RTB influent channel • Modification of the existing concrete roof slab, floor slab, and masonry interior walls to facilitate installation of improvements • Coordination with Lump Sum Allowance contractor as outlined in the bid documents regarding electrical and hydraulic service to new sluice gates	September 2022	Prime
21-03_INK - Avondale Road Reconstruction Phase 1 (Inkster)	City of Inkster 26215 Trowbridge, Inkster, MI 48141 Contact: Jerome Bivins 313-563-4236	Benesch 615 Griswold Street, Suite 600 Detroit, MI 48226 Contact: Susan Roterman, PE (313) 963-0612	$ 6,268,638.28	WM, Sanitary, Storm Sewers, Curb/Gutter, Concrete, ADA Ramps	May 2023	Prime

L. D'Agostini & Sons, Inc.

Past Projects

(Additional History Upon Request)

Project Name & Location	Owner	Engineer	Contract Amount	Type of Work	Approx. Completion Date	Prime/Sub
21-04_INK - Reconstruction of Northwood, Center, and Eastwood between Avondale and Inkster Road and Select Alleys (Inkster)	City of Inkster 26215 Trowbridge Inkster, MI 48141 313-563-4236	Benesch 615 Griswold Street, Suite 600 Detroit, MI 48226 Contact: Susan Roterman, PE (313) 963-0612	$ 3,792,164.50	WM, Sanitary, Storm Sewers, Curb/Gutter, Concrete, ADA Ramps	Summer 2024	Prime
West Oaks Sewer Replacement and Pump Station Abandonment	City of Novi Department of Public Services Engineering Division 2633 Lee BeGole Drive Novi, MI 48375	OHM 2365 Pontiac Road, Suite 201 Auburn Hills, MI 48326	$ 826,735.00	This project consists of sewer replacement and pump station abandonment with associated restoration work.	May 2023	Prime
Chapaton Basin Expansion Joint Repairs Proposal	Martin Sanitary Drainage District 21777 Dunham Road, Clinton Township, MI 48036 Contact: Steve Wagner, P.E. (586) 469-6134	NTH Consultants Contact: John Kosnak JKosnak@nthconsultants.com	$ 258,050.00	•Support existing pipe per attached detail provided by NTH •Remove existing steel column support for access to expansion joints •Repair west expansion joints at Column 21 N, 11 N/S, 16 N, 21 S, repair middle section expansion joints at 26 N, 31 N/S, 26 S, 41 S, and repair east end expansion joints at 46 N, 51 N, 46 S, 51 S, and 56 S. Columns 21 N (west end) and 21 S (west end) will be repaired using Detail 2 and the remaining columns will be repaired using Details 1 and 10 •Reinstall existing column beam with new anchor and bottom plates as follows: oExtend ½" thick steel wall anchor plates 18" each side of column and fasten to wall using anchors and ¾" bolts oExtend ¼" thick steel bottom anchor plates 8" from column and fasten to floor using anchors and ¾" bolts	September 2022	Prime
22-01_INK – Avondale Road Reconstruction Phase 2	City of Inkster 26215 Trowbridge, Inkster, MI 48141 Contact: Jerome Bivins 313-563-4236	Benesch 615 Griswold Street, Suite 600 Detroit, MI 48226 Contact: Susan Roterman, PE (313) 963-0612	$ 1,889,896.80	WM, Sanitary, Storm Sewers, Curb/Gutter, Concrete, ADA Ramps	May 2023	Prime
MIDDD Odor & Corrosion Improvements Project	Macomb Interceptor Drain Drainage District 21777 Dunham Road Clinton Twp, MI 48036 Contact: Steve Wagner, P.E. (586) 469-6134	Tetra Tech of Michigan, PC Contact: Brian Rubel Brian.Rubel@tetratech.com	$ 11,799,678.78	Project involved the construction Work at five different sites and summarized as; At the NGI Pump Station, ***installation of a chemical feed system,*** utility building and associated mechanical, electrical and sitework; At the NGI Forcemain Discharge location, installation of sensors at the discharge MH; At the Macomb Township Biofilter location, construction of a new biofilter, utility building and associated mechanical, electrical and sitework; ***At the Clintondale Pump Station location, installation of an odor control system along with associated site work*** ; At the ***Fraser Biofilter location, removal of the existing biofilter and construction of a new biofilter along with associated sitework*** ; At all locations include the necessary utility, controls and instrumentation Work on the primary sanitary pipe line for Macomb county.	2024	Prime
Fenton-Thompson Road Watermain Extension	Genesee County Drain Commissioner G-4610 Beecher Road Flint, MI 48532 Matt Raysin (810) 732-7870	Wade Trim 555 S. Saginaw St., Suite 201 Flint, MI 48502	$ 4,795,002.53	Approximately 25,035 LF of 16-inch transmission main, 260 LF OF 12-inch watermain, 1,975 LF of8-inch watermain, as well as related valve, hydrants, and other appurtenances along Fenton Road and Thompson Road in Genesee County, MI.	July 2023	Prime
GCDC- Anthony Ragonone Treatment Plant Digestion Facility	Genesee County Drain Commissioner G-4610 Beecher Road Flint, MI 48532 Matt Raysin (810) 732-7870	AECOM 3287 Beecher Road Flint, MI 48532	G- $ 2,600,000.00	Erosion control, aggregatem, site clearing, rough grading, excavation, fill, backfill, trenching, ptoable water piping, thrust restriants, buried valves, dudctile iron pipe sewage lines, sewerage collection line, manholes, frames, and cover. Site pipe lo within 5' or structures. 50,000 SF of 12"thick 1x3" slone over geogrid for temp drives and lay down. Strip & respread topsoil. Stone bed for structures. Agg base for parking lot., Backfill structures with CL2 Sand. Use site material to within 2' of proposed structures. Exe. & back for electrical ductbank & structures.layout from slaking/ control provide by GCC. Dust control, street sweeping, clean-up for this scope only.	Summer 2025	Sub
Harvard Road Pump Station Replacement	City of Southfield 26000 Everreen Road Southfield, MI 48076 Contact: Leigh Shultz 248-796-4580	Hubbel, Roth & Clark 555 Hulet Drive Bloomfield Hills, MI 48303 Contact: Nicole Fortino (248) 454-6300	$ 1,727,500.00	Harvard Pump Station Construction, Complete Decommission Ex. Harvard Pump Station Equipment, Braced Excavation & Relocation of Utilities, Sanitary Manhole, 48 Inch Dia., Installed Over Ex. Sanitary Sewer, Pump Station Electrical Work, Complete Backup Generator, 16" Valve and Actuator Replacement & Level Sensor, Control Panel, Equipment, PLC, Programming & SCADA Integration by ICS 1 ALL Water Main, Rem 50 LFT, Hydrant Lead, DI Cl 54, 6 Inch, Class III Bedding, Sand Backfill 50 LFT Sidewalk, 4 Inch, Rem & Replace 50 SYD Soil Erosion and Sedimentation Control, Traffic Control, Mobilization, Site Cleanup and Restoration, Color Audio-Video Route Survey	December 2024	Prime
Emergency Relief Sewer System	City of Grosse Pointe Park 15115 E. Jefferson Grosse Pointe Park, MI 48230	OHM 1145 Griswold Street, Suite 200 Detroit, MI 48126 Contact: Doug Busko (313) 481-1250	$ 2,772,108.40	800 Feet of 60-inch RCP sanitary sewer, with a 60" motor driven sluice gate system contained within a pre-cast concrete vaults, an in-line check valve, manholes, asphalt paving and restoration.	Winter 2023	Prime
Southern Lakes Water Initiative, Phase 2 Watermain Extension	Genesee County Drain Commissioner G-4610 Beecher Road Flint, MI 48532 Matt Raysin (810) 732-7870	Rowe Professional Services 540 South Saginaw Street, Suite 200 Flint, MI 48502	$ 5,155,310.00	Installation of 16-inch water main along Jennings Road, 12-inch water main along Lahring Road and 12-inch water main along Torrey Road including open cut installation, bore and jack installation, horizontal directional drilling installation, hydrant assemblies, valves, clearing, HMA pavement repair, driveway replacements, culvert replacements and restoration.	Fall 2024	Prime

L. D'Agostini & Sons, Inc.

Past Projects

(Additional History Upon Request)

Project Name & Location	Owner	Engineer	Contract Amount	Type of Work	Approx. Completion Date	Prime/Sub
30 Mile Road Water Booster Pump Station	Charter Township of Washington 57900 Van Dyke Avenue Wahington Twp, MI 48094 Contact: Sam Previti / Rick Amorino 586-786-0010	Giffels Webster 6303 26 Mile Road Washingotn twp, MI 48094 Contact: Joe Paquette 248-598-5134	$ 1,379,018.00	The project includes installing an above-ground water booster pump station and generator by EFISolutions (EFI), along with building foundations and a check valve bypass. The booster pump station and a check valve bypass are located on the south side of 30 Mile Road west of Campground Road. Additionally, the project consists of installing 4 more check valve bypasses found in different locations throughout the Township. Installing the check valve bypasses involves constructing various sizes of water main and associated components. Work consists mainly of setting up the booster pump station, generator, foundation, open-cut water main, and replacing roadways and pathways in specific areas, along with some directional drill installations..	December 2024	Prime
Masonic Pump Station Rehabilitation	City of Fraser Garfield Road 48026 Rob Barrett 2001	33000 Fraser, MI Contact: 586-293-	AEW, Inc. 51301 Schoenherr Road Shelby Township, MI 48315 Contact: Taylor Swing 586-726-1234	$ 1,767,840.00	Pump Station, Rem Portions.....2 LSUM Dr Structure, Rem.....2 Each Force Main, Rem.....43 Ft Sewer, Rem, 24 to 48 inch.....53 Ft Wet Well Structure, Modifications.....2 LSUM Dr Structure.....2 Each Force Main, DI, 12 inch.....43 Ft Sewer, Cl D, 36 inch.....46 Ft End Section, Conc, 36 inch.....2 Each Mechanical Dredging & Disposal of Dredged Material.....2,000 Cyd Fence, Rem.....100 Ft Fence, Chain Link, 60 inch.....90 Ft Fence, Chain Link Gate, 60 inch.....12 Ft	Fall 2025	Prime
Maurice DeMuynck Pump Station Outlet Sewer - Chesterfield	Charter Township of Chesterfield 47275 Sugarbush Road Chesterfield, MI 48047 Contact: Mitch O'Conner 586-649-6354	OHM 2365 Pontiac Road, Suite 201 Auburn Hills, MI 48326 Contact: Joseph Lehman 248-751-3100	$ 3,007,961.00	This project consists of the rehabilitation of the existing 68 inch by 106 inch outlet sewer. The work includes pavement removal and replacement, storm sewer cleaning and inspection, injection grouting, spray-in place pipe (SIPP) lining, cofferdam installation, and bypass pumping	Summer 2025	Prime

2026 Equipment List

58	POWER EDGE T310
78	HP COMPAQ COMPUTER (ANTHONY)
159	2008 JEEP GRAND CHEROKEE
169	2016 FORD F250 SUPER CAB
170	2013 FORD SUPERCAB PU
173	2015 FORD F250 SUPER DUTY PU
174	2016 FORD F250
177	FORD F350 4WD PU
179	2017 FORD F150PU
180	2021 FORD F150 PICK UP
181	2022 FORD F150 4X4 PICK UP
182	2022 FORD F150 4X4 PICK UP
183	2023 FORD F150
184	2021 FORD F150
185	2025 FORD F350 SUPER DUTY PU
186	2025 FORD LARIAT 4WD CREW CAB
187	2026 BMW M5 4 DOOR
214	MOBILE OFFICE TRAILER - 8 X 20
261	KENWORTH T800 SEMI
278	KENWORTH W900 WATER TRUCK
289	KENWORTH T450 DUMP TRUCK
294	5TH WHEEL DOLLY
296	ETNYRE 60 TON LOBOY TRAILER
299	1992 FORD STAKE / HYDROSEEDER
317	JOHN DEERE 770B-H GRADER
321	CATERPILLAR D6MXL DOZER
325	CATERPILLAR D6R LGP DOZER
326	CATERPILLAR D6R DOZER
327	CAT D6K LGP VP
330	CAT D6K DOZER
332	CAT D4K2 LGP TRACTOR DOZER
333	CAT 615C II SCRAPER
334	D6NL LGP DOZER
419	CATERPILLAR 938F LOADER
425	CATERPILLAR 950G LOADER
427	CATERPILLAR 416C BACKHOE
430	CATERPILLAR 416C BACKHOE
438	CATERPILLAR 416C BACKHOE
441	CATERPILLAR 416C BACKHOE
443	CATERPILLAR 950F LOADER
445	CATERPILLAR 966G LOADER
447	CAT 962H WHEEL LOADER
448	CAT 938M RQ WHEEL LOADER
449	CAT 938M RQ WHEEL LOADER
450	CAT 950M WHEEL LOADER
451	938M WHEEL LOADER
452	289D SKID STEER
453	CAT 289D SKID STEER
455	CATERPILLAR 930M WHEEL LOADER
533	CATERPILLAR 375 EXCAVATOR
541	CATERPILLAR 307 EXCAVATOR
550	AMERICAN 5530 TRUCK CRANE
553	GROVE 745 RT CRANE
555	LINKBELT LS-518 CRAWLER CRANE
557	CATERPILLAR 330DL EXCAVATOR
559	CATERPILLAR 320DLPQ EXCAVATOR
561	CAT 336EL HYD. EXCAVATOR
562	VOLVO ECR305CL EXCAVATOR
563	EXCAVATOR, 385BL
564	325FLCR EXCAVATOR
565	315FLCR PRQ EXCAVATOR
567	CAT 308E2 EXCAVATOR
570	CATERPILLAR 325FLCR HYD EXC
571	CAT 308-08CR HYD EXC
572	CATERPILLAR 315-07GC HYD EXC
573	CATERPILLAR 336-08 HYD EXC
603	ALLIED 8700B HO-PAC
604	ALLIED 9700 HO-PAC
615	ALLIED 8700C HO-PAC
618	SULLIVAN 185 AIR COMPRESSOR
620	BOMAG BW142 ROLLER
621	ALLIED 8700C HOPAC
625	CHICAGO PNEUMATIC CP5185
626	DC-36EXSF COMPACTOR SHEEP FT
630	NEAL DA230S ASPHALT ROLLER
632	ARROW 4T HYD HAMMER
633	ALLIED HOE-PAC 2300-V17
635	ROCKLANE LHEX ROLLER
636	ROCKLAND LHEX ROLLER
637	BOMAG BW211D ROLLER
723	EFFICIENCY8'X24'X8" TRENCH BOX
727	EFFICIENCY KLD-424 TRENCH BOX
728	TRENCH BOX HD 8 FT X 26 FT
730	TRENCH BOX HD 8 FT X 28 FT
732	TRENCH BOX
733	TRENCH BOX
734	TRENCH BOX
735	TRENCH BOX
736	STONE BOX
741	GORMAN RUPP 6" TRASH PUMP
742	GORMAN RUPP T/G 4" TRASH PUMP
743	MULTIQUIP DCS125SPK GENERATOR
755	FLYGT CS3152 6" PUMP
758	FLYGT CS3126 6" PUMP
763	FLYGT CS3152 3PH 6" TRASH PUMP
766	AIR POWERED TEST PUMP
767	MORGAN MU25 GROUT PUMP
768	H & M H1700 DRIVER/EXTRACTOR
773	CATERPILLAR XQ500
775	EFFICIENCY 10' X 30' TRENCH BX
776	EFFICIENCY 1-' X 30' TRENCH BX
791	AIRMAN SDG255-6A7 GENERATOR
794	EFFICIENCY STONE MIZER
800	MORBARK EAGER BEAVER CHIPPER
802	FINN B70SD MULCHER
803	FINN T170 HYDROSEEDER
812	BALDERSON D6H ROOT RAKE
813	RG105DXH STUMP CUTTER
815	BROCE RJ350 BROOM TRACTOR
818	BROCE RJ300 BROOM TRACTOR
819	BROCE RC300 BROOM TRACTOR
820	BROCE RC-350 BROOM TRACTOR
821	MORBARK 2400XL WOOD CHIPPER
822	BROCE BROOM RJ300
906	VOS HYDRAULIC CLAMSHELL
908	AMERICAN 36 IN BORING MACHINE
909	D50-72HD BORING MACHINE
910	24" AUGER
911	24" AUGER W/3" HEX (12)
913	18"-30" CUTTING HEAD/AUGERS
915	GRUNDOMAT 95P MOLE/BORE
916	ASSORTED AUGERS
917	GRUNDOMAT Z100P MOLE/BORE
918	54" ALL PURPOSE CUTTING AUGER
919	10 FT. SECTION OF 42" AUGER
920	(6) 10 FT SECTION -48 IN AUGER
921	HERRENKNECHT AVN800A MTBM
922	HERRENKNECHT M654C CTRL CONTAI
923	DERRICK TBSS-129P SEP SYS
924	PIPE SPREADER SET
925	PIPE SPREADER SET
927	DB-1 CENTRIFUGE #0005
929	30" CUTTING HEAD W/3 IN HEX
931	VERMEER HP300 MUD MIXER
935	U.N.S. GUIDANCE SYSTEM
938	INTERJACKING STATIONS
939	TUNNEL BRACKETS (200 EA)
940	3 - PANEL SHAKER, UNIT #3687
942	HERRENKNECHT AVN1200TC MTBM
943	HERRENKNECHT BU PIPE AVN1200
944	CUTTING HEAD AVN1200 MTBM
945	MIXGROUND CUTTING WHL-AVN1200
946	SFTGROUND CUTTING WHL-AVN800A
951	AIR VENTALATION SYSTEM
952	DERRICK 4 P SHAKER FLC-2000-4P
959	DUCTED EVAPORATIVE COOLER
960	OFFSET CASING ADAPTER 60-73.5"
961	72" AUGER X 10' SEC OF 5" HEX
1021	72" GRAPPLE BKT FOR CASE 1845C
1022	12" HD BKT FOR CAT 307
1023	ELGIN PELICAN ROAD SWEEPER
1105	HOPAC
1106	HOPAC
1107	BUCKET FORKS
1112	70" BUCKET (FOR CAT 245)
1113	60" DITCH BUCKET 1.25CY
1115	84" DITCH BUCKET-WAG WAY
1122	JCB506 BUCKET #468
1128	BUCKET (FOR CAT 416) QTY. 2
1129	BUCKET (FOR 416 CAT) QTY. 2
1142	26" BUCKET #U0020
1144	JCB 506BT FORKLIFT
1148	48" BUCKET-CEPCO #AT1079
1149	72" DITCHING BUCKET #AT5425
1150	30" BUCKET #AT908
1158	HOTSEY POWERWASHER
1160	30" BUCKET FOR SE210LC-3
1163	IWI 6100 GRAPPLE FOR 320 CAT
1164	LABOUNTY HDR100 GRAPPLE
1165	GEN PAC 416 HOPAC
1166	60" BUCKET-HENDRIX
1175	EQUIP STORAGE CONT#CMUU2217197
1176	EQUIP STORAGE CONT#CMBU2122442
1177	ALLIED 730 HYD. HAMMER "416"
1179	POWER PIPE THREADER-RIDGID
1180	DIGGING BUCKET
1181	EXCAVATOR BUCKET
1184	LONG REACH BOOM STICK 320 CAT
1196	20 FT. STORAGE CONTAINER
1197	20 FT. STORAGE CONTAINER
1198	20 FT. STORAGE CONTAINER
1199	20 FT. STORAGE CONTAINER
1213	ALLED 750B HYD. HAMMER
1223	AIR HYD ROCK SPLITTER
1225	HEATER, 350,000 BTU
2000	KENWORTH T600A FUEL/LUBE
2002	TRAILER, 4FT X 8 FT WELDING
2003	TRAILER, 6 FT X 11 FT UTILITY
2005	2005 PJ TRAILER
2008	INTERNATIONAL VAC TRUCK
2014	2012 FREIGHTLINER - SVC TRUCK
2015	VOLVO A35D OFF ROAD TRUCK
2018	TRAIL KING TRAILER
2019	PETERBILT DUMP TRUCK
2020	2018 EAST 4 AXLE DUMP TRAILER
2021	2019 EAST 6 AXLE DUMP TRAILER
2022	2008 INTL DUMP TRUCK
2023	2017 PETERBILT MODEL 567
2024	2026 TALBERT 4 AXLE LOWBOY
7022	GENERATOR, AIRMAN 25KW
7023	EFFICIENCY 8 X 24 TRENCH BOX
7024	PROTEC 8 FT X 24 FT TRENCH BOX
7025	9 YARD STONE BOX
7030	TRENCH BOX, 8 X 24 FT
7031	TRENCH BOX, 8 X 40
7032	TRENCH BOX 8 X 20
7034	TRENCH BOX ARCH 8X40
7035	TRENCH BOX ARCH 8 X 20
7036	TRENCH BOX ARCH
7038	12 YARD STONE SAVER
7039	8 X 20, RATED TO 20 FT C-60
7040	HIGH CLEARANCE ARCH LEGS
7041	8 X 40 RATED TO 13 FT C-60
7042	ARCH
7043	ARCH
7044	GENERATOR, BALDOR TS25T
7045	GENERATOR, BALDOR TS45T
7046	(6) 8 X 20 X 1 IN. STEEL PLATE
7047	TRENCH BOX 8 X 8
7048	2016 MULTIQUIP GENERATOR
7049	STONE SAVER - 7 YD
11010	24" BUCKET
11011	42 IN BUCKET
11012	12 FT. STARCRAFT ALUM. BOAT
11014	A/C RECHARGING MACHINE
11015	AIR COMPRESSOR, RECIPROCATING
11016	LASER, RUGBY 610 & RECEIVER
11122	GRAPPLE, 416 30 IN
11124	ELECTROFUSION MACHINE
11125	20 TON BLOCK-CRANE ATTACHMENT
11126	BUCKET 36 INCH
11127	CRANE 1 1/2YD CLAM BUCKET
11128	72" BUCKET 975
11130	4X4 CRANE MANBASKET DI C8H0404
11135	4T HY HAMMER
11136	30 IN BUCKET - 27ZTS EXCAVATOR
11137	MANBASKET
11138	MANBASKET
11142	BOTTLE CAGE
11145	BOTTLE CAGE
11146	BOTTLE CAGE
11147	BOTTLE CAGE
11148	BOTTLE CAGE
11149	BOTTLE CAGE
11151	CLAM SHELL BUCKET MODEL 1855
11152	HAIR PIN, 5,000 POUND
11154	CULTIVATOR - 3 PART
11155	1 1/2 YD CLAM BUCKET
11157	BUCKET, 18 IN FOR KOMATSU PC60
11158	CONTAINER, CONEX BOX, 40 STL
11159	CONTAINER, CONEX BOX, 40 STL
11160	CONTAINER, CONES BOX, 20 STL
11162	3 BARREL TAGLINE FOR LS518
11163	HAMMER, HYD. MODEL CP400
11165	ESI TELEPHONE SYSTEM
11169	CAT 350 53 INCH BUCKET
11170	CAT 350 34 INCH BUCKET
11171	REINFORCED CONC PIPE PULLER
11173	CAT 72" 320 DITCH BUCKET
11174	PIPE LASER
11175	CAT FORK SET FOR 962H (#447)
11176	BUCKET, 36" FELCO FOR CAT 336
11177	BUCKET, 48" VOLVO EX30HDC48
11178	TRIMBLE CONTROL BOX
11179	TRIMBLE RADIO - ON MACHINE
11180	TRIMBLE CONTROL BOX
11181	TRIMBLE RECEIVER, DUAL
11182	TRIMBLE RECEIVER, DUAL
11183	TRIMBLE RADIO - ON MACHINE
11184	TRIMBLE RECEIVER 900 MHz
11185	TRIMBLE 900 RADIO GNSS
11186	TRIMBLE SITE TABLET 10W/SCS900
11187	TRIMLE KIT-SENSOR SINGLE LASER
11188	TRIMBLE SENSOR SINGLE LASER
11189	TRIMBLE ELECTRIC MAST
11190	TRIMBLE ELECTRIC MAST
11191	TRIMBLE GRADE LASER W.REMOTE
11192	CAT HARLY POWER RAKE
11193	UTILIGUARD
11194	UTILIGUARD STD RECEIVER
11195	30" CAT EXCAVATOR BUCKET
11196	30 FT. LIGHT TOWER DIESEL
25601	23 MILE RD. IMPROVEMENTS
25610	WINDOW INSULATION UNITS
99933	GATEWAY 5310SE-ROSINA
99936	DESK UNIT BLACK/MAHOGANY
99937	TABLE 72 x 42 x 29
99939	LATERAL FILE
99940	SECRETARIAL WORKSTATION
99948	OFFICE CUBICLE
99952	FURNITURE - DETROIT
99958	4 REGENCY BLK LEATHER CHAIRS
99959	HP LAPTOP - TONY
99961	HP LAPTOP - JASON
99962	STEELCASE LATERAL FILE
99966	NEW OFFICE CUBICLE
99967	TONY OFFICE EQUIP
99976	CREDENZA
99977	NETWORK HARDWARE
99978	CONFERENCE FURNITURE
99981	EXEC DESK & CHAIRS-DETROIT
99985	CONFERENCE RM FURNITURE
99986	FILE CABINETS - OFFICE
99987	FILE CABINETS-BOB'S OFFICE
99988	OFFICE FURNITURE-JIM'S OFFICE
999102	GATEWAY 5310S-TONY D.
999103	GATEWAY 5310S-MICHAEL D
999104	LATERAL FILE
999105	17" FLAT SCREEN MONITOR
999106	OFFICE PARTITIONS-BACK OFFICES
999108	HP NX6110 LAPTOP-TONY
999109	HP INKJET PLOTTER
999110	FIREPROOF MEDIA SAFE
999111	GATEWAY M460E LAPTOP-DARREN
999112	HP ET057AV LAPTOP-JOE
999114	GATEWAY DESKTOP-GINO D
999115	HP PAVILION - JIM
999116	5 NEC PHONES
999117	2 CHAIRS
999118	HP DESKJET PRINTER-CHRISTINA
999119	GATEWAY PC - LINDA
999120	GATEWAY PC - MONICA
999121	TOSHIBA NOTEBOOK PC
999123	HP 5700 w/MONITOR-OAKWOOD
999124	HP DESKTOP DC5700
999125	HP NW8440 LAPTOP
999130	HP E4400 DESKTOP w/2 MONITORS
999131	GATEWAY E475M-ANTHONY LAPTOP
999132	4 DRWR STEELCASE LATERAL FILE
999133	GATEWAY E2610S
999134	GATEWAY E2600S DESKTOP
999135	EXPEDITION SOFTWARE-CM
999136	SERVER
999137	FILE CABINETS-NEW STORE RM
999138	SHELVING - BACK RM
999139	LAPTOP - CHRISTINA
999140	MAC LAPTOP - BOB
999141	ESI TELEPHONE SYSTEM
999144	LAPTOP - BOB
999145	LAPTOP - JIM
999146	OFFICE COMPUTER
999147	OFFICE COMPUTER
999148	OFFICE COMPUTER
999149	OFFICE COMPUTER
999150	OFFICE COMPUTER
999151	OFFICE COMPUTER
999152	COMPUTER
999153	SOURCEPATH COMPUTER
999154	HP SB 650 (ALAN LAPTOP)
999155	HP SB 600 G1
999156	HP SB 600 G1
999157	HP ML350 G9 TOWER SERVER
999158	HP ELITEBOOK 850 LAPTOP
999159	(3) 12.9" IPAD'S
999160	CANON 36" IMAGEPROGRAF PRINTER

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 12/19/2025

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Guy Hurley, LLC 989 E. South Boulevard Suite 200 Rochester Hills MI 48307	CONTACT NAME: Jake Walker PHONE (A/C, No, Ext): (248)519-1414 FAX (A/C, No): (248)519-1401 E-MAIL ADDRESS: jwalker@ghbh.com
INSURED L. D'Agostini & Sons, Inc. 15801 Twenty-Three Mile Road Macomb MI 48042	INSURER(S) AFFORDING COVERAGE — NAIC # INSURER A: The Phoenix Ins. Co. A++:XV — 25623 INSURER B: Travelers Prop Cas Co Of America A++:X\ — 25674 INSURER C: Travelers Indemnity Co of Am. A++:XV — 25666 INSURER D: Allied World Assurance Co. A+:XV — 19489 INSURER E: INSURER F:

COVERAGES **CERTIFICATE NUMBER:** 25-26 Master + Poll **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE [X] OCCUR X Contractual Liability X XCU Included GEN'L AGGREGATE LIMIT APPLIES PER: POLICY [X] PRO-JECT LOC OTHER:			CO0T045412	12/31/2025	12/31/2026	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 300,000 $ 10,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
B	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS — SCHEDULED AUTOS X HIRED AUTOS — X NON-OWNED AUTOS			8100T020349	12/31/2025	12/31/2026	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
B	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED RETENTION $			CUP0T04860A	12/31/2025	12/31/2026	EACH OCCURRENCE AGGREGATE	$ 10,000,000 $ 10,000,000 $
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N [ ] N/A If yes, describe under DESCRIPTION OF OPERATIONS below			UB0T044741	12/31/2025	12/31/2026	X PER STATUTE OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 1,000,000 $ 1,000,000 $ 1,000,000
D	Pollution/ Professional			0313-2217	12/31/2025	12/31/2026	Occurrence Aggregate	1,000,000 2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

Evidence of Coverage

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

R McGregor/JWALKE

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GUY HURLEY
INSURANCE & SURETY SERVICES

December 23, 2025

L.D'Agostini & Sons, Inc
15801 23 Mile Road
Macomb, MI 48042-4002

RE: Workers Compensation - Experience Modification Rate - State of Michigan

To whom it may concern:

This will confirm the Michigan Intrastate Experience Modification Rating for the following terms:

12/31/2025 – 12/31/2026	.95
12/31/2024 - 12/31/2025	.95
12/31/2023 - 12/31/2024	.95

If you need any further information regarding the Experience Modification Factor, please contact the undersigned.

Regards,

Kelly Ash
Vice President of Property & Casualty

LARA Corporations Online Filing System
Department of Licensing and Regulatory Affairs

ID Number: 800128080 Request certificate Return to Results New search

Summary for: L. D'AGOSTINI & SONS, INC.

The name of the DOMESTIC PROFIT CORPORATION: L. D'AGOSTINI & SONS, INC.

Entity type: DOMESTIC PROFIT CORPORATION

Identification Number: 800128080 **Old ID Number:** 123637

Date of Incorporation in Michigan: 10/09/1967

Purpose:

Term: Perpetual

Most Recent Annual Report: 2024 **Most Recent Annual Report with Officers & Directors:** 2018

The name and address of the Resident Agent:

Resident Agent Name: L. ROBERT D'AGOSTINI
Street Address: 15801 TWENTY THREE MILE ROAD
Apt/Suite/Other:
City: MACOMB TOWNSHIP State: MI Zip Code: 48042

Registered Office Mailing address:

P.O. Box or Street Address: 15801 23 MILE ROAD
Apt/Suite/Other:
City: MACOMB TOWNSHIP State: MI Zip Code: 48042

The Officers and Directors of the Corporation:

Title	Name	Address
PRESIDENT	L ROBERT D'AGOSTINI	15801 23 MILE RD MACOMB TWP, MI 48042 USA
TREASURER	MICHAEL D'AGOSTINI	15801 23 MILE RD MACOMB TWP, MI 48042 USA
SECRETARY	MICHAEL D'AGOSTINI	15801 23 MILE RD MACOMB TWP, MI 48042 USA
DIRECTOR	ANTONIO D'AGOSTINI	15801 23 MILE RD MACOMB TWP, MI 48042 USA
DIRECTOR	L ROBERT D'AGOSTINI	15801 23 MILE RD MACOMB TWP, MI 48042 USA
DIRECTOR	MICHAEL D'AGOSTINI	15801 23 MILE RD MACOMB TWP, MI 48042 USA

Act Formed Under: 327-1931 Michigan General Corporation Act

Total Authorized Shares: 5,000

☐ **Written Consent**

SAM.GOV®

L. D'AGOSTINI & SONS, INC.

Unique Entity ID	CAGE / NCAGE	Purpose of Registration
KK1ZZAHXBSL3	**1G8P3**	**All Awards**
Registration Status	Expiration Date	
Active Registration	**Aug 19, 2026**	
Physical Address	Mailing Address	
15801 23 Mile RD **Macomb, Michigan 48042-4002** **United States**	**15801 23 Mile RD** **Macomb, Michigan 48042-4002** **United States**	

Business Information

Doing Business as	Division Name	Division Number
(blank)	**(blank)**	**(blank)**
Congressional District	State / Country of Incorporation	URL
Michigan 09	**Michigan / United States**	**https://ldagostini.com/**

Registration Dates

Activation Date	Submission Date	Initial Registration Date
Aug 21, 2025	**Aug 19, 2025**	**Jul 27, 2001**

Entity Dates

Entity Start Date	Fiscal Year End Close Date
Jun 1, 1961	**Dec 31**

Immediate Owner

CAGE	Legal Business Name
(blank)	**(blank)**

Highest Level Owner

CAGE	Legal Business Name
(blank)	**(blank)**

Executive Compensation

In your business or organization's preceding completed fiscal year, did your business or organization (the legal entity to which this specific SAM record, represented by a Unique Entity ID, belongs) receive both of the following: 1. 80 percent or more of your annual gross revenues in U.S. federal contracts, subcontracts, loans, grants, subgrants, and/or cooperative agreements and 2. $25,000,000 or more in annual gross revenues from U.S. federal contracts, subcontracts, loans, grants, subgrants, and/or cooperative agreements?

No

Does the public have access to information about the compensation of the senior executives in your business or organization (the legal entity to which this specific SAM record, represented by a Unique Entity ID, belongs) through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986?

Not Selected

Proceedings Questions

Is your business or organization, as represented by the Unique Entity ID on this entity registration, responding to a Federal procurement opportunity that contains the provision at FAR 52.209-7, subject to the clause in FAR 52.209-9 in a current Federal contract, or applying for a Federal grant opportunity which contains the award term and condition described in 2 C.F.R. 200 Appendix XII?

No

Does your business or organization, as represented by the Unique Entity ID on this specific SAM record, have current active Federal contracts and/or grants with total value (including any exercised/unexercised options) greater than $10,000,000?

Not Selected

Within the last five years, had the business or organization (represented by the Unique Entity ID on this specific SAM record) and/or any of its principals, in connection with the award to or performance by the business or organization of a Federal contract or grant, been the subject of a Federal or State (1) criminal proceeding resulting in a conviction or other acknowledgment of fault; (2) civil proceeding resulting in a finding of fault with a monetary fine, penalty, reimbursement, restitution, and/or damages greater than $5,000, or other acknowledgment of fault; and/or (3) administrative proceeding resulting in a finding of fault with either a monetary fine or penalty greater than $5,000 or reimbursement, restitution, or damages greater than $100,000, or other acknowledgment of fault?

Not Selected

Exclusion Summary

L. D'Agostini & Sons, Inc.

MICHAEL D'AGOSTINI
Secretary-Treasurer
(586) 781-5800 | MikeD@LDAgostini.com

SUMMARY

With 34 years of experience, knowledgeable, energetic, results-focused, and principally responsible for all day-to-day operations of L. D'Agostini & Sons, including estimating, project management, personnel management, scheduling, and finances.

AREAS OF EXPERTISE

- Project management and staffing
- Value engineering
- Underground construction and conventional- and micro-tunneling
- Commercial and industrial park development
- Critical path construction planning and scheduling
- Project estimating
- Cost containment
- Subcontractor and supplier management

Representative Projects

Macomb Interceptor Drain Drainage District Order & Corrosion Improvements
- $12 million original contract sum, in progress

Fenton-Thompson Road Watermain Extension (Genesee County Drain Commissioner)
- $5 million original contract sum, in progress

Lake Huron Intake (KWA Contract S.4000)
- Saved owner $700,000 by eliminating shaft and mobilization costs

Hayes Masonic Sanitary Sewer (City of Fraser)
- Saved owner $3,100,000 by replacing conventional tunneling with micro-tunneling technology, eliminating shafts, manholes, and casing pipe and providing additional capacity

Dearborn Storm Sewer Separation
- Saved owner $2,000,000 by relocating tunnel and eliminating unnecessary structures

15 Mile Road Sinkhole
- Helped to design and implement tangent pile braced excavation construction method

DWSD PC755 Oakwood CSO Control Station and Pump Station Facility
- Saved owner $5,000,000 by relocating sewer and eliminating unnecessary structures

Education & Professional Licenses

Bachelor's Degree in Business Management | Walsh College

Residential Builders License | State of Michigan (current)

Certified Stormwater Operator | State of Michigan (current

ANTHONY D'AGOSTINI
Chief Operations Manager
Senior Project Executive
(586) 781-5800 | ADAgostini@LDAgostini.com

SUMMARY

With 34 years of experience with L. D'Agostini & Sons, principally responsible for site supervision and management of field personnel, including staffing, work assignments, interpreting plans, and maintaining work schedules.

AREAS OF EXPERTISE

- Field personnel management
- Personnel staffing and scheduling
- Underground construction
- Conventional and micro-tunneling
- Heavy equipment operation and maintenance
- Construction techniques and methodologies
- Construction materials
- Interpretation of plans, drawings, and specifications
- OSHA and MIOSHA workplace safety
- CPR and industrial first aid

Representative Projects

Macomb Interceptor Drain Drainage District Order & Corrosion Improvements
- $12 million original contract sum, in progress Contact Stephen Downing (586) 469-6057

Fenton-Thompson Road Watermain Extension (Genesee County Drain Commissioner)
- $5 million original contract sum

Lake Huron Intake (KWA Contract S.4000)
- Saved owner $700,000 by eliminating shaft and mobilization costs

Hayes Masonic Sanitary Sewer (City of Fraser)
- Saved owner $3,100,000 by replacing conventional tunneling with micro-tunneling technology, eliminating shafts, manholes, and casing pipe and providing additional capacity

Dearborn Storm Sewer Separation
- Saved owner $2,000,000 by relocating tunnel and eliminating unnecessary structures

15 Mile Road Sinkhole
- Helped to design and implement tangent pile braced excavation construction method

DWSD PC755 Oakwood CSO Control Station and Pump Station Facility
- Saved owner $5,000,000 by relocating sewer and eliminating unnecessary structures

MIDDD Drop Shaft Rehabilitation
- $ 3,936,875.00, in progress Contact Stephen Downing (586) 469-6057

30 Mile Road Water Booster Pump Station
- $1,379,018.00, in progress Contact Sam Previti (586) 786-0010

Avondale Road Reconstruction Phase 1 (Inkster)

- $6,268,638.28 contract sum, Contact Jerome Bivins (313) 563-4236

GFL Environmental

- Design Build for (3) new industrial buildings totaling 98,000sf, at their Pontiac MI Material recycling facility and Saginaw Facility. 2025- Quadrate supplied and erected a 16,000sf 200' clear span Varco Pruden PEMB material recycling building. Frank Francisco, Construction director Michigan (586) 405-8989

CIE Automotive /Century plastics Macomb Township

- 2017 Design build of multiple facilities including a 297,000sf Varco Pruden PEMB warehouse with a *Fast-Tracked* schedule of *20 weeks,* 60,000sf Conventional steel warehouse, and 2023 a 26,000sf Varco Pruden PEMB warehouse addition. Joe Carroll (586) 381-2869

Henshaw, Inc.

- Total of (3) projects- 2019, 75,000SF Ground up new construction PEMB Industrial building, 2021 6,000sf Ground up Varco Pruden PEMB industrial, 2023 9,600sf Ground up PEMB industrial. Justin Clark (586) 854-5664

Education

Associate's Degree in Business Management | Macomb Community College

L. D'Agostini & Sons, Inc.

Aaron Carr
Senior Project Manager
(586) 781-5800 | AaronC@LDAgostini.com

SUMMARY

Construction professional with over 28 years of experience as project manager and a record of successfully managing commercial construction projects large and small.

AREAS OF EXPERTISE

- Construction project management
- Construction standards, techniques, and methodologies
- Critical Path Method construction scheduling
- Construction documentation
- Project estimating

PRIOR PROFESSIONAL EXPERIENCE

- Superintendent and Estimator | Lindberg and Sons Inc. (1997 – 2024)

CERTIFICATIONS

- EGLE Certified Stormwater Operator
- OSHA HAZWOPER 40 Hour
- HDPE Butt Fusion Machine

REPRESENTATIVE PROJECTS

- DWS-970 Sewer Reconfiguration Project Near Riverside Park, 2025 | $6.3 million
  Contact Samuel Smalley, (313) 267-8000
- Maurice DeMuynck Pump Station outlet Sewer Rehabilitation (Chesterfield Township), 2025 | $3 million
  Contact Mitchell O'Conner, (586) 949-0400
- Macomb Interceptor Drain Drainage District Drop Shaft Rehabilitation, 2024 | $3.9 million
  Contact Stephen Downing, (586) 469-6057
- 30 Mile Road Water Booster Pump Station (Washington Township), 2024 | $1.4 million
  Contact Richard Amomino, (586) 786-0010
- Grosse Pointe Park Emergency Relief Sewer System, 2024 | $2.9 million
  Contact Tom Jenny, (313) 822-5100
- Harvard Road Pump Station Replacement (City of Southfield), 2024 | $1.7 million
  Contact Patrick Ryan, (248) 796-4860

EDUCATION

Michigan Technological University | Civil Engineering 2003 - 2004

Randy Stebner
Project Manager/Site Specific Safety Officer

SUMMARY

With over 35 years of experience including estimating, project management, personnel management, scheduling, and finances. Experience in federal, municipal, and high-compliance environments, specializing in safety leadership.

AREAS OF EXPERTISE

- Estimating
- Project management and staffing
- Municiple Facility improvements
- Critical path construction planning and scheduling
- Cost containment
- Subcontractor and supplier management
- Confined Space Entry Entrant, Attendant, Entry Supervisor Training
- OSHA 30-Hours
- Hazwoper
- CPR and First Aid
- Competent Person Training: Fall Protection, Excavation & Trenching / Soil Classification, Aerial Lifts, Silica, Asbestso Awareness, Crane Signal Person/Rigger, Lockout Tagout

Representative Projects

- **Sante FE Irrigation District Badger Filtration Plant Mechanical Dewatering and San Dieguito Dam Improvements in Rancho Sante FE, CA (~$8M) Project manager**

Project included expansion of the solids mechanical dewatering system at the filtration plant including rehabilitation of existing gravity thickener, modifications to sludge wasting pump station, sludge holding tank, centrifuge feed pump station, and new masonry centrifuge building, remodeling existing facilities, relocation existing centrifuge, new centrifuge, new screw and belt conveyors, polymer feed systems, and utility water pump station and all associated MEPS and controls for complete and operablesystem(s).
Responsible for repairing concrete cracks and spall and blasting and recoating of the anchor steel plates on existing reservoir dam to address surface water.

- ***Industrial Waste Treatment Facility Portlan, OR Quality Assurance***

The new $550 million, 7-mgd industrial waste treatment facility project included emergency and equalization basins, pre-treatment chemical process, biological nutrient removal/membrane bioreactor, odor control, ion exchange, high recovery reverse osmosis, brine concentration and crystallization, solids dewatering, and chemical stabilization.

L. D'Agostini & Sons, Inc.

- ***Sheridan Main Lift Station Improvements Sheridan, OR (~$1.2m) Estimator/Project Manager***
  The project consisted of demolishing piping, pumps, a jib crane, structures, electrical and controls. Construction included a new valve vault, piping, an electrical control building, a new emergency generator, jib crane, retrofitting an existing wet with two new pumps and discharge piping, coatings, new instrumentation and controls, HVAC, site restoration and pavements.

- **Pump Station Replacement, Portland Water Bureau Portland, OR (~$11.6m) Project Manager**
  Construction of a new pump station that consists of a cast-in-place concrete building that houses five vertical turbine pumps, piping, valving, electrical controls, HVAC, plumbing. The building is highly efficient including green practices utilizing vegetative eco-roof systems, plantings, glazings and skylights for natural lighting.

- **Durham AWWTF Cogeneration and Brown Grease Receiving Facility, Clean Water Services (~$15m), Project Manager**
  Responsible for maintaining the cost effective and timely delivery of materials, managing submittals, managing subcontractors, managing crew, managing the budget, contracts and maintaining the computerized critical path method schedule for construction of a new cogeneration and brown grease receiving facility at an existing wastewater treatment facility. Cogeneration is an exciting innovative technology that I was grateful to be involved with.

  The facility houses two 848KW generators, gas purification system, gas storage facility and associated systems while I coordinated daily with plant shareholders to keep the facility operational.

Education & Professional Licenses

Bachelor's Degree in Consteruction Engineering & Management, Western Michigan university

L. D'Agostini & Sons, Inc.

JEFF ELIOPOLOUS
Senior Project Manager/Lead Estimator
(586) 781-5800 | JeffE@LDAgostini.com

SUMMARY

Construction professional with over 40 years of experience as project manager and a record of successfully managing commercial construction projects large and small.

AREAS OF EXPERTISE

- Construction standards, techniques, and methodologies
- Critical Path Method construction scheduling
- Construction project management
- Construction documentation
- Project estimating

PRIOR PROFESSIONAL EXPERIENCE

- Project Manager | Walbridge Aldinger (1997 – 1999)
- Project Manager | Freeman-Darling Construction Company (1993 – 1997)
- Project Manager | Olympic Corporation (1992)
- Project Manager | George Auch Company (1990 – 1991)
- Project Manager | Raymond L. Thomas Construction (1984 – 1991)

REPRESENTATIVE PROJECTS

- Macomb Interceptor Drain Drainage District Odor & Corrosion Improvements Project, 2024 | $11.8 million
  Contact Timothy Ard, (734) 665-6000

- LeCom, Inc., 40,000 s.f. ground-up Varco Pruden PEMB, 2023 | $6.3 million
  Contact Joe Lentine, (810) 343-6425

- Extension of Kearsley Creek Interceptor Phase 1D (Genesee County Drain Commissioner), 2024 | $13.8 million
  Contact Jeffrey Wright, (810) 732-7870

- Macomb Township Hall Basement Build-Out, 2023 | $519,956
  Contact Frank Viviano, (586) 992-0710

- Senior Center Patio Project (Macomb Township), 2023 | $134,035
  Contact Frank Viviano, (586) 992-0710

- WWTP Septic and Vactor Receiving Station (City of Mount Clemens), 2024 | $3.2 million
  Contact Taylor Sting, (586) 726-1234

- SERESA Building Renovation (City of Roseville), 2024| $1.8 million
  Contact Brandy Chirco, (586) 726-1234

- Fire Station No. 2 (South) Renovation (City of Roseville), 2024 | $1.9 million
  Contact Brandy Chirco, (586) 726-1234

EDUCATION

Macomb County Community College | Associates Degree, Construction Technology

CHRISTINA MORADIAN
Safety Director
(586) 677-1111 | CDAgostini@LDAgostini.com

SUMMARY

Over 20 years of experience as a safety professional with L. D'Agostini & Sons, Inc. Updates and administers company safety program, including individual employee training at the time of hire, ongoing safety training, and job site safety audits and monitors subcontractor compliance with insurance.

AREAS OF EXPERTISE

- OSHA Authorized Construction Trainer
- OSHA 500
- OSHA 510
- First Aid
- CPR
- Confined Space Entry Entrant, Attendant, Entry Supervisor Training
- MISS DIG
- Fall Prevention
- Personal Protection Equipment
- Hazardous Waste Operations and Emergency Response

WORK EXPERIENCE

L. D'AGOSTINI & SONS, INC. | July 2003 to Present
Safety Director and Assistant Project Manager

Full responsibility for development, maintenance, administration, and implementation of company safety programs as required by and in compliance with company policy, insurers, project owners, and applicable law and regulation, including individual employee training at the time of hire, ongoing safety training, and annual group training. Conducts job site safety inspections and audits. Responsible for preparing incident reports, maintaining appropriate insurance coverage for L. D'Agostini & Sons, and monitoring compliance with insurance requirements by subcontractors.

INDEPENDENT REAL ESTATE AGENTS | July 2000 to July 2003
Executive Sales Assistant

Responsible for office management, routine client communications and marketing functions, and data entry.

CENTURY 21 AAA NORTH | June 1999 to July 2000
Relocation Coordinator and Account Manager

EDUCATION

Bachelor's Degree in Communication with a Minor in Business | Oakland University (2003)

Chris Gauthier
Project Engineer and Assistant Project Manager
(586) 781-5800 | ChrisG@LDAgostini.com

SUMMARY

Construction professional with over 8 years of experience in heavy civil construction and heavy equipment operation.

EDUCATION

Ferris State University | Bachelor of Science in Construction Management – December 2020

PRIOR PROFESSIONAL EXPERIENCE

- **Weiss Construction Company (2024 – 2025)**
  Project Engineer and Assistant Project Manager
  Various projects. Notably, assisted in the successful completion of a $20M dollar water treatment project in the City of St. Clair

- **Great Lakes Contracting Solutions (2021 – 2023)**
  Assistant Project Manager and Heavy Equipment Operator
  Various projects

- **Anglin Civil (2019 – 2020)**
  Laborer and Operator
  Various projects

- **Schafer Construction (2018)**
  Construction Management Intern and Project Supervisor
  Various projects

- **Southeastern Equipment Co. Inc. (2017)**
  Yard Supervisor and Service Technician's Assistant
  Various projects

CERTIFICATIONS

- OSHA 10 RedVector training, September 2020
- OSHA 30 ClickSafety training, October 2024

CURRENT LDS PROJECTS

- DWS-970 Sewer Reconfiguration Project Near Riverside Park, 2025 | $6.3 million

AREAS OF EXPERTISE

- Revit
- Bluebeam
- Earthworks
- Building Information Modeling
- Quantity take-off
- RFI
- Construction estimating
- Project coordination
- Construction safety

If this page is not signed and included with your bid, it will be disqualified.

CITY OF SAGINAW PURCHASING OFFICE
1315 S. WASHINGTON AVENUE
SAGINAW, MICHIGAN 48601

TO: PROSPECTIVE BIDDERS
SUBJECT: ADDENDUM Form B02 #1 C-1724 N. Mason WM & Dead-End Looping DWSRF #7900.01

Information disclosed and/or questions raised since issuance of documents to bidders requires that a change be made in the subject bid as shown on this form:
CHANGES:

No. 1) Bid Opening Changed to Wednesday, May 6, 2026

Questions to be directed to Travis J. Hare, P.E. via email engineer@saginaw-mi.com before 3:00p.m. on April 29, 2026.

NOTE: SIGN ADDENDUM AND SUBMIT SAME WITH BID.

I _____ certify that I have read this ADDENDUM and that the bid, as submitted, reflects the changes described in this addendum.

_____
(Company's Name)

_____
(Address)

Bidder shall sign Addendum and submit it with bid.

_____
(Signature)

_____
(Title)

NOTICE INVITING SEALED BIDS

Bid/Contract Number – C-1724

C-1724 N. Mason WM & Dead-End Looping DWSRF #7900.01

FOR THE DEPARTMENT OF PUBLIC SERVICES, ENGINEERING DIVISION, CITY OF SAGINAW, MICHIGAN. Sealed bids will be received by the City of Saginaw Purchasing Office, 1315 S. Washington Avenue, Saginaw, Michigan 48601, **until 3:00 p.m., Wednesday, May 6, 2026**, and then publicly opened for the DEPARTMENT OF PUBLIC SERVICES, ENGINEERING DIVISION – C-1724 N. Mason WM & Dead-End Looping DWSRF #7900.01

Installation and connection of watermain south of Maine St on the northside of the Huron & Eastern railroad connecting the dead-end watermains from A St. to Larch St. Replacement of existing watermain on N. Mason St from Houghton Ave to State St (M-58).Including rehabilitation of various pavement surfaces, HMA removal, concrete work, earthwork, subbase, aggregate base, curb and gutter, sidewalks & ADA sidewalk ramps. Furnish labor, tools, equipment, and materials as required to perform the work as specified in the contract documents.

Direct any questions to Travis Hare, City Engineer, via email at engineer@saginaw-mi.com, before 3:00p.m. on April 29, 2026.

To access downloadable contract documents, go to the City of Saginaw's website at https://www.saginaw-mi.com/Bids.aspx. There is **no charge** for these downloadable documents. For a hard copy of the contract documents, call the City Engineer's office at 989-759-1410. The office is in the lower level of the Public Works Service Center building, 1435 S. Washington Avenue, Saginaw, Michigan 48601. There is a **$125.00 non-refundable** charge for a hard copy of the contract book and drawings with an additional charge of **$25.00** to cover the mailing. Checks must be made payable to "Treasurer, City of Saginaw" and mailed to the City Engineer, 1315 South Washington Avenue, Saginaw, Michigan 48601.

All vendors are subject to the provisions of the City's Purchasing, Contracting, and Selling Procedure Ordinance, Title I, Chapter 14, §14.30-14.45, of the Saginaw Code of Ordinances. For disability accommodation, please call 989-759-1410.

As part of the consideration for this bid, the vendor doing business with the City of Saginaw agrees to have withheld from any payments due them, any amounts for taxes, fees, or other charges due the City of Saginaw.

The City of Saginaw has an income tax. All successful bidders will be subject to income tax withholdings; compliance is mandatory.

Contract amounts totaling $100,000 or more will require a certified check, cashier's check, or surety company bid bond in an amount of five percent **(5%)** of the total bid to be submitted with the bid as security for the acceptance and execution of the contract.

The successful bidder on a contract of $50,000.00 or more will be required to furnish surety company bonds as follows:
First - A bond in the sum of one hundred percent (100%) of the contract price running to the City of Saginaw to insure the construction and completion of the entire work according to the proposal and contract.
Second - A bond in the sum of one hundred percent (100%) of the contract price running to the City of Saginaw for the protection of the subcontractors and labor and material suppliers, according to the statute of the State of Michigan at that time in effect.

The City of Saginaw reserves the right to accept or reject any and all bids, or parts thereof, and to waive any irregularities in the bid except those specifically mentioned in the Sealed Bid Instructions. Bidders are required by the City's Purchasing, Contracting, and Selling Procedure Ordinance to submit documentation concerning their current work force and past employment practices and to subscribe to a statement furnished by the City indicating compliance with the Ordinance.

Kim Jaime, Purchasing Officer

If this page is not signed and included with your bid, it will be disqualified.

CITY OF SAGINAW PURCHASING OFFICE
1315 S. WASHINGTON AVENUE
SAGINAW, MICHIGAN 48601

TO: PROSPECTIVE BIDDERS
SUBJECT: ADDENDUM Form B02 #2 C-1724 N. Mason WM & Dead-End Looping DWSRF #7900.01

Information disclosed and/or questions raised since issuance of documents to bidders requires that a change be made in the subject bid as shown on this form:
CHANGES:

No. 1) Removed AIS requirements from EGLE Equivalency template page 89 of 257

No. 2) Q & A attached (1 page)

Questions to be directed to Travis J. Hare, P.E. via email engineer@saginaw-mi.com before 3:00p.m. on April 28, 2026.

NOTE: SIGN ADDENDUM AND SUBMIT SAME WITH BID.

I _____ certify that I have read this ADDENDUM and that the bid, as submitted, reflects the changes described in this addendum.

_____
(Company's Name)

_____
(Address)

Bidder shall sign Addendum and submit it with bid.

_____
(Signature)

_____
(Title)

X-REMOVE-X

American Iron and Steel Contract Language

The Contractor acknowledges to and for the benefit of the City of Saginaw ("Purchaser") and the Michigan Department of Environment, Great Lakes, and Energy (the "State") that it understands the goods and services under this Agreement are being funded with monies made available by the Clean Water State Revolving Fund and/or the Drinking Water State Revolving Fund and such laws contain provisions commonly known as "American Iron and Steel (AIS);" that requires all iron and steel products used in the project be produced in the United States ("AIS Requirements") including iron and steel provided by the Contractor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Purchaser and the State that (a) the Contractor has reviewed and understands the AIS Requirements, (b) all iron and steel used in the project will be and/or have been produced in the United States in a manner that complies with the AIS Requirements, unless a waiver of the requirements is approved or the State made the determination in writing that the AIS Requirements do not apply to the project, and (c) the Contractor will provide any further verified information, certification, or assurance of compliance with this paragraph, or information necessary to support a waiver of the AIS requirements, as may be requested by the Purchaser.

Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or State to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Purchaser or State resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Purchaser). While the Contractor has no direct contractual privity with the State, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State.

C-1724 N. Mason WM & Dead Looping

Questions/Answers

1. Is there a reason the saw cut is in segments and we aren't just ripping out the whole section where the water main is going to run? Sawcutting will be a huge factor in this.----**The main reason is that the project is primarily water funding (including a DWSRF loan), and we can't use this money on the entire cross section, just on the portion related to the installation of the new water main.**
2. Is there an engineer's estimate.----**Yes, but not for sharing due to the nature of this bidding process.**
3. DBE % requirements?----**No, but please refer to page 83 as you are required to solicit proposals from a minimum of three (3) DBE contractors. This is a requirement from EGLE.**

AIA® Document A312™ – 2010

Performance Bond

Bond No.014266956

CONTRACTOR:
(Name, legal status and address)
L. D'Agostini & Sons, Inc.

15801 Twenty-Three Mile Road
Macomb Township, MI 48042

SURETY:
(Name, legal status and principal place of business)
Liberty Mutual Insurance Company
175 Berkeley Street
Boston, MA 02116

OWNER:
(Name, legal status and address)
City of Saginaw

1315 S. Washington Avenue
Saginaw, MI 48601

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

AIA Document A312–2010 combines two separate bonds, a Performance Bond and a Payment Bond, into one form. This is not a single combined Performance and Payment Bond.

CONSTRUCTION CONTRACT
Date: 18 May 2026

Amount: Two Million Six Hundred Eighty-four Thousand Seven Hundred Sixty-six And No/100Dollars ($2,684,766.00)

Description: C-1724 - N. Mason WM & Dead-End Looping DWSRF #7900.01
(Name and location)

BOND
Date: 18 May 2026
(Not earlier than Construction Contract Date)

Amount: Two Million Six Hundred Eighty-four Thousand Seven Hundred Sixty-six And No/100Dollars ($2,684,766.00)

Modifications to this Bond: ☒ None ☐ See Section 16

CONTRACTOR AS PRINCIPAL	SURETY
Company: (Corporate Seal)	Company: (Corporate Seal)
L. D'Agostini & Sons, Inc.	Liberty Mutual Insurance Company
Signature:	Signature:
Name and Title: Michael D'Agostini Secretary/Treasurer	Name and Title: Holly Nichols, Attorney-in-Fact

(Any additional signatures appear on the last page of this Performance Bond.)

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:
Guy Hurley, LLC
989 E. South Boulevard, Suite 200
Rochester Hills, MI 48307

OWNER'S REPRESENTATIVE:
(Architect, Engineer or other party:)

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

§ 2 If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Section 3.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after

.1 the Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Section 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

.2 the Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

.3 the Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

§ 4 Failure on the part of the Owner to comply with the notice requirement in Section 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

§ 5 When the Owner has satisfied the conditions of Section 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

§ 5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

§ 5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

§ 5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Section 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

§ 5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

§ 6 If the Surety does not proceed as provided in Section 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Section 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

§ 7 If the Surety elects to act under Section 5.1, 5.2 or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication, for

.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

.2 additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Section 5; and

.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

§ 8 If the Surety elects to act under Section 5.1, 5.3 or 5.4, the Surety's liability is limited to the amount of this Bond.

§ 9 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors and assigns.

§ 10 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 11 Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 12 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

§ 13 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 14 Definitions

§ 14.1 Balance of the Contract Price. The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

§ 14.2 Construction Contract. The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

§ 14.3 Contractor Default. Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

§ 14.4 Owner Default. Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 14.5 Contract Documents. All the documents that comprise the agreement between the Owner and Contractor.

§ 15 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 16 Modifications to this bond are as follows:

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL		SURETY	
Company:	*(Corporate Seal)*	Company:	*(Corporate Seal)*
Signature:		Signature:	
Name and Title:		Name and Title:	
Address		Address	

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

AIA® Document A312™ – 2010

Payment Bond

Bond No.014266956

CONTRACTOR:
(Name, legal status and address)
L. D'Agostini & Sons, Inc.

15801 Twenty-Three Mile Road
Macomb Township, MI 48042

SURETY:
(Name, legal status and principal place of business)
Liberty Mutual Insurance Company

175 Berkeley Street
Boston, MA 02116

OWNER:
(Name, legal status and address)
City of Saginaw
1315 S. Washington Avenue
Saginaw, MI 48601

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

AIA Document A312–2010 combines two separate bonds, a Performance Bond and a Payment Bond, into one form. This is not a single combined Performance and Payment Bond.

CONSTRUCTION CONTRACT
Date: **18 May 2026**

Amount: **Two Million Six Hundred Eighty-four Thousand Seven Hundred Sixty-six And No/100Dollars ($2,684,766.00)**

Description: **C-1724 - N. Mason WM & Dead-End Looping DWSRF #7900.01**
(Name and location)

BOND
Date: **18 May 2026**
(Not earlier than Construction Contract Date)

Amount: **Two Million Six Hundred Eighty-four Thousand Seven Hundred Sixty-six And No/100Dollars ($2,684,766.00)**

Modifications to this Bond: ☐ None ☒ See Section 18

CONTRACTOR AS PRINCIPAL
Company: *(Corporate Seal)*
L. D'Agostini & Sons, Inc.

Signature: _____
Name and Title: Michael D'Agostini Secretary/Treasurer

SURETY
Company: *(Corporate Seal)*
Liberty Mutual Insurance Company

Signature: _____
Name and Title: **Holly Nichols Attorney-in-Fact**

(Any additional signatures appear on the last page of this Payment Bond.)

(FOR INFORMATION ONLY — Name, address and telephone)
AGENT or BROKER:

Guy Hurley, LLC
989 E. South Boulevard, Suite 200
Rochester Hills, MI 48307
() -

OWNER'S REPRESENTATIVE:
(Architect, Engineer or other party:)

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

§ 2 If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Section 13) of claims, demands, liens or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety.

§ 4 When the Owner has satisfied the conditions in Section 3, the Surety shall promptly and at the Surety's expense defend, indemnify and hold harmless the Owner against a duly tendered claim, demand, lien or suit.

§ 5 The Surety's obligations to a Claimant under this Bond shall arise after the following:

§ 5.1 Claimants, who do not have a direct contract with the Contractor,

.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and

.2 have sent a Claim to the Surety (at the address described in Section 13).

§ 5.2 Claimants, who are employed by or have a direct contract with the Contractor, have sent a Claim to the Surety (at the address described in Section 13).

§ 6 If a notice of non-payment required by Section 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Section 5.1.1.

§ 7 When a Claimant has satisfied the conditions of Sections 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

§ 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

§ 7.2 Pay or arrange for payment of any undisputed amounts.

§ 7.3 The Surety's failure to discharge its obligations under Section 7.1 or Section 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Section 7.1 or Section 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

§ 8 The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Section 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

§ 9 Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

§ 10 The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to, or give notice on behalf of, Claimants or otherwise have any obligations to Claimants under this Bond.

§ 11 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 12 No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Section 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 13 Notice and Claims to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

§ 14 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 15 Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

§ 16 Definitions

§ 16.1 Claim. A written statement by the Claimant including at a minimum:

.1 the name of the Claimant;
.2 the name of the person for whom the labor was done, or materials or equipment furnished;
.3 a copy of the agreement or purchase order pursuant to which labor, materials or equipment was furnished for use in the performance of the Construction Contract;
.4 a brief description of the labor, materials or equipment furnished;
.5 the date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
.6 the total amount earned by the Claimant for labor, materials or equipment furnished as of the date of the Claim;
.7 the total amount of previous payments received by the Claimant; and
.8 the total amount due and unpaid to the Claimant for labor, materials or equipment furnished as of the date of the Claim.

§ 16.2 Claimant. An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

§ 16.3 Construction Contract. The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

§ 16.4 Owner Default. Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 16.5 Contract Documents. All the documents that comprise the agreement between the Owner and Contractor.

§ 17 *If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond* shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 18 Modifications to this bond are as follows:

Notwithstanding any provision in this Bond or the Construction Contract to the contrary, the Bond is provided to comply with the provisions of Act No. 213 of the Public Acts of Michigan, 1963, as amended (the "Act"). All provisions in the Bond which are in addition to or differ from those in the Act shall be read out of the Bond, and all pertinent provisions of the Act shall be read into the Bond. The Bond is a statutory Bond, not a common law bond.

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL		**SURETY**	
Company:	*(Corporate Seal)*	Company:	*(Corporate Seal)*
Signature:		Signature:	
Name and Title:		Name and Title:	
Address		Address	

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

POWER OF ATTORNEY

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

Certificate No: **8213450-013068**

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Nicholas Ashburn; Robert D. Heuer; Paul H. Hurley; Michael D. Lechner; Mark Madden; Richard McGregor; Holly Nichols; Jason Rogers

all of the city of Rochester state of MI each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 25th day of March, 2025.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

By: _____
Nathan J. Zangerle, Assistant Secretary

State of PENNSYLVANIA
County of MONTGOMERY ss

On this 25th day of March, 2025 before me personally appeared Nathan J. Zangerle, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at Plymouth Meeting, Pennsylvania, on the day and year first above written.

Commonwealth of Pennsylvania - Notary Seal
Teresa Pastella, Notary Public
Montgomery County
My commission expires March 28, 2029
Commission number 1126044
Member, Pennsylvania Association of Notaries

By: _____
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV – OFFICERS: Section 12. Power of Attorney.
Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII – Execution of Contracts: Section 5. Surety Bonds and Undertakings.
Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation – The President of the Company, acting pursuant to the Bylaws of the Company, authorizes Nathan J. Zangerle, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 18th day of May, 2026.

By: _____
Renee C. Llewellyn, Assistant Secretary

LMS-12873 LMIC OCIC WAIC Multi Co 02/24

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

For bond and/or Power of Attorney (POA) verification inquiries, please call 610-832-8240 or email HOSUR@libertymutual.com.

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 5/11/2026

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME: Jake Walker
Guy Hurley, LLC 989 E. South Boulevard Suite 200 Rochester Hills MI 48307	PHONE (A/C, No, Ext): (248)519-1414 FAX (A/C, No): (248)519-1401 E-MAIL ADDRESS: jwalker@ghbh.com

INSURED	INSURER(S) AFFORDING COVERAGE	NAIC #
L. D'Agostini & Sons, Inc. 15801 Twenty-Three Mile Road Macomb MI 48042	INSURER A : The Phoenix Ins Co. A++:XV	25623
	INSURER B : Travelers Prop Cas Co of America A++:XV	25674
	INSURER C : Travelers Indemnity Co of Am. A++:XV	25666
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** 25-26 Master **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY [ ] CLAIMS-MADE [X] OCCUR X Contractual Liability X XCU Included GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [X] PRO-JECT [ ] LOC [ ] OTHER:	X	Y	CO0T045412	12/31/2025	12/31/2026	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 300,000 $ 10,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
B	AUTOMOBILE LIABILITY X ANY AUTO [ ] ALL OWNED AUTOS [ ] SCHEDULED AUTOS X HIRED AUTOS [X] NON-OWNED AUTOS	X	Y	8100T020349	12/31/2025	12/31/2026	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
B	X UMBRELLA LIAB [X] OCCUR [ ] EXCESS LIAB [ ] CLAIMS-MADE [ ] DED [ ] RETENTION $	X	Y	CUP0T04860A	12/31/2025	12/31/2026	EACH OCCURRENCE AGGREGATE	$ 10,000,000 $ 10,000,000
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N [ ] (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N / A	Y	UB0T044741	12/31/2025	12/31/2026	X PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 1,000,000 $ 1,000,000 $ 1,000,000
B	Inland Marine			4W359966	12/31/2025	12/31/2026	Leased/Rented Equipment Installation Floater	600,000 200,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Project: N. Mason WM & Dead-End Looping DWSRF #7900.01, (C-1724). The City of Saginaw, its officers, employees, agents, or representatives are an Additional insured for General Liability, Automobile Liability and Umbrella Liability on a primary and non-contributory basis when required by written contract. Waiver of Subrogation applies in favor of the Additional Insureds for General Liability, Automobile Liability, Workers' Compensation and Umbrella Liability when required by written contract, unless prohibited by specific state law. 30 Day Notice of Cancellation (Except Non-Payment of Premium) when required by written contract.

CERTIFICATE HOLDER

City of Saginaw
1315 S.Washington Ave
Saginaw, MI 48601

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

R McGregor/JWALKE

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Hudson Insurance Company
A Stock Company
100 William Street, 5th Floor
New York, NY 10038
Toll-Free Telephone: 1-866-246-9945

THIS POLICY IS NONPARTICIPATING WITH REGARD TO PAYMENT OF POLICYHOLDER DIVIDENDS.

IN WITNESS WHEREOF, We have caused this policy to be executed by our President and our Corporate Secretary at New York, New York.

President

Secretary

Hudson Insurance Company
A Stock Company
100 William Street, 5th Floor
New York, NY 10038
1-866-246-9945

POLICY CERTIFICATE
RAILROAD PROTECTIVE LIABILITY

THIS POLICY CERTIFICATE IS ISSUED UNDER MASTER POLICY NUMBER RRP202101 ISSUED TO
RAILROAD PROTECTIVE INSURANCE GROUP
A voluntary membership organization whose principal office is:
4323 Warren Street, NW, Washington, D.C. 20016-2437

Policy Certificate Number:	RRP020832719319
Named Insured:	Huron and Eastern Railway
Mailing Address:	366 E Soper Rd Bad Axe, MI 48413
Policy Period:	From: 05/11/2026 12:01 AM To: 5/11/2027 12:01 AM Standard Time at the mailing address shown above
Producer Name:	Guy Hurley llc
Producer Address:	989 E South Blvd Suite 200 Rochester Hills, MI 48307
Program Administrator:	123ocp / Alliant Insurance Services
Program Administrator Address:	565 East Swedesford Road, Ste 100 Wayne, PA 19087
Designated Contractor:	L. D'Agostini & Sons
Designated Contractor Address:	15801 23 Mile Road Macomb Township, MI 48042
Contract Number Or Name:	Project Number 2501567 DWSRF Project #7900-01
"Work" Performed For:	-- City of Saginaw (1315 S. Washington Ave Saginaw, MI 48601)
"Job Location":	C-1724 N. Mason WM & Dead-End Looping DWSRF #7900.01
Description Of "Work"	Installing new Watermain parallel to the RR. Pipe Trench is 31' from RR tracks and equipment and work will not be any closer than 25' from RR tracks. Length of new watermain running along RR is approximately 3000'. Safety fence will be installed parallel to RR to keep equipment and crew from encroaching on RR tracks.
Total Contract Cost:	$2,684,776
Contract Cost Within 50 Feet:	$50,000
Territory:	United States of America
Limits Of Liability:	$2,000,000 per occurrence $6,000,000 annual aggregate
State Tax (if applicable)	
Premium:	$1,320.00
Audit Period (if applicable):	☐ Annually ☐Semi-Annually ☐Quarterly ☐ Monthly

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Forms Attached

Form Number	Form Title
HRRP-1400 (09-22)	Policy Certificate Railroad Protective Liability
CG 00 35 (04-13)	Railroad Protective Liaiblity Coverage Form
CG 33 71 (03-05)	Silica or Silica-Related Dust Exclusion
CG 34 96 (05-23)	Exclusion - Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)
HRRP-2002 (01-22)	Who Is An Insured Endorsement
HRRP-2004 (02-24)	Limits of Insurance - Extended Policy Period
HRRP-3000 (03-24)	Asbestos Exclusion
HRRP-3001 (03-24)	Exclusion Liability For Hazards of Lead
HRRP-3002 (03-24)	Fully Earned Premium Endorsement
HRRP-3003 (03-24)	Fungi, Virus, Or Bacterial Exclusion Endorsement
IL 00 21 (09-08)	Nuclear Energy Liability Exclusion Endorsement (Broad Form)
HTER-0001 (01-21)	Disclosure - Terrorism Risk Insurance Act
CG 21 70 (01-15)	Disclosure - Terrorism Risk Insurance Act
CG 21 76 (01-15)	Exclusion of Punitive Damages Related to a Certified Act of Terrorism
IL P 001 (01-04)	OFAC Advisory Notice to Policyholders
CG 28 39 (04-17)	Michigan Changes

Authorized Representative

5/11/2026

Date

Notices required to be given by the Named Insured under this policy shall be sent to:

Attn: Claims Department, Hudson Insurance Company
100 William Street, 5th Floor; New York, N.Y. 10038
You may also call: 1-866-546-3981 or email: HudsonClaims300@HudsonInsGroup.com
to report or discuss a claim.

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RAILROAD PROTECTIVE LIABILITY COVERAGE FORM

Various provisions in this policy restrict coverage. Read the entire policy carefully to determine rights, duties and what is and is not covered.

Throughout this policy the words "you" and "your" refer to the Named Insured shown in the Declarations. The words "we", "us" and "our" refer to the company providing this insurance.

The word "insured" means any person or organization qualifying as such under Section **II** – Who Is An Insured.

Other words and phrases that appear in quotation marks have special meaning. Refer to Section **V** – Definitions.

SECTION I – COVERAGES

COVERAGE A – BODILY INJURY AND PROPERTY DAMAGE LIABILITY

1. Insuring Agreement

a. We will pay those sums that the insured becomes legally obligated to pay as damages because of "bodily injury" or "property damage" to which this insurance applies. We will have the right and duty to defend the insured against any "suit" seeking those damages. However, we will have no duty to defend the insured against any "suit" seeking damages for "bodily injury" or "property damage" to which this insurance does not apply. We may, at our discretion, investigate any occurrence and settle any claim or "suit" that may result. But:

(1) The amount we will pay for damages is limited as described in Section **III** – Limits Of Insurance; and

(2) Our right and duty to defend ends when we have used up the applicable limit of insurance in the payment of judgments or settlements.

No other obligation or liability to pay sums or perform acts or services is covered unless explicitly provided for under Supplementary Payments – Coverage **A.**

b. This insurance applies to "bodily injury" and "property damage" only if:

(1) The "bodily injury" or "property damage" occurs during the policy period; and

(2) The "bodily injury" or "property damage" arises out of acts or omissions at the "job location" which are related to or are in connection with the "work" described in the Declarations.

c. Damages because of "bodily injury" include damages claimed by any person or organization for care, loss of services or death resulting at any time from the "bodily injury".

2. Exclusions

This insurance does not apply to:

a. Expected Or Intended Injury

"Bodily injury" or "property damage" expected or intended from the standpoint of the insured. This exclusion does not apply to "bodily injury" resulting from the use of reasonable force to protect persons or property.

b. Contractual Liability

"Bodily injury" or "property damage" for which the insured is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages assumed in a contract or agreement that is a "covered contract".

c. Completed Work

"Bodily injury" or "property damage" occurring after the "work" is completed. The "work" will be deemed completed at the earliest of the following times:

(1) When all the "work" called for in the "contractor's" contract has been completed.

(2) When all the "work" to be done at the "job location" has been completed.

(3) When that part of the "work" done at the "job location" has been put to its intended use by you, the governmental authority or other contracting party.

This exclusion does not apply to "bodily injury" or "property damage" resulting from the existence of or removal of tools, uninstalled equipment or abandoned or unused materials.

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d. Acts Or Omissions Of Insured

"Bodily injury" or "property damage", the sole proximate cause of which is an act or omission of any insured other than acts or omissions of any of "your designated employees". This exclusion does not apply to injury or damage sustained at the "job location" by any of "your designated employees" or employee of the "contractor", or by any employee of the governmental authority or any other contracting party (other than you) specified in the Declarations.

e. Workers' Compensation And Similar Laws

Any obligation of the insured under a workers' compensation, disability benefits or unemployment compensation law or any similar law. This exclusion does not apply to any obligation of the insured under the Federal Employers Liability Act, as amended.

f. Pollution

"Bodily injury" or "property damage" arising out of the actual, alleged or threatened discharge, dispersal, seepage, migration, release or escape of "pollutants" at or from the "job location":

(1) Due to the past or present use of the "job location" by you or for you or others for the handling, storage, disposal, processing or treatment of waste; or

(2) Due to the dumping or disposal of waste on the "job location" by the "contractor" with the knowledge of you or any of "your designated employees"; or

(3) On which you or "contractors" working directly or indirectly on any insured's behalf are performing operations if the "pollutants" are brought on or to the "job location" in connection with such operations by you, the "contractor" or "your designated employee". However, this subparagraph does not apply to:

(a) "Bodily injury" or "property damage" arising out of fuels or lubricants for equipment used at the "job location".

(b) "Bodily injury" or "property damage" arising out of heat, smoke or fumes from a "hostile fire".

(4) On which you or "contractors" working directly or indirectly on any insured's behalf are performing operations if the operations are to test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of, "pollutants".

g. Damage To Owned, Leased Or Entrusted Property

"Property damage" to property owned by you or leased or entrusted to you under a lease or trust agreement.

h. War

"Bodily injury" or "property damage", however caused, arising, directly or indirectly, out of:

(1) War, including undeclared or civil war;

(2) Warlike action by a military force, including action in hindering or defending against an actual or expected attack, by any government, sovereign or other authority using military personnel or other agents; or

(3) Insurrection, rebellion, revolution, usurped power, or action taken by governmental authority in hindering or defending against any of these.

COVERAGE B – PHYSICAL DAMAGE TO PROPERTY

1. Insuring Agreement

We will pay for "physical damage to property" to which this insurance applies. The "physical damage to property" must occur during the policy period. The "physical damage to property" must arise out of acts or omissions at the "job location" which are related to or in connection with the "work" described in the Declarations. The property must be owned by or leased or entrusted to you under a lease or trust agreement.

2. Exclusions

This insurance does not apply to "physical damage to property":

a. Completed Work

Occurring after the "work" is completed. The "work" will be deemed completed at the earliest of the following times:

(1) When all the "work" called for in the "contractor's" contract has been completed.

(2) When all the "work" to be done at the "job location" has been completed.

(3) When that part of the "work" done at the "job location" has been put to its intended use by you, the governmental authority or other contracting party.

This exclusion does not apply to "physical damage to property" resulting from the existence of tools, uninstalled equipment or abandoned or unused materials.

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b. Acts Or Omissions Of Insured

The sole proximate cause of which is an act or omission of any insured other than acts or omissions of any of "your designated employees".

c. Nuclear Incidents Or Conditions

Due to nuclear reaction, nuclear radiation or radioactive contamination or to any related act or condition.

d. Pollution

Due to the discharge, dispersal, seepage, migration, release or escape of "pollutants" excluded under Exclusion **f.** Pollution, Coverage **A.**

SUPPLEMENTARY PAYMENTS – COVERAGE A

We will pay, with respect to any claim we investigate or settle, or any "suit" against an insured we defend:

1. All expenses we incur.

2. All court costs taxed against the insured in the "suit". However, these payments do not include attorneys' fees or attorneys' expenses taxed against the insured.

3. All interest on the full amount of any judgment that accrues after entry of the judgment and before we have paid, offered to pay, or deposited in court the part of the judgment that is within the applicable limit of insurance.

4. The cost of bonds to release attachments, but only for bond amounts within the applicable limit of insurance. We do not have to furnish these bonds.

5. Expenses incurred by the insured for first aid administered to others at the time of an accident, for "bodily injury" to which this insurance applies.

6. All reasonable expenses incurred by the insured at our request to assist us in the investigation or defense of the claim or "suit", including actual loss of earnings up to $250 a day because of time off from work.

7. Prejudgment interest awarded against the insured on that part of the judgment we pay. If we make an offer to pay the applicable limit of insurance, we will not pay any prejudgment interest based on that period of time after the offer.

These payments will not reduce the limits of insurance.

SECTION II – WHO IS AN INSURED

1. You are an insured.

2. Your "executive officers" and directors are insureds, but only with respect to their duties as your officers and directors.

3. Your stockholders are insureds, but only with respect to their liability as stockholders.

4. Any railroad operating over your tracks is an insured.

SECTION III – LIMITS OF INSURANCE

1. The Limits of Insurance shown in the Declarations and the rules below fix the most we will pay regardless of the number of:

a. Insureds;

b. Claims made or "suits" brought; or

c. Persons or organizations making claims or bringing "suits".

2. The Aggregate Limit is the most we will pay for the sum of all damages because of all "bodily injury", all "property damage" and all "physical damage to property".

3. Subject to Paragraph **2.** above, the Each Occurrence Limit is the most we will pay for the sum of all damages because of all "bodily injury", all "property damage" and all "physical damage to property" arising out of any one occurrence.

4. Subject to Paragraph **3.** above, the payment for "physical damage to property" shall not exceed the lesser of:

a. The actual cash value of the property at the time of loss; or

b. The cost to repair or replace the property with other property of like kind or quality.

The Limits of Insurance of this Coverage Part apply separately to each consecutive annual period and to any remaining period of less than 12 months, starting with the beginning of the policy period shown in the Declarations, unless the policy period is extended after issuance for an additional period of less than 12 months. In that case, the additional period will be deemed part of the last preceding period for purposes of determining the Limits of Insurance.

SECTION IV – CONDITIONS

A. The following Conditions apply to Coverages **A** and **B:**

1. Assignment

Assignment of interest under this Coverage Part shall not bind us unless we issue an endorsement consenting to the assignment.

2. Bankruptcy

Bankruptcy or insolvency of the insured or of the insured's estate will not relieve us of our obligations under this Coverage Part.

3. Cancellation

a. You may cancel this policy by mailing or delivering to us advance written notice of cancellation.

b. We may cancel this policy by mailing or delivering to you, the "contractor" and any involved governmental authority or other contracting party designated in the Declarations, at the respective mailing addresses last known to us, written notice of cancellation at least 60 days before the effective date of cancellation.

c. Notice of cancellation will state the effective date of cancellation. The policy period will end on that date.

d. If this policy is cancelled, any unearned premium will be refunded. If we cancel, the refund will be pro rata. If you cancel, the refund may be less than pro rata. The cancellation will be effective even if we have not made or offered a refund.

e. If notice is mailed, proof of mailing will be sufficient proof of notice.

4. Changes

This policy contains all the agreements between you and us concerning the insurance afforded. You are authorized to make changes in the terms of this policy with our consent. This policy's terms can be amended or waived only by endorsement issued by us and made a part of this policy.

5. Inspections And Surveys

a. We have the right to:

(1) Make inspections and surveys at any time;

(2) Give you reports on the conditions we find; and

(3) Recommend changes.

b. We are not obligated to make inspections, surveys, reports or recommendations and any such actions we do undertake relate only to insurability and the premiums to be charged. We do not make safety inspections. We do not undertake to perform the duty of any person or organization to provide for the health or safety of workers or the public. And we do not warrant that conditions:

(1) Are safe or healthful; or

(2) Comply with laws, regulations, codes or standards.

c. Paragraphs **a.** and **b.** of this condition apply not only to us, but also to any rating, advisory, rate service or similar organization which makes insurance inspections, surveys, reports or recommendations.

d. Paragraph **b.** of this condition does not apply to any inspections, surveys, reports or recommendations we may make relative to certification, under state or municipal statutes, ordinances or regulations, of boilers, pressure vessels or elevators.

6. Other Insurance

The insurance afforded by this policy is:

a. Primary insurance and we will not seek contribution from any other insurance available to you except if the other insurance is provided by a contractor other than the designated contractor for the same operation and "job location"; and

b. If the other insurance is available, we will share with that other insurance by the method described below.

If all of the other insurance permits contribution by equal shares, we will follow this method also. Under this approach, each insurer contributes equal amounts until it has paid its applicable limit of insurance or none of the loss remains, whichever comes first.

If any of the other insurance does not permit contribution by equal shares, we will contribute by limits. Under this method, each insurer's share is based on the ratio of its applicable limit of insurance to the total applicable limits of insurance of all insurers.

7. Premium And Premium Audit

a. We will compute all premiums for this Coverage Part in accordance with our rules and rates.

b. Contract cost, the premium base shown in the Declarations, means the total cost of the operations described in the Declarations.

c. The premium shown in the Declarations as advance premium is a deposit premium only. At the close of each audit period we will compute the earned premium for that period and send notice to the "contractor" designated in the Declarations. The due date for audit and retrospective premiums is the date shown as the due date on the bill. If the sum of the advance and audit premiums paid for the policy period is greater than the earned premium, we will return the excess to the contractor designated in the Declarations.

In no event shall the payment of premium be your obligation.

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8. Transfer Of Rights Of Recovery Against Others To Us

If the insured has rights to recover all or part of any payment we have made under this policy, those rights are transferred to us. The insured must do nothing after loss to impair them. At our request, the insured will bring "suit" or transfer those rights to us and help us enforce them.

9. When We Do Not Renew

If we decide not to renew this Coverage Part, we will mail or deliver to the first Named Insured shown in the Declarations written notice of the nonrenewal not less than 30 days before the expiration date.

If notice is mailed, proof of mailing will be sufficient proof of notice.

B. The following Conditions apply to Coverage **A** only:

1. Legal Action Against Us

No person or organization has a right under this policy:

a. To join us as a party or otherwise bring us into a "suit" asking for damages from an insured; or

b. To sue us on this policy unless all of its terms have been fully complied with.

A person or organization may sue us to recover on an agreed settlement or on a final judgment against an insured; but we will not be liable for damages that are not payable under the terms of this policy or that are in excess of the applicable limit of insurance. An agreed settlement means a settlement and release of liability signed by us, the insured and the claimant or the claimant's legal representative.

2. Duties In The Event Of Occurrence, Claim Or Suit

a. You must see to it that we are notified as soon as practicable of an occurrence which may result in a claim. To the extent possible, notice should include:

(1) How, when and where the occurrence took place;

(2) The names and addresses of any injured persons and witnesses; and

(3) The nature and location of any injury or damage arising out of the occurrence.

b. If a claim is made or "suit" is brought against any insured, you must:

(1) Immediately record the specifics of the claim or "suit" and the date received; and

(2) Notify us as soon as practicable.

You must see to it that we receive written notice of the claim or "suit" as soon as practicable.

c. You and any other involved insured must:

(1) Immediately send us copies of any demands, notices, summonses or legal papers received in connection with the claim or "suit";

(2) Authorize us to obtain records and other information;

(3) Cooperate with us in the investigation or settlement of the claim or defense against the "suit"; and

(4) Assist us, upon our request, in the enforcement of any right against any person or organization which may be liable to the insured because of injury or damage to which this insurance may also apply.

d. No insured will, except at that insured's own cost, voluntarily make a payment, assume any obligation, or incur any expense, other than for first aid, without our consent.

3. Separation Of Insureds

Except with respect to the Limits of Insurance, this insurance applies:

a. As if each Named Insured were the only Named Insured; and

b. Separately to each insured against whom claim is made or "suit" is brought.

C. The following Conditions apply to Coverage **B** only:

1. Appraisal

If you fail to agree with us on the value of the property, or the amount of loss, either you or we may make written demand for an appraisal of the loss within 60 days after proof of loss is filed. In this event, each party will select a competent appraiser. The two appraisers will select a competent and impartial umpire. The appraisers will state separately the value of the property and the amount of loss. If they fail to agree, they will submit their differences to the umpire. A decision agreed to by any two will be binding. Each party will:

a. Pay its chosen appraiser; and

b. Bear the other expenses of the appraisal and umpire equally.

If we submit to an appraisal, we still retain our right to deny the claim.

2. No Benefit To Bailee

No person or organization, other than you, having custody of the property will benefit from this insurance.

3. Insured's Duties In The Event Of A Loss

You must:

a. Protect the property, whether or not the loss is covered by this policy. Any further loss due to your failure to protect the property shall not be recoverable under this policy. Reasonable expenses incurred in affording such protection shall be deemed to be incurred at our request; and

b. Submit to us, as soon after the loss as possible, your sworn proof of loss containing the information we request to settle the loss and, at our request, make available the damaged property for examination.

4. Legal Action Against Us

No person or organization has a right under this policy to sue us on this policy unless all of its terms have been fully complied with and until 30 days after proof of loss is filed and the amount of loss is determined as provided in this policy.

5. Payment Of Loss

We may pay for the loss in money, but there can be no abandonment of any property to us.

SECTION V – DEFINITIONS

1. "Bodily injury" means bodily injury, sickness or disease sustained by a person, including death resulting from any of these at any time.

2. "Contractor" means the contractor designated in the Declarations and includes all subcontractors working directly or indirectly for that "contractor" but does not include you.

3. "Covered contract" means any contract or agreement to carry a person or property for a charge or any interchange contract or agreement respecting motive power, or rolling stock equipment.

4. "Executive officer" means a person holding any of the officer positions created by your charter, constitution, bylaws or any other similar governing document.

5. "Hostile fire" means one which becomes uncontrollable or breaks out from where it was intended to be.

6. "Job location" means the job location designated in the Declarations including any area directly related to the "work" designated in the Declarations. "Job location" includes the ways next to it.

7. "Physical damage to property" means direct and accidental loss of or damage to rolling stock and their contents, mechanical construction equipment or motive power equipment, railroad tracks, roadbeds, catenaries, signals, bridges or buildings.

8. "Pollutants" means any solid, liquid, gaseous or thermal irritant or contaminant, including smoke, vapor, soot, fumes, acids, alkalis, chemicals and waste. Waste includes material to be recycled, reconditioned or reclaimed.

9. "Property damage" means:

a. Physical injury to tangible property, including all resulting loss of use of that property. All such loss of use shall be deemed to occur at the time of the physical injury that caused it; or

b. Loss of use of tangible property that is not physically injured. All such loss of use shall be deemed to occur at the time of the occurrence that caused it.

10. "Suit" means a civil proceeding in which damages because of "bodily injury" or "property damage" to which this insurance applies are alleged. "Suit" includes:

a. An arbitration proceeding in which such damages are claimed and to which the insured must submit or does submit with our consent; or

b. Any other alternative dispute resolution proceeding in which such damages are claimed and to which the insured submits with our consent.

11. "Work" means work or operations performed by the "contractor" including materials, parts or equipment furnished in connection with the work or operations.

12. "Your designated employee" means:

a. Any supervisory employee of yours at the "job location";

b. Any employee of yours while operating, attached to or engaged on work trains or other railroad equipment at the "job location" which are assigned exclusively to the "contractor"; or

c. Any employee of yours not described in Paragraph **a.** or **b.** above who is specifically loaned or assigned to the work of the "contractor" for the prevention of accidents or protection of property.

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SILICA OR SILICA-RELATED DUST EXCLUSION

This endorsement modifies insurance provided under the following:

RAILROAD PROTECTIVE LIABILITY COVERAGE PART

A. The following exclusion is added to Paragraph **2., Exclusions** of **Section I – Coverages, Coverage A – Bodily Injury And Property Damage Liability:**

2. Exclusions

This insurance does not apply to:

SILICA OR SILICA-RELATED DUST

a. "Bodily injury" arising, in whole or in part, out of the actual, alleged, threatened or suspected inhalation of, or ingestion of, "silica" or "silica-related dust".

b. "Property damage" arising, in whole or in part, out of the actual, alleged, threatened or suspected contact with, exposure to, existence of, or presence of, "silica" or "silica-related dust".

c. Any loss, cost or expense arising, in whole or in part, out of the abating, testing for, monitoring, cleaning up, removing, containing, treating, detoxifying, neutralizing, remediating or disposing of, or in any way responding to or assessing the effects of, "silica" or "silica-related dust", by any insured or by any other person or entity.

B. The following definitions are added to the **Definitions** Section:

1. "Silica" means silicon dioxide (occurring in crystalline, amorphous and impure forms), silica particles, silica dust or silica compounds.

2. "Silica-related dust" means a mixture or combination of silica and other dust or particles.

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EXCLUSION – PERFLUOROALKYL AND POLYFLUOROALKYL SUBSTANCES (PFAS)

This endorsement modifies insurance provided under the following:

RAILROAD PROTECTIVE LIABILITY COVERAGE PART

A. The following exclusion is added to Paragraph **2. Exclusions** of **Section I – Coverage A – Bodily Injury And Property Damage Liability:**

2. Exclusions

This insurance does not apply to:

Perfluoroalkyl And Polyfluoroalkyl Substances

a. "Bodily injury" or "property damage" which would not have occurred, in whole or in part, but for the actual, alleged, threatened or suspected inhalation, ingestion, absorption, consumption, discharge, dispersal, seepage, migration, release or escape of, contact with, exposure to, existence of, or presence of, any "perfluoroalkyl or polyfluoroalkyl substances".

b. Any loss, cost or expense arising, in whole or in part, out of the abating, testing for, monitoring, cleaning up, removing, containing, treating, detoxifying, neutralizing, remediating or disposing of, or in any way responding to or assessing the effects of, "perfluoroalkyl or polyfluoroalkyl substances", by any insured or by any other person or entity.

B. The following definition is added to the **Definitions** Section:

"Perfluoroalkyl or polyfluoroalkyl substances" means any:

1. Chemical or substance that contains one or more alkyl carbons on which hydrogen atoms have been partially or completely replaced by fluorine atoms, including but not limited to:

a. Polymer, oligomer, monomer or nonpolymer chemicals and their homologues, isomers, telomers, salts, derivatives, precursor chemicals, degradation products or by-products;

b. Perfluoroalkyl acids (PFAA), such as perfluorooctanoic acid (PFOA) and its salts, or perfluorooctane sulfonic acid (PFOS) and its salts;

c. Perfluoropolyethers (PFPE);

d. Fluorotelomer-based substances; or

e. Side-chain fluorinated polymers; or

2. Good or product, including containers, materials, parts or equipment furnished in connection with such goods or products, that consists of or contains any chemical or substance described in Paragraph **B.1.**

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WHO IS AN INSURED ENDORSEMENT

This endorsement modifies insurance provided under the following:

RAILROAD PROTECTIVE LIABILITY COVERAGE PART

SECTION II –WHO IS AN INSURED is amended with the addition of the following:

Any subsidiary company of the Named Insured, as shown in the Declarations, including any subsidiary company thereof:

a. Existing at the effective date of this policy, or

b. Acquired during the policy period.

Any other company controlled and actively managed by Named Insured, as shown in the Declarations, or other subsidiary thereof, other than a partnership or joint venture:

a. At the effective date of this policy, or

b. Upon the acquisition of the control, and active management thereof if acquired during the policy period.

All other terms and conditions of the policy remain unchanged.

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LIMITS OF INSURANCE – EXTENDED POLICY PERIOD

This endorsement modifies insurance provided under the following:

RAILROAD PROTECTIVE LIABILITY COVERAGE FORM

A. The final paragraph of **SECTION III – LIMITS OF INSURANCE** is deleted in its entirety and replaced by the following:

The Limits of Insurance of this Coverage Part apply once to the policy period shown in the Declarations of this policy. If the policy period is extended after issuance, the additional period will be deemed part of the last preceding period and shall not provide a new, additional or renewed Limit of Insurance.

All other terms and conditions of this policy remain unchanged.

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ASBESTOS EXCLUSION ENDORSEMENT

This endorsement modifies insurance provided under the following:

RAILROAD PROTECTIVE LIABILITY COVERAGE FORM

SECTION I – COVERAGES, COVERAGE A – BODILY INJURY AND PROPERTY DAMAGE LIABILITY paragraph **2. Exclusions** and **SECTION I – COVERAGES, COVERAGE B – PHYSICAL DAMAGE TO PROPERTY** paragraph **2. Exclusions** is amended with the addition of the following;

This insurance does not apply to any obligation of the Company:

A. to investigate, settle or defend any claim or suit against any “insured” alleging actual or threatened injury or damage of any nature or kind including loss of use to persons or property which arises out of or would not have occurred but for:

   (1) exposure to asbestos; or

   (2) manifestation of any disease relating to the exposure to asbestos;

   during policy period or at any time prior to the policy period;

B. to pay, contribute or indemnify another for any injury or damage resulting in judgments, settlements, loss, costs or expenses awarded or incurred that:

   (1) arises out of any such claim or suit; or

   (2) arises due to compliance with any action authorized by law relating to such injury or damage.

All other terms and conditions of the policy remain unchanged.

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EXCLUSION – LIABILITY FOR HAZARDS OF LEAD

This endorsement modifies insurance provided under the following:

RAILROAD PROTECTIVE LIABILITY COVERAGE FORM

SECTION I – COVERAGES, COVERAGE A – BODILY INJURY AND PROPERTY DAMAGE LIABILITY, 2. Exclusions is amended with the addition of the following:

This insurance does not apply to:

"Bodily injury" caused in whole or in part, either directly or indirectly, by lead paint or lead contamination, or arising out of or incidental to the inhalation, ingestion, use, handling, or contact with lead paint or lead contamination.

All other terms and conditions of the policy remain unchanged.

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FULLY EARNED PREMIUM ENDORSEMENT

This endorsement modifies insurance provided under the following:

RAILROAD PROTECTIVE LIABILITY COVERAGE PART

SECTION IV – CONDITIONS, A, 3. Cancellation; **d.** is deleted in its entirety and replaced with the following:

If this policy is cancelled, the earned premium may be determined by final audit. In no event will the final premium be less than 100% of the premium as described on the policy certificate.

SECTION IV – CONDITIONS, A, 7. Premium and Premium Audit; c. is deleted in its entirety and replaced with the following:

The premium shown on the policy certificate as advance premium is a deposit premium only. In no event will the final premium be less than 100% of the premium as described on the policy certificate. At the close of each audit period we reserve the right to compute the earned premium for that period and if there is any additional premium due, we will send notice to the “contractor” designated in the Declarations. The due date for audit additional premium is the date shown as the due date on the bill.

All other terms and conditions of the policy remain unchanged.

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FUNGI, VIRUS, OR BACTERIA EXCLUSION ENDORSEMENT

This endorsement modifies insurance provided under the following:

RAILROAD PROTECTIVE LIABILITY COVERAGE PART

SECTION I – COVERAGES, COVERAGE A – BODILY INJURY AND PROPERTY DAMAGE LIABILITY – paragraph **2. Exclusions** is amended with the addition of the following:

This insurance does not apply to:

"Bodily injury" or "property damage" which would not have occurred, in whole or in part, but for the actual, alleged or threatened inhalation of, ingestion of, contact with, exposure to, existence of, or presence of, any "fungi", “virus”, bacteria or other microorganism, whether related, in any manner, to a declared or undeclared “epidemic or pandemic” that induces or is capable of inducing physical distress, illness or disease regardless of whether any other cause, event, material or product contributed concurrently or in any sequence to such injury or damage.

This exclusion applies, whether or not due to the insured’s negligence, unintentional act or wrongdoing in the:

(1) Abating, testing for, monitoring, clean up, removing, containing, treating, detoxifying, neutralizing, remediating or disposing of, or in any way responding to, or assessing the effects of, "fungi", “virus”, bacteria or other microorganism, by any insured or by any other person or entity.

(2) Failure to provide any state or governmental mandated personal protective equipment;

(3) Failure to prevent the spread of the disease;

(4) Failure to report the disease to authorities; or

(5) Supervising, hiring, employing, training or monitoring of others, whether or not infected with and spread a communicable disease, by any insured.

This exclusion further applies to defense costs, fines and penalties related, in any manner, to the above. We shall have no duty to investigate, defend or settle any claim or “suit” related, in any manner, to the above.

It is further understood that this insurance will not become excess of any reduced or exhausted aggregate limit of any other insurance as a result of claims, suits, demands, judgments or causes of action arising any way out of or in any way related to the above.

SECTION I – COVERAGES, COVERAGE B – PHYSICAL DAMAGE TO PROPERTY paragraph **2. Exclusions** is amended with the addition of the following:

This insurance does not apply to:

"Physical damage to property" which would not have occurred, in whole or in part, but for the actual, alleged or threatened inhalation of, ingestion of, contact with, exposure to, existence of, or presence of, any "fungi”, “virus”, bacteria or other microorganism, whether related, in any manner, to a declared or undeclared “epidemic or pandemic” that induces or is capable of inducing physical distress, illness or disease regardless of whether any other cause, event, material or product contributed concurrently or in any sequence to such injury or damage.

This exclusion applies, whether or not due to the insured’s negligence, unintentional act or wrongdoing in the:

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(1) Abating, testing for, monitoring, clean up, removing, containing, treating, detoxifying, neutralizing, remediating or disposing of, or in any way responding to, or assessing the effects of, "fungi", “virus”, bacteria or other microorganism, by any insured or by any other person or entity.

(2) Failure to provide any state or governmental mandated personal protective equipment;

(3) Failure to prevent the spread of the disease;

(4) Failure to report the disease to authorities; or

(5) Supervising, hiring, employing, training or monitoring of others, whether or not infected with and spread a communicable disease, by any insured.

This exclusion further applies to defense costs, fines and penalties related, in any manner, to the above. We shall have no duty to investigate, defend or settle any claim or “suit” related, in any manner, to the above.

It is further understood that this insurance will not become excess of any reduced or exhausted aggregate limit of any other insurance as a result of claims, suits, demands, judgments or causes of action arising any way out of or in any way related to the above.

SECTION V – DEFINITIONS is amended with the addition of the following:

“Epidemic or pandemic” means an outbreak of an infectious disease transmissible from person to person (whether by direct contact with an affected individual, by casual contact with an affected person’s secretions or objects touched by an affected person, by airborne means or by indirect means) that spreads and affects a significant proportion of a population, either geographically or globally.

"Fungi" means any type or form of fungus, including mold or mildew and any mycotoxins, spores, scents or byproducts produced or released by fungi.

“Virus” means any type of submicroscopic infectious agent that replicates only inside the living cells of an organism.

All other terms and conditions of the policy remain unchanged.

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NUCLEAR ENERGY LIABILITY EXCLUSION ENDORSEMENT

(Broad Form)

This endorsement modifies insurance provided under the following:

COMMERCIAL AUTOMOBILE COVERAGE PART
COMMERCIAL GENERAL LIABILITY COVERAGE PART
FARM COVERAGE PART
LIQUOR LIABILITY COVERAGE PART
MEDICAL PROFESSIONAL LIABILITY COVERAGE PART
OWNERS AND CONTRACTORS PROTECTIVE LIABILITY COVERAGE PART
POLLUTION LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART
RAILROAD PROTECTIVE LIABILITY COVERAGE PART
UNDERGROUND STORAGE TANK POLICY

1. The insurance does not apply:

A. Under any Liability Coverage, to "bodily injury" or "property damage":

(1) With respect to which an "insured" under the policy is also an insured under a nuclear energy liability policy issued by Nuclear Energy Liability Insurance Association, Mutual Atomic Energy Liability Underwriters, Nuclear Insurance Association of Canada or any of their successors, or would be an insured under any such policy but for its termination upon exhaustion of its limit of liability; or

(2) Resulting from the "hazardous properties" of "nuclear material" and with respect to which **(a)** any person or organization is required to maintain financial protection pursuant to the Atomic Energy Act of 1954, or any law amendatory thereof, or **(b)** the "insured" is, or had this policy not been issued would be, entitled to indemnity from the United States of America, or any agency thereof, under any agreement entered into by the United States of America, or any agency thereof, with any person or organization.

B. Under any Medical Payments coverage, to expenses incurred with respect to "bodily injury" resulting from the "hazardous properties" of "nuclear material" and arising out of the operation of a "nuclear facility" by any person or organization.

C. Under any Liability Coverage, to "bodily injury" or "property damage" resulting from "hazardous properties" of "nuclear material", if:

(1) The "nuclear material" **(a)** is at any "nuclear facility" owned by, or operated by or on behalf of, an "insured" or **(b)** has been discharged or dispersed therefrom;

(2) The "nuclear material" is contained in "spent fuel" or "waste" at any time possessed, handled, used, processed, stored, transported or disposed of, by or on behalf of an "insured"; or

(3) The "bodily injury" or "property damage" arises out of the furnishing by an "insured" of services, materials, parts or equipment in connection with the planning, construction, maintenance, operation or use of any "nuclear facility", but if such facility is located within the United States of America, its territories or possessions or Canada, this exclusion **(3)** applies only to "property damage" to such "nuclear facility" and any property thereat.

2. As used in this endorsement:

"Hazardous properties" includes radioactive, toxic or explosive properties.

"Nuclear material" means "source material", "special nuclear material" or "by-product material".

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"Source material", "special nuclear material", and "by-product material" have the meanings given them in the Atomic Energy Act of 1954 or in any law amendatory thereof.

"Spent fuel" means any fuel element or fuel component, solid or liquid, which has been used or exposed to radiation in a "nuclear reactor".

"Waste" means any waste material **(a)** containing "by-product material" other than the tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its "source material" content, and **(b)** resulting from the operation by any person or organization of any "nuclear facility" included under the first two paragraphs of the definition of "nuclear facility".

"Nuclear facility" means:

(a) Any "nuclear reactor";

(b) Any equipment or device designed or used for **(1)** separating the isotopes of uranium or plutonium, **(2)** processing or utilizing "spent fuel", or **(3)** handling, processing or packaging "waste";

(c) Any equipment or device used for the processing, fabricating or alloying of "special nuclear material" if at any time the total amount of such material in the custody of the "insured" at the premises where such equipment or device is located consists of or contains more than 25 grams of plutonium or uranium 233 or any combination thereof, or more than 250 grams of uranium 235;

(d) Any structure, basin, excavation, premises or place prepared or used for the storage or disposal of "waste";

and includes the site on which any of the foregoing is located, all operations conducted on such site and all premises used for such operations.

"Nuclear reactor" means any apparatus designed or used to sustain nuclear fission in a self-supporting chain reaction or to contain a critical mass of fissionable material.

"Property damage" includes all forms of radioactive contamination of property.

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THIS ENDORSMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLLY

DISCLOSURE – TERRORISM RISK INSURANCE ACT

THIS ENDORSEMENT IS MADE PART OF YOUR POLICY PURSUANT TO THE TERRORISM RISK INSURANCE ACT.

In accordance with the Terrorism Risk Insurance Act, including all amendments, ("TRIA" or the "Act"), we are required to provide you with a notice of the portion of your premium attributable to coverage for "certified acts of terrorism," the federal share of payment of losses from such acts, and the limitation or "cap" on our liability under the Act

Disclosure of Premium

The Company has made available coverage for "certified acts of terrorism" as defined in the Act, for **ZERO** additional premium.

Federal Participation In Payment of Terrorism Losses

If covered terrorism losses exceed a statutorily established deductible amount paid by the insurance company providing coverage, as specified in the Act, the United States Government generally reimburses 80% beginning on January 1, 2020 of covered terrorism losses exceeding the statutorily established deductible paid by the insurance company providing the coverage.

Cap on Insurer Participation In Payment Of Terrorism Losses

If aggregate insured losses attributable to "certified acts of terrorism" exceed $100 billion in a calendar year and we have met our deductible under the Act, we shall not be liable for the payment of any portion of the amount of such losses that exceeds $100 billion. Nor shall Treasury make any payment for any portion of the amount of such losses that exceeds $100 billion. In such case, insured losses up to that amount are subject to pro rata allocation in accordance with procedures established by the Secretary of the Treasury.

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

CAP ON LOSSES FROM CERTIFIED ACTS OF TERRORISM

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
LIQUOR LIABILITY COVERAGE PART
OWNERS AND CONTRACTORS PROTECTIVE LIABILITY COVERAGE PART
POLLUTION LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART
RAILROAD PROTECTIVE LIABILITY COVERAGE PART
UNDERGROUND STORAGE TANK POLICY

A. If aggregate insured losses attributable to terrorist acts certified under the federal Terrorism Risk Insurance Act exceed $100 billion in a calendar year and we have met our insurer deductible under the Terrorism Risk Insurance Act, we shall not be liable for the payment of any portion of the amount of such losses that exceeds $100 billion, and in such case insured losses up to that amount are subject to pro rata allocation in accordance with procedures established by the Secretary of the Treasury.

"Certified act of terrorism" means an act that is certified by the Secretary of the Treasury, in accordance with the provisions of the federal Terrorism Risk Insurance Act, to be an act of terrorism pursuant to such Act. The criteria contained in the Terrorism Risk Insurance Act for a "certified act of terrorism" include the following:

1. The act resulted in insured losses in excess of $5 million in the aggregate, attributable to all types of insurance subject to the Terrorism Risk Insurance Act; and

2. The act is a violent act or an act that is dangerous to human life, property or infrastructure and is committed by an individual or individuals as part of an effort to coerce the civilian population of the United States or to influence the policy or affect the conduct of the United States Government by coercion.

B. The terms and limitations of any terrorism exclusion, or the inapplicability or omission of a terrorism exclusion, do not serve to create coverage for injury or damage that is otherwise excluded under this Coverage Part.

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

EXCLUSION OF PUNITIVE DAMAGES RELATED TO A CERTIFIED ACT OF TERRORISM

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
LIQUOR LIABILITY COVERAGE PART
OWNERS AND CONTRACTORS PROTECTIVE LIABILITY COVERAGE PART
POLLUTION LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART
RAILROAD PROTECTIVE LIABILITY COVERAGE PART
UNDERGROUND STORAGE TANK POLICY

A. The following exclusion is added:

This insurance does not apply to:

TERRORISM PUNITIVE DAMAGES

Damages arising, directly or indirectly, out of a "certified act of terrorism" that are awarded as punitive damages.

B. The following definition is added:

"Certified act of terrorism" means an act that is certified by the Secretary of the Treasury, in accordance with the provisions of the federal Terrorism Risk Insurance Act, to be an act of terrorism pursuant to such Act. The criteria contained in the Terrorism Risk Insurance Act for a "certified act of terrorism" include the following:

1. The act resulted in insured losses in excess of $5 million in the aggregate, attributable to all types of insurance subject to the Terrorism Risk Insurance Act; and

2. The act is a violent act or an act that is dangerous to human life, property or infrastructure and is committed by an individual or individuals as part of an effort to coerce the civilian population of the United States or to influence the policy or affect the conduct of the United States Government by coercion.

C. The terms and limitations of any terrorism exclusion, or the inapplicability or omission of a terrorism exclusion, do not serve to create coverage for injury or damage that is otherwise excluded under this Coverage Part.

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U.S. TREASURY DEPARTMENT'S OFFICE OF FOREIGN ASSETS CONTROL ("OFAC") ADVISORY NOTICE TO POLICYHOLDERS

No coverage is provided by this Policyholder Notice nor can it be construed to replace any provisions of your policy. You should read your policy and review your Declarations page for complete information on the coverages you are provided.

This Notice provides information concerning possible impact on your insurance coverage due to directives issued by OFAC. **Please read this Notice carefully.**

The Office of Foreign Assets Control (OFAC) administers and enforces sanctions policy, based on Presidential declarations of "national emergency". OFAC has identified and listed numerous:

- Foreign agents;
- Front organizations;
- Terrorists;
- Terrorist organizations; and
- Narcotics traffickers;

as "Specially Designated Nationals and Blocked Persons". This list can be located on the United States Treasury's web site – http//www.treas.gov/ofac.

In accordance with OFAC regulations, if it is determined that you or any other insured, or any person or entity claiming the benefits of this insurance has violated U.S. sanctions law or is a Specially Designated National and Blocked Person, as identified by OFAC, this insurance will be considered a blocked or frozen contract and all provisions of this insurance are immediately subject to OFAC. When an insurance policy is considered to be such a blocked or frozen contract, no payments nor premium refunds may be made without authorization from OFAC. Other limitations on the premiums and payments also apply.

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

MICHIGAN CHANGES

This endorsement modifies insurance provided under the following:

RAILROAD PROTECTIVE LIABILITY COVERAGE PART

A. Paragraphs **a., b., c.** and **d.** of the **Cancellation** Condition (Section **IV**) are replaced by the following:

a. You may cancel this Policy by giving us or our authorized agent notice of cancellation.

b. We may cancel this Policy by mailing or delivering to you, the "contractor", and any involved governmental authority or other contracting party designated in the Declarations, at the respective mailing addresses last known to us or our authorized agent, written notice of cancellation at least 60 days before the effective date of cancellation.

c. The time of surrender or the effective date and hour of cancellation stated in the notice shall become the end of the policy period.

d. If this Policy is cancelled, we will return any pro rata premium refund due. The minimum earned premium shall not be less than the pro rata premium for the expired time or $25, whichever is greater. The cancellation will be effective even if we have not made or offered a refund.

B. The paragraph relating to prejudgment interest in **Supplementary Payments** (Section **I**) is replaced by the following:

Prejudgment interest awarded against the insured on that part of the judgment we pay.

C. With respect to Condition **B.2. Duties In The Event Of Occurrence, Claim Or Suit** (Section **IV**):

1. Notice given by or on behalf of the insured to our authorized agent, with particulars sufficient to identify the insured, shall be considered notice to us.

2. The last sentence of Paragraph **B.2.b.** is deleted.

3. The reference to Paragraph **d.** is amended to read Paragraph **e.**

4. The following is added:

d. Failure to give any notice required by this condition within the time period specified shall not invalidate any claim made by you if it shall be shown not to have been reasonably possible to give notice within the prescribed time period and that notice was given as soon as was reasonably possible.

D. The **When We Do Not Renew** Condition (Section **IV**) is replaced by the following:

When We Do Not Renew

If we decide not to renew this Coverage Part, we will mail or deliver to the first Named Insured's last mailing address known to us or our authorized agent written notice of the nonrenewal not less than 30 days before the expiration date.

If notice is mailed, proof of mailing shall be sufficient proof of notice.

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Markel American Insurance Company

4521 Highwoods Parkway
Glen Allen, Virginia 23060
(800) 431-1270

INSURANCE POLICY

Coverage afforded by this policy is provided by the Company (Insurer) and named in the Declarations.

In **Witness Whereof**, the company (insurer) has caused this policy to be executed and attested and countersigned by a duly authorized representative of the company (insurer) identified in the Declarations.

Kathleen Anne Sturgeon

Secretary

President

MARKEL AMERICAN INSURANCE COMPANY

PRIVACY NOTICE

U. S. Consumer Privacy Notice Rev. 1/1/2020

FACTS	WHAT DOES MARKEL GROUP OF COMPANIES REFERENCED BELOW (INDIVIDUALLY OR COLLECTIVELY REFERRED TO AS "WE", "US", OR "OUR") DO WITH YOUR PERSONAL INFORMATION?
Why?	In the course of Our business relationship with you, We collect information about you that is necessary to provide you with Our products and services. We treat this information as confidential and recognize the importance of protecting it. Federal and state law gives you the right to limit some but not all sharing of your personal information. Federal and state law also requires Us to tell you how We collect, share, and protect your personal information. Please read this notice carefully to understand what We do.
What?	The types of personal information We collect and share depend on the product or service you have with Us. This information can include: • your name, mailing and email address(es), telephone number, date of birth, gender, marital or family status, identification numbers issued by government bodies or agencies (i.e.: Social Security number or FEIN, driver's license or other license number), employment, education, occupation, or assets and income from applications and other forms from you, your employer and others; • your policy coverage, claims, premiums, and payment history from your dealings with Us, Our Affiliates, or others; • your financial history from other insurance companies, financial organizations, or consumer reporting agencies, including but not limited to payment card numbers, bank account or other financial account numbers and account details, credit history and credit scores, assets and income and other financial information, or your medical history and records. Personal information does not include: • publicly-available information from government records; • de-identified or aggregated consumer information. When you are no longer Our customer, We continue to share your information as described in this Notice as required by law.
How?	All insurance companies need to share customers' personal information to run their everyday business. In the section below, We list the reasons financial companies can share their customers' personal information; the reasons We choose to share; and whether you can limit this sharing. We restrict access to your personal information to those individuals, such as Our employees and agents, who provide you with insurance products and services. We may disclose your personal information to Our Affiliates and Nonaffiliates (1) to process your transaction with Us, for instance, to determine eligibility for coverage, to process claims, or to prevent fraud, or (2) with your written authorization, or (3) otherwise as permitted by law. We do not disclose any of your personal information, as Our customer or former customer, except as described in this Notice.

Reasons We can share your personal information	Do We share?	Can you limit this sharing?
For Our everyday business purposes and as required by law – such as to process your transactions, maintain your account(s), respond to court orders and legal/regulatory investigations, to prevent fraud, or report to credit bureaus	Yes	No
For Our marketing purposes – to offer Our products and services to you	Yes	No
For Joint Marketing with other financial companies	Yes	No
For Our Affiliates' everyday business purposes – information about your transactions and experiences	Yes	No
For Our Affiliates' everyday business purposes – information about your creditworthiness	No	We don't share
For Our Affiliates to market you	No	We don't share
For Nonaffiliates to market you	No	We don't share
Questions? Call (888) 560-4671 or email privacy@markel.com		

Who We are	
Who is providing this Notice?	A list of Our companies is located at the end of this Notice.

What We do	
How do We protect your personal information?	We maintain reasonable physical, electronic, and procedural safeguards to protect your personal information and to comply with applicable regulatory standards. For more information, visit www.markel.com/privacy-policy.
How do We collect your personal information?	We collect your personal information, for example, when you • complete an application or other form for insurance • perform transactions with Us, Our Affiliates, or others • file an insurance claim or provide account information • use your credit or debit card We also collect your personal information from others, such as consumer reporting agencies that provide Us with information such as credit information, driving records, and claim histories.
Why can't you limit all sharing of your personal information?	Federal law gives you the right to limit only • sharing for Affiliates' everyday business purposes – information about your creditworthiness • Affiliates from using your information to market to you • sharing for Nonaffiliates to market to you State laws and individual companies may give you additional rights to limit sharing. See the Other Important Information section of this Notice for more on your rights under state law.

Definitions	
Affiliates	Companies related by common ownership or control. They can be financial and nonfinancial companies. • Our Affiliates include member companies of Markel Group.
Nonaffiliates	Companies not related by common ownership or control. They can be financial and nonfinancial companies. • Nonaffiliates that We can share with can include financial services companies such as insurance agencies or brokers, claims adjusters, reinsurers, and auditors, state insurance officials, law enforcement, and others as permitted by law.
Joint Marketing	A formal agreement between Nonaffiliated companies that together market financial products or services to you. • Our Joint Marketing providers can include entities providing a service or product that could allow Us to provide a broader selection of insurance products to you.

Other Important Information
For Residents of AZ, CT, GA, IL, ME, MA, MN, MT, NV, NJ, NC, OH, OR, and VA: Under state law, under certain circumstances you have the right to access and request correction, amendment or deletion of personal information that We have collected from or about you. To do so, contact your agent, visit www.markel.com/privacy-policy, call (888) 560-4671, or write to Markel Corporation Privacy Office, 4521 Highwoods Parkway, Glen Allen, VA 23060. We may charge a reasonable fee to cover the costs of providing this information. We will let you know what actions We take. If you do not agree with Our actions, you may send Us a statement.
For Residents of CA: You have the right to review, make corrections, or delete your recorded personal information contained in Our files. To do so, contact your agent, visit www.markel.com/privacy-policy, call (888) 560-4671, or write to Markel Corporation Privacy Office, 4521 Highwoods Parkway, Glen Allen, VA 23060. We do not and will not sell your personal information. For the categories of personal information We have collected from consumers within the last 12 months, please visit: www.markel.com/privacy-policy.
For Residents of MA and ME: You may ask, in writing, for specific reason, for an adverse underwriting decision.
Markel Group of Companies Providing This Notice: City National Insurance Company, Essentia Insurance Company, Evanston Insurance Company, FirstComp Insurance Company, Independent Specialty Insurance Company, National Specialty Insurance Company, Markel Bermuda Limited, Markel American Insurance Company, Markel Global Reinsurance Company, Markel Insurance Company, Markel International Insurance Company Limited, Markel Service, Incorporated, Markel West, Inc. (d/b/a in CA as Markel West Insurance Services), Pinnacle National Insurance Company, State National Insurance Company, Inc., Superior Specialty Insurance Company, SureTec Agency Services, Inc. (d/b/a in CA as SureTec Agency Insurance Services), SureTec Indemnity Company, SureTec Insurance Company, United Specialty Insurance Company, Inc.

MARKEL AMERICAN INSURANCE COMPANY

NOTICE TO POLICYHOLDERS
CLAIM REPORTING

Please immediately report a new claim under this policy to:

newclaims@markel.com

For general claims inquiries after a claim has been reported, please email:

markelclaims@markel.com

In order for us to expedite the handling of your claim and quickly refer it to the appropriate party, please have the following information available:

- Claim number (or report as new)
- Your name, contact information and position with the Named Insured
- Date of loss
- Policy number and insured name
- Details of loss

Our address and additional contact information are as follows:

Markel Claims
P.O. Box 2009
Glen Allen, VA 23058-2009
Phone: 800-362-7535 (800) 3MARKEL
Fax: 855-662-7535 (855) 6MARKEL

Markel understands the importance of having knowledgeable claims professionals prepared to answer your questions with personal attention and expertise. With claims professionals located across four times zones, you are sure to find the claims assistance you need -- when you need it.

PLEASE REFER TO THE POLICY FOR ANY NOTICE AND REPORTING PROVISIONS AND DUTIES IN THE EVENT OF LOSS OR DAMAGE TO COVERED PROPERTY.

MARKEL AMERICAN INSURANCE COMPANY

U.S. TREASURY DEPARTMENT'S OFFICE OF FOREIGN ASSETS CONTROL ("OFAC") ADVISORY NOTICE TO POLICYHOLDERS

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- Foreign agents;
- Front organizations;
- Terrorists;
- Terrorist organizations; and
- Narcotics traffickers;

as "Specially Designated Nationals and Blocked Persons". This list can be located on the United States Treasury's web site – https://www.treasury.gov/ofac.

In accordance with OFAC regulations, if it is determined that you or any other insured, or any person or entity claiming the benefits of this insurance has violated U.S. sanctions law or is a Specially Designated National and Blocked Person, as identified by OFAC, this insurance will be considered a blocked or frozen contract and all provisions of this insurance are immediately subject to OFAC. When an insurance policy is considered to be such a blocked or frozen contract, no payments nor premium refunds may be made without authorization from OFAC. Other limitations on the premiums and payments also apply.

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MARKEL AMERICAN INSURANCE COMPANY

MICHIGAN NOTICE TO POLICYHOLDER

Effective March 31, 2003, this policy is exempt from the filing requirement of section 2236 of the insurance code of 1956, 1956 PA 218, MCL 500.2236, and therefore, may contain forms and/or rates that have not been filed with the state of Michigan.

Markel American Insurance Company

OWNERS AND CONTRACTORS PROTECTIVE LIABILITY DECLARATIONS

POLICY NUMBER: OCP-MAR-0004329 RENEWAL OF POLICY:

Named Insured and Mailing Address (No., Street, Town or City, County, State, Zip Code)

City of Saginaw
1315 S. Washington Ave.
Saginaw, MI 48601

Policy Period: From 05/11/2026 to 05/11/2027 at 12:01 A.M. at your mailing address shown above.

IN RETURN FOR THE PAYMENT OF THE PREMIUM, AND SUBJECT TO ALL THE TERMS OF THIS POLICY, WE AGREE WITH YOU TO PROVIDE THE INSURANCE AS STATED IN THIS POLICY.

Description And Form Of Business

Business Description: Municipality

☐ Individual ☐ Partnership ☐ Joint Venture ☐ LLC ☒ Other Organization: Municipality

Location(s) Of Covered Operations

Various
Saginaw, MI 48601
Contract #: Project Number 2501567 DWSRF Project #7900-01, Installation of water main and site restoration

Designated Contractor Name And Mailing Address

L. D'Agostini & Sons, Inc.
15801 23 Mile Road
Macomb Township, MI 48042

Limits Of Insurance

Each Occurrence Limit:	$1,000,000
Aggregate Limit:	$2,000,000

Producer Number, Name and Mailing Address	
123ocp.com	214317
565 East Swedesford Road	
Suite 100	
Wayne, PA 19087	

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Classification And Premium				
Classification	**Code No.**	**Premium Basis**	**Rate Per $1,000 Of Cost**	**Advance Premium**
MICHIGAN Construction Operations - Owner - Not Otherwise Classified (Not Railroads) - Excluding Operations On Board Ships	16292	$2,684,776	$0.775	$2,081.00

State Tax Or Other (If Applicable)	$0.00
Terrorism	$0.00 (Included)
Total Premium	$2,081.00

Premium shown is payable at inception.

Forms And Endorsements

Forms and Endorsements applying to this Coverage Part and made part of this policy at time of issue:

MJIL 1000 (06 10), MPIL 1007 (01 20), MPIL 1074 (02 20), MPIL 1083 (04 15), MIL-PN-MI (03 03), MDGL 1510 (01 23), MDIL 1001 (08 11), CG 0009 (04 13), CG 2170 (01 15), CG 2176 (01 15), CG 2951 (12 07), CG 3370 (03 05), IL 0021 (09 08), MIL 1214 (09 17), MGL 1356 (10 20), MGL 1603 (01 23), MGL 1608 (01 23), MGL 1609 (01 23), MGL 1612 (01 23), MGL 1965 (01 23), MGL TERR-1 (01 15)

These Declarations, together with the Coverage Form and any Endorsement(s), complete the above numbered policy.

Countersigned: 05/11/2026 By: _____

DATE **AUTHORIZED REPRESENTATIVE**

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MARKEL AMERICAN INSURANCE COMPANY

FORMS SCHEDULE

Form Number	Form Name
MJIL 1000 (06 10)	Policy Jacket/Signature Page
MPIL 1007 (01 20)	Privacy Notice
MPIL 1074 (02 20)	Notice To Policyholders Claim Reporting
MPIL 1083 (04 15)	U.S. Treasury Department's Office Of Foreign Assets Control ("OFAC") Advisory Notice To Policyholders
MIL-PN-MI (03 03)	Michigan Notice To Policyholder
MDGL 1510 (01 23)	Owners and Contractors Protective Liability Declarations
MDIL 1001 (08 11)	Forms Schedule
CG 0009 (04 13)	Owners and Contractors Protective Liability Coverage Form - Coverage For Operations Of Designated Contractor
CG 2170 (01 15)	Cap On Losses From Certified Acts Of Terrorism
CG 2176 (01 15)	Exclusion Of Punitive Damages Related To A Certified Act Of Terrorism
CG 2951 (12 07)	Employment-Related Practices Exclusion
CG 3370 (03 05)	Silica Or Silica-Related Dust Exclusion
IL 0021 (09 08)	Nuclear Energy Liability Exclusion Endorsement (Broad Form)
MIL 1214 (09 17)	Trade Or Economic Sanctions
MGL 1356 (10 20)	Exclusion – Cyber Incident, Data Compromise, And Violation Of Statutes Related To Personal Data
MGL 1603 (01 23)	Exclusion - Asbestos
MGL 1608 (01 23)	Exclusion - Fungi Or Bacteria
MGL 1609 (01 23)	Exclusion - Lead Liability
MGL 1612 (01 23)	Total Pollution Exclusion
MGL 1965 (01 23)	Additional Insured - Engineers, Architects, Or Surveyors
MGL TERR-1 (01 15)	Confirmation Of Certified Acts Of Terrorism Coverage

OWNERS AND CONTRACTORS PROTECTIVE LIABILITY COVERAGE FORM – COVERAGE FOR OPERATIONS OF DESIGNATED CONTRACTOR

Various provisions of this policy restrict coverage. Read the entire policy carefully to determine rights, duties and what is and is not covered.

Throughout this policy the words "you" and "your" refer to the Named Insured shown in the Declarations. The words "we", "us" and "our" refer to the company providing this insurance.

The word "insured" means any person or organization qualifying as such under Section **II** – Who Is An Insured.

Other words and phrases that appear in quotation marks have special meaning. Refer to Section **V** – Definitions.

SECTION I – COVERAGES

BODILY INJURY AND PROPERTY DAMAGE LIABILITY

1. Insuring Agreement

a. We will pay those sums that the insured becomes legally obligated to pay as damages because of "bodily injury" or "property damage" to which this insurance applies. We will have the right and duty to defend the insured against any "suit" seeking those damages. However, we will have no duty to defend the insured against any "suit" seeking damages for "bodily injury" or "property damage" to which this insurance does not apply. We may, at our discretion, investigate any "occurrence" and settle any claim or "suit" that may result. But:

(1) The amount we will pay for damages is limited as described in Section **III** – Limits Of Insurance; and

(2) Our right and duty to defend ends when we have used up the applicable limit of insurance in the payment of judgments or settlements.

No other obligation or liability to pay sums or perform acts or services is covered unless explicitly provided for under Supplementary Payments.

b. This insurance applies to "bodily injury" and "property damage" only if:

(1) The "bodily injury" or "property damage" is caused by an "occurrence" and arises out of:

(a) Operations performed for you by the "contractor" at the location specified in the Declarations; or

(b) Your acts or omissions in connection with the general supervision of such operations;

(2) The "bodily injury" or "property damage" occurs during the policy period; and

(3) Prior to the policy period, no insured listed under Paragraph **1.** of Section **II** – Who Is An Insured and no "employee" authorized by you to give or receive notice of an "occurrence" or claim, knew that the "bodily injury" or "property damage" had occurred, in whole or in part. If such a listed insured or authorized "employee" knew, prior to the policy period, that the "bodily injury" or "property damage" occurred, then any continuation, change or resumption of such "bodily injury" or "property damage" during or after the policy period will be deemed to have been known prior to the policy period.

c. "Bodily injury" or "property damage" which occurs during the policy period and was not, prior to the policy period, known to have occurred by any insured listed under Paragraph **1.** of Section **II** – Who Is An Insured or any "employee" authorized by you to give or receive notice of an "occurrence" or claim, includes any continuation, change or resumption of that "bodily injury" or "property damage" after the end of the policy period.

d. "Bodily injury" or "property damage" will be deemed to have been known to have occurred at the earliest time when any insured listed under Paragraph **1.** of Section **II** – Who Is An Insured or any "employee" authorized by you to give or receive notice of an "occurrence" or claim:

(1) Reports all, or any part, of the "bodily injury" or "property damage" to us or any other insurer;

(2) Receives a written or verbal demand or claim for damages because of the "bodily injury" or "property damage"; or

(3) Becomes aware by any other means that "bodily injury" or "property damage" has occurred or has begun to occur.

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e. Damages because of "bodily injury" include damages claimed by any person or organization for care, loss of services or death resulting at any time from the "bodily injury".

2. Exclusions

This insurance does not apply to:

a. Expected Or Intended Injury

"Bodily injury" or "property damage" expected or intended from the standpoint of the insured. This exclusion does not apply to "bodily injury" resulting from the use of reasonable force to protect persons or property.

b. Contractual Liability

"Bodily injury" or "property damage" for which the insured is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages:

(1) That the insured would have in the absence of the contract or agreement; or

(2) Assumed in a contract or agreement that is an "insured contract", provided the "bodily injury" or "property damage" occurs subsequent to the execution of the contract or agreement. Solely for the purposes of liability assumed in an "insured contract", reasonable attorneys' fees and necessary litigation expenses incurred by or for a party other than an insured are deemed to be damages because of "bodily injury" or "property damage", provided:

(a) Liability to such party for, or for the cost of, that party's defense has also been assumed in the same "insured contract"; and

(b) Such attorneys' fees and litigation expenses are for defense of that party against a civil or alternative dispute resolution proceeding in which damages to which this insurance applies are alleged.

c. Work Completed Or Put To Intended Use

"Bodily injury" or "property damage" which occurs after the earlier of the following times:

(1) When all "work" on the project (other than service, maintenance or repairs) to be performed for you by the "contractor" at the site of the covered operations has been completed; or

(2) When that portion of the "contractor's" "work", out of which the injury or damage arises, has been put to its intended use by any person or organization, other than another contractor or subcontractor working directly or indirectly for the "contractor" or as part of the same project.

d. Acts Or Omissions By You And Your Employees

"Bodily injury" or "property damage" arising out of your, or your "employees", acts or omissions other than general supervision of "work" performed for you by the "contractor".

e. Workers' Compensation And Similar Laws

Any obligation of the insured under a workers' compensation, disability benefits or unemployment compensation law or any similar law.

f. Employer's Liability

"Bodily injury" to:

(1) An "employee" of the insured arising out of and in the course of:

(a) Employment by the insured; or

(b) Performing duties related to the conduct of the insured's business; or

(2) The spouse, child, parent, brother or sister of that "employee" as a consequence of Paragraph **(1)** above.

This exclusion applies whether the insured may be liable as an employer or in any other capacity and to any obligation to share damages with or repay someone else who must pay damages because of the injury.

This exclusion does not apply to liability assumed by the insured under an "insured contract".

g. Damage To Property

"Property damage" to:

(1) Property you own, rent, or occupy, including any costs or expenses incurred by you, or any other person, organization or entity, for repair, replacement, enhancement, restoration or maintenance of such property for any reason, including prevention of injury to a person or damage to another's property;

(2) Property loaned to you;

(3) Personal property in the care, custody or control of the insured; or

(4) "Work" performed for you by the "contractor".

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h. War

"Bodily injury" or "property damage", however caused, arising, directly or indirectly, out of:

(1) War, including undeclared or civil war;

(2) Warlike action by a military force, including action in hindering or defending against an actual or expected attack, by any government, sovereign or other authority using military personnel or other agents; or

(3) Insurrection, rebellion, revolution, usurped power, or action taken by governmental authority in hindering or defending against any of these.

i. Mobile Equipment

"Bodily injury" or "property damage" arising out of the use of "mobile equipment" in, or while in practice for, or while being prepared for, any prearranged racing, speed, demolition, or stunting activity.

j. Pollution

(1) "Bodily injury" or "property damage" arising out of the actual, alleged or threatened discharge, dispersal, seepage, migration, release or escape of "pollutants":

(a) At or from any premises, site or location which is or was at any time owned or occupied by, or rented or loaned to, any insured. However, this subparagraph does not apply to:

(i) "Bodily injury" if sustained within a building and caused by smoke, fumes, vapor or soot produced by or originating from equipment that is used to heat, cool or dehumidify the building, or equipment that is used to heat water for personal use, by the building's occupants or their guests;

(ii) "Bodily injury" or "property damage" arising out of heat, smoke or fumes from a "hostile fire";

(b) At or from any premises, site or location which is or was at any time used by or for any insured or others for the handling, storage, disposal, processing or treatment of waste;

(c) Which are or were at any time transported, handled, stored, treated, disposed of, or processed as waste by or for:

(i) Any insured; or

(ii) Any person or organization for whom you may be legally responsible; or

(d) At or from any premises, site or location on which any insured or any contractors or subcontractors working directly or indirectly on any insured's behalf are performing operations if the "pollutants" are brought on or to the premises, site or location in connection with such operations by such insured, contractor or subcontractor. However, this subparagraph does not apply to:

(i) "Bodily injury" or "property damage" arising out of the escape of fuels, lubricants or other operating fluids which are needed to perform the normal electrical, hydraulic or mechanical functions necessary for the operation of "mobile equipment" or its parts, if such fuels, lubricants or other operating fluids escape from a vehicle part designed to hold, store or receive them. This exception does not apply if the "bodily injury" or "property damage" arises out of the intentional discharge, dispersal or release of the fuels, lubricants or other operating fluids, or if such fuels, lubricants or other operating fluids are brought on or to the premises, site or location with the intent that they be discharged, dispersed or released as part of the operations being performed by such insured, contractor or subcontractor;

(ii) "Bodily injury" or "property damage" sustained within a building and caused by the release of gases, fumes or vapors from materials brought into that building in connection with operations being performed by or on behalf of any insured; or

(iii) "Bodily injury" or "property damage" arising out of heat, smoke or fumes from a "hostile fire".

(e) At or from any premises, site or location on which any insured or any contractors or subcontractors working directly or indirectly on any insured's behalf are performing operations if the operations are to test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of "pollutants".

(2) Any loss, cost or expense arising out of any:

(a) Request, demand, order or statutory or regulatory requirement that any insured or others test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of "pollutants"; or

(b) Claim or suit by or on behalf of a governmental authority for damages because of testing for, monitoring, cleaning up, removing, containing, treating, detoxifying or neutralizing, or in any way responding to, or assessing the effects of "pollutants".

However, this paragraph does not apply to liability for damages because of "property damage" that the insured would have in the absence of such request, demand, order or statutory or regulatory requirement, or such claim or "suit" by or on behalf of a governmental authority.

k. Damage To Impaired Property Or Property Not Physically Injured

"Property damage" to "impaired property" or property that has not been physically injured, arising out of:

(1) A defect, deficiency, inadequacy or dangerous condition in "work" performed for you by the "contractor"; or

(2) A delay or failure by you or anyone acting on your behalf to perform a contract or agreement in accordance with its terms.

This exclusion does not apply to the loss of use of other property arising out of sudden and accidental physical injury to "work" performed for you by the "contractor".

l. Electronic Data

Damages arising out of the loss of, loss of use of, damage to, corruption of, inability to access, or inability to manipulate electronic data.

However, this exclusion does not apply to liability for damages because of "bodily injury".

As used in this exclusion, electronic data means information, facts or programs stored as or on, created or used on, or transmitted to or from computer software, including systems and applications software, hard or floppy disks, CD-ROMs, tapes, drives, cells, data processing devices or any other media which are used with electronically controlled equipment.

SUPPLEMENTARY PAYMENTS

1. We will pay, with respect to any claim we investigate or settle, or any "suit" against an insured we defend:

a. All expenses we incur.

b. Up to $250 for cost of bail bonds required because of accidents or traffic law violations arising out of the use of any vehicle to which this insurance applies. We do not have to furnish these bonds.

c. The cost of bonds to release attachments, but only for bond amounts within the applicable limit of insurance. We do not have to furnish these bonds.

d. All reasonable expenses incurred by the insured at our request to assist us in the investigation or defense of the claim or "suit", including actual loss of earnings up to $250 a day because of time off from work.

e. All court costs taxed against the insured in the "suit". However, these payments do not include attorneys' fees or attorneys' expenses taxed against the insured.

f. Prejudgment interest awarded against the insured on that part of the judgment we pay. If we make an offer to pay the applicable limit of insurance, we will not pay any prejudgment interest based on that period of time after the offer.

g. All interest on the full amount of any judgment that accrues after entry of the judgment and before we have paid, offered to pay, or deposited in court the part of the judgment that is within the applicable limit of insurance.

h. Expenses incurred by the insured for first aid administered to others at the time of an accident for "bodily injury" to which this insurance applies.

These payments will not reduce the limits of insurance.

2. If we defend an insured against a "suit" and an indemnitee of the insured is also named as a party to the "suit", we will defend that indemnitee if all of the following conditions are met:

a. The "suit" against the indemnitee seeks damages for which the insured has assumed the liability of the indemnitee in a contract or agreement that is an "insured contract";

b. This insurance applies to such liability assumed by the insured;

c. The obligation to defend, or the cost of the defense of, that indemnitee, has also been assumed by the insured in the same "insured contract";

d. The allegations in the "suit" and the information we know about the "occurrence" are such that no conflict appears to exist between the interests of the insured and the interests of the indemnitee;

e. The indemnitee and the insured ask us to conduct and control the defense of that indemnitee against such "suit" and agree that we can assign the same counsel to defend the insured and the indemnitee; and

f. The indemnitee:

(1) Agrees in writing to:

(a) Cooperate with us in the investigation, settlement or defense of the "suit";

(b) Immediately send us copies of any demands, notices, summonses or legal papers received in connection with the "suit";

(c) Notify any other insurer whose coverage is available to the indemnitee; and

(d) Cooperate with us with respect to coordinating other applicable insurance available to the indemnitee; and

(2) Provides us with written authorization to:

(a) Obtain records and other information related to the "suit"; and

(b) Conduct and control the defense of the indemnitee in such "suit".

So long as the above conditions are met, attorneys' fees incurred by us in the defense of that indemnitee, necessary litigation expenses incurred by us and necessary litigation expenses incurred by the indemnitee at our request will be paid as Supplementary Payments. Notwithstanding the provisions of Paragraph **2.b.(2)** of Section **I** – Coverages – Bodily Injury And Property Damage Liability, such payments will not be deemed to be damages for "bodily injury" and "property damage" and will not reduce the limits of insurance.

Our obligation to defend an insured's indemnitee and to pay for attorneys' fees and necessary litigation expenses as Supplementary Payments ends when we have used up the applicable limit of insurance in the payment of judgments or settlements or the conditions set forth above, or the terms of the agreement described in Paragraph **f.** above, are no longer met.

SECTION II – WHO IS AN INSURED

1. If you are designated in the Declarations as:

a. An individual, you and your spouse are insureds.

b. A partnership or joint venture, you are an insured. Your members, your partners, and their spouses are also insureds, but only with respect to their duties as partners or members of a joint venture.

c. A limited liability company, you are an insured. Your members are also insureds, but only with respect to their duties as members of a limited liability company. Your managers are insureds, but only with respect to their duties as your managers.

d. An organization other than a partnership, joint venture or limited liability company, you are an insured. Your "executive officers" and directors are insureds, but only with respect to their duties as your officers or directors. Your stockholders are also insureds, but only with respect to their liability as stockholders.

2. Each of the following is also an insured:

a. Any person (other than your "employee") or any organization while acting as your real estate manager.

b. Any person or organization having proper temporary custody of your property if you die, but only:

(1) With respect to liability arising out of the maintenance or use of that property; and

(2) Until your legal representative has been appointed.

c. Your legal representative if you die, but only with respect to duties as such. That representative will have all your rights and duties under this Coverage Part.

No person or organization is an insured with respect to the conduct of any current or past partnership, joint venture or limited liability company that is not shown as a Named Insured in the Declarations.

SECTION III – LIMITS OF INSURANCE

1. The Limits of Insurance shown in the Declarations and the rules below fix the most we will pay regardless of the number of:

a. Insureds;

b. Claims made or "suits" brought; or

c. Persons or organizations making claims or bringing "suits".

2. The Aggregate Limit is the most we will pay for the sum of damages because of all "bodily injury" and "property damage".

3. Subject to Paragraph **2.** above, the Each Occurrence Limit is the most we will pay for the sum of damages because of all "bodily injury" and "property damage" arising out of any one "occurrence".

If you designate more than one project in the Declarations, the Aggregate Limit shall apply separately to each project.

The Limits of Insurance of this Coverage Part apply separately to each consecutive annual period and to any remaining period of less than 12 months, starting with the beginning of the policy period shown in the Declarations, unless the policy period is extended after issuance for an additional period of less than 12 months. In that case, the additional period will be deemed part of the last preceding period for purposes of determining the Limits of Insurance.

SECTION IV – CONDITIONS

1. Bankruptcy

Bankruptcy or insolvency of the insured or of the insured's estate will not relieve us of our obligations under this Coverage Part.

2. Cancellation

a. The first Named Insured shown in the Declarations may cancel this policy by mailing or delivering to us advance written notice of cancellation.

b. We may cancel this policy by mailing or delivering to the first Named Insured and the "contractor" written notice of cancellation at least:

(1) 10 days before the effective date of cancellation if we cancel for nonpayment of premium; or

(2) 30 days before the effective date of cancellation if we cancel for any other reason.

c. We will mail or deliver our notices to the first Named Insured's and the "contractor's" last mailing address known to us.

d. Notice of cancellation will state the effective date of cancellation. The policy period will end on that date.

e. If this policy is cancelled, we will send the "contractor" any premium refund due. If we cancel, the refund will be pro rata. If the first Named Insured cancels, the refund may be less than pro rata. The cancellation will be effective even if we have not made or offered a refund.

f. If notice is mailed, proof of mailing will be sufficient proof of notice.

3. Changes

This policy contains all the agreements between you, the "contractor" and us concerning the insurance afforded. The first Named Insured shown in the Declarations and the "contractor" are authorized to make changes in the terms of this policy with our consent. This policy's terms can be amended or waived only by endorsement issued by us and made a part of this policy.

4. Duties In The Event Of Occurrence, Claim Or Suit

a. You must see to it that we are notified as soon as practicable of an "occurrence" which may result in a claim. To the extent possible, notice should include:

(1) How, when and where the "occurrence" took place;

(2) The names and addresses of any injured persons and witnesses; and

(3) The nature and location of any injury or damage arising out of the "occurrence".

b. If a claim is made or "suit" is brought against any insured, you must:

(1) Immediately record the specifics of the claim or "suit" and the date received; and

(2) Notify us as soon as practicable.

You must see to it that we receive written notice of the claim or "suit" as soon as practicable.

c. You and any other involved insured must:

(1) Immediately send us copies of any demands, notices, summonses or legal papers received in connection with the claim or "suit";

(2) Authorize us to obtain records and other information;

(3) Cooperate with us in the investigation or settlement of the claim or defense against the "suit"; and

(4) Assist us, upon our request, in the enforcement of any right against any person or organization which may be liable to the insured because of injury or damage to which this insurance may also apply.

d. No insured will, except at that insured's own cost, voluntarily make a payment, assume any obligation, or incur any expense, other than for first aid, without our consent.

5. Examination Of Your Books And Records

We may examine and audit your books and records as well as the "contractor's" books and records as they relate to this policy at any time during the policy period and up to three years afterward.

6. Inspections And Surveys

a. We have the right to:

(1) Make inspections and surveys at any time;

(2) Give you reports on the conditions we find; and

(3) Recommend changes.

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b. We are not obligated to make any inspections, surveys, reports or recommendations and any such actions we do undertake relate only to insurability and the premiums to be charged. We do not make safety inspections. We do not undertake to perform the duty of any person or organization to provide for the health or safety of workers or the public. And we do not warrant that conditions:

(1) Are safe or healthful; or

(2) Comply with laws, regulations, codes or standards.

c. Paragraphs **a.** and **b.** of this condition apply not only to us, but also to any rating, advisory, rate service or similar organization which makes insurance inspections, surveys, reports or recommendations.

d. Paragraph **b.** of this condition does not apply to any inspections, surveys, reports or recommendations we may make relative to certification, under state or municipal statutes, ordinances or regulations, of boilers, pressure vessels or elevators.

7. Legal Action Against Us

No person or organization has a right under this Coverage Part:

a. To join us as a party or otherwise bring us into a "suit" asking for damages from an insured; or

b. To sue us on this Coverage Part unless all of its terms have been fully complied with.

A person or organization may sue us to recover on an agreed settlement or on a final judgment against an insured; but we will not be liable for damages that are not payable under the terms of this Coverage Part or that are in excess of the applicable limit of insurance. An agreed settlement means a settlement and release of liability signed by us, the insured and the claimant or the claimant's legal representative.

8. Other Insurance

The insurance afforded by this Coverage Part is primary insurance and we will not seek contribution from any other insurance available to you unless the other insurance is provided by a contractor other than the designated "contractor" for the same operation and job location designated in the Declarations. Then we will share with that other insurance by the method described below.

If all of the other insurance permits contribution by equal shares, we will follow this method also. Under this approach, each insurer contributes equal amounts until it has paid its applicable limit of insurance or none of the loss remains, whichever comes first.

If any of the other insurance does not permit contribution by equal shares, we will contribute by limits. Under this method, each insurer's share is based on the ratio of its applicable limit of insurance to the total applicable limits of insurance of all insurers.

9. Premiums

The "contractor":

a. Is responsible for the payment of all premiums; and

b. Will be the payee for any return premiums we pay.

10. Premium Audit

a. We will compute all premiums for this Coverage Part in accordance with our rules and rates.

b. Premium shown in this Coverage Part as advance premium is a deposit premium only. At the close of each audit period we will compute the earned premium for that period and send notice to the "contractor". The due date for audit and retrospective premiums is the date shown as the due date on the bill. If the sum of the advance and audit premiums paid for the policy period is greater than the earned premium, we will return the excess to the "contractor".

c. The "contractor" must keep records of the information we need for premium computation, and send us copies at such times as we may request.

11. Separation Of Insureds

Except with respect to the Limits of Insurance, and any rights or duties specifically assigned in this Coverage Part to the first Named Insured, this insurance applies:

a. As if each Named Insured were the only Named Insured; and

b. Separately to each insured against whom claim is made or "suit" is brought.

12. Transfer Of Rights Of Recovery Against Others To Us

If the insured has rights to recover all or part of any payment we have made under this Coverage Part those rights are transferred to us. The insured must do nothing after loss to impair them. At our request, the insured will bring "suit" or transfer those rights to us and help us enforce them.

13. When We Do Not Renew

If we decide not to renew this Coverage Part, we will mail or deliver to the first Named Insured shown in the Declarations written notice of the nonrenewal not less than 30 days before the expiration date.

If notice is mailed, proof of mailing will be sufficient proof of notice.

SECTION V – DEFINITIONS

1. "Auto" means:

a. A land motor vehicle, trailer or semitrailer designed for travel on public roads, including any attached machinery or equipment; or

b. Any other land vehicle that is subject to a compulsory or financial responsibility law or other motor vehicle insurance law where it is licensed or principally garaged.

However, "auto" does not include "mobile equipment".

2. "Bodily injury" means bodily injury, sickness or disease sustained by a person, including death resulting from any of these at any time.

3. "Contractor" means the contractor designated in the Declarations.

4. "Employee" includes a "leased worker". "Employee" does not include a "temporary worker".

5. "Executive officer" means a person holding any of the officer positions created by your charter, constitution, bylaws or any other similar governing document.

6. "Hostile fire" means one which becomes uncontrollable or breaks out from where it was intended to be.

7. "Impaired property" means tangible property, other than work performed for you, that cannot be used or is less useful because:

a. It incorporates work performed for you that is known or thought to be defective, deficient, inadequate or dangerous; or

b. You have failed to fulfill the terms of a contract or agreement;

if such property can be restored to use by the repair, replacement, adjustment or removal of the work performed for you or your fulfilling the terms of the contract or agreement.

8. "Insured contract" means:

a. A lease of premises;

b. A sidetrack agreement;

c. Any easement or license agreement, except in connection with construction or demolition operations on or within 50 feet of a railroad;

d. An obligation, as required by ordinance, to indemnify a municipality, except in connection with work for a municipality; or

e. An elevator maintenance agreement.

9. "Leased worker" means a person leased to you by a labor leasing firm under an agreement between you and the labor leasing firm, to perform duties related to the conduct of your business. "Leased worker" does not include a "temporary worker".

10. "Mobile equipment" means any of the following types of land vehicles, including any attached machinery or equipment:

a. Bulldozers, farm machinery, forklifts and other vehicles designed for use principally off public roads;

b. Vehicles maintained for use solely on or next to premises you own or rent;

c. Vehicles that travel on crawler treads;

d. Vehicles, whether self-propelled or not, maintained primarily to provide mobility to permanently mounted:

(1) Power cranes, shovels, loaders, diggers or drills; or

(2) Road construction or resurfacing equipment such as graders, scrapers or rollers;

e. Vehicles not described in Paragraph **a., b., c.** or **d.** above that are not self-propelled and are maintained primarily to provide mobility to permanently attached equipment of the following types:

(1) Air compressors, pumps and generators, including spraying, welding, building cleaning, geophysical exploration, lighting and well servicing equipment; or

(2) Cherry pickers and similar devices used to raise or lower workers;

f. Vehicles not described in Paragraph **a., b., c.** or **d.** above maintained primarily for purposes other than the transportation of persons or cargo.

However, self-propelled vehicles with the following types of permanently attached equipment are not "mobile equipment" but will be considered "autos":

(1) Equipment designed primarily for:

(a) Snow removal;

(b) Road maintenance, but not construction or resurfacing; or

(c) Street cleaning;

(2) Cherry pickers and similar devices mounted on automobile or truck chassis and used to raise or lower workers; and

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(3) Air compressors, pumps and generators, including spraying, welding, building cleaning, geophysical exploration, lighting and well servicing equipment.

However, "mobile equipment" does not include land vehicles that are subject to a compulsory or financial responsibility law or other motor vehicle insurance law where it is licensed or principally garaged. Land vehicles subject to a compulsory or financial responsibility law or other motor vehicle insurance law are considered "autos".

11. "Occurrence" means an accident, including continuous or repeated exposure to substantially the same general harmful conditions.

12. "Pollutants" mean any solid, liquid, gaseous or thermal irritant or contaminant, including smoke, vapor, soot, fumes, acids, alkalis, chemicals and waste. Waste includes materials to be recycled, reconditioned or reclaimed.

13. "Property damage" means:

a. Physical injury to tangible property, including all resulting loss of use of that property. All such loss of use shall be deemed to occur at the time of the physical injury that caused it; or

b. Loss of use of tangible property that is not physically injured. All such loss of use shall be deemed to occur at the time of the "occurrence" that caused it.

For the purposes of this insurance, electronic data is not tangible property.

As used in this definition, electronic data means information, facts or programs stored as or on, created or used on, or transmitted to or from, computer software, including systems and applications software, hard or floppy disks, CD-ROMs, tapes, drives, cells, data processing devices or any other media which are used with electronically controlled equipment.

14. "Suit" means a civil proceeding, brought in the United States of America (including its territories and possessions), Puerto Rico or Canada, in which damages because of "bodily injury" or "property damage" to which this insurance applies are alleged. "Suit" includes:

a. An arbitration proceeding in which such damages are claimed and to which the insured must submit or does submit with our consent; or

b. Any other alternative dispute resolution proceeding in which such damages are claimed and to which the insured submits with our consent.

15. "Temporary worker" means a person who is furnished to you to substitute for a permanent "employee" on leave or to meet seasonal or short-term workload conditions.

16. "Work" includes materials, parts or equipment furnished in connection with the operations.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

CAP ON LOSSES FROM CERTIFIED ACTS OF TERRORISM

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
LIQUOR LIABILITY COVERAGE PART
OWNERS AND CONTRACTORS PROTECTIVE LIABILITY COVERAGE PART
POLLUTION LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART
RAILROAD PROTECTIVE LIABILITY COVERAGE PART
UNDERGROUND STORAGE TANK POLICY

A. If aggregate insured losses attributable to terrorist acts certified under the federal Terrorism Risk Insurance Act exceed $100 billion in a calendar year and we have met our insurer deductible under the Terrorism Risk Insurance Act, we shall not be liable for the payment of any portion of the amount of such losses that exceeds $100 billion, and in such case insured losses up to that amount are subject to pro rata allocation in accordance with procedures established by the Secretary of the Treasury.

"Certified act of terrorism" means an act that is certified by the Secretary of the Treasury, in accordance with the provisions of the federal Terrorism Risk Insurance Act, to be an act of terrorism pursuant to such Act. The criteria contained in the Terrorism Risk Insurance Act for a "certified act of terrorism" include the following:

1. The act resulted in insured losses in excess of $5 million in the aggregate, attributable to all types of insurance subject to the Terrorism Risk Insurance Act; and

2. The act is a violent act or an act that is dangerous to human life, property or infrastructure and is committed by an individual or individuals as part of an effort to coerce the civilian population of the United States or to influence the policy or affect the conduct of the United States Government by coercion.

B. The terms and limitations of any terrorism exclusion, or the inapplicability or omission of a terrorism exclusion, do not serve to create coverage for injury or damage that is otherwise excluded under this Coverage Part.

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

EXCLUSION OF PUNITIVE DAMAGES RELATED TO A CERTIFIED ACT OF TERRORISM

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
LIQUOR LIABILITY COVERAGE PART
OWNERS AND CONTRACTORS PROTECTIVE LIABILITY COVERAGE PART
POLLUTION LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART
RAILROAD PROTECTIVE LIABILITY COVERAGE PART
UNDERGROUND STORAGE TANK POLICY

A. The following exclusion is added:

This insurance does not apply to:

TERRORISM PUNITIVE DAMAGES

Damages arising, directly or indirectly, out of a "certified act of terrorism" that are awarded as punitive damages.

B. The following definition is added:

"Certified act of terrorism" means an act that is certified by the Secretary of the Treasury, in accordance with the provisions of the federal Terrorism Risk Insurance Act, to be an act of terrorism pursuant to such Act. The criteria contained in the Terrorism Risk Insurance Act for a "certified act of terrorism" include the following:

1. The act resulted in insured losses in excess of $5 million in the aggregate, attributable to all types of insurance subject to the Terrorism Risk Insurance Act; and

2. The act is a violent act or an act that is dangerous to human life, property or infrastructure and is committed by an individual or individuals as part of an effort to coerce the civilian population of the United States or to influence the policy or affect the conduct of the United States Government by coercion.

C. The terms and limitations of any terrorism exclusion, or the inapplicability or omission of a terrorism exclusion, do not serve to create coverage for injury or damage that is otherwise excluded under this Coverage Part.

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EMPLOYMENT-RELATED PRACTICES EXCLUSION

This endorsement modifies insurance provided under the following:

OWNERS AND CONTRACTORS PROTECTIVE LIABILITY COVERAGE PART
POLLUTION LIABILITY COVERAGE PART

The following exclusion is added to Paragraph **2., Exclusions** of **Coverages – Bodily Injury And Property Damage Liability (Section I – Coverages):**

This insurance does not apply to:

"Bodily injury" to:

(1) A person arising out of any:

- **(a)** Refusal to employ that person;
- **(b)** Termination of that person's employment; or
- **(c)** Employment-related practices, policies, acts or omissions, such as coercion, demotion, evaluation, reassignment, discipline, defamation, harassment, humiliation, discrimination or malicious prosecution directed at that person; or

(2) The spouse, child, parent, brother or sister of that person as a consequence of "bodily injury" to that person at whom any of the employment-related practices described in Paragraphs **(a), (b)** or **(c)** above is directed.

This exclusion applies:

(1) Whether the injury-causing event described in Paragraphs **(a), (b)** or **(c)** above occurs before employment, during employment or after employment of that person;

(2) Whether the insured may be liable as an employer or in any other capacity; and

(3) To any obligation to share damages with or repay someone else who must pay damages because of the injury.

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SILICA OR SILICA-RELATED DUST EXCLUSION

This endorsement modifies insurance provided under the following:

OWNERS AND CONTRACTORS PROTECTIVE LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

A. The following exclusion is added to Paragraph **2., Exclusions** of **Section I – Coverages Bodily Injury And Property Damage Liability:**

2. Exclusions

This insurance does not apply to:

SILICA OR SILICA-RELATED DUST

a. "Bodily injury" arising, in whole or in part, out of the actual, alleged, threatened or suspected inhalation of, or ingestion of, "silica" or "silica-related dust".

b. "Property damage" arising, in whole or in part, out of the actual, alleged, threatened or suspected contact with, exposure to, existence of, or presence of, "silica" or "silica-related dust".

c. Any loss, cost or expense arising, in whole or in part, out of the abating, testing for, monitoring, cleaning up, removing, containing, treating, detoxifying, neutralizing, remediating or disposing of, or in any way responding to or assessing the effects of, "silica" or "silica-related dust", by any insured or by any other person or entity.

B. The following definitions are added to the **Definitions** Section:

1. "Silica" means silicon dioxide (occurring in crystalline, amorphous and impure forms), silica particles, silica dust or silica compounds.

2. "Silica-related dust" means a mixture or combination of silica and other dust or particles.

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NUCLEAR ENERGY LIABILITY EXCLUSION ENDORSEMENT

(Broad Form)

This endorsement modifies insurance provided under the following:

COMMERCIAL AUTOMOBILE COVERAGE PART
COMMERCIAL GENERAL LIABILITY COVERAGE PART
FARM COVERAGE PART
LIQUOR LIABILITY COVERAGE PART
MEDICAL PROFESSIONAL LIABILITY COVERAGE PART
OWNERS AND CONTRACTORS PROTECTIVE LIABILITY COVERAGE PART
POLLUTION LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART
RAILROAD PROTECTIVE LIABILITY COVERAGE PART
UNDERGROUND STORAGE TANK POLICY

1. The insurance does not apply:

A. Under any Liability Coverage, to "bodily injury" or "property damage":

(1) With respect to which an "insured" under the policy is also an insured under a nuclear energy liability policy issued by Nuclear Energy Liability Insurance Association, Mutual Atomic Energy Liability Underwriters, Nuclear Insurance Association of Canada or any of their successors, or would be an insured under any such policy but for its termination upon exhaustion of its limit of liability; or

(2) Resulting from the "hazardous properties" of "nuclear material" and with respect to which **(a)** any person or organization is required to maintain financial protection pursuant to the Atomic Energy Act of 1954, or any law amendatory thereof, or **(b)** the "insured" is, or had this policy not been issued would be, entitled to indemnity from the United States of America, or any agency thereof, under any agreement entered into by the United States of America, or any agency thereof, with any person or organization.

B. Under any Medical Payments coverage, to expenses incurred with respect to "bodily injury" resulting from the "hazardous properties" of "nuclear material" and arising out of the operation of a "nuclear facility" by any person or organization.

C. Under any Liability Coverage, to "bodily injury" or "property damage" resulting from "hazardous properties" of "nuclear material", if:

(1) The "nuclear material" **(a)** is at any "nuclear facility" owned by, or operated by or on behalf of, an "insured" or **(b)** has been discharged or dispersed therefrom;

(2) The "nuclear material" is contained in "spent fuel" or "waste" at any time possessed, handled, used, processed, stored, transported or disposed of, by or on behalf of an "insured"; or

(3) The "bodily injury" or "property damage" arises out of the furnishing by an "insured" of services, materials, parts or equipment in connection with the planning, construction, maintenance, operation or use of any "nuclear facility", but if such facility is located within the United States of America, its territories or possessions or Canada, this exclusion **(3)** applies only to "property damage" to such "nuclear facility" and any property thereat.

2. As used in this endorsement:

"Hazardous properties" includes radioactive, toxic or explosive properties.

"Nuclear material" means "source material", "special nuclear material" or "by-product material".

"Source material", "special nuclear material", and "by-product material" have the meanings given them in the Atomic Energy Act of 1954 or in any law amendatory thereof.

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"Spent fuel" means any fuel element or fuel component, solid or liquid, which has been used or exposed to radiation in a "nuclear reactor".

"Waste" means any waste material **(a)** containing "by-product material" other than the tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its "source material" content, and **(b)** resulting from the operation by any person or organization of any "nuclear facility" included under the first two paragraphs of the definition of "nuclear facility".

"Nuclear facility" means:

(a) Any "nuclear reactor";

(b) Any equipment or device designed or used for **(1)** separating the isotopes of uranium or plutonium, **(2)** processing or utilizing "spent fuel", or **(3)** handling, processing or packaging "waste";

(c) Any equipment or device used for the processing, fabricating or alloying of "special nuclear material" if at any time the total amount of such material in the custody of the "insured" at the premises where such equipment or device is located consists of or contains more than 25 grams of plutonium or uranium 233 or any combination thereof, or more than 250 grams of uranium 235;

(d) Any structure, basin, excavation, premises or place prepared or used for the storage or disposal of "waste";

and includes the site on which any of the foregoing is located, all operations conducted on such site and all premises used for such operations.

"Nuclear reactor" means any apparatus designed or used to sustain nuclear fission in a self-supporting chain reaction or to contain a critical mass of fissionable material.

"Property damage" includes all forms of radioactive contamination of property.

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MARKEL AMERICAN INSURANCE COMPANY

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

TRADE OR ECONOMIC SANCTIONS

The following is added to this policy:

Trade Or Economic Sanctions

This insurance does not provide any coverage, and we (the Company) shall not make payment of any claim or provide any benefit hereunder, to the extent that the provision of such coverage, payment of such claim or provision of such benefit would expose us (the Company) to a violation of any applicable trade or economic sanctions, laws or regulations, including but not limited to, those administered and enforced by the United States Treasury Department's Office of Foreign Assets Control (OFAC).

All other terms and conditions remain unchanged.

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MARKEL AMERICAN INSURANCE COMPANY

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

EXCLUSION – CYBER INCIDENT, DATA COMPROMISE, AND VIOLATION OF STATUTES RELATED TO PERSONAL DATA

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE FORM
OWNERS AND CONTRACTORS PROTECTIVE LIABILITY COVERAGE FORM
POLLUTION LIABILITY LIMITED COVERAGE FORM DESIGNATED SITES
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE FORM

A. The following exclusion is added to the Exclusions section of the Coverage Form, and all insuring agreements added to this policy by separate endorsement other than an endorsement described in Paragraph **B.** below, and replaces any Electronic Data exclusion found anywhere in the policy:

This insurance does not apply to:

Cyber Incident, Data Compromise, And Violation Of Statutes Related To Personal Data

Damages caused by, arising out of, or in any way involving, directly or indirectly:

(1) The loss of, loss of use of, corruption of, inability to access, or reduction in functionality of a "computer system", including, but not limited to:

(a) Damage to or loss of data occurring on a "computer system";

(b) Unauthorized access of a "computer system";

(c) Computer malware on a "computer system";

(d) Human error affecting a "computer system";

(e) System failure occurring on a "computer system";

(f) A defect of a "computer system";

(g) Social engineering, including, but not limited to, any priming, pretexting, spoofing, or other fraudulent, manipulative, or deceptive communication; or

(h) Cyber extortion;

(2) Any:

(a) Access to or disclosure of (whether such access or disclosure is authorized or unauthorized); or

(b) Theft, alteration, or corruption of;

any person's or organization's confidential, intellectual, or proprietary information or data, including, but not limited to, "personal data", patents, trade secrets, processing methods, customer lists, or any other type of nonpublic information; or

(3) Any action or omission that violates or is alleged to violate any federal, state, or local statute, law, rule, ordinance, or regulation that addresses, prohibits, regulates, or limits the printing, interception, dissemination, disposal, collecting, recording, sending, transmitting, communicating, distribution, sharing, sale, storage, retaining, receiving, or protection of "personal data", including, but not limited to:

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(a) The Illinois Biometric Information Privacy Act (BIPA);

(b) The California Consumer Privacy Act (CCPA);

(c) The California Invasion Of Privacy Act (CIPA);

(d) The New York Stop Hacks and Improve Electronic Data Security Act (SHIELD Act);

(e) The European Union General Data Protection Regulation (GDPR); or

(f) Any similar or related federal, state, or local statute, law, rule, ordinance, or regulation;

including any amendments thereto.

This exclusion applies even if damages are claimed for notification costs, credit monitoring or repair expenses, forensic expenses, public relation expenses, costs associated with the replacement or reissuance of payment cards, fines, penalties, loss of use of property that has not been physically damaged, or any other loss, cost, or expense incurred by you or others arising out of that which is excluded above.

However, this exclusion does not apply to liability for damages because of "bodily injury" or physical damage to tangible property of others. For the purpose of this exclusion, electronic data is not tangible property. The insurance afforded by this exception is excess over any other valid and collectible insurance available to the insured, whether primary, excess, contingent, or issued on any other basis.

As used in this exclusion, electronic data means information, facts, or programs stored as or on, created or used on, or transmitted to or from computer software, including systems and applications software, hard or floppy disks, CD-ROMs, tapes, drives, cells, data processing devices, or any other media which are used with electronically controlled equipment.

B. If this policy contains an endorsement adding an insuring agreement that specifically provides coverage that is excluded in Paragraph **A.** above, then the exclusion added by this endorsement does not apply to such insuring agreement solely to the extent of the coverage provided by such endorsement.

C. The following definitions are added to the Definitions section:

"Computer system" means computer hardware, firmware, software, or any components thereof.

"Personal data" means information that identifies, relates to, describes, is capable of being associated with, or could reasonably be linked to a particular person or household, including, but not limited to:

a. Identifiers such as a real name, alias, postal address, unique personal identifier, online identifier, Internet Protocol address, email address, password, account name, social security number, driver's license or state identification card number, passport number, telephone number, insurance policy number, employment, employment history, bank account number, credit card number, debit card number, or any other financial information, medical information, or health insurance information, or other similar identifiers, characteristics, or descriptors;

b. Commercial information, including records of personal property, products, or services purchased, obtained, or considered, transactions occurring over a peer-to-peer electronic cash system, or other purchasing or consuming histories or tendencies;

c. Biometric data or information (such as a fingerprint, voice print, retina or iris image, or other unique physical representation or digital representation of biometric data);

d. Internet or other electronic network activity information, including, but not limited to, browsing history, search history, and information regarding a person's or household's interaction with an internet website, application, or advertisement;

e. Geolocation data;

f. Audio, electronic, visual, thermal, olfactory, or similar information;

g. Professional or employment-related information that is not publicly available;

h. Education information, defined as information that is not publicly available personally identifiable information as defined in the Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. section 1232g; 34 CFR Part 99) including any amendments thereto;

i. Identifiers set forth in any state or federal consumer protection or privacy statute or law including, but not limited to, the identifiers shown in Paragraphs **a.** through **h.** above; or

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j. Inferences drawn from any of the identifiers shown in Paragraphs **a.** through **i.** above to create a profile about a person or household reflecting such person's or household's preferences, characteristics, psychological trends, predispositions, behavior, attitudes, intelligence, abilities, or aptitudes.

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MARKEL AMERICAN INSURANCE COMPANY

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

EXCLUSION – ASBESTOS

This endorsement modifies insurance provided under the following:

OWNERS AND CONTRACTORS PROTECTIVE LIABILITY COVERAGE FORM

A. The following exclusion is added to Paragraph **2.** Exclusions under Section **I –** Coverages, Bodily Injury And Property Damage Liability:

This insurance does not apply to:

Asbestos

(1) "Bodily injury" or "property damage" caused by or arising out of, in whole or in part, either directly or indirectly, asbestos.

(2) Any legal obligation of any insured for indemnification or contribution due to damages because of "bodily injury" or "property damage" caused by or arising out of, in whole or in part, either directly or indirectly, asbestos.

(3) Any loss, cost, expense, or damages arising out of any:

(a) Request, demand, or order that any insured or others test for, monitor, clean up, remove, abate, contain, treat, or neutralize asbestos or in any way respond to or assess the effects of asbestos; or

(b) Claim or "suit" relating to testing for, monitoring, cleaning up, removing, abating, containing, treating, or neutralizing asbestos or in any way responding to or assessing the effects of asbestos.

B. For the purpose of this endorsement, asbestos means any form of asbestos or asbestos-containing material, including but not limited to asbestos or asbestos-containing material that is:

1. Airborne, as a fiber, particle, or dust;

2. Contained in a product;

3. Carried or transmitted on clothing or by any other means;

4. Inhaled or ingested; or

5. Contained in or a part of any:

a. Building, building material, or insulation product; or

b. Component part of any building, building material, or insulation product.

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

EXCLUSION – FUNGI OR BACTERIA

This endorsement modifies insurance provided under the following:

OWNERS AND CONTRACTORS PROTECTIVE LIABILITY COVERAGE FORM

A. The following exclusion is added to Paragraph **2.** Exclusions under Section **I** – Coverages, Bodily Injury And Property Damage Liability:

This insurance does not apply to:

Fungi Or Bacteria

(1) "Bodily injury" or "property damage" which would not have occurred, in whole or in part, but for the actual, alleged, or threatened inhalation of, ingestion of, contact with, exposure to, existence of, or presence of, any "fungi" or bacteria on or within a building or structure, including its contents, regardless of whether any other cause, event, material, or product contributed concurrently or in any sequence to such injury or damage.

(2) Any loss, cost, or expense arising out of the abating, testing for, monitoring, cleaning up, removing, containing, treating, detoxifying, neutralizing, remediating, or disposing of, or in any way responding to, or assessing the effects of, "fungi" or bacteria, by any person or entity.

(3) Costs and expenses to investigate or defend any claim or "suit" or payment of any fine or penalty for the exclusions in Paragraphs **(1)** or **(2)** above.

This exclusion applies:

(a) To any obligation to share damages with or repay someone else who must pay damages; and

(b) To any "fungi" existing, emanating from, or moving anywhere indoors or outdoors.

B. The following definition is added to Section **V** – Definitions:

"Fungi" means any type or form of fungus, including mold or mildew and any mycotoxins, spores, scents, or by-products produced or released by fungi.

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MARKEL AMERICAN INSURANCE COMPANY

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

EXCLUSION – LEAD LIABILITY

This endorsement modifies insurance provided under the following:

OWNERS AND CONTRACTORS PROTECTIVE LIABILITY COVERAGE FORM

The following exclusion is added to Paragraph **2.** Exclusions under Section **I –** Coverages, Bodily Injury And Property Damage Liability:

This insurance does not apply to:

Lead Liability

(1) "Bodily injury" or "property damage" arising out of or caused by lead or any material or substance containing lead;

(2) Any legal obligation of any insured for indemnification or contribution due to damages arising out of "bodily injury" or "property damage" arising out of or caused by lead or any material or substance containing lead; or

(3) Loss, cost, expense, or damages arising out of any:

(a) Request, demand, or order that any insured or others test for, monitor, clean up, remove, abate, contain, treat, or neutralize lead or any material or substance containing lead, or in any way respond to or assess the effects of lead; or

(b) Claim or "suit" relating to, testing for, monitoring, cleaning up, removing, abating, containing, treating, or neutralizing lead or any material or substance containing lead, or in any way responding to or assessing the effects of lead.

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

TOTAL POLLUTION EXCLUSION

This endorsement modifies insurance provided under the following:

OWNERS AND CONTRACTORS PROTECTIVE LIABILITY COVERAGE FORM

Exclusion **j.** of Paragraph **2.** Exclusions under Section **I** – Coverages, Bodily Injury And Property Damage Liability is replaced by the following:

This insurance does not apply to:

j. Pollution

(1) "Bodily injury" or "property damage" which would not have occurred in whole or in part but for the actual, alleged, or threatened discharge, dispersal, seepage, migration, release, or escape of "pollutants" at any time.

(2) Any loss, cost, or expense arising out of any:

(a) Request, demand, order, or statutory or regulatory requirement that any insured or others test for, monitor, clean up, remove, contain, treat, detoxify, or neutralize, or in any way respond to, or assess the effects of "pollutants"; or

(b) Claim or "suit" by or on behalf of a governmental authority for damages because of testing for, monitoring, cleaning up, removing, containing, treating, detoxifying, or neutralizing, or in any way responding to, or assessing the effects of "pollutants".

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ADDITIONAL INSURED – ENGINEERS, ARCHITECTS, OR SURVEYORS

This endorsement modifies insurance provided under the following:

OWNERS AND CONTRACTORS PROTECTIVE LIABILITY COVERAGE FORM

A. Section **II** – Who Is An Insured is amended to include as an additional insured any architect, engineer, or surveyor engaged by you, but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by your acts or omissions, or the acts or omissions of those acting on your behalf:

1. In connection with your premises; or

2. In the performance of your ongoing operations.

However:

1. The insurance afforded to such additional insured only applies to the extent permitted by law;

2. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured; and

3. The coverage provided to the additional insured will not be broader than that provided to the Named Insured.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusion applies:

This insurance does not apply to "bodily injury" or "property damage" arising out of the rendering of or the failure to render any professional services by or for you, including:

1. The preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders, or drawings and specifications; or

2. Supervisory, inspection, architectural, or engineering activities.

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training, or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage" involved the rendering of or the failure to render any professional services by or for you.

C. With respect to the insurance afforded to these additional insureds, the following is added to Section **III** – Limits Of Insurance:

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the contract or agreement; or

2. Available under the applicable limits of insurance;

whichever is less.

This endorsement does not increase the applicable limits of insurance.

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MARKEL AMERICAN INSURANCE COMPANY

THIS ENDORSEMENT IS ATTACHED TO AND MADE PART OF YOUR POLICY IN RESPONSE TO THE DISCLOSURE REQUIREMENTS OF THE TERRORISM RISK INSURANCE ACT. THIS ENDORSEMENT DOES NOT GRANT ANY COVERAGE OR CHANGE THE TERMS AND CONDITIONS OF ANY COVERAGE UNDER THE POLICY.

CONFIRMATION OF CERTIFIED ACTS OF TERRORISM COVERAGE – TERRORISM RISK INSURANCE ACT

SCHEDULE

Terrorism Premium:	$0
Federal Share Of Terrorism Losses:	80%

Disclosure Of Premium

We have notified you that under the Terrorism Risk Insurance Act we must make certified acts of terrorism coverage available in the policies we offer.

Certified acts of terrorism coverage has been provided because either you have indicated to us or your agent that certified acts of terrorism coverage is desired or we have provided certified acts of terrorism coverage at no additional charge. If you have chosen to purchase certified acts of terrorism coverage, the premium charge is the amount shown in the Schedule of this notice.

If there is no premium shown above or the premium shown is $0, there is no separate premium for the coverage during this policy period.

Disclosure Of Federal Participation In Payment Of Terrorism Losses

The United States Government, Department of the Treasury, will pay a share of terrorism losses insured under the federal program. The federal share equals a percentage (as shown in the Schedule of this notice) of that portion of the amount of such insured losses that exceeds the applicable insurer retention. However, if aggregate insured losses attributable to terrorist acts certified under the Terrorism Risk Insurance Act exceed $100 billion in a calendar year, the Treasury shall not make any payment for any portion of the amount of such losses that exceeds $100 billion.

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CITY OF SAGINAW
1315 S WASHINGTON AVE
SAGINAW MICHIGAN 48601

C-1724
N. Mason WM & Dead-End Looping DWSRF #7900.01

BID OPENING
TUESDAY, MAY 5, 2026
3:00 PM

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C-1724

N. Mason WM & Dead-End Looping DWSRF #7900.01

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City of Saginaw, Michigan
Purchasing Division
(989) 759-1430

SEALED BID INSTRUCTIONS

SEALED BIDS MUST BE SUBMITTED ACCORDING TO THE FOLLOWING INSTRUCTIONS OR YOUR BID WILL BE DISQUALIFIED

1. Bids must be submitted on printed forms furnished by the City Purchasing Office. Voluntary alternates may be attached to bid form, if necessary.
2. Bids must be in ink or typewritten.
3. Bids must contain bidder's complete name, address, and telephone number.
4. Bids must be signed in ink and dated.
5. Bids must include delivery or completion time.
6. If an addendum is issued by the City, it must be signed, dated, and returned with bid.
7. An **original** bid bond, bank money order, certified check, or cashier's check in the amount of five percent (5%) of the total amount bid must be submitted with any bid in excess of $100,000. The AIA Document A310 – 2010 bid bond is the preferred format. If the agreement is for multiple years, each year should be combined to get your total cost. **Facsimiles or copies of bid bond will not be accepted, and bid will be disqualified if submitted.**
8. All erasures or corrections to pricing information must be initialed in ink.
9. If this is a Davis-Bacon Prevailing Wage Project, it will include a wage decision and Division 2. The City of Saginaw does not have a Prevailing Wage ordinance.
10. In case of a discrepancy between a unit price and its extension, the unit price will be considered correct, and the bid will be recalculated to determine the amount bid. All addition errors will be corrected, and the total bid will be adjusted to reflect the corrections.
11. All bids must be in the City Purchasing Office, 1315 S. Washington Ave. Saginaw, MI 48601 by the date and time specified on bid forms. The Purchasing Office is located at Saginaw City Hall in room #105.
12. Each bidder's envelope, FED EX box/letter, UPS box/letter, or any other method of sealed delivery must have the bid number or contract number on the outside of the container. **UNMARKED BIDS WILL BE DISQUALIFIED.**
13. EACH BID MUST BE ENCLOSED IN A SEPARATE SEALED ENVELOPE WITH **SEALED BID AND THE BID NUMBER** MARKED ON THE FRONT. A COPY OF THE ORIGINAL BID MUST ALSO BE INCLUDED IN THE BID.

RIGHT OF CITY TO ACCEPT OR REJECT BIDS

THE CITY RESERVES THE RIGHT TO ACCEPT OR REJECT ANY AND ALL BIDS, OR PARTS THEREOF, AND TO WAIVE ANY IRREGULARITIES WHICH DO NOT MATERIALLY AFFECT THE BID DOCUMENT OR OTHERWISE CONFLICT WITH STATUTE OR ORDINANCE. ANY REJECTION OF BIDS SHALL BE MADE ONLY IF THERE IS A SOUND DOCUMENTED REASON FOR SAME.

REV 9-2021

GENERAL INFORMATION

MAIL OR DELIVER ALL SEALED BIDS TO THE FOLLOWING ADDRESS BY THE DATE AND TIME SPECIFIED ON BID FORM

CITY OF SAGINAW PURCHASING OFFICE – ROOM #105
1315 S. WASHINGTON AVENUE, SAGINAW, MICHIGAN 48601

SEALED BID DOCUMENTS

EFFECTIVE IMMEDIATELY: All interested bidders may obtain bid document forms, proposal instructions, general specifications, and bid results from the City of Saginaw website **(www.saginaw-mi.com).**

NO CONTRACT SHALL BE VALID UNLESS APPROVED BY CITY COUNCIL

Pursuant to the Charter of the City of Saginaw, written contracts involving the Expenditure of $2,000 or more shall require the approval of City Council. No City Employee has the authority to bind the City to such a contract.

ALTERATION OF BID BY BIDDER

After bids have been opened, the bidder will not be allowed to withdraw, modify or correct any bid. Substitutions and alternates: If a document is issued with the language "No Substitutions, then none will be considered. If a document does not include this language the respective bidder can include a substitution and/or alternate of which the Cit reserves the right to determine equivalent.

EVIDENCE OF BIDDER'S QUALIFICATIONS

Bidders may be required to give some satisfactory evidence that they have been regularly engaged in the business or are reasonably familiar therewith, and that they are fully prepared with the necessary capital, materials, and machinery to complete the work or to furnish the material contracted for the satisfaction of the city.

FAMILIARITY OF BIDDER WITH CONTRACT REQUIREMENTS

Bidders are warned that they must inform themselves of the character and amount of work, labor, or material to be furnished under the contract.

CONTRACT ASSIGNMENTS OR TRANSFERS PROHIBITED

The assignment or transfer of a contract or of interest in the contract are prohibited unless approved by the proper City department and City Council.

CITY INCOME TAX COMPLIANCE

Bidders are hereby notified that the City of Saginaw has an income tax. All successful bidders will be subject to income tax withholding and compliance is mandatory. Per section 14 of the City of Saginaw uniform income tax ordinance, the tax percentage is 1.5% on income earned from the City. The tax shall apply on the taxable net profits of a corporation doing business within the City, being levied on such part of the taxable net profits as is earned by the corporation as a result of work done, services rendered and other business activities conducted with the City as determined in accordance with this ordinance.

WITHHOLDING FROM PAYMENTS

As part of the consideration for any bid/contract, all bidders agree to have withheld from any payment due them, any amounts for taxes, fees, or other charges due the City of Saginaw.

CONTRACT COMPLIANCE ORDINANCE

The City of Saginaw has a Contract Compliance Ordinance, which requires bidders to submit documentation furnished by the City indicating compliance with the Ordinance. Contract compliance forms must be sent to the City Purchasing Office; 1315 S. Washington Avenue; Saginaw, Michigan 48601. Forms may be obtained by calling (989) 759-1430.

BID FORMS

A copy of the original bid form is to be enclosed in the bid envelope (original plus a complete copy). "All or None" means bidders are required to submit pricing for all years and/or all items requested. Any proposal received that does not meet this requirement will be disqualified. If said bid is not listed as "All or None" the City reserves the right to split said bid to our best benefit. If you receive a bid copy from our website and have never conducted business with us you can also complete a copy of the "Vender Compliance From" are return it to us or contact our Purchasing Office so you can be formally added to the respective bidder list for that good or service. (989) 759-1430.

BID RESULTS

A bid tabulation sheet showing the initial results will be posted on our website within 48 hours of the bid opening date. Once the respective department reviews the bids, they will make a recommendation on who our City Council should award the bid to. At that time, the recommendation will also be posted on the tabulation sheet as a secondary notice.

INSTRUCTIONS AS PART OF CONTRACT

These instructions are to be construed with and made part of the contract or purchase order.

GENERAL INSTRUCTION TO BIDDERS

1. INTENT

It is the intent of the City, unless otherwise specified, that work on any contract awarded under the advertisement, to be started no later than Thirty (30) calendar days after award of the contract or the date specified in the contract documents, and that the work shall be carried on with due diligence, at such points and at such times and seasons, and with such force and in such manner as to secure its completion on or before the completion date as specified in the advertisement or as determined by the proposal or construction schedule, submitted by the Contractor.

2. INTERPRETATIONS OR ADDENDA

No oral interpretation will be made to any bidder *as* to the meaning of the contract documents or any part thereof. Every request for such an interpretation shall be made in writing to the City Engineer. Any inquiry received seven (7) or more days prior to the date fixed for the opening of bids will be given consideration. Every interpretation made to a bidder will be in the form of an addendum to the contract documents and when issued will be on file in the office of the City Purchasing Officer and the office of the City Engineer. In addition, it shall be *the* bidder's responsibility to make inquiry as to the addenda issued. All such addenda shall become part of the contract documents and all bidders shall be bound by such addenda, whether or not received by the bidder.

3. INSPECTION OF SITE

Each bidder should visit the site of the proposed work and fully acquaint themselves with the existing conditions there relating to the work and should inform themselves as to the facilities involved, the difficulties and the restrictions attending the performance of the contract. The bidder shall thoroughly examine and familiarize themselves with the drawings, specifications, and all other contract documents. The Contractor by the execution of the contract shall in no way be relieved of any obligation under it due to their failure to receive or examine any form or legal instrument or to visit the site and acquaint themselves with the conditions there existing. The City of Saginaw will be justified in rejecting any claim based on facts regarding which he should have been on notice *as* a result thereof.

4. BIDS ON MORE THAN ONE CONTRACT

Any bidder may **submit** a proposal on any single contract, or on any number of contracts, or on all the contracts included in the advertisement. Bidders are cautioned to give full consideration to other commitments which might effect the starting date, schedule of progress, or completion date for any contracts awarded hereunder.

5. DEFINITIONS

The term "City Engineer" shall mean the Director of Public Service, or the City Engineer of the City of Saginaw.

The term "Department of Engineering" shall mean the Department of Public Services and Engineering of the City of Saginaw.

6. CORRECTIONS

All erasures or corrections to pricing information must be initialed in ink.

7. COLLUSIVE AGREEMENT (SEE PROPOSAL)

Each bidder submitting a bid to the City of Saginaw for any portion of the work contemplated by the documents on which bidding is based shall by signing the proposal form sheet agree that the bid is genuine and not sham or collusive or made in the interests or on behalf of any person not therein named. That the bidder has not directly or indirectly induced or solicited any bidder to put in a sham bid or any other person or corporation to refrain from bidding, and that the bidder has not in any manner sought by collusion to secure himself an advantage over other bidders.

8. STATEMENT OF BIDDER'S QUALIFICATIONS

Each bidder shall, upon request of the City of Saginaw, submit a statement of the bidder's qualifications, their construction experience, and their organization and equipment available for the work contemplated, and when specifically requested by the City of Saginaw, a detailed financial statement. The City of Saginaw shall have the right to take such steps as it deems necessary to determine the ability of the bidder to perform their obligations under the contract, and the bidder shall furnish the City of Saginaw all such information and data for this purpose as it may request. The right is reserved to reject any bid where an investigation of the available evidence or information does not satisfy the City of Saginaw that the bidder is qualified to carry out properly the terms of the contract.

9. ALTERNATIVE BIDS

No alternative bids will be considered unless specifically requested.

10. BIDS

a. Bidders are warned that they must inform themselves of the character and amount of work, labor, or material to be furnished under the contract. All bids must be submitted on forms supplied by the City of Saginaw and shall be subject to all requirements of the contract documents, including the drawings and these INSTRUCTIONS TO BIDDERS. All bids must be regular in every respect and no interlineations, excisions or special conditions shall be made or included in the Bid Form by the bidder. After bids have been opened, permission will not, in any case, be given for the withdrawal, modification or correction of any bid.

b. Bid documents, which are mailed shall include the bid, the bid guaranty (when required), the non-collusion affidavit, and the statement of bidder's qualification (if requested) and shall be enclosed in envelopes (outer and inner) both of which shall be sealed and clearly labeled "Sealed

Bid", (outer envelope properly addressed to "City of Saginaw Purchasing Office, 1315 S. Washington Avenue, Saginaw, Michigan 48601") project name and number, name of bidder, and date and time of bid opening, in order to guard against premature opening of the bid. All proposals must be either filled out in ink or typewritten; typewritten is preferred. Bids to include a copy along with the original.

c. The City of Saginaw may consider as irregular any bid on which there is an alteration of the bid form hereto attached and at its option may reject the same.

d. If the contract is awarded, it will be awarded by the City of Saginaw to a responsible bidder on the basis of the bid most favorable to the City of Saginaw. The contract will require the completion of work according to the contract documents. Transfer of contract or of interests in contract are prohibited unless approved by the proper City agency.

e. Each bidder shall include in his bid the following information:

I. Bidder Name
II. Address
III. City, State, Zip Code
IV. Telephone Number
V. E-mail
VI. Status

11. BID GUARANTY (When Applicable) (Effective February 16, 1984)

a. Bids of $100,000 or more must be accompanied by a bid guaranty which shall not be less than five percent (5%) of the total contract cost of construction including all overhead items. The bid bond shall be secured by a guaranty, or a surety company listed in the latest issue of U.S. Treasury Circular 570 and authorized to transact surety business in the State of Michigan. The amount of such bid bond shall be within the maximum amount specified for such company in said Circular 570. At the option of the bidder, the guaranty may be a certified check, cashier's check, bank money order or a bid bond in the amount specified. The AIA document A310 – 2010 bid bond is the preferred format. No bid will be considered unless it is accompanied by the required guaranty. The certified check, cashier's check, bank money order or a bid bond must be payable to the order of the City of Saginaw. The bid guaranty shall insure the execution of the agreement and the furnishing of the surety bond or bonds by the successful bidder, as required by the contract documents.

b. Revised bids submitted before the opening of bids, representing an increase in excess of two percent (2%) of the original bid, must have the bid guaranty adjusted accordingly, otherwise the bid will not be considered.

c. Certified checks or cashier's check, bid bonds, and bank money orders of unsuccessful bidders, will be returned as soon as practicable after award of a contract.

12. UNIT PRICE BIDS

The unit price for each of the several items in the proposal of each bidder shall include its pro-rata share of overhead so that the sum of the products obtained by multiplying the quantity shown for each item by the unit price bid represents the total bid. In case of a discrepancy between a unit price and its extension, the unit price will be considered correct, and the bid will be recalculated to determine the amount bid. All addition errors will be corrected, and the total bid will be adjusted to reflect the corrections. Special attention of all bidders is called to this provision, should conditions make it necessary to revise the quantities. No limit will be fixed for such increased or decreased quantities nor extra compensation allowed, provided the net monetary value of all such additive and subtractive changes in quantities or such items or work shall not increase or decrease the original contract prices by more than twenty percent (20%) unless mutually agreed upon in writing by the City Engineer and Contractor, that extra work, that is work not covered in the drawings and specifications, shall not increase the original contract by more than twenty percent (20%).

13. PUBLIC ACT 524 OF 1980 (When Applicable)

Sec.2 (1) 1980 P.A. 524 states as follows:

The construction contract shall designate a person representing the Contractor who will submit written requests for progress payments, and a person representing the public agency to whom request for progress payments are to be submitted. The written requests for progress payments shall be submitted to the designated person in a manner and at such times as provided in the construction contract.

Therefore, the Contractor shall state on “Bid Proposal” the name of the person who will be submitting request for progress payment and the request shall be made to the City Engineer.

14. TIME FOR RECEIVING BIDS

Bids received prior to the time of opening will be securely kept unopened. The Purchasing officer will decide when the specified time has arrived. No bid received thereafter will be considered, except that when a bid arrives by mail after the time fixed for opening, but before the reading of other bids is completed, and it is shown to the satisfaction of the City of Saginaw that the non-arrival on time was due solely to delay in the mails for which the bidder was not responsible, then such bid will be received and considered.

15. OPENING OF BIDS

At the time and place fixed for the opening of bids, the City of Saginaw open and publicly read aloud every bid received within the time set for receiving bids, irrespective of any irregularities therein. Bidders and other persons properly interested may be present, in person or by representative.

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16. WITHDRAWAL OF BIDS

Bids may be withdrawn on written or telegraphic request dispatched by the bidder in time for delivery in the normal course of business prior to the time fixed for opening, provided that written confirmation or any telegraphic withdrawal over the signature of the bidder is placed in the mail and postmarked prior to the time set for bid opening. The bid guaranty of any bidder withdrawing his bid in accordance with the foregoing conditions will be returned promptly.

17. AWARD OF CONTRACTS: REJECTION OF BIDS

a. The contract will be awarded to the lowest responsible bidder complying with the conditions of the SEALED BID INFORMATION, provided such bid is reasonable and it is to the interest of the City of Saginaw to accept it. The City of Saginaw, however, reserves the right to accept or reject any and all bids or parts thereof, and to waive any irregularities in a bid except those specific any mentioned in the "Sealed Bid Instructions".

b. The City of Saginaw reserves the right to consider as unqualified to perform the contract, any bidder who does not habitually perform with his own forces, the major portions of the work involved.

c. On contracts of $50,000 or more, the bidder to whom the Purchasing Committee recommends for award will be required to provide bonds prior to award as outlined in Division 1, Section 121.

18. CONSTRUCTION SCHEDULE

In addition to the progress clause incorporated in the proposal, the successful bidder on any single contract, when so requested by the City Engineer, shall submit a schedule of the maximum number of calendar days required for the completion of the contract. The number of calendar days so stated, when approved by the City Engineer, shall be added to the starting date specified in Paragraph 1, and the date thus determined shall become the completion date of such contract unless otherwise specified in the contract.

The successful bidder on any two or more contracts, or the successful bidder on any single contract who also has uncompleted work on other City of Saginaw construction contracts previously awarded, shall prepare a Construction Schedule for submission to and approval by the City Engineer. When so requested by the City Engineer, the Construction Schedule shall be submitted immediately after the tabulation of bids in order that the information therein contained may be considered in the recommendation as to award of contracts. In any case, the Construction Schedule shall be submitted prior to the preparation of contract documents and not later than five (5) days after the tabulation of bids.

The Construction Schedule shall indicate the proposed sequence of operations, including any previously awarded City of Saginaw construction contracts not completed. The schedule shall show the total calendar days required for each contract and the date for starting and completion in each instance.

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The schedule shall show whether or not the Contractor proposes to use more than one construction crew and, if requested, shall itemize the types and quantities of machinery and equipment available for the work.

19. SUBCONTRACTS

The Contractor's attention is directed to the requirements as outlined in Section 103, "SUBCONTRACTS", under Division 1, "General Conditions".

20. PRE-CONSTRUCTION MEETING

If so requested by the City Engineer, the Contractor shall make themselves available for a pre-construction meeting. The time and place of the meeting to be designated by the City Engineer.

21. PURCHASING ORDINANCE

The Purchasing Ordinance of the City of Saginaw, §14.30-14.45, applies to all contracts, sub-contractors, or purchase orders except where portions of the Ordinance may be preempted by law:

22. CONTRACT COMPLIANCE DOCUMENTATION

The following documents are to be filled out “Contract Compliance Agreement” and the “City of Saginaw Vendor Information” which are provided by the Purchasing Department.

23. MICHIGAN’S ELLIOTT-LARSEN CIVIL RIGHTS ACT, PUBLIC ACT 453 of 1976, as amended

All contracts in which the City of Saginaw is a party shall contain a covenant by the Contractor and any subcontractors not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment because of race, color, religion, national origin, age, sex, height, weight, sexual orientation, gender identity, marital status, or membership in another class of persons protected by law. Breach of this covenant may be regarded as a material breach of the contract.

24. MICHIGAN’S PERSONS WITH DISABILITIES CIVIL RIGHTS ACT, PUBLIC ACT 220 of 1976, as amended

All contractors and subcontractors shall be subject to and comply with the Michigan Persons with Disabilities Civil Rights Act which prohibits discriminatory practices, policies, and customs in the exercise of the civil rights of individuals with disabilities. A violation of the act may be regarded as a material breach of the contract.

25. AMERICANS WITH DISABILITIES ACT (ADA) of 1990, as amended

All contractors and subcontractors shall be subject to and comply with all the provisions of the Americans with Disabilities Act (ADA) of 1990. A violation of the Act may be regarded as a material breach of this contract.

26. CIVIL RIGHTS ACT OF 1964, as amended

All contractors and subcontractors shall be subject to and comply with all the provisions of the Civil Rights Act of 1964 which prohibits discrimination based on race, color, religion, sex, and national origin. A violation of the act may be regarded as a material breach of the contract.

27. GENETIC INFORMATION NONDISCRIMINATION ACT OF 2008 (GINA), as amended

All contractors and subcontractors shall be subject to and comply with all of provisions of the Genetic Information Nondiscrimination Act of 2008 which prohibits the use of genetic information in making employment decisions. A violation of the act may be regarded as a material breach of the contract.

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Division I
General Conditions

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101. Definitions

Wherever used in any of the Contract Documents, the following meanings shall be given to the terms herein defined:

a. The term "Contract" is defined as the Contract executed by the City of Saginaw and the Contractor, of which these General Conditions, Specifications and Divisions are incorporated into by reference.

b. The term "Contractor" is defined as the person(s), firm, partnership, company, sole proprietorship, or corporation entering into the Contract with the City of Saginaw to construct and install the improvements, or otherwise undertake the activities, embraced in this Contract.

c. The term "City Engineer" is defined as the City Engineer of the City of Saginaw acting personally or, in the absence of the City Engineer, through their designee.

d. The term "Engineer" is defined as the City engineer acting directly or indirectly through their authorized representatives acting within the limits of the respective authority delegated to them. Any determination, directions, or approval of such authorized representatives shall be subject to review by the City Engineer.

e. The term "Contract Documents" is defined as and shall include the following: Executed Agreement, Addenda (if any), Invitation for Bids, Instructions to Bidders, Signed Copy of Bid, Specifications, Divisions, Special Conditions, Technical Specifications and Drawings

f. The term "Technical Specifications" is defined as that part of the Contract Documents which describes, outlines, and stipulates the quality of the materials to be furnished; the quality of the workmanship required; and the methods to be used in carrying out the construction work to be performed under this Contract.

g. The term "Addendum" or "Addenda" is defined as any changes, revisions or clarifications of the Contract Documents which have been duly issued by the City of Saginaw to prospective Bidders prior to the time of receiving Bids.

102. Application of Conditions

These conditions and the clauses on the following pages, printed as well as written, shall apply to all branches of the work with equal force, whether the work is done under one entire Contract or under several separate Contracts.

Division I
General Conditions

103. Subcontracts

The Contractor shall, as soon as practicable after signing the Contracts, but in any event prior to the performance of any work by any subcontractor, notify the City in writing of the names of subcontractors proposed for the work, designating the portions of work to be performed by each. The Contractor is as fully responsible to the City for the acts and omissions of the Subcontractors and of persons either directly or indirectly employed by them as for the acts and omissions of persons directly employed by the Contractor.

Nothing contained in the Contract Documents shall create any contractual relationship between any subcontractor and the City.

104. Assignment of Contract

a. It is agreed that the Contractor shall not assign or transfer this Contract, or any part of the work embraced in it, except with the written consent of the City to do so.

b. It is further agreed that all parts of the work which may be performed by a subcontractor shall conform to the Plans and Specifications and be subject to all the provisions of this Agreement exactly as if performed by the Contractor and the Contractor's immediate employees. No subcontracting of the work shall in any way diminish or weaken the responsibility of the Contractor for all parts of the work or lessen the obligations and liabilities of the Contractor under this Agreement.

c. It is likewise agreed that the Contractor shall not assign, either legally or equitably, any of the monies payable to the Contractor under this Agreement, or the Contractor's claim thereto, except with the written consent of the City.

105. Responsibilities of Contractor

a. The Contractor shall be held to have examined the premises and line of work and shall take the whole responsibility of the work. Should any unforeseen difficulty or obstruction be encountered in the prosecution of the same, involving a greater expenditure of money than expected at the time of bidding, the Contractor shall proceed, nevertheless, with the work, and no allowance will be made therefore.

b. It shall not be incumbent upon the City to notify the Contractor when to begin, to cease or to resume work, nor in any way to manage the work so as to release the Contractor of responsibility, or of any consequence of neglect or carelessness by the Contractor or anu subordinates.

c. The Contractor shall devote time and management/superintendence to the fulfillment of this Contract and shall keep the same under the Contractor's control.

d. The Contractor shall assume and have sole charge and possession of all work included in this contract, until the termination thereof, unless otherwise specified in this contract, and shall be solely liable for all damages to persons or property occasioned in any way by the

Contractor's acts or omissions, or that of the Contractor's agents, employees, subcontractors, or any persons in and about the work embraced in this Contract.

e. Prior to the start of construction in the public right-of-way, it shall be the responsibility of the Contractor to notify the TRAFFIC ENGINEERING DIVISION of said work. In the case where complete street closure is necessary, it shall be the responsibility of the Contractor to notify the TRAFFIC ENGINEERING DIVISION, FIRE DEPARTMENT AND POLICE DEPARTMENT at least forty-eight (48) hours prior to the start of said work.

106. City Engineer's Power

All work and material furnished under this contract shall be furnished under the direction of and to the satisfaction and approval of the City Engineer. Should any dispute arise as to quality or fitness of the materials or workmanship, the decision shall rest strictly with the City Engineer and shall be based upon the requirements that all work done and materials furnished shall be performed in a good and workmanlike manner, conform to all Technical Specifications and Drawings and other requirements of the Contract in every respect, and what is useable and customary shall in no way enter into any consideration or decision whatsoever. The City Engineer shall have power to condemn all work and reject all material which, in his or her opinion, is not done or furnished in accordance with this Contract. However, this power and authority shall be confined to the direction or specification of what is to be done under this Contract and shall not extend to the actual execution of the work which shall be under the control of the Contractor, and for which the Contractor alone shall be responsible.

107. Contracts for Other Work

a. In case any additional work shall be required in connection with the work contemplated under this Contract, the City shall have the right to have such additional work done by any person other than the Contractor, and the Contractor shall in no way interfere with the work of such person(s), and shall suspend such part of the work herein specified, or will carry on the same in such manner as ordered by the City Engineer, so as to afford all reasonable facilities for doing such additional work, and the Contractor shall make no claims for damages or for privileges or rights by reason of the suspension and the doing of such additional work, except for such extension of time to perform this Contract as may be certified by the City Engineer.

b. The City reserves the right to lay or relay, construct or repair any water mains, gas mains, sewers, conduits and all other pipes and any connections thereto, or to grant permits to those having franchise rights from the City to install or reinstall, construct or repair such water mains, gas mains, sewers or conduits and other pipes and connections thereto at any time, and to do such other underground work in the street or streets, easements or vacated Right of Way, along the line of work as shall be necessary, or grant permits for same, at any time prior to the completion of the foundation for the paving material within the limits of this improvement, and to that end shall have the right to suspend the work on the said improvement, or any part thereof, and the Contractor shall not interfere with

or place any obstruction in the way of any person or persons who may be engaged in doing any of the work herein specified, and shall not be entitled to damages because of such work or any delay caused thereby.

108. Progress

In addition to the progress clause incorporated in the Contractor's proposal/response, the Contractor shall be required to submit, on demand of the City Engineer, an outline of the proposed order of work and to indicate the dates of completion of the major items of the work. This outline, when approved by the City Engineer, may be incorporated in, and become a part of the Contract.

109. Contractor's Employees

a. The Contractor shall employ suitable superintendents and forepersons, who, in the absence of the Contractor, shall be present while any work is being done under this Contract, and who shall follow, without delay, all orders and instructions of the City Engineer. Any notice given to a superintendent or foreperson relative to deviation from any of the requirements of this Contract shall be equivalent to a notice to the Contractor.

b. The superintendents, forepersons, employees, mechanics, and others employed by the Contractor shall be skilled in the assignment of work given them to do. Any employee of the Contractor who uses profane or abusive language to the Engineer or any Inspector, or otherwise impedes or embarrasses him in the performance of his duties, or who obstructs the progress of the work shall upon the request of the City Engineer be immediately removed from the project/worksite and not again employed at same without the consent of the City Engineer.

c. In doing any work contemplated by this Contract, eight (8) hours shall constitute a legal day's work by any laborer or worker employed by the Contractor.

d. Residents of the City of Saginaw shall be employed upon the work of this Contract as far as possible to do so.

110. Drawings

a. These Specifications and accompanying Drawings are intended to be cooperative, and what is called for by either shall be as binding as if called for by both. Should it appear that the work hereby intended to be done, or any of the materials or matters relative thereto, are not sufficiently detailed or explained on said Drawings or in said Specifications, or should any error, discrepancy or inconsistency appear between any of the Drawings and Specifications, or between any of the several Drawings, or should any doubt or misunderstanding arise as to the meaning of said Drawings or Specifications, the City Engineer shall furnish such additional drawings, detail or explanation, and he shall have power to interpret, correct, adjust and explain all errors, omissions, discrepancies, doubts and misunderstandings between such Drawings and Specifications, or between several Drawings, and the decision of the City Engineer therein shall be final and conclusive.

Explanations received from officers and employees other than the City Engineer will be considered of no avail in a case of dispute.

b. Preference shall be given to the figured dimensions on the Drawings rather than to scale measurements. Figures, unless witnessed by lines and points, are approximate only, and shall not be taken to regulate the dimensions of the structure of improvement. The figures, when so witnessed, are intended to show the exact dimension for the construction of the structure or improvement, but the Contractor, without extra charge, shall make such slight alterations as may be necessary to make adaptable parts fit to fixed parts, leaving all complete and in proper shape when done. It shall be the duty of the Contractor to verify all dimensions given on the Drawings, and to report any error or inconsistency to the City Engineer before commencing work.

111. Changes in the Work

a. No deviation from the Drawings and Specifications shall be made in the execution of the work without the written order and approval of the City Engineer, nor shall any work in the nature of additional work, or any work not contemplated by the Specifications or Drawings, be performed, except on written order of the City Engineer, and if any extra work be proceeded with or executed by the Contractor without previous order given in writing under the hand of the City Engineer as herein provided, no compensation for the same will be allowed. Extra work shall be defined as work not contemplated in the Contract, not covered in the Drawings and Specifications, and for which no unit prices have been stipulated.

b. Should it be deemed expedient by the City Engineer, at any time previous to commencing work, or while the work is in progress, to increase or diminish the dimensions, quantities of material or work, or alter the situation or levels, or vary from the form or dimensions of any part of said work, or vary in any other way the work herein contracted for, the City Engineer shall have full power to do so and to order and direct any such increase, diminution, alteration, or extra work to be made or performed, and without in any way deviating or affecting this Contract; and the Contractor hereby waives any claim to right to damages that the Contractor may be entitled to by reason of such changes. The Contractor shall, in pursuance of such order and directions received in writing from the City Engineer, execute the work thereby ordered and directed, and the difference in expense occasioned by such increase, diminution or alteration, shall be added to or deducted from the amount payable under this Contract.

c. The Contractor shall perform any extra work (work in connection with the Contract but not provided for herein as defined in subparagraph a. of his section) when and as ordered in writing by the City Engineer, either (a) at the price agreed upon before such work is commenced and named in the written order for such work, or (b) if the City Engineer so elects, for the reasonable cost of such work, as determined by the Contractor and approved by the City Engineer, plus a percentage of such cost, as set forth below. No extra work shall be paid for unless specifically ordered as such in writing by the City Engineer.

The cost of extra work done under subparagraph b. of this section shall include the reasonable cost to the Contractor of materials used and equipment installed, common and skilled labor, and forepersons, and the fair rental for all machinery and equipment used on the extra work for the period of such use.

At the request of the Engineer, the Contractor shall furnish itemized statements of the cost of the extra work ordered as above and give the Engineer access to all records, accounts, bills and vouchers and correspondence relating thereto.

The fair rental of all machinery and equipment shall be based upon the most recent edition of the Michigan Department of Transportation Equipment Rental Rates (Schedule C), or a similar publication approved by the City Engineer. Rental for machinery and equipment shall be based upon an appropriate fraction of the approved monthly rate schedule. If said extra work requires the use of machinery or equipment not already on the site of the work, the cost of transportation, not exceeding a distance of 100 miles, of such machinery or equipment to and from the Job Site or Work Location shall be added to the fair monthly rental; provided, however, that this shall not apply to machinery or equipment already required to be furnished under the terms of the Contract.

The Contractor shall not include in the cost of extra work any cost or rental of small tools, buildings, or any portion of the time of the Contractor, the superintendent, or the office and engineering staff.

To the cost of extra work done by the Contractor's own forces under (b) above (determined as stated above), the contractor shall add 15 percent to cover the overhead, use of capital, the premium on the bonds as assessed upon the amount of this extra work, and profit.

If extra work is done under subparagraph b. of this section, the Contractor and/or subcontractor shall keep daily records of such extra work. The daily record shall include the names of people employed; the nature of the work performed, and hours worked, materials and equipment incorporated, and machinery or equipment used, if any, in the execution of such extra work. This daily record, to constitute verification that the work was done, must be signed both by the Contractor's authorized representative and by the Engineer. A separate set of daily records shall be submitted for each extra work order.

d. The City Engineer may order the Contractor to proceed with desired changes in work provided that the net value of all such changes does not increase or decrease the original total amount shown in the Contract by more than twenty percent (20%) unless mutually agreed upon in writing by the City Engineer and the Contractor and further, that "extra work" shall not increase the original Contract by more than twenty percent (20%) in accordance with the section entitled "Unit Price Bids" under "General Instructions to Bidders."

112. Right of City to Take Over Contract

If the work to be done under this Contract shall be abandoned, or if the Contractor shall become insolvent or shall assign this Contract or subcontract the work hereunder without the written consent of the City Engineer, or if at any time the City Engineer shall be convinced

that the work is unnecessarily or unreasonably delayed, or that the Contractor is not making such progress in the execution of the work as to indicate its completion within the required time, or that the conditions or agreements of the Contract are being willfully violated or executed carelessly or in bad faith, the City Engineer shall provide the Contractor with a 24-hour notice, in writing, and, after the delivery thereof to the Contractor, the City Engineer shall then have the power and right to place additional laborers and equipment on said work and supply additional material, if necessary, and do such work as deemed advisable for the completion of this Contract, and may use any materials or implements belonging to the Contractor, or the City Engineer shall have the power and right to notify the Contractor to discontinue all work, or any part thereof, under this Contract, and upon such notifications, the Contractor shall discontinue said work, or such parts thereof, as the City Engineer may designate, and the City shall thereupon have the right and power to re-let this Contract, or any part thereof, or to employ, by contract or otherwise, and in such manner and at such prices as it may determine, any person or persons, and obtain any vehicles, applications, machinery, tools, another means of construction, and to procure all proper materials which it may deem necessary to work at and to be used to complete the work herein described; also the power to use such appliances, tools, and materials and means of construction of every description as may be found upon the line of work, both such as entered into the completed work and such as are necessarily used in and about the same in the course of construction, and to procure other proper materials for the completion of the same; and it shall charge the expense of all such labor, materials, vehicles, appliances, machinery, tools and other means of construction, and all expense of inspection and engineering and all other expenses, to said Contractor, and the Contractor shall be liable to the City for the amount of the whole cost of accomplishing the object contemplated by this Contract in excess, if any, of the amount herein agreed upon, together with such other elements of damage as may have been sustained by the City by reason of said Contractor's failure to complete and perform this Contract. In determining the liability of the Contractor hereunder, the City shall not be required to obtain the lowest figures for the work of completing the contract, but all sums actually paid for such completion shall be credited to the City, together with other elements of damage above mentioned, and the certificate of the City Engineer as to the amount of such liability shall be final and conclusive.

113. Extension of Time

a. An extension of time for completion of the work under the Contract may be granted by the City Engineer, subject to the conditions of this paragraph, but only upon the written application of the Contractor. In general, an extension of time will be granted by the City Engineer only if the delay is unavoidable and substantial, not the fault of the Contractor, and could not be reasonably anticipated or adequately guarded against. The Contractor will not be liable for liquidated damages during the period for which time of completion is extended by the City. The Contractor shall be entitled to a reasonable extension of time for unavoidable delay in completion caused solely by the following:

   I. Any act or omission of the City, its officer or employees;

   II. Any act of other public authorities;

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General Conditions

III. Causes not reasonably foreseeable by the parties at the time of the execution of this Contract and which are entirely beyond the control and without the fault or negligence of the Contractor, including, but not limited to, act of God, or the public enemy, war or other national emergency making performance temporarily impossible or illegal, acts or omissions of other contractors (but not the Contractors subcontractors), strikes and labor disputes not brought on by any act or omission of the Contractor, fires, floods, epidemics, quarantine restrictions, freight embargoes, weather of unusual severity such as cyclones or tornadoes, or excessively abnormal weather such as would interfere with the work.

b. The City Engineer will make a determination, based on the ascertained facts and the terms of this Contract, if an extension of time is justified, and, if so, will extend the time for completing the work for a period commensurate with the period of excusable delay. The determination made by the City Engineer shall be binding and conclusive on the Contractor.

114. Liquidated Damages

In the event of delay in the completion of the entire work beyond the period herein prescribed or beyond the period to which such time may be extended by the City, the City of Saginaw shall be paid the sum that is listed on the "Special Provision For Liquidated Damages." for each and every calendar day that the time consumed in said performance and completion extends beyond the final date herein specified, and this sum will be considered liquidated damages that the City will suffer by reason of said delay and default. As indicated in Article 6 of this Contract, this provision for liquidated damages applies separately to each proposal contained in the Contract.

115. Disputes

a. All disputes arising under this Contract or its interpretation, whether involving law or fact or both, or extra work, and all claims for alleged breach of contract shall within ten (10) days of commencement of the dispute, be presented by the Contractor to the City Engineer for decision. All papers pertaining to claims shall be filed in quadruplicate. Such notice need not detail the amount of the claim but shall state the facts surrounding the claim in sufficient detail to identify the claim, together with its character and scope. In the meantime, the Contractor shall proceed with the work as directed. Any claim not presented within the time limit specified within this subparagraph all be deemed to have been waived, except that if the claim is of a continuing character and notice of the claim is not given within ten (10) days of its commencement, the claim will be considered only for a period commencing ten (10) days prior to the receipt by the City Engineer of notice thereof.

b. The Contractor shall submit in detail the claim and the proof thereof. Each decision by the City Engineer will be in writing and will be mailed to the Contractor by both regular mail, email, and/or certified mail, return receipt requested.

c. If the Contractor does not agree with any decision of the City Engineer, the Contractor shall not allow the dispute to delay the work but shall notify the City Engineer promptly

that the Contractor is proceeding with the work under protest and may then accept the manner in question from final release.

116. Service of Notice

Service of notice by the City upon the Contractor may be made by service upon the Contractor, the superintendent, foreman, agent or representative personally or by certified mail, return receipt requested, sent by the City Engineer to the Contractor, and the receipt of such notice by said Contractor, superintendent, foreman, agent or representative, shall constitute full and legal notice within the meaning of this Contract.

117. Qualifications of Contractor

The Contractor must be capable of performing the various items of work bid upon. The Contractor shall furnish on demand of the City Engineer a list of the Contractor's qualifications covering experience on similar work, a list of machinery, plants, and other equipment available for the proposed work, and such statements of any financial resources as may be deemed necessary.

118. Indemnity

The Contractor shall, at the Contractor's own expense, protect, defend, indemnify and hold harmless the City, and its officers, employees, agents, or representatives, from and against all claims, damages, liabilities, losses and expenses, including reasonable attorney's fees, resulting from the acts, omissions, or negligence of the Contractor, or any of the Contractor's officers, employees, agents, representatives, or subcontractors, in any way connected or otherwise related to their performance or nonperformance of this Contract.

119. Insurance

During the life of the Contract, the Contractor shall obtain and maintain the required insurance and bonds as shown on the "Notice to Bidders: Consultants – Bonds – Insurance". The Contractor shall neither be awarded this contract nor commence work under this contract until he has obtained all required documents and evidence of such has been reviewed and approved by the City of Saginaw. The insurance and bond requirements set forth herein are mandatory and not subject to negotiation.

120. Patents, Royalties, Trademarks, Etc.

All fees for claims and royalties for any patented inventions, materials, articles, methods, arrangements, or processes of manufacture that may be used on or in any way connected with the construction, erection or maintenance of this work, or any part thereof, embraced in this Contract, shall be included in the price stipulated and mentioned in the proposal to contract for said work. The City of Saginaw shall be the owner of any such work produced and paid for in connection with this Contract.

121. Performance Bonds and Payment Bonds

a. Prior to the award and within ten (10) days after the prescribed forms are presented for

signature, the successful bidder shall execute and deliver to the City of Saginaw an Agreement in the form included in the Contract Documents in such number of copies as the City of Saginaw may require.

b. Unless otherwise specified in the notice to bidders, the contractor shall furnish a performance and a payment bond. The bonds shall be required as provided by Act 213, Public Acts 1963, as amended. Performance bonds and payment bonds shall be in an amount not less than 100 percent (100%) of the total amount of the Contract, shall be executed by a corporate surety prior to award of Contract, and shall be subject to approval by the City Manager as to substance and by the City Attorney as to form. Irrespective of the provisions of Article 2 of this Contract, the Contractor shall not commence work hereunder until policies of the insurance required by Section 119 of General Conditions and the bonds required by this section shall have been furnished and approved by the City. Upon failure of the Contractor to furnish said insurance policies or bonds within ten (10) days prior to the award of the Contract by the Council, all of the Contractor's rights to the award of the Contract shall terminate unless the time for furnishing any of said instruments shall have been extended by the City Engineer; such extension shall be for good cause shown by the Contractor. Such termination shall not relieve the Contractor of his liability under his bid bond, and failure to provide the necessary surety bonds and insurance policies shall be treated as the failure of the Contractor to enter into the Contract pursuant to the Contractor's bid.

   Bid Bonds, Performance Bonds and Payment Bonds will be written with companies named in the Federal Register as published by the Department of the Treasury or acceptable to the City. Surety shall have a rating of no lower than an A- as rated by A.M. Best Key Rating Guide or acceptable to the City.

c. The failure of the successful bidder to execute this Contract and to supply the required bond or bonds within ten (10) days after the prescribed forms are presented for signature, or within such extended period as the City Engineer may grant, based upon reasons determined sufficient by the City Engineer as good cause shown by Contractor, shall constitute a default, and the City of Saginaw may either award the contract to the next best responsible bidder or re-advertise for bids, and may charge against the bidder the difference between the amount for which a contract for the work is subsequently executed, irrespective of whether the amount thus due exceeds the amount of the bid bond. If a more favorable bid is received by re-advertising the defaulting bidder shall have no claim against the City of Saginaw for a refund.

122. Facilities and Notices for Inspection

The City Engineer and duly authorized inspectors shall at all times have the right to enter the premises upon which said work is being done, or upon which material is manufactured, prepared or stored, for work under this Contract, and to inspect said work and materials, and to ascertain whether or not the construction is carried out in accordance with this Contract; and the Contractor shall render all necessary assistance and provide all reasonable facilities and give ample time for such inspection. When any work or material is being executed or prepared away from the line of work, the City Engineer shall be notified in reasonable time

where such work is being executed and such material prepared and when it will be ready for inspection so that inspection may be made from time to time before delivery. Failure or neglect on the part of the City Engineer or any inspector to condemn any material at the time of its being supplied or furnished shall not be construed to imply an acceptance thereof.

The Contractor shall notify the Engineer sufficiently in advance of backfilling or concealing any facilities to permit proper inspection. If any facilities are concealed without approval or consent of the Engineer, the Contractor shall uncover for inspection and recover such facilities, at the Contractor's own expense, when so requested by the Engineer.

123. Materials and Workmanship

a. Unless otherwise specifically provided for in the Technical Specifications, all workmanship, equipment, materials, and articles incorporated in the work shall be new and the best grade of the respective kinds for the purpose. Where equipment, materials, articles, or workmanship are referred to in the Technical Specifications as “equal to” any particular standard, the City Engineer shall decide the question of equality.

b. The Contractor shall furnish to the City Engineer for approval the manufacturer's detailed specifications for all machinery, mechanical and other special equipment which the Contractor contemplates installing, together with full information as to type, performance characteristics, and all other pertinent information as required, and shall likewise submit for approval as required full information concerning all other materials or articles which the Contractor proposes to incorporate in the work (see paragraph 124: “Samples Certificates and Tests”, of Division 1, General Conditions).

c. Machinery, mechanical and other equipment, materials, or articles installed or used without such prior approval shall bear the risk of subsequent rejection.

d. Materials specified by reference to the number or symbol of a specific standard, such as an ASTM Standard, a Federal Specification or other similar standard, shall comply with requirements in the latest revision thereof and any amendment or supplement thereto in effect on the date of the Notice Inviting Sealed Proposals, except as limited to type, class, or grade, or modified in such reference. The standards referred to, except as modified in the Technical Specifications, shall have full force and effect as though printed therein.

e. When any material has been furnished by the City, the Contractor, or the Contractor’s authorized agent, shall sign a receipt therefore, stating that the material has been received in good condition; and, after receiving such material, the Contractor shall be responsible for the material and shall protect it from the weather and from all other causes which might damage the same, in order to keep the material in as good condition as when it was received. All material broken, damaged or stolen when in the care of the Contractor shall be charged against the Contractor and the value thereof deducted from any monies that may become due the Contractor. All materials furnished by the City shall be loaded and hauled from locations as directed by the City Engineer or Employee.

124. Samples, Certificates and Tests

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General Conditions

a. The Contractor shall submit all material and equipment samples, certificates, affidavits, etc., as called for in the Contract Documents or required by the Engineer. No such material or equipment shall be manufactured or delivered to the site except at the Contractor's own risk, until the Engineer has approved the required samples or certificates. Any delay in the work caused by late or improper submission of samples or certificates for approval shall not be considered just cause for an extension of the Contract time.

   Each sample submitted by the Contractor shall carry a label giving the name of the Contractor, the project for which it is intended, and the name of the producer. The accompanying certificates or letters from the Contractor shall state that the sample complies with Contract requirements, shall give the name and brand of the product, its place of origin, the name and address of the producer, and all specifications or other detailed information which will assist the Engineer in passing upon the acceptability of the sample promptly. Such certificate or letter shall also include the statement that all materials or equipment furnished for use in the project will comply with the samples and/or certified statements.

b. Approval of any materials shall be general only and shall not constitute a waiver of the City of Saginaw's right to demand full compliance with Contract requirements. After actual deliveries, the Engineer will have such check tests made, as deemed necessary in each instance, and may reject materials and equipment and accessories for cause, even though such materials and articles have been given general approval. If materials, equipment, or accessories, which fail to meet check tests, have been incorporated in the work, the Engineer will have the right to cause their removal and replacement by proper materials or to demand and secure such reparation by the Contractor as is equitable.

c. Except as otherwise specifically stated in the Contract, the costs of sampling and testing will be divided as follows:

   I. The Contractor shall furnish, without extra cost, all samples required for testing purposes; furnishing shall include packing and delivery charges, except for those samples taken on the project by the Engineer;

   II. The Contractor shall assume all costs of retesting materials which fail to meet Contract requirements;

   III. The Contractor shall assume all costs of testing materials offered in substitution for those found deficient; and

   IV. The City of Saginaw will pay all other expenses.

125. Permits and Codes

The Contractor shall keep fully informed of and shall at all times observe and comply with all existing or future Federal, State, or local laws or regulations, all requirements and provisions of the Charter of the City of Saginaw, and all municipal ordinances, prohibitions, rules, and regulations in any manner affecting the conduct of the work, and shall protect and indemnify

the City against any and all claims arising from or based on any violations of such laws, Charter, ordinances, prohibitions, rules, regulations, orders, or decrees and against all violations of same by the Contractor or the Contractor's officers, employees, agents, representatives, or subcontractors.

126. Care of Work

a. The Contractor shall be responsible for all damages to persons or property that occur as a result of the Contractor's fault or negligence, or the fault or negligence of the Contractor's officers, employees, agents, representatives or subcontractors, in connection with the execution of the work and shall be responsible for the proper care and protection of all work performed until completion and final acceptance, whether or not the same has been covered in whole or in part by payments made by the City of Saginaw.

b. In an emergency affecting the safety of life or property on or adjoining the site, the Contractor shall act, either at the Contractor's own discretion or as instructed by the City of Saginaw, to prevent such threatened loss or injury. Any compensation claimed by the Contractor on account of such emergency work will be determined by the City of Saginaw as provided in the section entitled "Changes in the Work", in Section 111, Division I, General Conditions. In no instance shall the Contractor be paid for such emergency work where the emergency work was necessitated by the acts or omissions of the Contractor, or its officers, employees, agents, representatives, or subcontractors.

c. The Contractor shall avoid damaging sidewalks, streets, curbs, pavements, utilities, structures, or any other property (except that which is to be replaced or removed) either on or adjacent to the site. The Contractor shall repair at the Contractor's own expense and in manner satisfactory to the City of Saginaw, any damage thereto caused by the Contractor's operations, or the operations of the Contractor's officers, employees, agents, representatives, or subcontractors.

d. All water and gas mains, all sewer and other pipes, and all conduits and other underground work of any nature, crossing or projecting into any trench or excavation and all appurtenances thereto, such as Cast Iron Valve Boxes, curb boxes, manhole casting, etc. shall be sufficiently and adequately shored and supported by timber and planking, as required per contract specifications, and protected by the Contractor from injury, and any damage or injury thereto shall be repaired by the Contractor at the Contractor's own expense to the satisfaction of the City Engineer.

e. The Contractor shall at all times keep excavated areas, trenches, and holes free of water during the progress of the work. All costs for the installation and operating of pumps and other necessary equipment to keep excavated areas, trenches, and holes free of water shall be borne by the Contractor.

127. Review by the City of Saginaw

The City of Saginaw, its authorized representatives and agents, shall, at all times, have access to and be permitted to observe and review all work, materials, equipment, payrolls, personnel records, employment conditions, and other relevant data and records pertaining to this

contract, provided, however, that all instructions and approvals with respect to the work will be given to the Contractor only by the City of Saginaw through its authorized representatives or agents.

128. Sanitary Facilities

The Contractor shall furnish, install, and maintain ample sanitary facilities for employees and sub-contractors. As the need arises, a sufficient number of enclosed temporary toilets shall be conveniently placed as required by federal, state or local law or regulation.

Drinking water shall be provided from an approved source, so piped or transported as to keep it safe and fresh and served from single service containers or satisfactory types of sanitary drinking stands or fountains. All such facilities and services shall be furnished in strict accordance with existing federal, state, or local law or regulation.

129. Water

Water for use on improvements may be procured from the nearest hydrant. Permission to open and use hydrants and water shall, however, first be obtained from the City of Saginaw or other proper jurisdiction, subject to rules and regulations of said jurisdiction; the Contractor shall furnish all necessary piping, hose and accessories and pay all water taxes, fees, and charges incidental to the opening and closing of hydrants and the use of water. Before the allowance of the final estimates, the Contractor shall present to the City Engineer a receipt from the authorizing jurisdiction's treasurer, showing that all water taxes and charges for the use of water under this Contract have been paid.

130. Stoppage of Work and Crossings

Upon any stoppage of work, all materials are to be piled up neatly so as not to impede travel upon the sidewalks or roadway, or the use of fire hydrants, and all rubbish and surplus material shall be removed immediately thereafter from the street or avenue by the Contractor. During rainy weather, the Contractor shall lay a temporary plank crosswalk across the street from sidewalk to sidewalk, such as will provide safe and dry footing for pedestrians. When so ordered by the City Engineer, the Contractor shall lay a temporary roadway or bridge sixteen (16) feet in width across the entire intersection or excavation or trench such as will provide a safe and satisfactory roadway for vehicular travel. All the aforesaid work shall be done without cost to the City other than the price paid for excavation.

131. Privileges of Contractor in the Street

a. The Contractor may occupy the whole width of the roadway between the sidewalks or the street lines. The Contractor shall not close more than three (3) blocks at one time without permission from the City Engineer. Each block of pavement or improvement shall be finished and opened to public travel as soon as practicable after the commencement of work thereon, but the use of any portion of the pavement or improvement by the public shall not be construed as an acceptance of the work, nor shall the Contractor be entitled to any damages thereby. No more than two consecutive street intersections shall be closed to public traffic at the same time, and each alternate intersection shall be opened for traffic,

unless otherwise ordered by the City Engineer.

b. All sidewalk approaches and the crossings at street intersections shall be kept open and always made safe and passable at all times by the Contractor for both pedestrian and vehicular travel, except at such times as the Engineer may direct otherwise.

c. The Contractor shall provide and maintain a safe and satisfactory roadway across all railway tracks at such places as required. Unless authority is otherwise given, the Contractor shall complete one side of the street before closing the other side, keeping the street open for travel and the fire department as much as possible.

132. Excavations Under Railroads

In excavating under or adjacent to any railroad tracks, the running of trains or cars must not be interrupted or interfered with, and the Contractor shall conduct this work so as not to cause injury to such tracks. The Contractor shall notify the railroad company owning said tracks to support and protect same and shall arrange with such company for any construction and for any expense incurred thereby, without cost to the City.

133. Barricades and Traffic Controls

All barricades and traffic controls for the work shall be in conformance with the 2011 Michigan Manual of Uniform Traffic Control Devices (hereafter referred to as the Manual). The Contractor shall barricade or fence the work as outlined in the Manual or as directed by the Engineer.

In addition to the requirements of the Manual, the Contractor shall maintain at all times a good and sufficient fence, railing or barrier around all exposed portions of said work in such a manner as to warn vehicular and pedestrian traffic of hazardous conditions. This shall apply to all construction projects either within street right-of-way or off-street right-of-way.

It shall also be the duty of the Contractor to place upon such barriers, fences, or railings, at evening twilight on each day, the required colored lights, and to keep them lighted during the night.

The Contractor shall put up and maintain barricades and traffic controls as required by the Manual for any stored materials the Contractor may have placed in the street.

Should the Contractor fail to properly barricade the work or stored material sites in the manner outlined above, the City may have the necessary barricading done, and all costs incurred for said barricading shall be charged to the Contractor.

All costs incurred for barricading or fencing shall be incidental to the work items in the Contract unless otherwise stated. In addition, all costs incurred by the City for placing barricading or fencing on the work site when the Contractor has failed to do so, or when the Contractor has failed to properly maintain those barricades or fencing the Contractor has placed, shall be charged to the Contractor, who shall promptly pay all charges. Should the Contractor fail to pay for the barricading placed by the City, the City may deduct the amount

owing from the final payment.

134. Grade Stakes

Grade or line stakes will be given by the City and must be protected and preserved and strictly followed, but the Contractor shall note any irregularities in such stakes and have the same checked before proceeding. The Tops of all stakes must be uncovered and kept exposed by the Contractor at any and all times so as to be accessible to the Engineer on demand.

135. Street Monuments

The Contractor shall not disturb any street monuments unless authorized to do so by the City Engineer.

136. Sunday and Night Work

No Sunday or night work shall be done except in case of emergency, and then only with the written consent of the Engineer. If, for any reason, it is necessary to do any work after twilight and permission is granted, the Contractor shall furnish suitable lighting without cost to the City other than the price paid for the work being done.

137. Test Borings, Test Holes, or Test Pits

All data on plans relative to test borings, test holes or test pits made by the City for the purpose of determining soil conditions in, alongside of, or in close proximity to the line of work, shall in no way be construed by the Contractor as a guarantee of soil conditions as will be encountered in the line of the work, but will be understood to be nothing more than data which the Contractor may or may not use in forecasting soil conditions.

138. Cleaning Up

Upon completion of the actual work of construction, the Contractor shall clean up and leave in a neat condition all the premises, which the Contractor has occupied during the construction period. Before the time for the final estimate, the Contractor shall remove from the premises all surplus excavation, debris, rubbish, and all unused materials, together with all tools and equipment. Should the Contractor fail to properly clean the premises within fourteen (14) days of completion of the work, the City of Saginaw, in its sole discretion, may exercise the right to clean same, and shall charge the costs of any such clean up against the final payment to the Contractor.

139. Correcting Work

Any unfaithful work or imperfect work or material that may be discovered before the final acceptance of the work shall be corrected and replaced immediately on the order of the City Engineer. In case any material is rejected, it shall be immediately removed from the line of work and not again brought thereon. In case the order for removal and replacing as specified above is not promptly complied with after written notice, the City Engineer shall be at liberty to remove and replace the same with proper materials, at the expense of the Contractor, and

the cost thereof shall be deducted from the amount due the Contractor. Any failure of the City to disapprove the work or material at the time of the inspection, or at the time of any semi-monthly or other estimate, shall not relieve the Contractor of any obligations. All work or material of whatever kind, which, during the progress of construction and before its final acceptance, may become damaged from any cause and shall be removed and replaced by the Contractor with good and satisfactory work or material; the Contractor shall bear the cost of such replacement where the replacement was necessitated by the act or omission of the Contractor or the Contractor's officers, employees, agents, representatives or subcontractors. Should it become necessary to retain any faulty or imperfect work or material which, if corrected or replaced would cause undue risk, injury or delay, a sum to be adjusted by the City Engineer, not exceeding the whole value of such work or material if the same were correct, shall be deducted from the Contract price.

140. Accident Prevention

a. The Contractor shall always exercise proper precaution at all times for the protection of persons and property and shall be responsible for all damages to persons and property, either on or off the site, which occur as a result of the Contractor's fault or negligence, or the fault or negligence of the Contractor's officers, employees, agents, representatives or subcontractors, in connection with the execution of the work. The safety provisions of applicable laws and building and construction codes shall be observed, and the Contractor shall take or cause to be taken such additional safety and health measures as the City of Saginaw may determine to be reasonably necessary. Machinery, equipment, and all hazards shall be guarded in accordance with the safety provisions of the "Manual of Accident Prevention in Construction" published by the Associated General Contractors of America, Inc., to the extent that such provisions are not in conflict with applicable local laws.

b. The Contractor shall maintain an accurate record of all cases of death, occupational disease, and injury requiring medical attention or causing loss of time from work, arising out of and in the course of employment or work under the Contract. The Contractor shall promptly furnish the City of Saginaw with reports concerning these matters.

c. The Contractor shall indemnify and save harmless the City of Saginaw from any claims from damages resulting from personal injury and/or death suffered or alleged to have been suffered by any person as a result of any work conducted under this Contract.

141. Requests for Supplementary Information

It shall be the responsibility of the Contractor o make timely requests of the City Engineer for any additional information not already in the Contractor's possession which should be furnished by the City of Saginaw under the terms of this Contract, and which will be required in the planning and execution of the work. Such requests may be submitted in writing from time to time as the need arises, but each shall be filed in ample time to permit appropriate action to be taken by all parties involved so as to avoid delay. The Contractor shall be fully responsible for any delay in the work or to others arising from the Contractor's failure to comply fully with the provisions of this section.

Division I
General Conditions

142. Warranty of Title

No material, supplies, or equipment for the work shall be purchased subject to any chattel mortgage or under a conditional sale or other agreement by which an interest therein or in any part thereof is retained by the seller or supplier. The Contractor shall warrant good title to all materials, supplies, and equipment installed or incorporated in the work and upon completion of all work, shall deliver the same together with all improvements and appurtenances constructed or placed thereon to the City of Saginaw free from any claims, liens, or charges. Neither the Contractor, nor any person, firm or corporation furnishing any material or labor for any work covered by this Contract, shall have any right to a lien upon any improvement of appurtenance thereon. Nothing contained in this paragraph, however, shall defeat or impair the right of persons furnishing materials or labor to recover under any bond given by the Contractor for their protection or any rights under any law permitting such persons to look to funds due the Contractor in the hands of the City of Saginaw. The provisions of this paragraph shall be inserted in all subcontracts and material contracts and notice of its provisions shall be given to all persons furnishing materials for the work when no formal contract is entered into for such materials.

143. Fair Employment Practices

a. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, national origin, age, sex, height, weight, sexual orientation, gender identity, marital status, or membership in another class of persons protected by federal, state, or local law. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, national origin, age, sex, height, weight, sexual orientation, gender identity, marital status, or membership in another class of persons protected by federal, state, or local law. Such action shall include but not be limited to the following: employment, upgrading, demotion, termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices describing the federal, state, or local law prohibiting job discrimination.

b. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age, national origin or inclusion in other class of persons protected by federal, state, or local law.

c. The Contractor will send to each labor union or representative of workers with which the Contractor has a collective bargaining agreement or other contract or understanding, a notice, to be provided, advising the labor union or worker's representative of the Contractor's commitments under this section.

d. The Contractor will furnish all information and reports required by the City of Saginaw, and will permit the City access to any books, records, and accounts for purposes of investigation to ascertain compliance with this section.

e. The Contractor shall comply with the provisions of the federal Civil Rights Act of 1964, as amended, Michigan's Elliott-Larsen Civil Rights Act, P.A. 453 of 1976, as amended, and any such other nondiscrimination law as may apply to Contractor and its activities hereunder.

f. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this Contract, this Contract may be immediately cancelled, terminated, or suspended by the City, in whole or in part, and the Contractor may be declared ineligible for further contracts.

g. The Contractor will include the provisions of paragraphs (a) through (f) in every subcontract, so that such provisions will be binding upon each such subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the City of Saginaw may direct as a means of enforcing such provisions, including sanctions for noncompliance.

144. Acceptance

No estimate given or payment made under the Contract, or the occupancy of the work herein required, either partial or entire by the City, shall be evidence of the performance of the Contract either in whole or in part, nor an acceptance of imperfect or faulty work or material.

145. Guarantee

The Contractor shall be responsible for and must make good any defects arising or discovered in the work or material required hereunder within one (1) year from the completion and final acceptance of such work and material, except for concrete sidewalks, new or repaired, and paving between the curb and sidewalk (driveway approaches), which shall be guaranteed for a period of five (5) years from the completion and final acceptance of such work and material. No payment, final or otherwise, shall be construed to relieve the Contractor from the obligation to make good any defect arising or discovered within such period, nor as a waiver of any specific obligation which the Contractor may assume as to the durability of the work. Nothing in this section, or elsewhere in this Contract, shall be construed as a waiver or diminishment of any statute of limitations or other time period in which the City is allowed to raise a claim against the Contractor relating to the work to be performed herein.

146. Michigan Sales & Use Tax

The Contractor shall include and be deemed to have included in the bid and contract price all Michigan Sales and Use Taxes currently imposed by legislative enactment and as administered by the Michigan Department of Treasury on the bid date.

If the Contractor is not required to pay or bear the burden, or obtain a refund or drawback, in whole or in part, of any Michigan Sales or Use Tax, interest or penalty thereon, which was required to be and was deemed to have been included in the bid and contract price, the contract price shall be reduced by the amount thereof, and the amount of such reduction whether as a refund or otherwise shall ensure solely to the benefit of the City of Saginaw.

147. Final Inspection

Division I
General Conditions

When the improvements embraced in this Contract are substantially completed, the Contractor shall notify the City Engineer in writing that the work will be ready for final inspection on a definite date, which shall be stated in the notice. The notice will be given at least ten (10) days prior to the date stated for final inspection and bear the signed concurrence of the representative of the City Engineer having charge of inspection. If the City Engineer determines that the status of the improvements is as represented, he or she will make the arrangements necessary to have final inspection commenced on the date stated in the notice, or as soon thereafter as is practicable.

NOTICE TO BIDDERS

Consultants - Insurance - Bonds

In case of a conflict between the City's documents and the documents provided by the consultant the City's shall prevail,

The City of Saginaw shall not be a party to any arbitration proceeding.

Provide Engineering with a copy of this endorsement with all other insurances and bonds.

REQUIRED/APPLICABLE INSURANCE – NO EXCEPTIONS

COMMERCIAL GENERAL LIABILITY (C.G.L.)

OWNER'S AND CONTRACTOR'S PROTECTIVE LIABILITY (O.C.P.)

UMBRELLA LIABILITY

AUTOMOBILE - WORKMAN'S COMPENSATION

REQUIRED BONDS – Over $50,000 - NO EXCEPTIONS

PAYMENT BOND – S-215-AIA-A312 (11/10), S-215-AIA-A312 (11/10) or current version is required, no substitutions allowed.

PERFORMANCE BOND - A-2100-AIA-A312 (11/10) or current version is required, no substitutions allowed.

MAINTENANCE BOND – IF REQUIRED (See Individual contract)

The City of Saginaw does not provide the required bond forms.

Additional information:

Upon failure of the Contractor to furnish said insurance policies or bonds within ten (10) days prior to the award of the Contract by the Council, all the Contractor's rights to the award of the Contract shall terminate unless the time for furnishing any of said instruments shall have been extended by the City Engineer; such extension shall only be for good cause shown by Contractor.

The Contractor must have all copies the Contract signed, insurances, bonds and all required documents returned and approved by City of Saginaw (Engineering, Attorney, and Insurance/Bond Reviews) prior to the contract going to Council for approval and award.

The Contractor will not be allowed to start work until all City of Saginaw signatures are obtained. Contract Books are **not always** signed at the City Council Meeting when the contract is approved.

INSURANCES REQUIRED

INDEMNITY

The Contractor shall, at the Contractor's own expense, protect, defend, indemnify and hold harmless the City, and its officers, employees, agents, or representatives, from and against all claims, damages, liabilities, losses and expenses, including reasonable attorney's fees, resulting from the acts, omissions, or negligence of the Contractor, or any of the Contractor's officers, employees, agents, representatives, or subcontractors, in any way connected or otherwise related to their performance or nonperformance of this Contract.

INSURANCE

a. During the life of the contract, the Contractor shall effect and maintain the following types of insurance:

Commercial General Liability (cgl)
Automobile
Workman's Compensation
Umbrella Liability
Owner's and Contractor's Protective Liability (ocp)
*Builder's Risk (when applicable)
*Pollution Coverage (when applicable)
*The City will specify when such coverage is applicable.

All insurers shall have at least an A- (excellent) rating by A.M. Best or acceptable to the City and be written on an occurrence basis.

Contractor agrees to name and require its subcontractors to name the City of Saginaw, its officers, employees, agents, or representatives, as additional insureds on Contractor's and its subcontractors' general liability and umbrella/excess insurance policies, with primary, non-contributory coverages, and including coverage for products-completed operations hazards and for ongoing work. The policy shall include a per project aggregate. The Additional Insured endorsement shall be as broad as ISO's (CG 20 10 11/85) or a combination of ISO's Scheduled Ongoing Operations (CG 20 10 10/01) and Scheduled Completed Operations (CG 20 37 10/01). All of Contractor's insurance policies shall contain terms waiving subrogation rights against the City of Saginaw its officers and employees. Proof of the waiver of subrogation for each insurance policy shall be by endorsement. The Contractor shall include this waiver of subrogation in contracts with its Subordinate Parties.

For General Liability and Umbrella Coverage
Contractor shall maintain, for a period of six years after completion of all Work on the project General Liability and Umbrella coverage.

The Contractor shall not commence work under this contract until he has obtained all required insurance and evidence of such insurance has been reviewed and approved by the City Engineer.

b. All certificates of insurance issued for this contract shall contain the following information in addition to stating the type of insurance and the amount of coverage.

I. The Contract number and description of work covered by the insurance.

II. The insurance must be in a form acceptable to the City and the deductible shall not exceed $5,000.00, unless otherwise approved by the City.

III. Thirty (30) days' notice in writing of any cancellation, termination or change of condition of the policy.

c. Certificates of Insurance must be presented prior to commencing any work under this contract, as well as upon request by the City during or after the Project; however, Contractor's failure to submit the required Certificate of Insurance, or failure to have the Certificates of Insurance identify the required coverage, does not excuse Contractor from procuring the required insurance. The Contractor shall be responsible for and pay any deductibles or self-insured retention amounts. The Contractor's insurance policies shall provide for 30 days written notice to the City for cancelation or any change in coverage. Not less than two weeks prior to the expiration, cancellation, or termination of any such policy, Contractor shall supply the City with new and replacement certificate(s) of insurance as proof of renewal of said original policy showing compliance with minimum insurance requirements below.

d. Commercial General Liability and Owner's and Contractor's Protective Liability. The Contractor shall procure and shall maintain during the life of this contract Commercial General Liability, and Owner's and Contractor's Protective Liability insurance with limits of liability not less than the amounts listed on the following page.

e. Automobile Insurance: The Contractor shall procure and maintain during the life of this contract Automobile Insurance with limits of liability not less than the amounts listed on the following page.

f. Workman's Compensation: The Contractor shall procure and maintain during the life of this contract Worker's Compensation Insurance, including Employers Liability Coverage, in accordance with all applicable statutes of the State of Michigan.

g. Umbrella and/or Excess Liability: The Contractor shall procure and maintain during the life of this contract Umbrella and/or Excess Liability with limits of liability not less than the amounts listed on the following page.

h. Builder's Risk: (when applicable). The Contractor shall procure and maintain during the life of this contract Builder's Risk Insurance equal to one hundred percent of the completed value of the structures.

i. Pollution Coverage: The Contractor or the Subcontractor who actually performs the work shall carry pollution insurance in the amount of $1,000,000.00 (or such other limit as may be determined in the sole discretion of the City Engineer) where the project involves Asbestos, Environmental or Lead abatement or such other work where the City specifies that pollution insurance is necessary.

INSURANCE LIMITS

General Liability Limits	
$1,000,000	Each Occurrence
$1,000,000	Personal and Advertising Injury
$2,000,000	General Aggregate
$2,000,000	Products and Completed Operations Aggregate
Automobile	
$1,000,000	Each Accident
Umbrella and/or Excess Liability	
$5,000,000	Occurrence/Aggregate
Owner's and Contractor's Protective Liability	
$1,000,000	Occurrence
$2,000,000	Aggregate

The following language applies as it pertains to limits:

Should the Contractor have an insurance policy with limits of liability or coverage greater than or in addition to those required by the contract, then those higher limits of liability and coverage in the Contractor's policy shall apply.

The Contractor is responsible for USHL coverage for workers compensation if required by law.

The umbrella/excess policy can be used to meet underlying requirements and must follow form.

NOTICE TO BIDDERS

IRAN ECONOMIC SANCTIONS ACT:

The act provides that Iran linked businesses are ineligible from submitting a bid on the City's requests for proposals. The Act further provides that the City shall require all bidders to certify that they are not Iran linked businesses.

Definition: Iran linked businesses are those linked to the Iranian energy sector. An Iran linked business is specifically defined as:

i. A person engaging in investment activities in the energy sector of Iran, including a person that provides oil or liquefied natural gas tankers or products used to construct or maintain pipelines used to transport oil or liquefied natural gas for the energy sector of Iran.

ii. A financial institution that extends credit to another person, if that person will use the credit to engage in investment activities in the energy sector of Iran.

The provisions of the Act are only in effect if a country is a state sponsor of terror. A state sponsor of terror is defined as any country determined by the United States secretary of state to have repeatedly provided support for acts of international terrorism. Iran is currently on the US SOS state sponsor of terrorism list (http://www.state.gov/j/ct/list/c14151.htm), along with Cuba, Sudan, and Syria.

NOTICE TO BIDDERS

§ 14.36 PREFERENCE FOR LOCAL BIDDERS.

(A) (1) If the lowest bidder is not a Saginaw-based bidder, as defined above, any Saginaw-based bidder with a bid within 5% of the lowest bid shall be deemed the lowest bidder if it agrees to reduce its bid to match the bid of the lowest bidder. Such a bidder will remain bound to all terms of their original bid.

(2) A lowered bid by a Saginaw-based business which is premised upon, in whole or in part, changes to or variances to the bid specifications, contract requirements, or scope of work, shall be considered non-responsive and will not be considered.

(B) If such a Saginaw-based business refuses to reduce its bid to match the lowest bid, then the next lowest responsive and responsible Saginaw-based business with a bid within 5% of the lowest bid shall be deemed the lowest bidder, if it agrees to reduce its bid to match the bid of the lowest bidder. Such a bidder will remain bound to all other terms of their original bid.

(C) If no responsive and responsible Saginaw-based businesses within 5% of the lowest bid agree to reduce their bids, then the contract shall be awarded to the person or business with the lowest, most responsive and responsible bid.

(D) In the event of a tie between two or more Saginaw-based businesses, where all other factors are equal, the award of the bid shall be by coin toss conducted by the Purchasing Officer or his or her designee.

(E) No contract awarded pursuant to this ordinance shall be sublet in any manner that permits 50% or more of the dollar value of the contract to be performed by a subcontractor or subcontractors who do not meet the definition of “Saginaw-based.”

(F) The section shall not waive or constrain, in any manner, the right and prerogative of the City to reject any and all bids or proposals from any Saginaw-based business which fails to meet the requirements of any other section of this ordinance, or to reject a bid which is in any way incomplete, irregular, not responsive or not responsible.

(G) Local preferences shall not be applied in cases of procurements funded, even in part, with federal dollars, unless such procurement is for architectural and engineering services. When contracting for architectural and engineering services, local preference may be a selection criterion provided its application leaves an appropriate number of qualified vendors, given the nature and size of the project, to complete the contract.

See Title 1: Administrative Code - Chapter 14: Finance and Purchasing

American Iron and Steel Contract Language

The Contractor acknowledges to and for the benefit of the City of Saginaw ("Purchaser") and the Michigan Department of Environment, Great Lakes, and Energy (the "State") that it understands the goods and services under this Agreement are being funded with monies made available by the Clean Water State Revolving Fund and/or the Drinking Water State Revolving Fund and such laws contain provisions commonly known as "American Iron and Steel (AIS);" that requires all iron and steel products used in the project be produced in the United States ("AIS Requirements") including iron and steel provided by the Contractor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Purchaser and the State that (a) the Contractor has reviewed and understands the AIS Requirements, (b) all iron and steel used in the project will be and/or have been produced in the United States in a manner that complies with the AIS Requirements, unless a waiver of the requirements is approved or the State made the determination in writing that the AIS Requirements do not apply to the project, and (c) the Contractor will provide any further verified information, certification, or assurance of compliance with this paragraph, or information necessary to support a waiver of the AIS requirements, as may be requested by the Purchaser.

Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or State to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Purchaser or State resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Purchaser). While the Contractor has no direct contractual privity with the State, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State.

Build America, Buy America Contract Language

The Contractor acknowledges to and for the benefit of the City of Saginaw ("Owner") and the Michigan Department of Environment, Great Lakes, and Energy (the "Funding Authority") that it understands the goods and services under this Agreement are being funded with federal monies and have statutory requirements commonly known as "Build America, Buy America;" that requires all of the iron and steel, manufactured products, and construction materials used in the project to be produced in the United States ("Build America, Buy America Requirements") including iron and steel, manufactured products, and construction materials provided by the Contactor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Owner and Funding Authority (a) the Contractor has reviewed and understands the Build America, Buy America Requirements, (b) all of the iron and steel, manufactured products, and construction materials used in the project will be and/or have been produced in the United States in a manner that complies with the Build America, Buy America Requirements, unless a waiver of the requirements is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the Build America, Buy America Requirements, as may be requested by the Owner or the Funding Authority. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Owner or Funding Authority to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Owner or Funding Authority resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the Funding Authority or any damages owed to the Funding Authority by the Owner). If the Contractor has no direct contractual privity with the Funding Authority, as a lender or awardee to the Owner for the funding of its project, the Owner and the Contractor agree that the Funding Authority is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the Funding Authority.

Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment

The Contractor acknowledges to and for the benefit of the City of Saginaw ("Owner") and the Michigan Department of Environment, Great Lakes, and Energy (the "Funding Authority") that it understands:

This term and condition implements 2 CFR 200.216 and is effective for obligations and expenditures of the U.S. Environmental Protection Agency (or EPA)'s financial assistance funding on or after 8/13/2020.

As required by 2 CFR 200.216, EPA recipients and subrecipients, including borrowers under EPA funded revolving loan fund programs, are prohibited from obligating or expending loan or grant funds to procure or obtain; extend or renew a contract to procure or obtain; or enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that use covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115-232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities). Recipients, subrecipients, and borrowers also may not use EPA funds to purchase:

a. For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).

b. Telecommunications or video surveillance services provided by such entities or using such equipment.

c. Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

Consistent with 2 CFR 200.471, costs incurred for telecommunications and video surveillance services or equipment such as phones, internet, video surveillance, and cloud servers are allowable except for the following circumstances:

a. Obligating or expending EPA funds for covered telecommunications and video surveillance services or equipment or services as described in 2 CFR 200.216 to:

    (1) Procure or obtain, extend or renew a contract to procure or obtain;

    (2) Enter into a contract (or extend or renew a contract) to procure; or

    (3) Obtain the equipment, services, or systems. Certain prohibited equipment, systems, or services, including equipment, systems, or services produced or provided by entities identified in section 889, are recorded in the System for Award Management exclusion list.

Davis-Bacon and Related Acts/Prevailing Federal Wages

P.L. 111-88 requires compliance with the Davis Bacon Act and adherence to the current U.S. Department of Labor Wage Decision. Attention is called to the fact that not less than the minimum salaries and wages as set forth in the Contract Documents (see Wage Decision included herein) must be paid on this project. The Wage Decision, including modifications, must be posted by the Contractor on the job site. The “Contracting Agency” or “Contracting Officer” for Davis-Bacon Wage Decision posters on jobsites is the loan applicant/bond issuer. A copy of the Labor Standards Provisions for Federally Assisted Projects is included and is hereby a part of this contract.

"General Decision Number: MI20260071 01/02/2026

Superseded General Decision Number: MI20250071

State: Michigan

Construction Type: Heavy

County: Saginaw County in Michigan.

Heavy, Includes Water, Sewer Lines and Excavation (Excludes Hazardous Waste Removal; Coal, Oil, Gas, Duct and other similar Pipeline Construction)

Modification Number	Publication Date
0	01/02/2026

CARP0706-009 06/01/2025

	Rates	Fringes
CARPENTER, Includes Form Work	$ 35.86	23.69

ELEC0557-002 06/01/2025

	Rates	Fringes
ELECTRICIAN	$ 40.00	29.95

ENGI0325-009 09/01/2025

POWER EQUIPMENT OPERATORS: Underground Construction (Including Sewer)

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1	$ 45.98	25.25
GROUP 2	$ 41.25	25.25
GROUP 3	$ 40.52	25.25
GROUP 4	$ 39.95	25.25

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Backhoe/ Excavator, Boring Machine, Bulldozer, Crane, Grader/ Blade, Loader, Roller, Scraper, Trencher (over 8 ft. digging capacity)

GROUP 2: Trencher (8-ft digging capacity and smaller)

GROUP 3: Boom Truck (non-swinging, non- powered type boom)

GROUP 4: Broom/ Sweeper, Fork Truck, Tractor, Bobcat/ Skid Steer /Skid Loader

ENGI0326-011 06/01/2025

EXCLUDES UNDERGROUND CONSTRUCTION

	Rates	Fringes

OPERATOR: Power Equipment

Group 1	$ 48.98	25.25
Group 2	$ 45.68	25.25
Group 3	$ 44.00	25.25
Group 4	$ 41.32	25.25
Group 5	$ 41.32	25.25
Group 6	$ 35.46	25.25

FOOTNOTES:

Crane operator with main boom and jib 300' or longer: $1.50 per hour above the group 1 rate.
Crane operator with main boom and jib 400' or longer: $3.00 per hour above the group 1 rate.

PAID HOLIDAYS: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Crane operator with main boom and jib 400', 300', or 220' or longer.

GROUP 2: Crane operator with main boom and jib 140' or longer, tower crane, gantry crane, whirley derrick

GROUP 3: Backhoe/Excavator; Boring Machine; Bulldozer; Crane; Grader/Blade; Loader; Roller; Scraper; Tractor; Trencher

GROUP 4: Bobcat/Skid Loader; Broom/Sweeper; Fork Truck (over 20' lift)

GROUP 5: Boom truck (non-swinging)

GROUP 6: Fork Truck (20' lift and under for masonry work)

IRON0025-006 06/01/2025

	Rates	Fringes
IRONWORKER		
Reinforcing	$ 36.55	33.37
Structural	$ 36.55	35.93

LABO0334-007 09/01/2022

SCOPE OF WORK:
OPEN CUT CONSTRUCTION: Excavation of earth and sewer, utilities, and improvements, including underground piping/conduit (including inspection, cleaning, restoration, and relining)

	Rates	Fringes
LABORER		
(1) Common or General	$ 22.42	12.95
(2) Mason Tender-Cement/Concrete	$ 22.55	12.95
(4) Grade Checker	$ 22.73	12.55
(5) Pipelayer	$ 22.85	12.95
(7) Landscaper	$ 18.41	12.95

LABO0334-012 06/01/2025

EXCLUDES OPEN CUT CONSTRUCTION

	Rates	Fringes
Landscape Laborer		
GROUP 1	$ 29.93	9.10
GROUP 2	$ 27.71	9.10

LANDSCAPE LABORER CLASSIFICATIONS

GROUP 1: Landscape specialist, including air, gas and diesel equipment operator, lawn sprinkler installer and skidsteer (or equivalent)

GROUP 2: Landscape laborer: small power tool operator, material mover, truck driver and lawn sprinkler installer tender

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LABO1098-007 07/01/2025

EXCLUDES OPEN CUT CONSTRUCTION

	Rates	Fringes
LABORER		
Common or General; Grade Checker; Mason Tender - Cement/Concrete; Pipelayer..	$ 27.68	13.45

PAIN1803-005 06/01/2014

	Rates	Fringes
PAINTER		
Brush & Roller	$ 22.58	12.80
Spray	$ 23.58	12.80

PLAS0016-030 04/01/2014

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 25.47	12.38

PLUM0085-005 05/04/2020

	Rates	Fringes
PLUMBER	$ 38.25	21.07

TEAM0007-008 06/01/2025

	Rates	Fringes
TRUCK DRIVER		
Dump Truck under 8 cu. yds.; Tractor Haul Truck....	$ 33.30	.75 + a+b
Dump Truck, 8 cu. yds. and over	$ 33.40	.75 + a+b
Lowboy/Semi-Trailer Truck...	$ 33.55	.75 + a+b

FOOTNOTE:
a. $470.70 per week.
b. $68.70 daily.

SUMI2010-069 11/09/2010

	Rates	Fringes
TRUCK DRIVER: Off the Road Truck	$ 20.82	3.69

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least $13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME

refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative

Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION
"

"General Decision Number: MI20260001 01/09/2026

Superseded General Decision Number: MI20250001

State: Michigan

Construction Types: Highway (Highway, Airport & Bridge xxxxx
and Sewer/Incid. to Hwy.)

Counties: Michigan Statewide.

Modification Number	Publication Date
0	01/02/2026
1	01/09/2026

* CARP0004-004 06/01/2025

REMAINDER OF STATE

	Rates	Fringes
CARPENTER (Piledriver)	$ 35.57	21.54

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* CARP0004-005 06/01/2025

LIVINGSTON (Townships of Brighton, Deerfield, Genoa, Hartland, Oceola & Tyrone), MACOMB, MONROE, OAKLAND, SANILAC, ST. CLAIR AND WAYNE COUNTIES

	Rates	Fringes
CARPENTER (Piledriver)	$ 41.37	28.69

ELEC0017-005 06/01/2025

STATEWIDE

	Rates	Fringes
Line Construction		
Groundman/Driver	$ 33.32	33%+7.40
Journeyman Signal Tech, Communications Tech, Tower Tech & Fiber Optic Splicers	$ 49.26	33%+7.40
Journeyman Specialist	$ 56.65	33%+7.40
Operator A	$ 41.71	33%+7.40
Operator B	$ 38.98	33%+7.40

Classifications

Journeyman Specialist: Refers to a crew of only one person working alone.
Operator A: Shall be proficient in operating all power equipment including: Backhoe, Excavator, Directional Bore and Boom/Digger truck.
Operator B: Shall be proficient in operating any 2 of the above mentioned pieces of equipment listed under Operator A.

ENGI0324-003 06/01/2025

ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LENAWEE, LIVINGSTON, MACOMB, MIDLAND, MONROE, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLAIR, SANILAC, SHIAWASSEE, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:

	Rates	Fringes
OPERATOR: Power Equipment (Steel Erection)		
GROUP 1	$ 55.42	28.25
GROUP 2	$ 56.42	28.25
GROUP 3	$ 53.92	28.25
GROUP 4	$ 54.92	28.25
GROUP 5	$ 52.42	28.25
GROUP 6	$ 53.42	28.25
GROUP 7	$ 52.15	28.25
GROUP 8	$ 53.15	28.25
GROUP 9	$ 51.70	28.25
GROUP 10	$ 52.70	28.25
GROUP 11	$ 50.97	28.25
GROUP 12	$ 51.97	28.25
GROUP 13	$ 50.61	28.25
GROUP 14	$ 51.61	28.25
GROUP 15	$ 49.97	28.25
GROUP 16	$ 46.77	28.25
GROUP 17	$ 32.29	15.40
GROUP 18	$ 35.78	28.25

FOOTNOTE:

Paid Holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Engineer when operating combination of boom and jib 400' or longer

GROUP 2: Engineer when operating combination of boom and jib 400' or longer on a crane that requires an oiler

GROUP 3: Engineer when operating combination of boom and jib 300' or longer

GROUP 4: Engineer when operating combination of boom and jib 300' or longer on a crane that requires an oiler

GROUP 5: Engineer when operating combination of boom and jib 220' or longer

GROUP 6: Engineer when operating combination of boom and jib 220' or longer on a crane that requires an oiler

GROUP 7: Engineer when operating combination of boom and jib 140' or longer

GROUP 8: Engineer when operating combination of boom and jib 140' or longer on a crane that requires an oiler

GROUP 9: Tower crane & derrick operator (where operator's work station is 50 ft. or more above first sub-level)

GROUP 10: Tower crane & derrick operator (where operator's work station is 50 ft. or more above first sub-level) on a crane that requires an oiler

GROUP 11: Engineer when operating combination of boom and jib 120' or longer

GROUP 12: Engineer when operating combination of boom and jib 120' or longer on a crane that requires an oiler

GROUP 13: Crane operator; job mechanic and 3 drum hoist and excavator

GROUP 14: Crane operator on a crane that requires an oiler

GROUP 15: Hoisting operator; 2 drum hoist and rubber tired backhoe

GROUP 16: Forklift and 1 drum hoist

GROUP 17: Compressor or welder operator

GROUP 18: Oiler

ENGI0324-004 06/01/2025

AREA 1: ALLEGAN, BARRY, BERRIEN, BRANCH, CALHOUN, CASS, EATON, HILLSDALE, IONIA, KALAMAZOO, KENT, LAKE, MANISTEE, MASON, MECOSTA, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH, VAN BUREN

AREA 2: ANTRIM, BENZIE, CHARLEVOIX, EMMET, GRAND TRAVERSE, KALKASKA, LEELANAU, MISSAUKEE AND WEXFORD COUNTIES:

	Rates	Fringes
OPERATOR: Power Equipment (Steel Erection)		
AREA 1		
GROUP 1	$ 55.02	28.25
GROUP 2	$ 52.15	28.25
GROUP 3	$ 50.61	28.25
GROUP 4	$ 46.77	28.25
GROUP 5	$ 32.29	15.40
GROUP 6	$ 35.78	28.25
AREA 2		
GROUP 1	$ 55.02	28.25
GROUP 2	$ 52.15	28.25
GROUP 3	$ 50.61	28.25
GROUP 4	$ 46.77	28.25
GROUP 5	$ 32.29	15.40
GROUP 6	$ 35.78	28.25

FOOTNOTES:

Crane operator with main boom and jib 300' or longer: $1.50 additional to the group 1 rate. Crane operator with main boom and jib 400' or longer: $3.00 additional to the group 1 rate.
PAID HOLIDAYS: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS:

GROUP 1: Crane Operator with main boom & jib 400', 300', or 220' or longer.

GROUP 2: Crane Operator with main boom & jib 140' or longer, Tower Crane; Gantry Crane; Whirley Derrick.

GROUP 3: Regular Equipment Operator, Crane, Dozer, Loader, Hoist, Straddle Wagon, Mechanic, Grader and Hydro Excavator.

GROUP 4: Air Tugger (single drum), Material Hoist Pump 6"" or over, Elevators, Brokk Concrete Breaker.

GROUP 5: Air Compressor, Welder, Generators, Conveyors

GROUP 6: Oiler and fire tender

ENGI0324-005 09/01/2025

AREA 1: GENESEE, LAPEER, LIVINGSTON, MACOMB, MONROE, OAKLAND, ST. CLAIR, WASHTENAW AND WAYNE COUNTIES

AREA 2: ALCONA, ALLEGAN, ALGER, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KWEENAW, LAKE, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SCHOOLCRAFT, SHIAWASSEE, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

	Rates	Fringes
OPERATOR: Power Equipment (Underground construction (including sewer))		
AREA 1:		
GROUP 1	$ 45.98	25.25
GROUP 2	$ 41.25	25.25
GROUP 3	$ 40.52	25.25
GROUP 4	$ 39.95	25.25
GROUP 5	$ 30.35	12.10
AREA 2:		
GROUP 1	$ 45.98	25.25
GROUP 2	$ 41.25	25.25
GROUP 3	$ 40.52	25.25
GROUP 4	$ 39.95	25.25
GROUP 5	$ 30.35	12.10

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Backfiller tamper; Backhoe; Batch plant operator (concrete); Clamshell; Concrete paver (2 drums or larger); Conveyor loader (Euclid type); Crane (crawler, truck type or pile driving); Dozer; Dragline; Elevating grader; Endloader; Gradall (and similar type machine); Grader; Mechanic; Power shovel; Roller (asphalt); Scraper (self-propelled or tractor drawn); Side boom tractor (type D-4 or equivalent and larger); Slip form paver; Slope

paver; Trencher (over 8 ft. digging capacity); Well drilling rig; Concrete pump with boom operator; Hydro Excavator

GROUP 2: Boom truck (power swing type boom); Crusher; Hoist; Pump (1 or more - 6-in. discharge or larger - gas or diesel- powered or powered by generator of 300 amperes or more - inclusive of generator); Side boom tractor (smaller than type D-4 or equivalent); Tractor (pneu-tired, other than backhoe or front end loader); Trencher (8-ft. digging capacity and smaller);Vac Truck and End dump operator;

GROUP 3: Air compressors (600 cfm or larger); Air compressors (2 or more-less than 600 cfm); Boom truck (non-swinging, non- powered type boom); Concrete breaker (self-propelled or truck mounted - includes compressor); Concrete paver (1 drum-l/2 yd. or larger); Elevator (other than passenger); Maintenance person; Pump (2 or more-4-in. up to 6-in. discharge-gas or diesel powered - excluding submersible pumps); Pumpcrete machine (and similar equipment); Wagon drill (multiple); Welding machine or generator (2 or more-300 amp. or larger - gas or diesel powered)

GROUP 4: Boiler; Concrete saw (40 hp or over); Curing machine (self-propelled); Farm tractor (with attachment); Finishing machine (concrete); Hydraulic pipe pushing machine; Mulching equipment; Pumps (2 or more up to 4-in. discharge, if used 3 hours or more a day, gas or diesel powered - excluding submersible pumps); Roller (other than asphalt); Stump remover; Trencher (service); Vibrating compaction equipment, self-propelled (6 ft. wide or over); Sweeper (Wayne type); Water wagon and Extend-a boom forklift

Group 5: Fire Person, Oiler

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* ENGI0324-006 06/01/2025

GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW, WAYNE, ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

	Rates	Fringes
Power equipment operators: (AIRPORT, BRIDGE & HIGHWAY CONSTRUCTION)		
GROUP 1	$ 46.21	25.25
GROUP 2	$ 45.06	25.25
GROUP 3	$ 38.33	25.25
GROUP 4	$ 37.77	25.25

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Paver Operator (5 bags or more); Slip Form Paver; Asphalt Paver (self propelled); Shovel (Excavator) installing utilities over 20 feet in depth.

Group 2: Asphalt plant operator; crane operator (does not include work on bridge construction projects when the crane operator is erecting structural components); Dragline operator; Shovel (Excavator) operator; Locomotive operator; Elevating grader operator; Pile driving operator; Roller operator (asphalt); Blade grader operator; Trenching machine operator (ladder or wheel type); Auto-grader; Self-propelled or tractor-drawn scraper; Conveyor loader operator (Euclid type); Bulldozer; Hoisting engineer; Tractor operator; Finishing machine operator (asphalt); Mechanic; Pump operator (6-in. discharge or over, gas, diesel powered or generator of 300 amp. or larger); Shouldering or gravel distributing machine operator (self-propelled); Backhoe (with over 3/8 yd. bucket); Side boom tractor (type D-4 or equivalent or larger); Tube finisher (slip form paving); Gradall (and similar type machine); Asphalt planner (self- propelled); Batch plant (concrete-central mix); Slurry machine (asphalt); Concrete pump (3 in. and over); Roto-mill; Swinging boom truck (over 12 ton capacity); Hydro demolisher (water blaster); Farm-type tractor with attached pan; Vacuum truck operator; Batch Plant (concrete dry batch); Concrete Saw Operator (40h.p. or over; Tractor Operator (farm type); Finishing Machine Operator (concrete); Grader Operator (self-propelled fine grade or form (concrete); tractor operator (farm type with attachment); Wagon Drill operator; Boom or winch hoist truck operator.

GROUP 3: Screening plant operator; Washing plant operator; Crusher operator; Backhoe (with 3/8 yd. bucket or less); Side boom tractor (smaller than D-4 type or equivalent); Sweeper (Wayne type and similar equipment); Greese Truck; Air Compressor Operator (600 cu.ft. per min or more); Air Compressor Operator (two or more, less than 600 cfm); End Loader operator (1 yard Capacity and over); Side boom tractor (type D or equivalent or larger; Endloader operator *under 1 yard capacity; Trencher (service).

GROUP 4: Boiler fire tender; Concrete Breaker; Oiler; Fire tender; Trencher (service); Flexplane operator; Cleftplane operator; Roller operator (other than asphalt); Curing equipment operator (self-propelled); Power bin operator; Plant drier operator (asphalt); Vibratory compaction equipment operator (6 ft. wide or over); Guard post driver operator (power driven); All mulching equipment; Stump remover; Concrete pump (under 3-in.); Mesh installer (self-propelled); End dump;Skid steer.

ENGI0324-007 05/01/2025

ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:

	Rates	Fringes
OPERATOR: Power Equipment (Steel Erection)		
Compressor, welder and		

forklift.....$ 43.30 25.00
Crane operator, main boom & jib 120' or longer.....$ 49.77 25.00
Crane operator, main boom & jib 140' or longer.....$ 50.07 24.60
Crane operator, main boom & jib 220' or longer.....$ 50.66 25.00
Mechanic with truck and tools.....$ 48.90 25.00
Oiler and fireman.....$ 41.76 25.00
Regular operator.....$ 47.12 25.00

ENGI0324-008 10/01/2023

ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MACOMB, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MONROE, MUSKEGON, NEWAYGO, OAKLAND, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN, WASHTENAW, WAYNE AND WEXFORD COUNTIES

	Rates	Fringes
OPERATOR: Power Equipment (Sewer Relining)		
GROUP 1	$ 37.37	15.44
GROUP 2	$ 35.33	15.44

SEWER RELINING CLASSIFICATIONS

GROUP 1: Operation of audio-visual closed circuit TV system, including remote in-ground cutter and other equipment used in connection with the CCTV system

GROUP 2: Operation of hot water heaters and circulation systems, water jetters and vacuum and mechanical debris removal systems

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ENGI0325-012 05/01/2025

	Rates	Fringes
Power equipment operators - gas distribution and duct installation work:		
GROUP 1	$ 39.78	25.25
GROUP 2	$ 36.05	25.25

SCOPE OF WORK: The construction, installation, treating and reconditioning of pipelines transporting gas vapors within cities, towns, subdivisions, suburban areas, or within private property boundaries, up to and including private meter settings of private industrial, governmental or other premises, more commonly referred to as ""distribution work,"" starting from the first metering station, connection, similar or related facility, of the main or cross country

pipeline and including duct installation.

Group 1: Backhoe, crane, grader, mechanic, dozer (D-6 equivalent or larger), side boom (D-4 equivalent or larger), trencher(except service), endloader (2 yd. capacity or greater).

GROUP 2: Dozer (less than D-6 equivalent), endloader (under 2 yd. capacity), side boom (under D-4 capacity), backfiller, pumps (1 or 2 of 6-inch discharge or greater), boom truck (with powered boom), tractor (wheel type other than backhoe or front endloader). Tamper (self-propelled), boom truck (with non-powered boom), concrete saw (20 hp or larger), pumps (2 to 4 under 6-inch discharge), compressor (2 or more or when one is used continuously into the second day) and trencher(service). Oiler, hydraulic pipe pushing machine, grease person and hydrostatic testing operator.

IRON0008-007 06/01/2024

ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:

	Rates	Fringes
Ironworker - pre-engineered metal building erector	$ 23.70	6.95
IRONWORKER		
General contracts $10,000,000 or greater	$ 39.91	32.32
General contracts less than $10,000,000	$ 39.91	32.32

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0025-002 06/01/2025

ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LIVINGSTON, MACOMB, MIDLAND, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SHIAWASSEE, ST. CLAIR, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:

	Rates	Fringes
Ironworker - pre-engineered metal building erector		
ALLEGAN, ANTRIM, BARRY, BENZIE, BRANCH, CALHOUN, CHARLEVOIX, EATON, EMMET, GRAND TRAVERSE, HILLSDALE, IONIA, KALAMAZOO, KALKASKA, KENT, LAKE, LEELANAU, MANISTEE, MASON, MECOSTA, MISSAUKEE, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH, VAN		

BUREN AND WEXFORD COUNTIES:.$ 28.80 27.43
Bay, Genesee, Lapeer, Livingston (east of Burkhardt Road), Macomb, Midland, Oakland, Saginaw, St. Clair, The University of Michigan, Washtenaw (east of U.S. 23) & Wayne...$ 30.02 28.13
IRONWORKER
Ornamental and Structural...$ 36.55 35.93
Reinforcing.....$ 36.55 32.87

IRON0055-005 07/01/2022

LENAWEE AND MONROE COUNTIES:

	Rates	Fringes
IRONWORKER		
Pre-engineered metal buildings	$ 23.59	19.35
All other work	$ 33.00	27.20

IRON0292-003 06/01/2020

BERRIEN AND CASS COUNTIES:

	Rates	Fringes
IRONWORKER (Including pre-engineered metal building erector)	$ 31.75	22.84

LABO0005-006 10/01/2022

	Rates	Fringes
Laborers - hazardous waste abatement: (ALCONA, ALPENA, ANTRIM, BENZIE, CHARLEVOIX, CHEBOYGAN, CRAWFORD, EMMET, GRAND TRAVERSE, IOSCO, KALKASKA, LEELANAU, MISSAUKEE, MONTMORENCY, OSCODA, OTSEGO, PRESQUE ISLE AND WEXFORD COUNTIES - Zone 10)		
Levels A, B or C	$ 17.45	12.75
class b	$ 18.64	12.90
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D	$ 16.45	12.75
class a	$ 17.64	12.90
Zone 10		
Laborers - hazardous waste abatement: (ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES - Zone 11)		

Levels A, B or C	$ 25.18	12.90
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D	$ 22.58	12.90
Laborers - hazardous waste abatement: (ALLEGAN, BARRY, BERRIEN, BRANCH, CALHOUN, CASS, IONIA COUNTY (except the city of Portland); KALAMAZOO, KENT, LAKE, MANISTEE, MASON, MECOSTA, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH AND VAN BUREN COUNTIES - Zone 9)		
Levels A, B or C	$ 21.88	13.26
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D	$ 20.80	12.90
Laborers - hazardous waste abatement: (ARENAC, BAY, CLARE, GLADWIN, GRATIOT, HURON, ISABELLA, MIDLAND, OGEMAW, ROSCOMMON, SAGINAW AND TUSCOLA COUNTIES - Zone 8)		
Levels A, B or C	$ 23.74	12.95
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D	$ 20.80	12.90
Laborers - hazardous waste abatement: (CLINTON, EATON AND INGHAM COUNTIES; IONIA COUNTY (City of Portland); LIVINGSTON COUNTY (west of Oak Grove Rd., including the City of Howell) - Zone 6)		
Levels A, B or C	$ 26.33	12.95
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D	$ 24.64	12.90
Laborers - hazardous waste abatement: (GENESEE, LAPEER AND SHIAWASSEE COUNTIES - Zone 7)		
Levels A, B or C	$ 24.20	13.80
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D	$ 23.20	13.80
Laborers - hazardous waste abatement: (HILLSDALE,		

JACKSON AND LENAWEE COUNTIES - Zone 4)

Levels A, B or C	$ 27.13	14.95
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D	$ 24.17	12.90

Laborers - hazardous waste abatement: (LIVINGSTON COUNTY (east of Oak Grove Rd. and south of M-59, excluding the city of Howell); AND WASHTENAW COUNTY - Zone 3)

Levels A, B or C	$ 29.93	14.20
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D	$ 28.93	14.20

Laborers - hazardous waste abatement: (MACOMB AND WAYNE COUNTIES - Zone 1)

Levels A, B or C	$ 29.93	16.90
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D	$ 28.93	16.90

Laborers - hazardous waste abatement: (MONROE COUNTY - Zone 4)

Levels A, B or C	$ 31.75	14.90
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D	$ 31.75	14.90

Laborers - hazardous waste abatement: (OAKLAND COUNTY and the Northeast portion of LIVINGSTON COUNTY bordered by Oak Grove Road on the West and M-59 on the South - Zone 2)

Level A, B, C	$ 29.93	16.90
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D	$ 28.93	16.90

Laborers - hazardous waste abatement: (SANILAC AND ST. CLAIR COUNTIES - Zone 5)

Levels A, B or C	$ 26.21	16.62
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		

Also, Level D.....$ 24.75 16.35

LABO0259-001 09/01/2025

AREA 1: MACOMB, OAKLAND AND WAYNE COUNTIES
AREA 2: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONROE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN, WASHTENAW AND WEXFORD COUNTIES

	Rates	Fringes
Laborers - tunnel, shaft and caisson:		
AREA 1		
GROUP 1	$ 30.13	22.75
GROUP 2	$ 32.13	22.75
GROUP 3	$ 28.13	22.75
GROUP 4	$ 23.97	16.93
GROUP 5	$ 24.22	16.93
GROUP 6	$ 24.55	16.93
GROUP 7	$ 17.83	16.93
AREA 2		
GROUP 1	$ 32.13	17.95
GROUP 2	$ 34.40	17.95
GROUP 3	$ 28.00	17.45
GROUP 4	$ 29.57	16.93
GROUP 5	$ 25.76	16.93
GROUP 6	$ 26.07	16.93
GROUP 7	$ 25.57	16.93

SCOPE OF WORK: Tunnel, shaft and caisson work of every type and description and all operations incidental thereto, including, but not limited to, shafts and tunnels for sewers, water, subways, transportation, diversion, sewerage, caverns, shelters, aquafers, reservoirs, missile silos and steel sheeting for underground construction.

TUNNEL LABORER CLASSIFICATIONS

GROUP 1: Tunnel, shaft and caisson laborer, dump, shanty, hog house tender, testing (on gas) and watchman

GROUP 2: Manhole, headwall, catch basin builder, bricklayer tender, mortar machine and material mixer

GROUP 3: Air tool operator (jackhammer, bush hammer and grinder), first bottom, second bottom, cage tender, car pusher, carrier, concrete, concrete form, concrete repair, cement invert laborer, cement finisher, concrete shoveler, conveyor, floor, gasoline and electric tool operator, gunite, grout operator, welder, heading dinky person, inside lock tender, pea gravel operator, pump, outside lock tender, scaffold, top signal person, switch person, track, tugger, utility person, vibrator, winch operator, pipe

jacking, wagon drill and air track operator and concrete saw operator (under 40 h.p.)

GROUP 4: Tunnel, shaft and caisson mucker, bracer, liner plate, long haul dinky driver and well point

GROUP 5: Tunnel, shaft and caisson miner, drill runner, key board operator, power knife operator, reinforced steel or mesh (e.g. wire mesh, steel mats, dowel bars, etc.)

GROUP 6: Dynamite and powder

GROUP 7: Restoration laborer, seeding, sodding, planting, cutting, mulching and top soil grading; and the restoration of property such as replacing mailboxes, wood chips, planter boxes, flagstones, etc.

LABO0334-001 09/01/2025

	Rates	Fringes
Laborers - open cut:		
ZONE 1 - MACOMB, OAKLAND AND WAYNE COUNTIES:		
GROUP 1	$ 29.98	22.75
GROUP 2	$ 31.98	22.75
GROUP 3	$ 28.14	22.75
GROUP 4	$ 23.71	16.72
GROUP 5	$ 24.17	16.72
GROUP 6	$ 22.00	16.72
GROUP 7	$ 17.84	16.72
ZONE 2 - LIVINGSTON COUNTY (east of M-151 (Oak Grove Rd.)); MONROE AND WASHTENAW COUNTIES:		
GROUP 1	$ 32.10	17.45
GROUP 2	$ 34.10	17.45
GROUP 3	$ 30.10	17.45
GROUP 4	$ 25.10	16.72
GROUP 5	$ 25.25	16.72
GROUP 6	$ 22.55	16.72
GROUP 7	$ 22.11	16.72
ZONE 3 - CLINTON, EATON, GENESEE, HILLSDALE AND INGHAM COUNTIES; IONIA COUNTY (City of Portland); JACKSON, LAPEER AND LENAWEE COUNTIES; LIVINGSTON COUNTY (west of M-151 Oak Grove Rd.); SANILAC, ST. CLAIR AND SHIAWASSEE COUNTIES:		
GROUP 1	$ 30.29	17.45
GROUP 2	$ 32.29	17.45
GROUP 3	$ 28.29	17.45
GROUP 4	$ 23.30	16.72
GROUP 5	$ 23.44	16.72
GROUP 6	$ 20.74	16.72
GROUP 7	$ 22.23	16.72
ZONE 4 - ALCONA, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX,		

CHEBOYGAN, CLARE,
CRAWFORD, EMMET,
GLADWIN, GRAND TRAVERSE,
GRATIOT AND HURON
COUNTIES; IONIA COUNTY
(EXCEPT THE CITY OF
PORTLAND); IOSCO,
ISABELLA, KALAMAZOO,
KALKASKA, KENT,
LAKE,LEELANAU, MANISTEE,
MASON, MECOSTA, MIDLAND,
MISSAUKEE, MONTCALM,
MONTMORENCY, MUSKEGON,
NEWAYGO, OCEANA, OGEMAW,
OSCEOLA, OSCODA, OTSEGO,
OTTAWA, PRESQUE ISLE,
ROSCOMMON, SAGINAW, ST.
JOSEPH, TUSCOLA, VAN BUREN
AND WEXFORD COUNTIES:

GROUP 1	$ 28.72	18.45
GROUP 2	$ 30.72	18.45
GROUP 3	$ 26.72	18.45
GROUP 4	$ 22.33	16.72
GROUP 5	$ 22.45	16.72
GROUP 6	$ 19.67	16.72
GROUP 7	$ 22.30	16.72

ZONE 5 - ALGER, BARAGA,
CHIPPEWA, DELTA,
DICKINSON, GOGEBIC,
HOUGHTON, IRON,
KEWEENAW, LUCE, MACKINAC,
MARQUETTE, MENOMINEE,
ONTONAGON AND SCHOOLCRAFT
COUNTIES:

GROUP 1	$ 29.98	22.75
GROUP 2	$ 30.09	19.45
GROUP 3	$ 26.09	19.45
GROUP 4	$ 22.56	16.72
GROUP 5	$ 22.64	16.72
GROUP 6	$ 19.99	16.72
GROUP 7	$ 22.45	16.72

SCOPE OF WORK:

Open cut construction work shall be construed to mean work which requires the excavation of earth including industrial, commercial and residential building site excavation and preparation, land balancing, demolition and removal of concrete and underground appurtenances, grading, paving, sewers, utilities and improvements; retention, oxidation, flocculation and irrigation facilities, and also including but not limited to underground piping, conduits, steel sheeting for underground construction, and all work incidental thereto, and general excavation. For all areas except the Upper Peninsula, open cut construction work shall also be construed to mean waterfront work, piers, docks, seawalls, breakwalls, marinas and all incidental work. Open cut construction work shall not include any structural modifications, alterations, additions and repairs to buildings, or highway work, including roads, streets, bridge construction and parking lots or steel erection work and excavation for the building itself and back filling inside of and within 5 ft. of the building and foundations, footings and piers for the building. Open cut construction work shall not include any work covered under

Tunnel, Shaft and Caisson work.

OPEN CUT LABORER CLASSIFICATIONS

GROUP 1: Construction laborer

GROUP 2: Mortar and material mixer, concrete form person, signal person, well point person, manhole, headwall and catch basin builder, headwall, seawall, breakwall and dock builder

GROUP 3: Air, gasoline and electric tool operator, vibrator operator, driller, pump person, tar kettle operator, bracer, rodder, reinforced steel or mesh person (e.g., wire mesh, steel mats, dowel bars, etc.), welder, pipe jacking and boring person, wagon drill and air track operator and concrete saw operator (under 40 h.p.), windlass and tugger person and directional boring person

GROUP 4: Trench or excavating grade person

GROUP 5: Pipe layer (including crock, metal pipe, multi-plate or other conduits)

GROUP 6: Grouting man, audio-visual television operations and all other operations in connection with closed circuit television inspection, pipe cleaning and pipe relining work and the installation and repair of water service pipe and appurtenances

GROUP 7: Restoration laborer, seeding, sodding, planting, cutting, mulching and top soil grading; and the restoration of property such as replacing mailboxes, wood chips, planter boxes, flagstones, etc.

LABO0465-001 06/01/2025

LABORER: Highway, Bridge and Airport Construction

AREA 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES

AREA 2: ALLEGAN, BARRY, BAY, BERRIEN, BRANCH, CALHOUN, CASS, CLINTON, EATON, GRATIOT, HILLSDALE, HURON, INGHAM, JACKSON, KALAMAZOO, LAPEER, LENAWEE, LIVINGSTON, MIDLAND, MUSKEGON, SAGINAW, SANILAC, SHIAWASSEE, ST. CLAIR, ST. JOSEPH, TUSCOLA AND VAN BUREN COUNTIES

AREA 3: ALCONA, ALPENA, ANTRIM, ARENAC, BENZIE, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, IONIA, IOSCO, ISABELLA, KALKASKA, KENT, LAKE, LEELANAU, MANISTEE, MASON, MECOSTA, MISSAUKEE, MONTCALM, MONTMORENCY, NEWAYGO, OCEANA, OGEMAW, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON AND WEXFORD COUNTIES

AREA 4: ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES

	Rates	Fringes
LABORER (AREA 1)		
GROUP 1	$ 35.51	14.45

GROUP 2	$ 31.96	14.45
GROUP 3	$ 35.82	14.45
GROUP 4	$ 35.90	14.45
GROUP 5	$ 36.11	14.45
GROUP 6	$ 36.41	14.45
LABORER (AREA 2)		
GROUP 1	$ 33.37	14.45
GROUP 2	$ 30.03	14.45
GROUP 3	$ 33.81	14.45
GROUP 4	$ 34.16	14.45
GROUP 5	$ 34.03	14.45
GROUP 6	$ 34.37	14.45
LABORER (AREA 3)		
GROUP 1	$ 32.62	14.45
GROUP 2	$ 33.83	14.45
GROUP 3	$ 33.12	14.45
GROUP 4	$ 33.56	14.45
GROUP 5	$ 33.18	14.45
GROUP 6	$ 33.61	14.45
LABORER (AREA 4)		
GROUP 1	$ 33.52	13.45
GROUP 2	$ 33.73	13.45
GROUP 3	$ 34.02	13.45
GROUP 4	$ 34.46	13.45
GROUP 5	$ 34.08	13.45
GROUP 6	$ 34.51	13.45

LABORER CLASSIFICATIONS

GROUP 1: Asphalt shoveler or loader; asphalt plant misc.; burlap person; yard person; dumper (wagon, truck, etc.); joint filling laborer; miscellaneous laborer; unskilled laborer; sprinkler laborer; form setting laborer; form stripper; pavement reinforcing; handling and placing (e.g., wire mesh, steel mats, dowel bars); mason's tender or bricklayer's tender on manholes; manhole builder; headwalls, etc.; waterproofing,(other than buildings) seal coating and slurry mix, shoring, underpinning; pressure grouting; bridge pin and hanger removal; material recycling laborer; horizontal paver laborer (brick, concrete, clay, stone and asphalt); ground stabilization and modification laborer; grouting; waterblasting; top person; railroad track and trestle laborer; carpenters' tender; guard rail builders' tender; earth retention barrier and wall and M.S.E. wall installer's tender; highway and median installer's tender(including sound, retaining, and crash barriers); fence erector's tender; asphalt raker tender; sign installer; remote control operated equipment.

GROUP 2: Mixer operator (less than 5 sacks); air or electric tool operator (jackhammer, etc.); spreader; boxperson (asphalt, stone, gravel); concrete paddler; power chain saw operator; paving batch truck dumper; tunnel mucker (highway work only); concrete saw (under 40 h.p.) and dry pack machine; roto-mill grounds person.

GROUP 3: Tunnel miner (highway work only); finishers tenders; guard rail builders; highway and median barrier installer; earth retention barrier and wall and M.S.E. wall installer's (including sound, retaining and crash barriers); fence erector; bottom person; powder person; wagon drill and air track operator; diamond and core drills; grade checker; certified welders; curb and side rail setter's tender.

GROUP 4: Asphalt raker

GROUP 5: Pipe layers, oxy-gun

GROUP 6: Line-form setter for curb or pavement; asphalt screed checker/screw man on asphalt paving machines.

LABO1076-005 04/01/2025

MICHIGAN STATEWIDE

	Rates	Fringes
LABORER (DISTRIBUTION WORK)		
Zone 1	$ 28.41	13.45
Zone 2	$ 24.55	13.45
Zone 3	$ 23.55	13.45
Zone 4	$ 22.92	13.45
Zone 5	$ 22.95	13.45

DISTRIBUTION WORK - The construction, installation, treating and reconditioning of distribution pipelines transporting coal, oil, gas or other similar materials, vapors or liquids, including pipelines within private property boundaries, up to and including the meter settings on residential, commercial, industrial, institutional, private and public structures. All work covering pumping stations and tank farms not covered by the Building Trades Agreement. Other distribution lines with the exception of sewer, water and cable television are included.

Underground Duct Layer Pay: $.40 per hour above the base pay rate.

Zone 1 - Macomb, Oakland and Wayne
Zone 2 - Monroe and Washtenaw
Zone 3 - Bay, Genesee, Lapeer, Midland, Saginaw, Sanilac, Shiawassee and St. Clair
Zone 4 - Alger, Baraga, Chippewa, Delta, Dickinson, Gogebic, Houghton, Iron, Keweenaw, Luce, Mackinac, Marquette, Menominee, Ontonagon and Schoolcraft
Zone 5 - Remaining Counties in Michigan

PAIN0022-002 07/01/2008

HILLSDALE, JACKSON AND LENAWEE COUNTIES; LIVINGSTON COUNTY (east of the eastern city limits of Howell, not including the city of Howell, north to the Genesee County line and south to the Washtenaw County line); MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES:

	Rates	Fringes
PAINTER	$ 25.06	14.75

FOOTNOTES: For all spray work and journeyman rigging for spray work, also blowing off, $0.80 per hour additional (applies only to workers doing rigging for spray work on off the floor work. Does not include setting up or moving rigging on floor surfaces, nor does it apply to workers engaged in covering up or tending spray equipment. For all sandblasting and spray work performed on highway bridges,

overpasses, tanks or steel, $0.80 per hour additional. For all brushing, cleaning and other preparatory work (other than spraying or steeplejack work) at scaffold heights of fifty (50) feet from the ground or higher, $0.50 per hour additional. For all preparatorial work and painting performed on open steel under forty (40) feet when no scaffolding is involved, $0.50 per hour additional. For all swing stage work-window jacks and window belts-exterior and interior, $0.50 per hour additional. For all spray work and sandblaster work to a scaffold height of forty (40) feet above the floor level, $0.80 per hour additional. For all preparatorial work and painting on all highway bridges or overpasses up to forty (40) feet in height, $0.50 per hour additional. For all steeplejack work performed where the elevation is forty (40) feet or more, $1.25 per hour additional.

PAIN0312-001 06/01/2018

EXCLUDES: ALLEGAN COUNTY (Townships of Dorr, Fillmore, Heath, Hopkins, Laketown, Leighton, Manlius, Monterey, Overisel, Salem, Saugatuck and Wayland); INCLUDES: Barry, Berrien, Branch, Calhoun, Cass, Hillsdale, Kalamazoo, St. Joseph, Van Buren

	Rates	Fringes
PAINTER		
Brush and roller	$ 23.74	13.35
Spray, Sandblast, Sign Painting	$ 24.94	13.35

PAIN0845-003 05/10/2018

CLINTON COUNTY; EATON COUNTY (does not include the townships of Bellevue and Olivet); INGHAM COUNTY; IONIA COUNTY (east of Hwy. M 66); LIVINGSTON COUNTY (west of the eastern city limits of Howell, including the city of Howell, north to the Genesee County line and south to the Washtenaw County line); AND SHIAWASSEE COUNTY (Townships of Bennington, Laingsbury and Perry):

	Rates	Fringes
PAINTER	$ 25.49	13.74

PAIN0845-015 05/10/2018

MUSKEGON COUNTY; NEWAYGO COUNTY (except the Townships of Barton, Big Prairie, Brooks, Croton, Ensley, Everett, Goodwell, Grant, Home, Monroe, Norwich and Wilcox); OCEANA COUNTY; OTTAWA COUNTY (except the townships of Allendale, Blendone, Chester, Georgetown, Holland, Jamestown, Olive, Park, Polkton, Port Sheldon, Tallmadge, Wright and Zeeland):

	Rates	Fringes
PAINTER	$ 25.49	13.74

PAIN0845-018 05/10/2018

ALLEGAN COUNTY (Townships of Dorr, Fillmore, Heath, Hopkins, Laketown, Leighton, Manlius, Monterey, Overisel, Salem, Saugatuck and Wayland); IONIA COUNTY (west of Hwy. M-66); KENT, MECOSTA AND MONTCALM COUNTIES; NEWAYGO COUNTY (Townships of Barton, Big Prairie, Brooks, Croton, Ensley, Everett, Goodwell, Grant, Home, Monroe, Norwich and Wilcox); OSCEOLA COUNTY (south of Hwy. #10); OTTAWA COUNTY (Townships of Allendale, Blendone, Chester, Georgetown, Holland, Jamestown, Olive, Park, Polkton, Port Sheldon, Tallmadge, Wright and Zeeland):

	Rates	Fringes
PAINTER	$ 25.49	13.74

FOOTNOTES: Lead abatement work: $1.00 per hour additional.

PAIN1011-003 06/02/2022

ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:

	Rates	Fringes
PAINTER	$ 24.66	14.99

FOOTNOTES: High pay (bridges, overpasses, watertower): 30 to 80 ft.: $.65 per hour additional. 80 ft. and over: $1.30 per hour additional.

PAIN1474-002 06/01/2010

HURON COUNTY; LAPEER COUNTY (east of Hwy. M-53); ST. CLAIR, SANILAC AND TUSCOLA COUNTIES:

	Rates	Fringes
PAINTER	$ 23.79	12.02

FOOTNOTES: Lead abatement work: $1.00 per hour additional. Work with any hazardous material: $1.00 per hour additional. Sandblasting, steam cleaning and acid cleaning: $1.00 per hour additional. Ladder work at or above 40 ft., scaffold work at or above 40 ft., swing stage, boatswain chair, window jacks and all work performed over a falling height of 40 ft.: $1.00 per hour additional. Spray gun work, pick pullers and those handling needles, blowing off by air pressure, and any person rigging (setting up and moving off the ground): $1.00 per hour additional. Steeplejack, tanks, gas holders, stacks, flag poles, radio towers and beacons, power line towers, bridges, etc.: $1.00 per hour additional, paid from the ground up.

PAIN1803-003 06/01/2025

ALCONA, ALPENA, ANTRIM, ARENAC, BAY, BENZIE, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, GRATIOT, IOSCO, ISABELLA, KALKASKA, LAKE, LEELANAU, MANISTEE, MASON, MIDLAND, MISSAUKEE, MONTMORENCY AND OGEMAW COUNTIES; OSCEOLA COUNTY (north of Hwy. #10); OSCODA, OTSEGO, PRESQUE

ISLE, ROSCOMMON, SAGINAW AND WEXFORD COUNTIES:

	Rates	Fringes
PAINTER		
Work performed on water, bridges over water or moving traffic, radio and powerline towers, elevated tanks, steeples, smoke stacks over 40 ft. of falling heights, recovery of lead-based paints and any work associated with industrial plants, except maintenance of industrial plants	$ 29.23	19.11
All other work, including maintenance of industrial plant	$ 29.35	19.05

FOOTNOTES: Spray painting, sandblasting, blowdown associated with spraying and blasting, water blasting and work involving a swing stage, boatswain chair or spider: $1.00 per hour additional. All work performed inside tanks, vessels, tank trailers, railroad cars, sewers, smoke stacks, boilers or other spaces having limited egress not including buildings, opentop tanks, pits, etc.: $1.25 per hour additional.

PLAS0514-001 06/01/2023

ZONE 1: GENESEE, LIVINGSTON, MACOMB, MONROE, OAKLAND, SAGINAW, WASHTENAW AND WAYNE COUNTIES

ZONE 2: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SANILAC, SCHOOLCRAFT, SHIAWASSEE, ST. CLAIR, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
ZONE 1	$ 33.00	18.51
ZONE 2	$ 31.50	18.51

PLUM0190-003 05/01/2015

ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT,

KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MACOMB, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MONROE, MUSKEGON, NEWAYGO, OAKLAND, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN, WASHTENAW, WAYNE AND WEXFORD COUNTIES

	Rates	Fringes
Plumber/Pipefitter - gas distribution pipeline:		
Welding in conjunction with gas distribution pipeline work	$ 33.03	20.19
All other work:	$ 24.19	12.28

TEAM0007-004 06/01/2025

AREA 1: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SCHOOLCRAFT, SHIAWASSEE, ST. CLAIR, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

AREA 2: GENESEE, LIVINGSTON, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES

	Rates	Fringes
TRUCK DRIVER		
AREA 1		
Euclids, double bottoms and lowboys	$ 33.55	.75 + a+b
Trucks under 8 cu. yds.	$ 33.40	.75 + a+b
Trucks, 8 cu. yds. and over	$ 33.40	.75 + a+b
AREA 2		
Euclids, double bottoms and lowboys	$ 33.65	.75 + a+b
Trucks under 8 cu. yds.	$ 33.50	.75 + a+b
Trucks, 8 cu. yds. and over	$ 33.50	.75 + a+b

Footnote:
a. $470.70 per week
b. $68.70 daily

TEAM0247-004 04/01/2013

AREA 1: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW,

LAKE, LAPEER, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SANILAC, SCHOOLCRAFT, SHIAWASSEE, SAGINAW, ST. CLAIR, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

AREA 2: GENESEE, LIVINGSTON, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES

	Rates	Fringes
Sign Installer		
AREA 1		
GROUP 1	$ 21.78	11.83
GROUP 2	$ 25.27	11.8375
AREA 2		
GROUP 1	$ 22.03	11.83
GROUP 2	$ 25.02	11.8375

FOOTNOTE:

a. $132.70 per week, plus $17.80 per day.

SIGN INSTALLER CLASSIFICATIONS:

GROUP 1: performs all necessary labor and uses all tools required to construct and set concrete forms required in the installation of highway and street signs

GROUP 2: performs all miscellaneous labor, uses all hand and power tools, and operates all other equipment, mobile or otherwise, required for the installation of highway and street signs

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TEAM0247-010 04/01/2018

AREA 1: LAPEER AND SHIAWASSEE COUNTIES

AREA 2: GENESEE, MACOMB, MONROE, OAKLAND, ST. CLAIR, WASHTENAW AND WAYNE COUNTIES

	Rates	Fringes
TRUCK DRIVER (Underground construction)		
AREA 1		
GROUP 1	$ 23.82	19.04
GROUP 2	$ 23.91	19.04
GROUP 3	$ 24.12	19.04
AREA 2		
GROUP 1	$ 24.12	19.04
GROUP 2	$ 24.26	19.04
GROUP 3	$ 24.45	19.04

PAID HOLIDAYS: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

SCOPE OF WORK: Excavation, site preparation, land balancing, grading, sewers, utilities and improvements; also including but not limited to, tunnels, underground piping, retention,

oxidation, flocculation facilities, conduits, general excavation and steel sheeting for underground construction. Underground construction work shall not include any structural modifications, alterations, additions and repairs to buildings or highway work, including roads, streets, bridge construction and parking lots or steel erection.

TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Truck driver on all trucks (EXCEPT dump trucks of 8 cubic yards capacity or over, pole trailers, semis, low boys, Euclid, double bottom and fuel trucks)

GROUP 2: Truck driver on dump trucks of 8 cubic yards capacity or over, pole trailers, semis and fuel trucks

GROUP 3: Truck driver on low boy, Euclid and double bottom

SUMI2002-001 05/01/2002

	Rates	Fringes
FLAG PERSON	$ 10.10	0.00
LINE PROTECTOR (ZONE 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE)	$ 26.63	14.45
LINE PROTECTOR (ZONE 2: STATEWIDE (EXCLUDING GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE)	$ 25.03	14.45
Pavement Marking Machine (ZONE 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES) Group 1	$ 35.51	14.45
Pavement Marking Machine (ZONE 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE) Group 2	$ 31.96	14.45
Pavement Marking Machine (ZONE 2: STATEWIDE (EXCLUDING GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES) Group 1	$ 33.37	14.45
Pavement Marking Machine (ZONE 2: STATEWIDE (EXCLUDING GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE) Group 2	$ 30.03	14.45

WORK CLASSIFICATIONS:

PAVEMENT MARKER GROUP 1: Drives or operates a truck mounted striper, grinder, blaster, groover, or thermoplastic melter for the placement or removal of temporary or permanent

pavement markings or markers.

PAVEMENT MARKER GROUP 2: Performs all functions involved for the placement or removal of temporary or permanent pavement markings or markers not covered by the classification of Pavement Marker Group 1 or Line Protector.

LINE PROTECTOR: Performs all operations for the protection or removal of temporary or permanent pavement markings or markers in a moving convoy operation not performed by the classification of Pavement Marker Group 1. A moving convoy operation is comprised of only Pavement Markers Group 1 and Line Protectors.

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least $13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications

and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION"

Labor Standards Provisions for Federally Assisted Projects - *29 CFR Part 5*

§5.5 Contract provisions and related matters.

(a) The Agency head shall cause or require the contracting officer to insert in full in any contract in excess of $2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a public building or public work, or building or work financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated),and which is subject to the labor standards provisions of any of the acts listed in Sec. 5.1, the following clauses (or any modifications thereof to meet the particular needs of the agency, *Provided,* That such modifications are first approved by the Department of Labor):

(1) Minimum wages. (i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in Sec. 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination, and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers, or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-dayperiod that additional time is necessary.

(D The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii) (B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fid fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside, in a separate account, assets for the meeting of obligations under the plan or program.

(2) *Withholding.* The ***(write in name of Federal Agency or the loan or grant recipient)*** shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the

work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) *Payrolls and basic records.* (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made, and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the (write in name of appropriate federal agency) if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant, sponsor, or owner, as the case may be, for transmission to the (write in name of agency). The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead, the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at dol.gov/agencies/whd/government-contracts/construction/forms or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the (write in name of appropriate federal agency) if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit them to the applicant, sponsor, or owner, as the case may be, for transmission to the (write in name of agency), the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the applicant, sponsor, or owner).

(B) Each payroll submitted shall be accompanied by a “Statement of Compliance”, signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under Sec. 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under Sec. 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete.

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the “Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the Michigan Department of Environment, Great Lakes, and Energy or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the contractor, sponsor, applicant, or owner, take such action as maybe necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) *Apprentices and trainees*- (i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the

applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the jobsite in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) *Compliance with Copeland Act requirements.* The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) *Subcontracts*. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the (write in the name of the Federal agency) may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) *Contract termination: debarment*. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) *Compliance with Davis-Bacon and Related Act requirements.* All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) *Disputes concerning labor standards.* Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(10) *Certification of eligibility.* (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C.1001.

(b) Contract Work Hours and Safety Standards Act. The Agency Head shall cause or require the contracting officer to insert the following clauses set forth in paragraphs (b)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Sec. 5.5(a) or 4.6 of part 4 of this title. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible there for shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be

liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The ***(write in the name of the Federal agency or the loan or grant recipient)*** shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.

(c) In addition to the clauses contained in paragraph (b), in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in Sec.5.1, the Agency Head shall cause or require the contracting officer to insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Agency Head shall cause or require the contracting officer to insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the Michigan Department of Environment, Great Lakes, and Energy and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

Disadvantaged Business Enterprises (DBE) Requirements

Prime contractors bidding on this project must follow, document, and maintain documentation of their Good Faith Efforts (GFE), as listed below, to ensure that Disadvantaged Business Enterprises (DBEs) have the opportunity to participate in the project by increasing DBE awareness of procurement efforts and outreach. Bidders must make the following Good Faith Efforts for any work that will be subcontracted.

1. Ensure DBEs are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. Place DBEs on solicitation lists and solicit DBEs whenever they are potential sources.

2. Make information on forthcoming opportunities available to DBEs. Arrange timeframes for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. Whenever possible, post solicitation for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date. The DBEs should be given a minimum of 5 days to respond to the posting.

3. Consider in the contracting process whether firms competing for large contracts can be subcontracted with DBEs. Divide total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.

4. Encourage contracting with a consortium of DBEs when a contract is too large for one DBE firm to handle individually.

5. Use the services and assistance of the Small Business Administration and the Minority Business Development Agency of the U.S. Department of Commerce.

Subsequent to compliance with the Good Faith Efforts, the following conditions also apply under the DBE requirements. Completed Good Faith Efforts Worksheets, along with the required supporting documentation outlined in the instructions, must be submitted with your bid proposal. EPA form 6100-2 must also be provided at the pre-bid meeting. A copy of this form is available on the Forms and Guidance page of the EGLE Water Infrastructure Financing Section website.

1. The prime contractor must pay its subcontractor for work that has been satisfactorily completed no more than 30 days from the prime contractor’s receipt of payment from the owner.

2. The prime contractor must notify the owner in writing prior to the termination of any DBE subcontractor for convenience by the prime contractor and employ the Good Faith Efforts if soliciting a replacement contractor.

3. If a DBE contractor fails to complete work under the subcontract for any reason, the prime contractor must employ the Good Faith Efforts if soliciting a replacement contractor.

4. The prime contractor must employ the Good Faith Efforts.

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

Good Faith Efforts Worksheet

Bidder: _____

Subcontract Area of Work (one per worksheet): _____

Outreach Goal: Solicit a minimum of three (3) DBEs via email/letter/fax. It is recommended that various sources be used to locate the minimum number of DBEs. The Michigan Department of Transportation (MDOT) website and www.sam.gov registries may be two resources used to find a minimum of three DBEs.

List the DBEs contacted for the above area of work and complete the following information for each.

Company Name	Contact Method	Date Contacted	Price Quote Received	Accepted or Rejected	If rejected, explain why

Explanation for Not Achieving a Minimum of Three Contacts; you may include a printout of the MDOT and www.sam.gov search results (attach extra sheets if necessary):

MITA DBE Posting Date (if applicable): _____
(Attach a copy of the DBE advertisement)

Other Efforts (attach extra sheets if necessary):

Please include the completed worksheet and supporting documentation with the bid proposal.

Instructions to Bidders for the Completion of the Good Faith Efforts Worksheet

1. Separate worksheets must be provided for each area of work to be subcontracted out. This includes both major and minor subcontracts.

2. A minimum of three (3) DBEs must be contacted by a verifiable means of communication such as email, letter, or fax for each area of work to be subcontracted out. Copies of the solicitation letters/emails and fax confirmation sheets must be provided with the worksheet.

3. If less than three (3) DBEs exist statewide for the area of work, then provide documentation that other DBE resources were consulted. This may include the MDOT and www.sam.gov registries and an advertisement in a publication. A printout of the website searched (conducted prior to the end of the bid period) must be submitted.

4. Posting solicitations for quotes/proposals from DBEs on the MITA website (www.mitadbe.com) is highly recommended to facilitate participation in the competitive process whenever possible. The solicitation needs to identify the project and the areas of work to be subcontracted out. A copy of the MITA DBE advertisement must be submitted with the Good Faith Efforts worksheet, if used, or a printout of the resulting quotes posted to the MITA website can be submitted with this form as supporting documentation.

5. If the area of work is so specialized that no DBEs exist, then an explanation is required to support that conclusion, including the documentation required in number 3 above.

6. The date of the DBE contact must be identified, as it is important to document that the DBE solicitation was made during the bid period and that sufficient time was given for the DBE to return a quote.

7. Each DBE firm's price quote must be identified if one was received, or N/A entered on the worksheet if a quote was not received. Copies of all quotes must be submitted with the worksheet.

8. If a quote was received, indicate if it was accepted or rejected. Justification for not accepting a quote and not using the DBE subcontractor must be provided.

9. Under Other Efforts, please indicate additional steps you have taken to obtain DBE contractors and provide the appropriate supporting documentation such as:

    - Follow-up emails, faxes, or letters.
    - Copies of announcements/postings in newspapers, trade publications, or minority media that target DBE firms.

Disadvantaged Business Enterprise (DBE) and Good Faith Efforts (GFE) Requirements Frequently Asked Questions Regarding Contractor Compliance

Q: What is the Good Faith Efforts Worksheet and how is it completed?
A: The worksheet captures efforts by the prime contractor to solicit DBEs for each area of work type that will be subcontracted out. A separate GFE Worksheet must be provided by the prime contractor for each area of work type to be subcontracted out. There are specific instructions that accompany the worksheet that prescribe minimum efforts which bidders must make in order to be in compliance with the DBE requirements.

Q: Can non-certified DBEs be used?
A: While non-certified DBEs can be used, only DBEs, MBEs, and WBEs that are certified by EPA, SBA, or MDOT (or by tribal, state and local governments, as long as their standards for certification meet or exceed the standards in EPA policy) can be counted toward the fair share goal. Proof of certification by one of these recognized and approved agencies should be sought from each DBE.

Q: How does a DBE get certified?
A: Applications to be certified by MDOT can be found at mdotjboss.state.mi.us/MUCPWeb/eligibilityRequirements.htm
To register with the U.S. Small Business Association visit sba.gov/federal-contracting/contracting-assistance-programs/small-disadvantaged-business
To be certified by EPA, a DBE must first have sought certification through SBA, MDOT, or a tribal, state, or local organization and be unsuccessful in that attempt.

Q: If a bidder follows the MDOT DBE requirements, will the bidder comply with the SRF DBE requirements?
A: No. Federally funded highway projects utilize DBE goals, which require a certain percentage of work be performed by DBE subcontractors. For SRF projects, there is no financial goal. However, there is a solicitation effort goal. Bidders must use Good Faith Efforts for each and every area of work to be subcontracted out to obtain DBEs. The bidders are not required to use DBEs if the quotes are higher than non-DBE subcontractors. There is no required DBE participation percentage contract goal for the SRF. However, if the SRF project is part of a joint project with MDOT, the project can be excluded from SRF DBE requirements (i.e., the Good Faith Efforts Worksheet is not required) as it would be difficult to comply with both programs' requirements.

Q: Should the Good Faith Efforts Worksheet and supporting documentation be submitted with bid proposals?
A: Yes. This is a requirement to document that the contractor has complied with the DBE requirements and GFE. These compliance efforts must be done during the bidding phase and not after-the-fact. It is highly recommended that the need for these efforts and the submittal of the forms with the bid proposals be emphasized at the pre-bid meeting. Failure to show that the Good Faith Efforts were complied with during the bidding process can lead to a prime contractor being found non-responsive.

Q: What kinds of documentation should a contractor provide to document solicitation efforts?
A: Documentation can include fax confirmation sheets, copies of solicitation letters/emails, printouts of online solicitations, printouts of online search results, affidavits of publication in newspapers, etc.

Q: What if no forms are turned in with the bid proposal or forms are blank or incomplete? Should this be cause to determine that the bidder is non-responsive?
A: While the Good Faith Efforts Worksheet is important, it is more critical to confirm that the contractor complied with the DBE requirements prior to bid opening. The owner should contact the bidder as soon as deficiencies are noted for documentation of efforts taken to comply with the DBE requirements. Immediate submittal of the completed forms will be acceptable provided the Good Faith Efforts were made and it is just a matter of transferring information to the forms.

Q: How much time will compliance with GFE require in terms of structuring an adequate bidding period?
A: Due to the extent of the efforts required, a minimum of 30 calendar days is recommended between bid posting and bid opening to ensure adequate time for contractors to locate certified DBEs and solicit quotes.

Q: How does a contractor locate certified DBEs?
A: MDOT has a directory of all Michigan certified entities located at mdotjboss.state.mi.us/MUCPWeb/. Additionally, the federal System for Award Management (SAM) is another place to search and can be found at sam.gov. SAM contains information from the former Central Contractor Registration (CCR) database.

Q: If the bidder does not intend to subcontract any work, what forms, if any, must be provided with the bid proposal?
A: The bidder should complete the Good Faith Efforts Worksheet with a notation that no subcontracting will be done. However, if the bidder is awarded the contract and then decides to subcontract work at any point, then the Good Faith Efforts must be made to solicit DBEs.

Q: If the prime contractor is a DBE, does he have to solicit DBE subcontractors?
A: Yes, the DBE requirements still apply if the prime intends to subcontract work out. GFE must be used to solicit DBEs.

Q: If the area of work is one where there are less than three DBE contractors, how is the contractor to document this?
A: Copies of printouts from MDOT and SAM showing no DBEs and advertisements soliciting quotes for all subcontract areas, including the questionable areas, will be adequate if the dates on the printouts are prior to the bid or proposal closing date.

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

Certification Regarding Debarment, Suspension, and Other Responsibility Matters

The prime contractor must provide a completed *Certification Regarding Debarment, Suspension, and Other Responsibility Matters Form* with its bid or proposal package to the owner.

The prospective participant certifies, to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in transactions under federal nonprocurement programs by any federal department or agency;

(2) Have not, within the three-year period preceding the proposal, had one or more public transactions (federal, state, or local) terminated for cause or default; and

(3) Are not presently indicted or otherwise criminally or civilly charged by a government entity (federal, state, or local) and have not, within the three-year period preceding the proposal, been convicted of or had a civil judgment rendered against it:

(a) For the commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public transaction (federal, state, or local) or a procurement contract under such a public transaction;

(b) For the violation of federal or state antitrust statutes, including those proscribing price fixing between competitors, the allocation of customers between competitors, or bid rigging; or

(c) For the commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false statements, or receiving stolen property.

I understand that a false statement on this certification may be grounds for the rejection of this proposal or the termination of the award. In addition, under 18 U.S.C. §1001, a false statement may result in a fine of up to $10,000 or imprisonment for up to five years, or both.

_____
Name and Title of Authorized Representative

_____
Name of Participant Agency or Firm

_____
Signature of Authorized Representative Date

☐ I am unable to certify to the above statement. Attached is my explanation.

X-REMOVE-X

American Iron and Steel Contract Language

The Contractor acknowledges to and for the benefit of the City of Saginaw ("Purchaser") and the Michigan Department of Environment, Great Lakes, and Energy (the "State") that it understands the goods and services under this Agreement are being funded with monies made available by the Clean Water State Revolving Fund and/or the Drinking Water State Revolving Fund and such laws contain provisions commonly known as "American Iron and Steel (AIS);" that requires all iron and steel products used in the project be produced in the United States ("AIS Requirements") including iron and steel provided by the Contractor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Purchaser and the State that (a) the Contractor has reviewed and understands the AIS Requirements, (b) all iron and steel used in the project will be and/or have been produced in the United States in a manner that complies with the AIS Requirements, unless a waiver of the requirements is approved or the State made the determination in writing that the AIS Requirements do not apply to the project, and (c) the Contractor will provide any further verified information, certification, or assurance of compliance with this paragraph, or information necessary to support a waiver of the AIS requirements, as may be requested by the Purchaser.

Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or State to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Purchaser or State resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Purchaser). While the Contractor has no direct contractual privity with the State, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State.

Build America, Buy America Contract Language

The Contractor acknowledges to and for the benefit of the City of Saginaw ("Owner") and the Michigan Department of Environment, Great Lakes, and Energy (the "Funding Authority") that it understands the goods and services under this Agreement are being funded with federal monies and have statutory requirements commonly known as "Build America, Buy America;" that requires all of the iron and steel, manufactured products, and construction materials used in the project to be produced in the United States ("Build America, Buy America Requirements") including iron and steel, manufactured products, and construction materials provided by the Contactor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Owner and Funding Authority (a) the Contractor has reviewed and understands the Build America, Buy America Requirements, (b) all of the iron and steel, manufactured products, and construction materials used in the project will be and/or have been produced in the United States in a manner that complies with the Build America, Buy America Requirements, unless a waiver of the requirements is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the Build America, Buy America Requirements, as may be requested by the Owner or the Funding Authority. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Owner or Funding Authority to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Owner or Funding Authority resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the Funding Authority or any damages owed to the Funding Authority by the Owner). If the Contractor has no direct contractual privity with the Funding Authority, as a lender or awardee to the Owner for the funding of its project, the Owner and the Contractor agree that the Funding Authority is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the Funding Authority.

Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment

The Contractor acknowledges to and for the benefit of the City of Saginaw ("Owner") and the Michigan Department of Environment, Great Lakes, and Energy (the "Funding Authority") that it understands:

This term and condition implements 2 CFR 200.216 and is effective for obligations and expenditures of the U.S. Environmental Protection Agency (or EPA)'s financial assistance funding on or after 8/13/2020.

As required by 2 CFR 200.216, EPA recipients and subrecipients, including borrowers under EPA funded revolving loan fund programs, are prohibited from obligating or expending loan or grant funds to procure or obtain; extend or renew a contract to procure or obtain; or enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that use covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115-232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities). Recipients, subrecipients, and borrowers also may not use EPA funds to purchase:

a. For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).

b. Telecommunications or video surveillance services provided by such entities or using such equipment.

c. Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

Consistent with 2 CFR 200.471, costs incurred for telecommunications and video surveillance services or equipment such as phones, internet, video surveillance, and cloud servers are allowable except for the following circumstances:

a. Obligating or expending EPA funds for covered telecommunications and video surveillance services or equipment or services as described in 2 CFR 200.216 to:

    (1) Procure or obtain, extend or renew a contract to procure or obtain;

    (2) Enter into a contract (or extend or renew a contract) to procure; or

    (3) Obtain the equipment, services, or systems. Certain prohibited equipment, systems, or services, including equipment, systems, or services produced or provided by entities identified in section 889, are recorded in the System for Award Management exclusion list.

Davis-Bacon and Related Acts/Prevailing Federal Wages

P.L. 111-88 requires compliance with the Davis Bacon Act and adherence to the current U.S. Department of Labor Wage Decision. Attention is called to the fact that not less than the minimum salaries and wages as set forth in the Contract Documents (see Wage Decision included herein) must be paid on this project. The Wage Decision, including modifications, must be posted by the Contractor on the job site. The “Contracting Agency” or “Contracting Officer” for Davis-Bacon Wage Decision posters on jobsites is the loan applicant/bond issuer. A copy of the Labor Standards Provisions for Federally Assisted Projects is included and is hereby a part of this contract.

NOTICE INVITING SEALED BIDS

Bid/Contract Number – C-1724

C-1724 N. Mason WM & Dead-End Looping DWSRF #7900.01

FOR THE DEPARTMENT OF PUBLIC SERVICES, ENGINEERING DIVISION, CITY OF SAGINAW, MICHIGAN. Sealed bids will be received by the City of Saginaw Purchasing Office, 1315 S. Washington Avenue, Saginaw, Michigan 48601, **until 3:00 p.m., Tuesday, May 5, 2026**, and then publicly opened for the DEPARTMENT OF PUBLIC SERVICES, ENGINEERING DIVISION – C-1724 N. Mason WM & Dead-End Looping DWSRF #7900.01

Installation and connection of watermain south of Maine St on the northside of the Huron & Eastern railroad connecting the dead-end watermains from A St. to Larch St. Replacement of existing watermain on N. Mason St from Houghton Ave to State St (M-58).Including rehabilitation of various pavement surfaces, HMA removal, concrete work, earthwork, subbase, aggregate base, curb and gutter, sidewalks & ADA sidewalk ramps. Furnish labor, tools, equipment, and materials as required to perform the work as specified in the contract documents.

Direct any questions to Travis Hare, City Engineer, via email at engineer@saginaw-mi.com, before 3:00p.m. on April 28, 2026.

To access downloadable contract documents, go to the City of Saginaw's website at https://www.saginaw-mi.com/Bids.aspx. There is **no charge** for these downloadable documents. For a hard copy of the contract documents, call the City Engineer's office at 989-759-1410. The office is in the lower level of the Public Works Service Center building, 1435 S. Washington Avenue, Saginaw, Michigan 48601. There is a **$125.00 non-refundable** charge for a hard copy of the contract book and drawings with an additional charge of **$25.00** to cover the mailing. Checks must be made payable to "Treasurer, City of Saginaw" and mailed to the City Engineer, 1315 South Washington Avenue, Saginaw, Michigan 48601.

All vendors are subject to the provisions of the City's Purchasing, Contracting, and Selling Procedure Ordinance, Title I, Chapter 14, §14.30-14.45, of the Saginaw Code of Ordinances. For disability accommodation, please call 989-759-1410.

As part of the consideration for this bid, the vendor doing business with the City of Saginaw agrees to have withheld from any payments due them, any amounts for taxes, fees, or other charges due the City of Saginaw.

The City of Saginaw has an income tax. All successful bidders will be subject to income tax withholdings; compliance is mandatory.

Contract amounts totaling $100,000 or more will require a certified check, cashier's check, or surety company bid bond in an amount of five percent **(5%)** of the total bid to be submitted with the bid as security for the acceptance and execution of the contract.

The successful bidder on a contract of $50,000.00 or more will be required to furnish surety company bonds as follows:
First - A bond in the sum of one hundred percent (100%) of the contract price running to the City of Saginaw to insure the construction and completion of the entire work according to the proposal and contract.
Second - A bond in the sum of one hundred percent (100%) of the contract price running to the City of Saginaw for the protection of the subcontractors and labor and material suppliers, according to the statute of the State of Michigan at that time in effect.

The City of Saginaw reserves the right to accept or reject any and all bids, or parts thereof, and to waive any irregularities in the bid except those specifically mentioned in the Sealed Bid Instructions. Bidders are required by the City's Purchasing, Contracting, and Selling Procedure Ordinance to submit documentation concerning their current work force and past employment practices and to subscribe to a statement furnished by the City indicating compliance with the Ordinance.

Kim Jaime, Purchasing Officer

CITY OF SAGINAW, MICHIGAN
BID FORM

C-1724 N. Mason WM & Dead-End Looping DWSRF #7900.01

To the City of Saginaw Date:_____

In response to your notice, the undersigned, hereinafter called the Contractor, hereby declares that the Contractor has read the "General Instruction to Bidders", "Sealed Bid Instructions" and "General Information", has examined the plans, specifications and the location of the work described herein, has reviewed the proposed Contract and its general conditions, and, is thus fully informed to the nature of the work and the conditions relating to its performance and further understands that the quantities shown hereon are approximate only and are subject to either increase or decrease.

The Contractor hereby proposes to furnish all the necessary equipment and tools, do all the work, furnish all the materials, except as otherwise specified and to complete the work herein described all in accordance with the Contract and its plans and specifications, of which this proposal is a part, for the unit prices named in the following itemized bid.

Prior to and contingent upon award of a contract of $50,000.00 or more, the undersigned further agrees to furnish a surety company performance bond in the sum of not less than 100 percent (100%) of the total amount of the contract company to secure the faithful performance of the Contract and, when required, a surety company labor and material bond in the sum of not less than 100 percent (100%) of the total amount of the Contract for the protection of subcontractors, labor and material suppliers, according to the laws of the State of Michigan at that time in effect. Said signed Contract, surety company bonds, and insurance shall be furnished within ten (10) days from date of notification by the Engineering Division of acceptance of the proposal submitted. The Contract cannot be fully awarded by City Council without the return of these executed documents.

In compliance with the requirements of said notice, this proposal is accompanied by an **original** bid bond, bank money order, certified check, or cashier's check in the sum of five percent (5%) of total bid to guarantee that a contract will be entered into if the above proposal is accepted, and the contract awarded to the undersigned.

52.222-21 Prohibition of Segregated Facilities.

As prescribed in 22.810(a)(1), insert the following clause:

Prohibition of *Segregated Facilities* (Apr 2015)

(a) *Definitions*. As used in this clause

Gender identity has the meaning given by the Department of Labor's Office of Federal Contract Compliance Programs, and is found at http://www.dol.gov/ofccp/LGBT/LGBT_FAQs.html.

Segregated facilities, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, *sexual orientation*, *gender identity*, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.

Sexual orientation has the meaning given by the Department of Labor's Office of Federal Contract Compliance Programs, and is found at http://www.dol.gov/ofccp/LGBT/LGBT_FAQs.html.

(b) The Contractor agrees that it does not and will not maintain or provide for its employees any *segregated facilities* at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where *segregated facilities* are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Opportunity clause in this contract.

(c) The Contractor *shall* include this clause in every subcontract and *purchase order* that is subject to the Equal Opportunity clause of this contract.

(End of clause)

Parent topic: 52.222 [Reserved]

	DESCRIPTION	APPX. QUANT.	UNIT	UNIT PRICE	BID AMOUNT
1	Mobilization, Max ($300,000.00)	1	Lump Sum		
2	Railroad Protection, Huron and Eastern Railway	1	Allow	$10,000.00	$10,000.00
3	Pavement, Rem, Modified	6,500	Square Yard		
4	Cold Milling HMA Surface, 1.5-inch	4,250	Square Yard		
5	Sidewalk, Rem, Modified	625	Square Yard		
6	Driveway, Rem	630	Square Yard		
7	Curb and Gutter, Rem	1,090	Foot		
8	Tree, Rem, 6 inch to 18 inch	8	Each		
9	Tree, Rem, 19 inch to 36 inch	8	Each		
10	Tree, Rem, 37 inch or Larger	3	Each		
11	Clearing	0.1	Acre		
12	Monument Preservation	14	Each		
13	Monument Box	6	Each		
14	Exploratory Investigation, Vertical	100	Foot		
15	Gas and Water Shutoff, Adj, Modified	4	Each		
16	Subgrade Undercutting, Type II, Modified	200	Cyd		
17	Erosion Control, Inlet Protection, Fabric Drop	46	Each		
18	Erosion Control, Silt Fence	180	Foot		
19	Dr Structure, Rem	4	Each		
20	Hydrant, Rem, Modified	12	Each		
21	Abandon Existing Water Main, In Place	1	Lump Sum		
22	Water Main, 12 inch, Tr Det G, Modified	105	Foot		
23	Water Main, 8 inch, Tr Det G, Modified	3,660	Foot		
24	Water Main, 6 inch, Tr Det G, Modified	520	Foot		
25	Water Main, 8 inch, Tr Det F, Modified	1,070	Foot		
26	Gate Valve and Box, 12 inch, Modified	2	Each		
27	Gate Valve and Box, 8 inch, Modified	16	Each		
28	Gate Valve and Box, 6 inch, Modified	2	Each		
29	Live Tap, 20 inch by 8 inch	2	Each		
30	Valve Box, Collar	12	Each		
31	Hydrant, Complete, 6 inch	13	Each		

32	Water Serv, Modified	21	Each		
33	Water Serv, Long, Modified	30	Each		
34	Water Serv, Private	15	Each		
35	Connection to Existing 6 inch Water Main	13	Each		
36	Connection to Existing 8 inch Water Main	4	Each		
37	Connection to Existing 12 inch Water Main	4	Each		
38	HMA, 5EMH	782	Ton		
39	HMA, 4EMH	585	Ton		
40	HMA, 3EMH	865	Ton		
41	Hand Patching	220	Ton		
42	Machine Grading, Modified	49	Station		
43	Aggregate Base, 6 inch, Modified	1,120	Square Yard		
44	Aggregate Base, 8 inch, Modified	5,335	Square Yard		
45	Conc Pavt, Nonreinf, 7 inch, Modified	1,120	Square Yard		
46	Detectable Warning Surface, Modified	135	Foot		
47	Curb Ramp Opening, Modified	250	Foot		
48	Sidewalk, Conc, 4 inch, Modified	3,620	Square Foot		
49	Sidewalk, Conc, 6 inch, Modified	500	Square Foot		
50	Curb Ramp, Conc, 7 inch, Modified	1,480	Square Foot		
51	Driveway, Nonreinf Conc, 6 inch, Modified	350	Square Yard		
52	Driveway Opening, Conc, Det M, Modified	100	Foot		
53	Curb and Gutter, Conc, Det F4, Modified	1,090	Foot		
54	Turf Establishment, Performance	5,250	Square Yard		
55	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	45	Each		
56	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	45	Each		
57	Pedestrian Type II Barricade, Temp	20	Each		
58	Minor Traf Devices, 2% Max	1	Lump Sum		
59	Plastic Drum, Fluorescent, Furn	30	Each		
60	Plastic Drum, Fluorescent, Oper	30	Each		
61	Sign, Type B, Temp, Prismatic, Furn	640	Square Foot		
62	Sign, Type B, Temp, Prismatic, Oper	640	Square Foot		
63	Sign, Type B, Temp, Prismatic, Spec , Furn	70	Square Foot		

64	Sign, Type B, Temp, Prismatic, Spec , Oper	70	Square Foot		
65	Traf Regulator Control, 0.5% Max	1	Lump Sum		
66	Sign, Portable, Changeable Message, Furn	3	Each		
67	Sign, Portable, Changeable Message, Oper	3	Each		
68	Sign, Type III, Erect, Salv	8	Each		
69	Pavt Mrkg, Waterborne, 4 inch, White	600	Foot		
70	Pavt Mrkg, Waterborne, 4 inch, Yellow	130	Foot		
71	Pavt Mrkg, Waterborne, 2nd Application, 4 inch, White	600	Foot		
72	Pavt Mrkg, Waterborne, 2nd Application, 4 inch, Yellow	130	Foot		
73	Pavt Mrkg, Ovly Cold Plastic, 24 inch, Stop Bar	175	Foot		
74	Pavt Mrkg, Ovly Cold Plastic, 6 inch, Crosswalk	1,530	Foot		
75	Pavt Mrkg, Ovly Cold Plastic, Lt Turn Arrow Sym	1	Each		
76	Dr Structure Cover, Type B, Modified	12	Each		
77	Dr Structure Cover, Type D, Modified	3	Each		
78	Dr Structure Cover, Type K, Modified	13	Each		
79	Dr Structure, 48 inch dia, Modified	4	Each		
80	Combined Sewer Manhole Cover, Adj, Case 1	21	Each		
81	Dr Structure, Tap, 6 inch	1	Each		
82	Sewer, 6 inch, SDR-26	45	Foot		
83	Sewer Trap, 6 inch	3	Each		
84	City Supplied Sign, Install	7	Each		

TOTAL BID _____

In accordance with the provisions of "Public Act 524 of 1980".

I do hereby designate _____ (name of representative) to submit a written request for progress payment during the duration of this contract.

The Contractor shall start work as specified in the Progress Clause, or as directed by the City Engineer. In no case, shall any work commence prior to receipt of formal Notice to Proceed from the City.

The undersigned bidder does hereby declare that the bidder has the legal status checked below:

_____ Individual

_____ Partnership

_____ Corporation

Incorporated under the laws of the State of _____

_____ Limited Liability Company

Formed under the laws of the State of _____

The undersigned does hereby agree to honor this bid until November 6, 2026

Michigan's Iran Economic Sanctions Act:
The signature below certifies your company is in compliance with the Michigan Iran Economic Sanctions Act as identified on page #39 of this document. Further information on this Act can be viewed at (http://www.state.gov/j/ct/list/c14151.htm and https://www.legislature.mi.gov/(S(qnwpjcm0uyo1f2fhz0w1mlyq))/mileg.aspx?page=GetObject&objectname=mcl-Act-517-of-2012)

_____
(Signature)

_____
(Printed name)

_____
(Title)

This sheet must be included, or the bid will be disqualified.

By submitting a response to this request for proposal, the Contractor agrees to the terms and conditions set forth herein. Any changes made to such terms and conditions by Contractor in its response may result, at the City's sole discretion, in the Contractor's disqualification.

The successful Contractor will conform to all Contract specifications and requirements which are attached and incorporated as part of this bid. The City reserves the right to accept or reject any and all bids, or parts thereof, and to waive any irregularities in the bid except those specifically mentioned in the sealed bid instructions. Additionally, (if applicable) we reserve the right to add or delete any items(s) and/or service from this bid to the best benefit of The City of Saginaw.

By signature, the Contractor acknowledges that the signer below has complete authority to execute the bid on behalf of the Contractor and that the bid is genuine and not collusive in any manner; and that no other bidders were improperly induced to refrain from bidding or induced to submit a sham bid; and that the Contractor agrees to have withheld from any payment due them, any amounts owed for taxes or other charges due the City of Saginaw; and that successful bidders are subject to mandatory City of Saginaw income tax withholdings.

Signed	_____	Address	_____
Name	_____	City, State, Zip	_____
Title	_____	Telephone No:	_____
Company	_____	Fax No.	_____
E-mail	_____	Date:	_____

Check List

Iran Sanctions sheet Signed and included	Yes	No
Bid Form Signed and included	Yes	No
2nd Copy of Bid form included	Yes	No

Applies ONLY if an addendum(s) has been issued for this project

Addendum(s) Cover Sheet		
#1 – 1st page is signed and included	Yes	No
#2 – 1st page is signed and included	Yes	No
#3 – 1st page is signed and included	Yes	No

This sheet must be included, or the bid will be disqualified.

CONTRACT

CITY OF SAGINAW, MICHIGAN

This Contract is entered into on this _ day of _____, 2026, between **(name of contractor),** of _____ (hereinafter "Contractor"), and the City of Saginaw, 1315 S. Washington Avenue, Saginaw, Michigan 48601 (hereinafter "City"), for **N. Mason WM & Dead-End Looping DWSRF #7900.01, (C-1724)**

WHEREAS, Contractor, at a regular meeting of the Council of the City of Saginaw, held on May 5, 2026, was awarded the contract for furnishing the necessary labor, equipment, materials, and construction for the completion of N. Mason WM & Dead-End Looping DWSRF #7900.01, (C-1724)

Contractor, in consideration of the Agreement herein made by the City, agrees with the City as follows:

Article 1. SUBJECT MATTER. Contractor shall furnish all the materials, except those specified to be furnished by the City, and perform all the work N. Mason WM & Dead-End Looping DWSRF #7900.01, (C-1724)**,** as listed on the Table of Contents, and as shown on the drawings prepared by the Department of Public Services, Engineering Division, and described in the specifications, and in accordance with the general conditions, the general instructions to bidders, the notice inviting sealed proposals and the proposal, all of which are hereby made a part of this Contract by reference as though fully set forth herein. The Contractor acknowledges Contractor has received a copy of all such documents.

Article 2. COMMENCEMENT OF WORK. The Contractor shall start work as specified in the Progress Clause**,** or as directed by the City Engineer and the work shall be carried on with due diligence, at such points and at such times and seasons, and with such force and in such manner as to secure the completion in accordance with the Progress Clause, the time of beginning, rate of progress and the time of completion being essential conditions of this Contract.

Article 3. PAYMENT. It is hereby mutually agreed that the City shall pay, and the Contractor receive, the sum of **$Numerical amount,** same being the amount named in the Contractor's proposal or bid as full compensation for labor and materials required in executing all the work contemplated in this Contract, subject to additions and deductions, as provided in the specifications.

Article 4. ESTIMATES. The City hereby agrees to make payment under the restrictions and limitations herein contained, from time to time, on account of performance of this contract, by orders drawn upon the proper fund of the City, paying NINETY PERCENT (90%) thereof on the basis of estimates made by the Department of Public Services & Engineering semi-monthly as the work progresses, and approved by the City Engineer. Said estimates shall be made in writing and shall only include work done and material in place and shall not include completed work which, in the opinion of the City Engineer, is not advisable, for the protection of the City, at that time to

make payment on, and such estimates may be altogether withheld when, in the opinion of the City Engineer, work does not progress in accordance with the provisions of this Contract; and the making and furnishing of such estimates shall not be deemed or construed as an acceptance of any part of the work under this Contract. The City Engineer may authorize the reduction of the amount so withheld so that total payment equals NINETY-FIVE PERCENT (95%) of the estimate where the City Engineer shall find that the retention of FIVE PERCENT (5%) of the estimate is sufficient to protect the City, but the total amount so retained shall not in any event be reduced to less than FIVE PERCENT (5%) of the contract price above stated.

Article 5. RETENTION OF MONEYS. In addition to the TEN PERCENT (10%) of contract price above retained, to insure the completion of the work, the City reserves the right to retain at all times from the estimates, an amount sufficient to pay and discharge all debts incurred by Contractor, or subcontractor, for labor performed in the progress of the work, and for material purchased and used, and, at its discretion, to pay the same to the parties entitled thereto, and charge the same against the contract price.

Article 6. SEPARATE CONTRACTS. Where two or more separate proposals are grouped together herein, it is expressly agreed that each of said proposals shall constitute a separate contract and that all of the terms, conditions, and provisions of this Contract shall apply to each of said proposals to the same extent and in the same manner as though each of said proposals had been the subject of a separate contract.

Article 7. PUBLIC ACT 524 of 1980. Notwithstanding any provision herein to the contrary, this agreement is subject to 1980 PA 524, which statute is incorporated herein and made a part hereof by reference. Contractor hereby agrees that the City may, at its option, submit the following matters to dispute resolution by an agent agreed to or selected in accordance with the procedures set forth in the statute:

A. At any time during the term of the contract, to determine whether there has been a delay for reasons that were within the control of the Contractor, and the period of time that delay has been caused, continued, or aggravated by actions of the Contractor.
B. At any time after ninety-four percent (94%) of work under the Contract is in place, whether there has been an unacceptable delay by the Contractor in performance of the remaining six percent (6%) of work under the Contract. The agent shall consider the terms in the Contract and procedures normally followed in the industry and shall determine whether the delay was for failure to follow reasonable improvement practices in the industry for completion of the project.

The agent shall have all the rights, powers and duties specified in the statute.

Article 8. ACCEPTANCE AND FINAL PAYMENT. The final payment, including any retainage previously withheld, shall be payable on the approval and acceptance of the work by the City Engineer.

The payment of the final amount due under this Contract, and the adjustment and payment of all bills rendered for the work done in accordance with any alterations of same, shall release the City from any and all claims or liability on account of work performed or materials furnished under the Contract, or any alterations thereof.

The City of Saginaw has an income tax. All successful bidders will be subject to income tax withholdings and compliance is mandatory.

As part of the consideration for this Contract, the undersigned does hereby agree to have withheld from any payments due them, any amounts for taxes, fees or other charges due the City of Saginaw.

By their signatures below, the parties certify the persons signing on behalf of their respective party has the authority to do so. The parties hereto have executed this Contract the day and year first above written.

CONTRACTOR	**CITY OF SAGINAW**
	By:_____
	Timothy Morales
By:_____	**City Manager**
Name: _____	
Title: _____	

CITY OF SAGINAW

SCOPE OF WORK

COS: TJH APRIL 2026

C-1724 N. MASON WM & DEAD-END LOOPING DWSRF #7900.01

Installation and connection of watermain south of Maine St on the northside of the Huron & Eastern railroad connecting the dead-end watermains from A St. to Larch St.

Replacement of existing watermain on N. Mason St from Houghton Ave to State St (M-58).

Including rehabilitation of various pavement surfaces, HMA removal, concrete work, earthwork, subbase, aggregate base, curb and gutter, sidewalks & ADA sidewalk ramps.

Traffic control will be the responsibility of the Contractor. All major roads listed in the traffic plans will be closed to through traffic with posted detour, while maintaining local access. 48-hour notice to the City is required for all closures. All local roads listed will be closed to through traffic with no posted detour required, while maintaining local access. The contractor shall place temporary pavement markings until permanent pavement markings are placed.

CITY OF SAGINAW

COORDINATION CLAUSE
FOR
WORK ON RAILROAD PROPERTY

1 of 1 April 2026

The following information may be pertinent to the determination of construction methods and railroad protective insurance rates.

RAILROAD

Huron and Eastern Railway

Contact: Chad Heinz - Roadmaster
Phone: (989) 225-7032
Address: 3366 East Soper Rd
Bad Axe, MI 48413

TRAIN MOVES

Superior Street (NI# 511969X)
There are approximately 6 weekly freight moves at 10 mph. Maximum timetable speed is 10 mph.

The train movement and speed information does not represent a commitment by the Railroad and is subject to change without notice.

RAILROAD UTILITY COORINATION

Railroad utilities are not covered under the current Miss Dig provisions and supplemental coordination with the operating railroad is required. The Contractor shall contact the Railroad, 30 days prior to any underground activities or soil disturbance on/or adjacent to the railroad right-of-way and request for railroad utilities be located and marked. The Contractor shall provide specific limits of desired utilities to be located and marked by the Railroad to ensure locates are visible and current.

The Contractor shall cooperate and coordinate construction activities with the operating railroad as stated in Section 104.08 of the 2020 MDOT Standard Specifications for Construction. In addition, for the protection of underground utilities, the Contractor shall follow the requirements in Section 107.12 of the 2020 MDOT Standard Specifications for Construction. Contractor delay claims, resulting from a railroad utility, will be determined based upon Section 109.05 of the 2020 MDOT Standard Specifications for Construction.

Any damage caused by the Contractors work operations to the railroad property will be the Contractors responsibility to fix and/or replace to Railroad specifications.

CITY OF SAGINAW

PROGRESS CLAUSE

COS:Fishbeck 1 of 1 April 2026

Work shall begin no earlier than July 16, 2026 or as directed by City Engineer. All work must be completed on or before July 31, 2027 as shown on the Notice to Proceed, with the exception of seeding, to be completed by August 31, 2027 and turf establishment which shall be completed by October 30, 2027.

In no case, shall any work commence prior to receipt of formal notice of award by the City.

Work is prohibited on City of Saginaw holidays and between the hours of 3PM the day prior to the holiday and 7AM the day after the holiday. Holiday dates that may occur within the contract period are as follows:,

Labor Day (2026): 3pm Friday September 4th until 7am Tuesday September 6th
Veterans Day (2026): 3pm Tuesday November 10th until 7am Thursday November 12th
Thanksgiving (2026): 3pm Wednesday November 25th until 7am Monday November 30th
Christmas (2026): 3pm Wednesday December 23rd until 7am Monday December 28th
New Year (2026-2027): 3pm Wednesday December 30th until 7am Monday January 4th
Martin Luther King Jr. Day (2027): 3pm Friday January 15th until 7am Tuesday January 19th
Good Friday (2027): 3pm Thursday March 25th until 7am Monday March 29th
Memorial Day (2027): 3pm Friday May 28th until 7am Monday June 1st
Independence Day (2027): 3pm Thursday July 2nd until 7am Monday July 5th
Labor Day (2027): 3pm Friday September 3rd until 7am Tuesday September 4th

Unauthorized work performed during prohibited time shall not be paid for.
The contractor's work plan shall include the following requirements.

1) All work sites are to be properly barricaded,

2) All clean-up work, backfilling, and seeding procedures at individual work sites shall be completed within seven (7) work days after construction or repair operations have been completed at these sites.

3) All excavated sites (areas where sidewalk/pavement has been removed) shall be filled-in within seventy-two (72) hours. In other words, the contactor shall have seventy-two (72) hours from the time the walk/pavement has been removed to replacing said walk/pavement with new concrete walk/pavement.

4) Excavated sites shall not be left over the weekend.

Failure by the contractor to meet the above listed contract completion dates will result in the assessment of liquidated damages in accordance with the Special Provision for Liquidated Damages.

The approved low bidder for the work covered by this proposal will be required to participate in a preconstruction meeting with the City. The schedule for this meeting will be set within one week

after the approved low bidder is determined. The City of Saginaw will arrange the time and place for the meeting.

The Progress Schedule shall be submitted to the City of Saginaw five (5) days prior to the meeting.

If the bidding proposal specifies other controlling dates, these shall also be included in the Progress Schedule.

Failure by the Contractor to meet interim, final, and/or any stage completion dates will result in the assessment of liquidated damages in accordance with subsection 108.10 of the Standard Specifications for Construction.

NOTICE TO BIDDERS

UTILITY COORDINATION

COS: TJH 1 of 1 APRIL 2026

The contractor shall cooperate and coordinate construction activities with the owners of utilities as stated in Section 104.08 of the 2020 MDOT Standard Specifications for Construction. In addition, for the protection of underground utilities, the contractor shall follow the requirements in Section 107.12 of the 2020 MDOT Standard Specifications for Construction. Contractor delay claims, resulting from a utility, will be determined based upon Section 109.05.E of the 2020 MDOT Standards Specifications for Construction.

The following public utilities may have facilities located within the right-of-way:

UTILITY	OWNER	CONTACT PERSON
Gas/Electric	Consumers Energy Co. 2400 Weiss Street Saginaw, MI 48602	Sam Oliveri (gas) (517) 915-8819 Sam.Oliveri@cmsenergy.com Virgie Downs (electric) Cell:(989)245-6241 (989)791-5938 Virgie.Downs@cmsenergy.com Alan Lindquist (transmission) (517)788-0534
Telephone	AT&T 309 S. Washington Ave. Saginaw, MI 48607	Mike McLane C:(810) 938-3143 O:(810) 768-0109 mm6798@att.com
Sewer & Water	City of Saginaw 1701 S. Jefferson Ave. Saginaw, MI 48601	Tony Folino (989) 759-1611 tfolino@saginaw-mi.com
Traffic Signals, Signs, Street lights	City of Saginaw 1435 S. Washington Ave. Saginaw, MI 48601	Joe Nugent (989) 737-5583 jnugent@saginaw-mi.com
Cable/ Television	Charter Communications 1480 S. Valley Center Drive Bay City, MI 48706	Mark Kelly (989) 667-0611 mark.kelly@charter.com

For protection of underground utilities, the Contractor shall dial (800) 482-7171 or 811, a minimum of 3 working days prior to excavating. Members will thus be routinely notified. This does not relieve the Contractor of the responsibility of notifying utility owners who may not be a part of the 'Miss Dig' alert system.

CITY OF SAGINAW

SPECIAL PROVISION

FOR

LIQUIDATED DAMAGES

COS:TJH **1 OF 1** **MARCH 2026**

GENERAL REQUIREMENT

All work shall be accomplished in accordance with section 108 of the Michigan Department of Transportation 2020 Standard Specifications for Construction and as modified herein.

DESCRIPTION

Liquidated Damages per calendar day will be assessed at 100% of the amount indicated below:

SCHEDULE OF LIQUIDATED DAMAGES	
ORIGINAL CONTRACT AMOUNT	**LIQUIDATED DAMAGES (per calendar day)**
$ 0 to $ 100,000	$500
$ 100,000 to $ 500,000	$800
$ 500,000 to $ 1,000,000	$1000
$ 1,000,000 to $ 5,000,000	$1500
$5,000,000 to $15,000,000	$2000
Over $15,000,000	$4000

ASSESSMENT OF LIQUIDATED DAMAGES

Sums assessed as Liquidated Damages shall not be considered penalties, but as damages due the City from the contractor for failure to complete the work within the specified time.

CITY OF SAGINAW

SPECIAL PROVISION

FOR

TECHNICAL SPECIFICATIONS

TJH **1 of 1** **APRIL 2026**

The technical specifications for this project shall be in accordance with the 2020 Standard Specifications for Construction of the Michigan Department of Transportation, hereinafter referred to as the "STANDARD SPECIFICATIONS", the latest MDOT standard road plans, and Traffic and Safety standard plans.

The placement of permanent and temporary pavement markings, and temporary signing for work zones shall be in accordance with the Michigan Manual of Uniform Traffic Control Devices, 2011 Edition.

In case of discrepancy, figured dimensions shall govern over scaled dimensions and the parts of the contract will prevail over all other parts in the following order:

1. City, Fishbeck Engineering and MDOT Special provisions
2. MDOT Supplemental specifications
3. Project plans and drawings
4. MDOT Standard plans
5. MDOT Standard specifications

fishbeck
Engineers | Architects | Scientists | Constructors

Technical Specifications

Saginaw
2026 DWSRF Watermain Replacement
Saginaw, Michigan

Project No. 2501567

Issued for Bids

CITY OF SAGINAW

SPECIAL PROVISION
FOR
AGGREGATE BASE, MODIFIED

COS:Fishbeck 1 of 1 April 2026

Description

The work of Aggregate Base, _ inch, Modified, shall consist of furnishing and placing crushed limestone compacted-in-place, in accordance with Section 302 of the Michigan Department of Transportation 2020 Standard Specifications for Construction except as modified herein.

Materials

Materials for Aggregate Base, _ inch, Modified, shall be 100% crushed limestone conforming to 21AA Aggregate under Section 902 of MDOT 2020 Standard Specifications for Construction.

Measurement and Payment

The completed work as measured will be paid for at the contract unit price for the following pay item:

Pay Item	Pay Unit
Aggregate Base, _ inch, Modified	Square Yard

Aggregate Base, _ inch, Modified, will be measured in place, at the specified depth, by area in square yards; and will be paid for at the contract unit price per square yard, at the specified depth; which price shall be payment in full for all labor, materials, and equipment needed to accomplish this work.

CITY OF SAGINAW

SPECIAL PROVISION
FOR
ALTERATIONS TO THE MUNICIPAL COMBINED SEWER SYSTEM

COS:Fishbeck Page 1 of 7 April 2026

Description

This work consists of excavating, furnishing, and placing combined sewer pipe, drainage structures, manholes, appurtenances, and trench backfill in accordance with sections 402 and 403 of the Standard Specifications for Construction, MDOT Standard Plan R-1 series and R-83 series, and details as shown on the Plans except as herein modified.

Material

The Contractor shall furnish all pipe, manholes, and appurtenances. All material shall meet the requirements of MDOT and the City of Saginaw.

1) Sewer Pipe

   a) Plastic Pipe shall meet or exceed ASTM D3034 SDR-26 or ASTM D2241 SDR-26 specifications for PVC integral gasket sewer pipe, depending on pipe diameter. Material for backfill shall be in accordance with Standard Plan R-83 series and the special details within the construction plans.

   b) Reinforced Concrete pipe shall be ANSI/ASTM C76 premium joint rubber O-ring gaskets.

2) Pipe Accessories.

   a) Fittings and Branch Connections shall be the same material as pipe, molded or formed to suit pipe size and end design, in required tee, bends, elbows, wyes, cleanouts, reducers and other configurations required.

3) Combined Sewer Manholes

   a) Reinforced, precast concrete sections conforming to ASTM C-478. All mainline manholes shall be precast with antimicrobial additives such as ConmicShield®, ConBlock MIC, MasterLife AMA, or equal, as approved by the Engineer.

      i) Antimicrobial additive shall be an EPA registered material and the registration number shall be submitted for approval prior to use in the project.

      ii) The amount to be used shall be as recommended by the manufacturer of the antibacterial additive. This amount shall be included in the total water content of the concrete mix design.

      iii) The additive shall be added into the concrete mix water to ensure even distribution of the additive throughout the concrete mixture.

      iv) The antibacterial shall be used by factory certified precast concrete plants.

v) A letter of certification from the precaster to the project Owner stating that the correct amount and correct mixing procedure were followed for all antimicrobial concrete shall be required.

vi) A color identifier-indicator shall be applied to the interior of each piece and plainly stencil the name of the antimicrobial additive on the interior and exterior of each piece.

b) O-Ring rubber gasket premium type joints.

c) Half-inch diameter galvanized pipe nipple with cap through the manhole wall at an elevation equal to the top of the pipe. Nipple shall extend 3 inches into the manhole.

d) Connect main line and branches to manholes utilizing a flexible neoprene gasket with stainless steel band.

i) Kor-N-Seal, by national Pollution Control Systems, Inc.

ii) Model Ps10, by Press Seal Gasket Corp.

iii) A-Lok, by A-Lok Products, Inc.

iv) Or equal, as approved by Engineer.

e) All combined sewer manhole sections shall be constructed such that the top of the pre-cast cone section shall have a minimum of 3-inch-high vertical sealing surface that is smooth and free of any form offsets or excessive honeycomb.

f) External or internal Chimney seals shall be installed on all Combined Sewer Manholes. External seals shall be a heat-shrinkable sleeve system, or a rubber seal system, such as Wrapid Seal, Canusa, Infi-Shield, Cretex “X-85”, or an Engineer-approved equal. Internal seals if used, shall be as recommended and manufactured by Cretex Specialty Products, or equal, as approved by the Engineer.

g) Mortar shall be in accordance with section 702 of the Standard Specifications for Construction. Mortar for mainline manholes shall use antimicrobial additive ConmicShield®, ConBlock MIC, MasterLife AMA, or equal, as approved by the Engineer.

i) Antimicrobial additive shall be an EPA registered material and the registration number shall be submitted for approval prior to use in the project.

ii) The amount to be used shall be as recommended by the manufacturer of the antibacterial additive. This amount shall be included in the total water content of the concrete mix design.

iii) The additive shall be added into the concrete mix water to ensure even distribution of the additive throughout the concrete mixture.

iv) The ready-mix supplier shall submit a letter of certification to the project Owner stating that the correct amount and correct mixing procedure were followed for all antimicrobial concrete.

v) The antibacterial shall be used by factory certified plants.

vi) After the concrete takes initial set, a color identifier-indicator shall be applied to the interior surface.

h) Bentonite Waterstops: Continuous 1- by ¾-inch strips, containing 75 percent bentonite by weight. Manufactured by Volclay, Greenstreek, Henry or equal.

4) Drainage Structures

a) Reinforced, precast concrete sections conforming to ASTM C-478.

b) O-Ring rubber gasket premium type joints.

c) Connect branches to drainage structures utilizing a flexible neoprene gasket with stainless steel band.

i) Kor-N-Seal, by National Pollution Control Systems, Inc.

ii) Model Ps10, by Press Seal Gasket Corp.

iii) A-Lok, by A-Lok Products, Inc.

iv) Or Equal as approved by the Engineer

d) All drainage structure sections shall be constructed such that the top of the pre-cast cone section shall have a minimum of 3-inch-high vertical sealing surface that is smooth and free of any form offsets or excessive honeycomb.

e) External seals shall be a heat-shrinkable sleeve system, or a rubber seal system, such as Wrapid Seal, Canusa, Infi-Shield, Cretex “X-85”, or an Engineer-approved equal. Internal seals if used, shall be as recommended and manufactured by Cretex Specialty Products, or equal, as approved by the Engineer.

5) Bedding materials shall conform to the following sections of the Standard Specifications:

Granular Material Class II, III, IIIA	902
Aggregate 6A	902
Geosynthetics	910

a) PVC Pipe

i) MDOT 6A Aggregate to 6 inches above top of pipe and MDOT Class II for the remainder of the trench.

b) Reinforced Concrete Pipe

i) Class II as indicated by the trench type.

c) Filter Fabric

i) Place filter fabric over 6A Aggregate for the complete width of the trench.

Construction

Install all pipe, drainage structures, and appurtenances in accordance with sections 402 and 403 of the Standard Specifications for Construction as shown on the plans and as specified herein.

1) Execution.

a) Existing concrete and asphalt pavements shall be cut back so that the opening is at least 1 foot wider on each side than the width of the trench.

b) Unless otherwise permitted by the Engineer, not more than 200 feet of trench shall be open at one time in advance of the sewer.

c) Verify that trench cut is ready to receive work and excavations, dimensions, and elevations are as indicated on drawings.

d) Hand trim excavations to required elevations. Correct over excavation with MDOT 6A Aggregate fill.

e) Remove large stones or other hard matter, which could damage pipe or impede consistent backfilling or compaction.

f) Dig out for pipe bells.

g) Place bedding material at trench bottom, level materials in continuous layer not exceeding 6 inches compacted depth, compact to 95 percent.

h) Maintain optimum moisture content of bedding material to attain required compaction density.

2) Installation – Pipe.

a) Install pipe, fittings, and accessories in accordance with ASTM C12 or ASTM C1479 for rigid pipe and ASTM D2321 for flexible pipe and manufacturer's instructions.

i) Seal joints watertight.

b) Lay pipe to the line and grade indicated on the drawings by the use of a laser beam alignment method proven reliable and operated by competent experienced personnel.

c) P.V.C. Pipe Bedding.

i) Install bedding material MDOT 6A compacted crushed limestone to a depth of a quarter of the outside pipe diameter, but not less than 4 inches under the pipe barrel.

ii) Bring first lift of MDOT 6A compacted crushed limestone half way up the side of the side of the pipe and compact with mechanical tamping tools.

iii) Bring next lift of MDOT 6A compacted crushed limestone to the top of the pipe and compact.

iv) Bring next lift of MDOT 6A compacted crushed limestone to 6 inches above pipe and compact.

v) Place filter fabric over final lift of bedding material (MDOT 6A) through the roadways or areas receiving complete sand backfill.

vi) Compacted Class II granular material (sand) shall extend above the top of the pipe for the remainder of the trench.

vii) Remaining lifts shall be placed per the Standard Specifications for Construction.

d) Reinforced Concrete Pipe.

i) Install bedding, Class II granular material, to a depth of a quarter of the outside pipe diameter, but not less than 4 inches under the pipe barrel.

ii) Bring first lift of Class II granular material half way up the side of the pipe and compact with mechanical tamping tools.

iii) Bring next lift of Class II granular material to the top of the pipe and compact.

iv) Third lift Class II of compacted granular material shall extend 12 inches above the top of the pipe.

v) Remaining lifts shall be placed per the Standard Specifications for Construction.

e) Do not displace or damage pipe when compacting.

f) Connect to municipal sewer system, upon approval to do so by the Engineer.

3) Branch Connections or Service.

a) Install according to manufacturer's instructions.

b) Install the size indicated on the drawings.

c) Install at locations indicated on the drawings or as directed by the Engineer.

d) Install according to the details on the drawings.

e) Place plugs in connections which will not have pipe connected to them immediately. Plugs shall be capable of withstanding the pressures of air testing.

f) Lay branch connections and service lying within the trench on 2,500 psi concrete from the bottom of the trench to the spring line of the pipe with a thickness equal to 6 inches greater than the diameter of the pipe.

g) Verify inverts of proposed services.

h) All existing taps and connections to the combined sewer mainline shall remain in place unless otherwise approved or required by the Engineer. If new taps or connections are required, the Contractor shall do so utilizing Logan Clay Tile T or Y-Saddles (with flange) or approved equal.

i) All T or Y saddles shall be installed according to manufacturer's recommendations and appropriate standards.

ii) Fernco Donuts will also be required to make connection from proposed SDR-26 sewer lead to manufactured T or Y saddles.

4) Installation – Manholes and Drainage Structures.

a) Install according to manufacturer's instructions.

b) Trim bottom of excavation clean and smooth to correct elevation.

c) Install precast bases on 6 inches of MDOT 6A aggregate.

d) Form and place reinforced concrete base to correct elevation.

e) Install stubs and branch connections as indicated.

f) Bed stubs and branch connection with MDOT 6A aggregate.

g) Install barrel sections, cone section, and frame and cover to required grade.

h) All joints shall be sealed.

i) All new and existing pipe penetrations shall be sealed with bentonite waterstop and utilizing flexible neoprene gaskets with stainless steel bands.

ii) PVC waterstop shall be installed per manufacturer's recommendations.

iii) Joints shall be made with a Teflon surfaced welding iron.

i) Maximum height from top of cone to bottom of casting shall be 12 inches.

j) Bolt castings. Cover casting with mortar from cone to within 1.5 inches of top of casting.

k) Flow channels through manholes shall be constructed using pipe material as shown within the plans, or using concrete flow channels and benches, constructed with a minimum 4000 psi concrete with antimicrobial additive ConmicShield®, ConBlock MIC, MasterLife AMA, or equal, as approved by the Engineer.

i) The Engineer prior to construction shall approve any and all proposed construction methods.

ii) All benches and any concrete used in the manholes shall be constructed using the antimicrobial additive ConmicShield®, ConBlock MIC, MasterLife AMA, or equal as per manufacturer's recommendations.

5) Testing.

a) The specified pipe, manholes, and appurtenances will be visually inspected.

b) All joints, connections, pipe, manholes, and catch basins shall be water tight from infiltration as applicable.

c) All joints in reinforced concrete pipe shall be driven home with a tolerance of ¼-inch. Any joints left open beyond this tolerance shall be grouted with non-shrink grout, if approved by the Engineer.

d) All joints in PVC pipe shall be properly seated.

e) Compaction testing and frequency of testing shall be according with the Standard Specifications for Construction.

f) If tests indicate work does not meet specified requirements, remove work, replace, and retest at no cost to Owner.

g) Since the sewer pipe will not be tested, the City of Saginaw inspectors shall visually inspect all pipes before backfilling the trench.

i) Pipe that has not been visually inspected before backfilling shall be re-excavated, inspected, and backfilled again at no additional cost to the Owner.

h) The Contractor shall employ the services of a company specializing in videotaping services to provide an internal television inspection of the main line sewers installed under this contract.

i) The Engineer shall be notified of the time of inspection, in advance, and shall witness the inspection.

ii) The Contractor shall clean the sewers and manholes prior to the internal inspection and provide access to the sewers for internal inspection and correct deficiencies made apparent by the internal inspection prior to final acceptance of the project.

iii) The cost of videotaping shall be considered incidental to installing the specified sewer pipe.

iv) The taping shall be of professional quality and shall clearly show all connections to the sewer pipe.

v) All taping shall be done using DVD format of professional quality.

vi) The Contractor, at no additional charge to the Owner, shall refilm any portion of the DVD which is not acceptable to the Engineer.

vii) Submit two copies of the post-construction DVD to the City of Saginaw

Measurement and Payment

The completed work as measured will be paid for at the contract unit price for the following pay item(s).

Pay Item	Pay Unit
Dr Structure, 48 inch dia, Modified	Each
Combined Sewer Manhole, 48 inch dia	Each
Combined Sewer Manhole, 60 inch dia	Each
Sewer, _ inch, SDR-26	Foot

Dr Structure, __ inch dia, Modified will be measured and paid for at the contract unit price each which shall be payment in full for all labor, material, rubber seals, excavation, backfill, boots, additional depth of structure, grade rings, and equipment needed to accomplish this work.

Sewer, _ inch, SDR-26 will be measured in place by length in feet and will be paid for at the contract unit price per foot which price shall be payment in full for any fittings such as Fernco or Mission Rubber or approved equal, connecting to existing sewers, neoprene gaskets, couplers, sheeting or shoring trench walls, backfill as required and all labor, material, and equipment needed to accomplish this work.

Dewatering operations, trench, and or pipe associated with alterations to the municipal combined sewer system will not be paid for separately but will be included in the contract unit prices bid for other related contract items.

Temporary pumping of sanitary flow associated with alterations to the municipal combined sewer system will not be paid for separately but will be included in the contract unit prices bid for other related contract items. This includes providing all pumping equipment, pipes, shoring, warning signs, traffic control, and any other related items of work and materials to accomplish this work.

Any existing sewer leads that are less than 12 inches in diameter and are not to be reconstructed or reconnected will be bulk headed and will be included in the contract unit prices for other related contract items.

Removal of existing combined sewer system manholes and catch basins will be paid for as **Dr Structure, Rem.**

CITY OF SAGINAW

SPECIAL PROVISION
FOR
ALTERATIONS TO THE MUNICIPAL WATER SYSTEM

COS:Fishbeck **1** of **20** April 2026

Description

This work shall consist of installing water main, fittings, hydrants, valves, water services, and appurtenances of the nominal diameter shown on the plans. This work includes the furnishing of all labor, equipment, and materials required for excavation, installation, restraint, testing, disinfection, and backfilling as shown on the plans and specified herein and in accordance with American Water Works Association (AWWA), Michigan Department of Environment, Great Lakes, and Energy (EGLE), and City of Saginaw Standard Requirements. Any change or deviation from the plans must be approved in writing by the Engineer.

The work also includes removal of existing water mains and appurtenances as called for on the plans. All removed materials which the City of Saginaw does not designate for salvage, shall become the property of the Contractor and shall be, disposed of as specified in subsection 205.03.P of the Standard Specifications for Construction.

All removed valves and hydrants will be salvaged and returned to the City of Saginaw.

Material

The Contractor shall furnish all pipe materials required for the contract. All materials shall meet the requirements of MDOT, AWWA, EGLE, and the municipality, as specified, and the January 2014 Lead Free Requirements of the Safe Drinking Water Act. Products manufactured in the State of Michigan shall be used when at all possible. When multiple products have similar performance, price, and other characteristics, the Michigan product shall be selected. If Michigan products are not available, products manufactured in the United States of America must be used. All materials must comply with the Build America, Buy America requirements. All materials supplied for this project shall be manufactured within at least two years of the construction start date unless otherwise approved by the Engineer.

1) Water Main.

All water main 16 inches or larger shall be ductile iron pipe.

Unless specifically called for on the plans, all water main 12 inches and smaller may be either ductile iron pipe or Polyvinyl Chloride (PVC) C909.

a) Ductile Iron.

   i) The ductile iron pipe shall be manufactured in accordance with ASTM Specification A-339, pipe Class 52 or Pressure Class 350, of the sizes shown on the plans.

   ii) All pipe shall be lined with a standard thickness cement mortar lining sealed with a bituminous seal coat in accordance with AWWA Specification C104 (ANSI A21.4), unless otherwise specified.

   iii) The outside of the pipe shall be coated with standard bituminous seal.

   iv) The metal thickness class, net weight of the pipe without lining, the nominal size, and the manufacturer's identifying symbol shall be clearly marked on each length of pipe.

v) All ductile iron pipe shall be wrapped in polyethylene in accordance with ANSI/AWWA C105/A21.5.
vi) The joint for the pipe shall be push-on or mechanical joint with a compressed rubber gasket seal such as Bell-Tite, or Tyton.
vii) All joints shall be fitted with wedges.
viii) Material, number, and installation shall be per manufacturer's recommendation.
ix) In areas where non-hazardous contaminated soil is suspected, ductile iron pipe with Nitrile gaskets and poly wrap shall be used.

b) PVC.
i) PVC pipe shall meet the requirements of ANSI/AWWA C909.
ii) Pipe shall have a ratio of diameter to wall thickness (DR) of 18, unless noted otherwise on the plans or on the proposal.
iii) Pipe shall meet both ANSI/NSF Standard 61 and ANSI/NSF Standard 14.
iv) Pipe shall be marked with "NSF PW" or otherwise indicate it meets NSF 14 and 61.
v) The pipe manufacturer and class shall be marked on each length of pipe.
vi) Joints for pipe shall be push-on type with elastomeric gaskets meeting the requirements of ASTM D3139.
vii) All PVC pipe shall come with a 50-year manufacturer's warrantee.

c) Fittings and plugs.
i) Fittings and Plugs shall meet all applicable requirements of AWWA C153 (ANSIA21.53) specifications.
ii) Cement mortar linings for fittings shall be in accordance with AWWA C104.
iii) The joint for the fittings shall be mechanical joint with elastomeric gasket in accordance with ASTM D3139 and ASTM F477.

d) All directionally bored ductile iron pipe shall be Flex Ring restrained joint pipe as manufactured by American or Engineer approved equal.

e) All directionally bored PVC pipe shall be Certa–LoK restrained joint pipe as manufactured by CertainTeed or Engineer approved equal.

2) Water Service Piping and Appurtenances.

a) The water service piping shall be copper tubing, Type K, annealed, in accordance with ASTM B88.

b) The size of tubing shall match the existing size of the water service being replaced.

c) The fittings shall conform to ASTM B16.26, cast bronze.

d) The joints of the copper tubing shall be flared.

3) Gate Valves.

Gate Valves shall be manufactured by Mueller, East Jordan, Clow, or equal. All valves up to 24 inches, for use in water distribution systems, shall be resilient seat, single wedge valves. The valves shall be in accordance with AWWA Specification C509 and shall also meet any supplemental requirements or specifications of the municipality. Valves used on this project shall have mechanical joints.

a) The valves shall be manually operated with non-rising stems, iron body, bronze trim, and be furnished with a standard AWWA 2-inch square-operating nut.

i) The wrench nut shall turn right (clockwise) to open and shall be indicated by an arrow cast on the operating nut skirt.

b) Valve stem risers are required for depths greater than 6½ feet.

4) Butterfly Valves.

Butterfly Valves shall be manufactured by Mueller, Dezurik, Henry Pratt, or equal. All valves 24 inches and greater, for use in water distribution systems, shall meet the full requirements of the AWWA Standard for rubber-seated Butterfly Valves, AWWA Specification C504, CL150B, Direct Bury.

a) The valve shall be for distribution and transmission systems with operators complete and sealed for direct buried use in ordinary line position.

b) The valve shall be the short body type.

c) The shaft seal shall be O-Ring and be furnished with a standard AWWA 2-inch square operating nut.

i) The wrench nut shall turn right (clockwise) to open and shall be indicated by an arrow case on the operating nut skirt.

d) All valves shall be tested in accordance with Section 5.2 of the AWWA C504.

i) The manufacturer shall furnish an affidavit that the valve purchased complies with all applicable provisions of the standard and shall furnish test records as specified under Section 5.2 of this standard.

e) Valve stem risers are required for valves on water main deeper than 8 feet.

i) Valve stem risers shall be made of 1½ inch solid steel with 2-inch square operating nut, include a centering collar, and installed per municipality standards.

5) Valve Boxes.

Valve boxes shall be manufactured by Mueller, East Jordan, or equal.

a) The valve box shall be cast iron, 5½ inch diameter, and three-piece adjustable screw type.

b) Valve box extensions are required for depths greater than 6½ feet.

c) No. 6 round bases are required for gate valves up to 8 inches in diameter and No. 160 oval bases for gate valves 10 inches and greater.

d) The box covers shall be stamped “water”.

6) Corporation Stops and Saddles.

a) For Class 52 D.I. pipe, any taps less than or equal to 2 inches shall be Ford Model #F-600-3 or approved equal.

b) For Pressure Class 350 D.I. pipe, any taps greater than ¾-inch and less than or equal to 2 inches shall be Style 202B Double Strap Saddles as manufactured by Ford Brass or approved equal.

c) For PVC C909 and asbestos cement pipe, any taps less than or equal to 2 inches shall be Style 202BS double band saddles as manufactured by Ford Brass or approved equal.

7) Curb Stop and Box.

Curb Stops shall be manufactured by Ford, Model #Z-22-333.

a) Curb Stops shall be 5½ feet deep.

b) Curb Stop Boxes shall be the standard Buffalo patterns and all parts of the same, including extension sections, shall be interchangeable and fit up with corresponding parts of other standard Buffalo pattern boxes.

c) The internal diameter of the base shaft shall be 2½ inches for ¾-inch and 1-inch curb stop.

d) The boxes shall be cast iron, suitable coated to resist corrosion, and the casting shall be smooth and free of any imperfections.

e) The covers shall overlap and fit outside the rim of the upper section, and they shall have a horseshoe-shaped groove in them to receive the bolt head and the word “water” embossed on the top surface.

f) All boxes shall be Tyler 6500 (2½ inch Boxes) Series.

g) Curb Stops and Boxes shall be in accordance with municipality standards.

8) Meter Pit.

a) For meters 1½ inches or smaller, the pit shall be manufactured by Hancor, Model #MP-NL1-0004.

b) For 2-inch meters, the pit shall be manufactured by Carson Industries, Model #2436 or equal.

c) Cover for the 2-inch meter box shall be a polymer concrete flush cover with cast iron reader door as manufactured by Carson Industries or equal.

9) Meter Isolation Valve.

a) All water service fittings shall be fabricated of brass and shall be lead free.

b) Valves up to 2 inches, for use in residential dwellings, shall be non-rising stem gate valve type with NPT connections.

10) Fire Hydrants.

Fire hydrants shall be in accordance with the municipality standard and shall conform to AWWA C502 for dry-barrel fire hydrant traffic model or traffic flange type and 150-pound working pressure, compression type, and opening with the line pressure with mechanical joints.

a) Fire hydrants shall be bronze mounted throughout with no iron-to-iron or steel contacts or threads. The operating stem in the base and valve seat shall be bronze.

b) All iron parts shall be of high strength grey iron conforming ASTM Designation A126 Class B

c) Fire hydrants shall have a 6-inch valve opening with a 6-inch mechanical joint inlet.

d) The minimum inside dimension shall be 8 inches.

e) The operating nut shall turn to the right to open and have a weather shield.

i) The opening direction shall be plainly marked with an arrow near the operating nut showing the opening direction.

ii) The operating nuts and nut nozzle caps shall be square and slightly tapered; and it shall be 15/16-inch at its base and 13/16-inch square at its end and 1-1/8-inch long.

f) Fire hydrants shall be completely assembled at the factory with the drain opening sealed with a threaded plug.

g) Provide two fire hose connections and one pumper connection with national standard threads in accordance with municipal standards.

h) All nozzles shall be on a movable head on the hydrant barrel so that they may be rotated by changing the position of the top flange without removing the barrel.

i) Provide a Spring Cap Style McGard Fire Hydrant Lock for hydrant.

j) Provide proper length for installation in a water main depth of 6 feet or as indicated on the drawings.

k) All fire hydrants shall have a concrete collar around the lower barrel, 12 inches below the ground line with 1-inch of expansion joint material between the hydrant barrel and collar, as shown on the plans and as directed by the Engineer.

i) The collar shall be 6 inches thick with a diameter of at least 24 inches.

ii) Diameter will be as wide as necessary to reach undisturbed earth.

iii) Collars shall be formed using grade S1 concrete.

iv) Fire hydrants shall be tested to 300 pounds hydrostatic pressure from inlet side with valve in both open and closed position.

l) Fire hydrants shall be painted red above the grade line conforming to the city standards and black below the grade line.

m) Fire hydrants shall be designed so one man can easily remove or replace the working parts without removing the main valve seat.

n) Fire hydrants shall be flagged per city specifications.

11) Gaskets.

All water main gaskets shall meet the requirements of ANSI/AWWA C111/A21.11. For soils contaminated with volatile organic compounds, as determined in the field by the Engineer, use nitrile gaskets.

12) Repair Clamps.

For ductile iron, PVC, and asbestos, cement pipe shall be either model 226 full circle repair clamp manufactured by Smith Blair or the Ford F Style repair clamp.

13) Thrust Blocks.

Concrete shall be grade 4000 in accordance with section 1004 of the Standard Specifications for Construction. The coarse aggregate shall be MDOT aggregate Class 6AA. The thrust blocks shall be placed in accordance with the water main detail sheet and in addition to joint restraints.

14) Joint Restraints.

a) Manufacturer: MEGALUG by EBAA Iron or approved equal.

i) Series 1100 for mechanical joints restraints on ductile iron pipe.

ii) Series 1700 for push joint/bell restraints on ductile iron pipe.

iii) Series 19MJ00 for Mechanical joints restraints on C909 PVC pipe.

iv) Series 1900 for push joint/bell restraints on C909 PVC pipe.

b) Restrain all mechanical joints with retainer glands.

i) Restrain all joints within length(s) according to restraint schedule as determined using EBAA Iron Restraint Length Calculator.

c) Restrain hydrants, tees, valves etc. according to the manufacturer's requirements for application soil type, trench detail, test pressure of 150 psi, safety factor of 2 and depth of bury.

d) Mechanical joint restraint shall be incorporated into the design of the follower gland.

i) The restraint mechanism shall consist of plurality of individually actuated gripping

surfaces to maximize restraint capability.

ii) Glands shall be manufactured of ductile iron conforming to ASTM A536-80.

iii) The gland shall be such that it can replace the standardized mechanical joint gland and can be used with the standardized mechanical joint bell conforming to ANSI/AWWA C111/A21.11 and ANSI/AWWA C153/A21.53 of latest version.

(1) Twist off nuts, sized same as tee-head bolts, shall be used to ensure proper actuating of restraining devices.

iv) The restraining glands shall have a pressure rating equal to that of the pipe on which it is used.

v) The restraining glands shall have been tested to ASTM F1674-96, be listed by Underwriters Laboratories, and be approved by Factory Mutual.

vi) The restraint shall be MegaLug, as manufactured by EBAA iron or approved equal.

e) Ductile iron pipe restraint shall consist of a wedge action restraint ring on the spigot joined to a ductile iron follower gland behind that bell.

i) The restraint ring shall have individually actuated wedges that increase their resistance to pullout as pressure or external forces increase.

ii) The restraint ring and its wedging components shall be made of a minimum grade of 60-42-10 ductile iron conforming to ASTM A536.

iii) The wedges shall be heat-treated to a minimum hardness of 370 BHN.

iv) Torque limiting twist off nuts shall be used to ensure proper actuation of the restraining wedges.

v) The follower gland shall be made of a minimum grade of 60-42-10 ductile iron conforming to ASTM A536.

vi) The connecting tie rods that join the two rings shall be made of low alloy steel that conforms to ANSI/AWWA C111/A21.11.

vii) The assembly shall have a rated pressure, with a minimum two to one safety factor, of 350 psi in sizes 16-inch and below and 250 psi in the sized 18-inch through 36-inch.

viii) The product shall be the Series 1700 MegaLug restraint harness manufactured by EBAA Iron or approved equal.

f) Submit to Engineer product information and restraint schedule showing locations of use.

15) Corrosion Protective Material.

a) The corrosion protective material shall be applied to all buried nuts, bolts, threaded rod, shall be manufactured by the following:

i) San Chem Inc., product: NO-OXG-GG-2

ii) Coronado Paint product: coal tar epoxy, 10 mil (DMT)

iii) Or Approved Equal

b) Ductile iron pipe, bends, tees, crosses, fittings, and fire hydrants assemblies shall be double wrapped in candy cane pattern to within 1 foot of finished grade with polyethylene encasement.

i) Use 8 mil low-density polyethylene film or 4 mil high density polyethylene film

conforming to ASTM C105/A21.5.

ii) The wrap shall be secured during the backfill operation.

16) Tracer Wire.

a) The tracer wire shall be polyethylene coated steel core copper wire, manufactured by the following:

i) Copperhead Industries, LLC, product: Copperhead Reinforced Tracer Wire

ii) Or Approved Equal

b) The use of solid copper tracer wire will not be allowed.

c) Tracer wire connectors must contain a dielectric waterproof and corrosion proof sealant, lock shut and be color coded blue.

i) Approved manufacturer is Copperhead Industries, LLC, SnakeBite Corrosion Proof Wire Connectors

d) Tracer wire must be attached to all PVC pipe by the use of tape or other approved means.

17) Tracer Wire Box.

a) Tracer wire boxes shall be magnetized, provide a direct connection to tracer wire without removing the cover, be color coded and have a locking cover, such as the SnakePit Magnetized Tracer Box manufactured by Copperhead Industries, LLC.

b) Tracer wire boxes will be installed at every fire hydrant when main line PVC pipe is installed or other PVC water pipe endpoint.

18) Backfill Material.

a) The backfill material shall be in accordance with the Standard Specifications for Construction and Standard Plan R-83 series.

19) Air Reliefs.

Air Reliefs shall be furnished by the Contractor where required to allow for proper air relief, disinfection and sampling. They shall include the tapped hole, brass plug, corporation, copper pipe, and any other fittings required to accomplish this work. All air reliefs shall be placed as directed by the Engineer.

a) The cost for air reliefs shall be included in the pay item for Water Main, __inch, Tr Det__, Modified.

20) Disinfectant.

a) Use NSF Chlorine per AWWA Standards.

21) Welded Steel Pipe Sleeve.

a) Welded steel pipe sleeve shall meet requirements of ASTM, A53, Type S, Grade B.

22) Stainless Steel Repair Clamps.

a) The repair clamps shall be full circle gray coated stainless steel of the appropriate size for the main to be repaired and manufactured by the following:

i) Ford

ii) Romac Industries, Inc

iii) Smith-Blair

iv) Or Approved Equal

Construction

The Contractor shall install all pipe materials, required for the contract, according to MDOT, AWWA, EGLE, and the municipality standards.

1) Connection to Existing Water Main.
   a) The Contractor shall not make any connections to the public water distribution system until the new water main has been pressure tested, chlorinated, and laboratory tests show satisfactory results in accordance with EGLE Standards for safe drinking water.
   b) The Contractor shall locate the existing water main prior to construction of the proposed water main and shall furnish and install the necessary fittings, including tees, bends, crosses, cutting-in-sleeves, pipe and/or adaptors to complete the connection.
   c) The Contractor shall connect the proposed water main to the existing water main as shown on the plans or as directed by the Engineer.
   d) The Contractor shall connect the proposed water main to the existing water main in a continuous effort to complete the work.
      i) Once the existing water main has been disconnected (or shutdown), the Contractor shall not leave the work site until the connection is complete and the system is placed back into service and approved by the Engineer.
   e) The Contractor shall handle Asbestos Cement pipe removal and disposal following the applicable MIOSHA Standards.

2) Water Main Shutdowns.
   a) The Contractor shall schedule all water main shutdowns with the City of Saginaw a minimum of 48 hours prior to shutdown.
   b) The Contractor is responsible for all de-watering including dewatering if the City of Saginaw is unable to obtain complete shutdown due to age or deterioration of existing valves.
   c) The Contractor shall, under no circumstances, operate any City of Saginaw valves.
   d) Once a shutdown has taken place, the Contractor shall not leave the work site until the system is placed back into service and approved by the Engineer.

3) Crossing Existing Utilities.
   a) The locations of existing utilities are shown in accordance with available data.
      i) The Contractor shall expose all existing utilities prior to construction to verify location and elevation and immediately notify the Engineer of any conflicts.
   b) Where existing utilities cross the open-cut trench, compacted sand backfill shall be required to bed the utility crossing.
      i) The sand backfill shall extend to 4 inches above the top of the pipe or conduit, which is being supported.
      ii) In addition to the sand backfill, it may be necessary to support the utility crossing with a 6-inch by 6-inch timber supported on each end on solid earth at both sides of the trench.
      iii) When supporting pipes with collars or bell joints, the timber shall be placed 3 inches below such collars or bells and the barrel of the pipe supported with hardwood blocking at 3-foot centers.

c) Cost of sand backfill shall be included in the pay item for **Water Main, __inch, Tr Det__, Modified**.

4) Separation of Water Mains and Sewers.

a) The Contractor shall follow ELGE Standards for separation of sewers and water distribution systems.

b) For parallel installations, water mains shall be at least 10 feet horizontally from sewers.

i) The distance shall be measured edge-to-edge.

c) For crossings, the water mains and sewers shall be separated at least 18 inches from the outside of the water line to the outside of the sewer.

i) The maximum separation of the water main and sewer joints shall be maintained.

d) The reviewing authority shall approve any deviations from these requirements.

5) Abandoning Pipe.

a) Where excavation and installation require removal of abandoned pipe, pipe which is to be abandoned, and its appurtenances, (i.e. steam lines, abandoned water, gas, electrical conduit, duct, concrete encasement, valves and structures, etc.) such pipe and appurtenances shall be bulk headed, removed, and disposed of by the Contractor without extra compensation.

b) If, in the judgment of the Engineer, the abandoned pipe may be left in place and is greater than 8 inches in diameter, the ends of the abandoned pipe shall be blocked with concrete and the pipe filled with flowable fill.

c) Prior to removing and/or working near abandoned gas main and electrical conduits or ducts, the Contractor shall coordinate with Consumers Energy to confirm that suspected abandoned utilities are actually abandoned and are no longer in service.

6) Disposal

a) All waste material shall be disposed of as specified under section 204 of the Standard Specifications for Construction.

7) Disposal of Flushing Water.

a) Contractor is responsible for de-chlorinating flushing water to the requirements of PA 451.

b) The Contractor shall provide outlets to existing drainage for flushing purposes.

8) Water Cost.

a) The Contractor shall pay the City of Saginaw for all water used during construction, including water main breaks and water necessary for testing, cleaning, and chlorinating water mains.

i) The actual volume of water used shall be determined by the Engineer.

ii) The rate of pay for all water used shall be at the current rate per 100 gallons.

b) The water necessary to fill the volume of the water main at the completion of the project shall be paid by the City of Saginaw.

9) Maintaining Water Service.

a) The Contractor shall coordinate any proposed interruptions in the existing water system with both the City of Saginaw and the Engineer.

b) If any portions of the existing water mains cannot remain in service due to construction of

the proposed water mains, the Contractor shall extend a temporary 1¼ inch polyethylene service to each customer affected by the outage.

i) The cost of these temporary connections, if required, shall be included in all other items of the Contract.

c) Services shall be reconnected to the existing water main.

10) Installing Pipe, Fittings, and Accessories.

a) Install pipe, fittings and accessories in accordance with manufacturer's instructions.

b) Install to the line and elevations shown on the drawings.

i) Water main shall have a minimum cover of 6 feet from proposed finish grade, unless shown otherwise on the drawings or directed by the Engineer.

ii) Maintain an 18-inch vertical separation between proposed water main and existing utilities.

c) Where pipe is to be installed with less than the minimum required cover, 4-inch rigid foam insulation shall be placed directly over the watermain for the width of the trench.

i) The insulation shall be placed on a level compacted sand base for support.

d) Water main trenches shall be in accordance with Standard Plan R-83 series in the Standard Specifications for Construction.

e) Restrain pipe and fittings as detailed on the drawings, or as described in the special provisions.

11) Installing Fire Hydrants.

a) Install in accordance with manufacturer's instructions.

i) Set at plan location and grade as directed by the Engineer.

ii) Set hydrant plumb on a concrete block according to the water main detail sheet.

iii) In addition to blocking, restrain hydrants with two ¾-inch threaded rods, anchored to concrete block, welded steel pipe sleeve, or joint collars.

b) Install collar per the fire hydrant manufacturer’s recommendations, industry standards, and as directed by the Engineer.

i) Install collar to a width necessary to meet undisturbed earth, with a minimum width of 24 inches.

c) Duc-Lugs and/or Eye Bolts, as manufactured by Continental Eastern, Romac Industries, or equal, may be used with rods as a means of restraint.

d) The hydrant may be rotated up to 180 degrees as shown on the plans or as directed by the Engineer.

e) Obtain approval of the Engineer prior to backfilling trench.

f) Backfill hydrant according to the Water Main Detail Sheet and in accordance with the Standard Plan R-83-C, Utility Trenches.

12) Installing Gate Valves and Butterfly Valves.

a) Install in accordance with manufacturer's instructions.

i) Tighten nuts on valve body.

ii) Set valves plumb on a concrete block according to the water main detail sheet.

b) Verify and document set points and number of turns between fully closed position and fully

open position are within manufacturer's tolerances for each gate valve installed.

c) Leave valves in the open position except for the valves that connect to the existing water main.

d) Obtain approval of the Engineer prior to backfilling trench.

e) Backfill hydrant according to the Water Main Detail Sheet and in accordance with the Standard Plan R-83-C, Utility Trenches.

13) Installing Valve Boxes.

a) Set base on MDOT 6A, compacted crushed limestone, material a minimum of 2 inches above the flange on the valve dome and centered over the operating nut.

b) Set valve box plumb and centered over the valve-operating nut.

c) Adjust the top of the valve box to match proposed finish grade.

i) Install extensions for trench depth greater than 6½ feet.

ii) Valve box extensions shall be included in the pay item for Gate Valve and Box, __inch, Modified.

d) In pavement areas, adjust to the final elevation prior to placement of the final course of pavement.

14) Installing Water Servies and Water Services, Long.

a) Installation of Water Services and Water Services, Long must be done in accordance with ANSI/AWWA C810-17 (First Edition), Replacement and Flushing of Lead Service Lines.

b) Water services shall include double strap saddles, corporations, copper tubing Type K, flared joints, and all other material for complete operation.

c) This work shall not begin until the proposed main has been tested, disinfected, accepted by the Engineer and is in operation.

d) Water services larger than 2 inches in diameter are considered water mains insofar as this contract is concerned.

e) Open cut services shall pass visual inspection by the Engineer, under system pressure prior to backfilling.

f) Backfill the water service trenches with granular material Class II.

g) Water Serv, Long shall be defined as any service greater than 30 feet in length as measured along the centerline of the service from the centerline of the proposed water main to the road right-of-way.

h) Water services shall be installed in an open-cut method unless approved by the Engineer.

i) When a service bore will cross an existing water main, a sight hole must be excavated sufficient in size for the Engineer to visually verify the bore will clear the existing main.

j) Water Serv, Long shall be installed utilizing an approved bore method unless an open cut method is approved by the Engineer.

k) Water services installed using a bore method greater than 10 feet shall be tested at 75 PSI for a minimum of 15 minutes as witnessed by the Engineer prior to backfilling connection points.

l) Existing curb stops and boxes requiring removal for the installation of a new curb stop and box will not be paid for separately but shall be included in the pay item Curb Stop and Box.

m) Curb stop boxes shall be installed with 5½ feet cover.

i) Precautions shall be made to ensure the curb stop box is no less and no greater than 5½ feet deep.

15) Installing New Water Services from Curb Stop to Private Residence or Businesses.

a) The installation of new water services from curb stop to private residence must be done in accordance with ANSI/AWWA C810-17 (First Edition) Replacement and Flushing of Lead Service Lines.

b) Contractor to install private water services utilizing open-cut or bored method.

c) Open-cut private services shall pass visual inspection by the Engineer, under system pressure prior to backfilling.

d) Private services installed using a bore method greater than 10-feet shall be tested at 75 PSI for minimum of 15 minutes as witnessed by the Engineer prior to backfilling connection points.

e) The Engineer shall make the final determination of where the new service shall enter the dwelling.

f) Services shall enter a dwelling at a minimum depth of 5½ feet below existing grade.

g) New service shall match size shown on plans unless otherwise directed by Engineer. Minimum service size shall be ¾-inch.

h) Contractor shall be responsible for protecting private landscaping and plantings.

i) Any landscaping or plantings disturbed by the Contractor shall be replaced at the Contractor's expense.

16) Valve Box, Remove and Water Shutoff, Remove

a) Valve Box, Remove and Water Shutoff, Remove shall include removal of the top section of the box, closing of the exiting valve completely and backfilling the box.

17) Transition/Connection Fittings.

a) Transition/ connections fittings shall be hand chlorinated prior to installation.

18) Hydrostatic Testing.

Hydrostatic Test for Water Main Pipe 20-inch and Smaller.

a) Perform after entire water main or a section between two valves has been installed and has passed the visual leakage test.

b) Length of water main tested between two valves shall be the length of the entire water main, or a maximum distance of 5,280 feet.

c) Fill pipe slowly, expelling all air.

d) Pressurize pipe as indicated under total pressure, on the table below, and maintain for 15 minutes.

Pipe Size	Oper. Press.		Water Hammer		Total Pressure, Oper. Water & Hammer		Total Internal Design Pressure (Safety Factor Included)	
	Psi	kPa	Psi	kPa	Psi	kPa	Psi	kPa
6”-10"	60	4.4	120	830	180	1240	450	3100
12”-14"	60	4.4	110	760	170	1170	425	2930
16”-18"	60	4.4	100	690	160	1100	400	2760
20"	60	4.4	90	620	150	1035	375	2585
24"	60	4.4	85	590	145	1000	363	2500
30"	60	4.4	80	550	140	965	350	2415
36"	60	4.4	75	520	135	930	338	2330
42”-60"	60	4.4	70	480	130	900	325	2240

e) Reduce pressure to 150 psi and maintain for two hours.

   i) Add water to maintain pressure to within + 1 psi of 150 psi.

   ii) If at any time the test pressure drops so fast that water cannot be added quickly enough to maintain the pressure to within 5 psi of 150 psi, the hydrostatic test is considered to have failed, and the test started over.

f) The amount of water added to maintain test pressure to within 5 psi of 150 psi shall be defined as the make-up water.

g) The hydrostatic test will be considered to have failed and the pipe installation shall not be accepted if the make-up water measured exceeds the testing allowance calculated per AWWA C600-05 and as follows:

   In inch-pound units,

$$L = \frac{SD\sqrt{P}}{148{,}000}$$

   Where:
   L = Testing Allowance, in gallons per hour
   S = Length of Pipe Tested, in feet
   D = Nominal Diameter of the Pipe, in inches
   P = Average Test Pressure During the Hydrostatic Test, in pounds per square inch (gauge)

h) Read line pressure on a 4-inch diameter gauge with a snubber and a range of 0 to 200 psi in 2 psi increments.

i) Measure make-up water added to the pipe with a tested water meter connected to the water supply line.

j) For short sections of pipe, water may be added through a sterilized container and the amount calculated by direct measurement.

k) Find and repair leaks.

l) Flush pipe with potable water.

m) Procedure for testing water main 20 inches in diameter and larger shall be the same as required for water mains less than 20 inches in diameter except that the 15-minute hydrostatic test will not be required for pipe in this size range.

19) Visual Leakage Test.
   a) When directed by the Engineer, a visual leakage test may be performed in lieu of a pressure leakage test.
   b) Place sufficient backfill to prevent pipe from buckling or shifting.
   c) Joints remain exposed.
   d) Restraints are installed.
   e) Place and block test plug at the end of the pipe.
   f) Fill pipe slowly with water expelling all air.
   g) Increase water pressure to equal pressure from existing supply water main.
   h) Visually inspect joints for leakage.
   i) Repair leaks and repeat test.
   j) Backfill after successful completion of test.

20) Disinfection.
   a) Disinfection procedure shall be in accordance with AWWA Standard C651, latest revision, Continuous-Feed Method.
   b) Verify that the water main is complete, flushed, and clean.
   c) Inject disinfectant, NSF chlorine solution per AWWA Standards, through a corporation cock inserted in the horizontal axis of the water main.
   d) Inject disinfectant at the beginning of the pipeline or a valved section.
   e) Slowly fill the line with potable water from the existing distribution line, as approved by the Engineer.
   f) Bleed water from a valve at the end of the line to ensure distribution and prevent pressure build up in excess of 138 kPa (20 psi).
   g) Inject disinfectant, chlorine solution, to obtain a concentration of 50 parts per million.
   h) Chlorine residual will be checked to insure a minimum of 50 ppm solution, using a method as approved by the Engineer.
   i) Maintain disinfectant in pipeline for 24 hours.
      i) All valves in the disinfected section of pipe must be turned during the 24-hour time period. Free chlorine residual after 24 hours shall be not less than 10 ppm.
      ii) The testing method used to verify the amount of free chlorine residual shall be approved by the Engineer.
   j) Flush disinfectant from pipeline until chlorine level leaving the pipe is not higher than normal chlorine residual in the City of Saginaw water distribution system.
      i) Contractor shall be responsible for dechlorinating flushing water to the requirements of PA 451.
   k) The Contractor, with assistance from the Engineer, will obtain samples for laboratory tests, which will be analyzed at the City of Saginaw Water Treatment Plant Certified Laboratory.
      i) Samples will be taken after flushing the disinfectant from the pipeline in accordance with AWWA requirements.
      ii) Samples must be taken so that the testing and lab analysis can be done during normal business hours (8 a.m. to 4 p.m., Monday through Friday).
      iii) Care shall be taken with bottles, sample collection, and transportation to ensure proper technique is followed.
      iv) The number of fittings in the apparatus or blow-off used to obtain the samples should be

minimized to reduce the possibility of contamination.

l) Do not place the water main into service until laboratory tests show satisfactory results in accordance with EGLE and City of Saginaw standards for safe drinking water, as indicated in this special provision.

i) City of Saginaw standards for safe drinking water require that coliform testing by membrane filtration display a lack of coliform bacteria and lack of atypical bacteria.

ii) City of Saginaw standards for safe drinking water also require that the Heterotrophic Plate Count (HPC) shall be </= 50 cfu/1mL to display the water quality is reasonably equal to the potable supply.

iii) HPC requires 48 hours for each sample taken before results are known.

m) Repeat the complete disinfection process if laboratory results do not meet the EGLE Standards for safe drinking water, and the requirements in this special provision.

n) Replace corporation cocks with brass plugs when the disinfection process is complete and water is determined safe for drinking and meets EGLE and City of Saginaw Standards.

o) The use of chlorine pills or tablets placed in the pipe during construction for use in the disinfection process is prohibited.

p) Results of bacteriological sampling to determine if the new water main can be placed into service may take seven to ten days to receive.

21) Continuity Testing.

a) Ductile iron pipe and fittings (except flanged pipe) shall be provided with metallic wedges at each joint to provide metal-to-metal contact at the joint to allow an electric current to flow through the joint for location, locating and cathodic protection.

b) The system (pipeline and hydrants) shall be tested for electrical continuity and current capacity.

c) Perform the electrical test after the hydrostatic pressure test, before services are connected and while the line is at normal operating pressure.

d) The line may be tested in sections of convenient length as approved by the Engineer.

e) Pass a direct current of 400 amperes ± 10 percent through the system for five minutes.

f) Continuously measure current flow through the pipe on a suitable ammeter while maintaining a steady current without interruption or excessive fluctuation throughout the five- minute test period.

g) Insufficient current or intermittent current or arcing, indicated by large fluctuation of the ammeter needle, shall be evidence of defective electrical contact in the pipeline.

h) Isolate and correct the cause of the deficiency.

i) After correction, retest the section in which the defective test occurred.

22) Boring, Jacking, or Tunneling installation with Pipe Sleeve.

a) Construct and maintain jacking/boring pits as required.

i) Adequately clear site required for pits as needed to perform the work.

ii) Size pits for boring machine, frames, reaction blocks, minimum two sections of pipe, and with sufficient room for working.

iii) Provide steel safety ladder.

iv) Locate pits such that no damage occurs to trees, poles (not specified for removal), or

structures in the immediate area.

b) Construct pits with sheeting and bracing as required for proper support in accordance with OSHA standards and as needed to sufficiently support reaction blocks.

   i) Place crushed rock or approved bedding to sufficiently support equipment and protect pit floor.

c) Employ guide timbers and rails for maintaining pipe line and grade.

d) Push utility pipe through the bored opening leaving minimum annular space.

e) A pushing or jacking frame shall be built and furnished to fit or match the end of the pipe to be jacked so that the pressure of the jacks will be evenly distributed over the end of the pipe.

f) The hydraulic jacks shall have sufficient power to apply a smooth and even pressure to move the pipe in place.

   i) Hammering or ramming the pipe will not be allowed.

g) The pipe shall be jacked upgrade where possible.

h) The excavation shall be done within the inside of the pipe and shall not exceed 12 inches ahead of the pipe being jacked in place.

i) After each pipe section is in place, the pipe shall be checked for correct grade and line.

   i) Pipe not meeting the correct grade and line shall be rejected and replaced.

j) Excavation shall be done within the inside of the pipe sleeve not to exceed 6 inches ahead of the sleeve.

k) Excavation at the top and sides may be approximately 1-inch greater than the outside periphery of the pipe.

l) The bottom of the excavation shall be accurately cut to line and grade.

m) After the pipe sleeve has been jacked and augured, it shall be checked by pouring water through the pipe.

   i) Pipe sleeve not meeting the line and grade requirements shall be rejected.

n) The water main pipe shall be pushed in the pipe sleeve, supported on a minimum of three each 1-inch by 2-inch (minimum) hardwood continuous slats banded to the utility pipe.

   i) The banding shall be 5/8-inch stainless steel.

o) The annular spaces at the ends of the pipe sleeve shall be sealed with MI Rafi Filter Fabric and held in place with 6A stone.

p) Additional footage of pipe installed by jacking and boring above what is shown on the plans and specifications shall not be paid.

   i) Extra footage will only be paid if authorized in writing by the Owner and the Engineer prior to installation.

23) Horizontal Directional Drilling Pipe.

a) The Contractor shall ensure a representative from the drilling Contractor, who is experienced with the equipment and boring procedures is on site at all times during the boring operation to address immediate concerns and emergency operations.

   i) Installation must not begin until the Engineer agrees that proper preparations have been made.

ii) Notify the Engineer at least two (2) work days prior to starting the work.

b) The directional bore shall begin with a pilot hole drilled along the proposed bore alignment.

i) Directional information shall be monitored and provided to the drilling operator using navigation equipment on the surface.

ii) A reverse drilling reamer shall be attached to expand the pilot hole to allow for the pipe installation.

iii) Bentonite slurry shall be pumped through the drill steel and mixed by the reamer to stabilize and lubricate the wall lining of the bore hole and to protect the pipe.

c) Instrumentation shall be provided and maintained to accurately locate the pilot hole and measure drilling fluid flow and pressure at all times.

d) Drilling fluids shall be contained within the drilling area and cleaned up within 48 hours following completion of pipe installation.

e) The Contractor shall ensure deflections in pipe are made by bending the pipe in accordance with the manufacturer's recommendations.

f) When a bored main will cross an existing water main, a sight hole must be excavated sufficient in size for the Engineer to visually verify the bore head will clear the existing main.

g) If the Contractor encounters an obstruction during boring that prevents completion of the installation in accordance with the design location and specification, the pipe may be abandoned and left in place with approval by the Engineer.

i) If the pipe is approved to be left in place, the Contractor shall immediately fill it with flowable fill and bulkhead the pipe.

ii) The Contractor shall submit a revised plan prior to begin another boring for approval by the Engineer.

iii) If damage is observed during construction, the Contractor shall cease all work until a plan to minimize further damage and for restoration is obtained and approved by the Engineer.

h) If conditions warrant removal of any materials installed in a failed bore path, as determined by the Engineer, it will be at no additional cost to the contract.

i) The Contractor shall restore any damage caused by heaving, settlement, escaping drilling fluid (frac-out) or the drilling setup and operation.

i) The Contractor shall ensure a frac-out contingency plan is provided and approved by the Engineer prior to starting the work.

j) The Contractor shall provide the Engineer a complete set of record (as-built) plans, showing all bores (successful and failed), within 30 calendar days of completing the work.

i) The Contractor shall ensure as-built plans include the locating equipment used; horizontal and vertical alignment with degree of accuracy, entry, and exit points; bore diameter; tracer wire termination locations; drilling fluid composition; and important subsurface features.

ii) The Contractor shall ensure the as-built plans are legibly drawn on project plan sheets or sheets developed by the boring Contractor.

iii) The Engineer will have 15 calendar days to review and approve the as-built plans.

24) Stainless Steel Repair Clamps at Existing Water Service.

a) Following construction of new service lead and connection to existing service at right-of-

way, remove existing corporation valve and saddle.

b) Coordinate with City of Saginaw staff to reduce main pressure prior to removal of existing corporation valve.

c) Dewater excavation area as necessary to ensure clear visual of repair area on main.

d) Place stainless steel repair clamp over existing tap area per manufacturer's requirements and place protective wrapping over affected area.

e) Coordinate with City of Saginaw staff to reinstate main pressure and perform a visual leak test of the repair clamp.

Measurement and Payment

The completed work as measured will be paid for at the contract unit price for the following pay item(s).

Pay Item	Pay Unit
Water Main, _ inch, Tr Det __, Modified	Foot
Gate Valve and Box, _ inch, Modified	Each
Hydrant, Complete, 6 inch	Each
Hydrant, Rem, Modified	Each
Connection to Existing _ inch Water Main	Each
Live Tap, __ inch by __ inch	Each
Water Serv, Modified	Each
Water Serv, Long, Modified	Each
Water Serv, Private	Each
Abandon Existing Water Main, In Place	Lump Sum

Water main of the sizes and trench detail specified, **Water Main, __ inch, Tr Det __**, **Modified**, will be measured in place per foot, along the centerline of the pipe, with no deductions for fittings. All water main pipe shall be placed utilizing a trench box to minimize the required trench width or as approved by the Engineer. The price shall include payment in full for furnishing all material, labor, and equipment required to perform the work specified herein and shown on the plans, including flushing and disinfecting the main, furnishing and installing all fittings, gaskets, wedges, insulation, bracing or sheeting, blocking, thrust blocks, air reliefs, tracer wire, tracer wire boxes, removal of existing abandoned utilities, and all other miscellaneous items necessary for the installation of pipe.

Payment for all material, labor and equipment necessary to remedy an unsatisfactory testing, including removing and replacing any backfill, shall be considered as included in the contract unit price for **Water Main, __ inch, Tr Det__, Modified**.

Temporary sewer services rerouted to avoid conflict with the proposed water main are included in the unit price for **Water Main, __ inch, Tr Det__, Modified**.

Dewatering operations, trench and or pipe, associated with Alterations to the Municipal Water System will not be paid for separately, but will be included in the contract unit prices bid for other related contract items.

The cost of excavation, disposal of excess material, and furnishing, placing, and compacting the backfill for the water main pipe and accessories will be considered as included in the contract unit price bid for other related contract items unless otherwise specified.

Removal of the existing water main within the influence of the roadway, as required to construct the proposed water main, shall be included in the lump sum price bid for **Abandon Existing Water Main, In Place** or other related contract items unless otherwise specified. Any cutting and capping necessary to abandon water main in place is included in **Abandon Existing Water Main, In Place**. Any existing gate valves to be abandoned in place shall have risers removed to a minimum depth of 18 inches below finished grade, the area backfilled, and will be included in lump sum price bid for **Abandon Existing Water Main, In Place**. All water mains larger than 8 inches abandoned in place require flowable fill backfill. Flowable fill is included in the pay item for **Abandon Existing Water Main, In Place**.

The removal of Valve Boxes and Water Shutoffs shall not be paid for separately but shall be considered included in the item **Abandon Existing Water Main, In Place**.

Gate Valve and Box, __ inch, Modified, includes gate valves and butterfly valves and boxes of the size and type specified will be measured and paid for at the contract unit price each, which shall be payment in full for all labor, material, valve stem risers, extensions, and equipment necessary to accomplish this work. Any costs to adjust boxes on new valves to final elevations, including pavement repairs per the City of Saginaw and MDOT details shall be included in the listed pay item and not paid for separately.

Live Tap, __ inch by __ inch, will be measured and paid for at the contract unit price each, which shall be payment in full for excavation, backfill, compaction, live tap of the water main, installation of the tapping sleeve, valve, and valve box, valve stem risers, extensions, and all labor, material, and equipment necessary to accomplish this work. Any costs to adjust boxes on new valves to final elevations, including pavement repairs per the City of Saginaw and MDOT details shall be included in the listed pay item and not paid for separately.

Hydrant, Complete, 6 inch will be paid for at the contract unit price each, which shall be payment in full for all labor, material, hydrant extensions, hydrant lock, hydrant valve, valve box, concrete collar, and equipment necessary to accomplish this work. A maximum of 20 feet of 6-inch pipe for the lead from the main shall be included in the listed pay item. Lengths in excess of 20 feet shall be paid for as Water Main, __ inch, Tr Det __.

Hydrant, Rem, Modified shall be measured and paid for at the contract unit price each, which price shall be payment in full for all labor, material, removal of bollards, removal of existing valve and delivery of existing hydrant and valve to the municipality storage yard and equipment necessary to accomplish this work.

Connection To Existing __ inch Water Main, as specified shall be measured and paid for at the contract unit price each for the size of the existing pipe being connected to, which shall be payment in full for all labor, material, backfill, excavation, solid sleeves, reducers, plugs, bends, all fittings and equipment necessary to accomplish this work. **Connection To Existing __ inch Water Main** shall include confirmation of adequate restraint length and required thrust blocks along existing water main at tie in location.

Water Serv, Modified and **Water Serv, Long, Modified**, as specified shall be measured and paid for at the contract unit price each, which shall be payment in full for all labor, material, saddles, corporation stops, fittings, adapters, curb stops and box, and equipment necessary to accomplish this work including sight hole excavation and restoration. Water Serv is a service of 30 feet or less in length. Water Serv, Long is a service more than 30 feet in length.

Water Serv, Private, for sizes ranging from ¾ inches to 1½ inches, as specified on the plans, will be paid for at the contract unit price each, from curb stop to the end point inside dwelling with no deductions for fittings; which shall be payment in full for all labor, material, isolation valve, and equipment necessary to accomplish this work. Water Serv, Private shall include restoration of all disturbed areas including concrete walkways, landscaping, and plantings removal and replacement.

Curb Stop and Box, as specified shall not be paid for separately but shall be included in the item **Water Serv, Modified** or **Water Serv Long, Modified**.

CITY OF SAGINAW

SPECIAL PROVISION
FOR
CITY SUPPLIED SIGN, INSTALL

COS:Fishbeck 1 of 1 April 2026

Description

This work consists of erecting utility marker signs and supports in accordance with section 810 of the Standard Specifications for Construction, except as modified herein.

Materials

Provide materials in accordance with section 902 of the Standard Specifications for Construction.

1. Sign Supports, Posts, and Mounting Hardware. Furnished by the Contractor.
    a. Posts shall be 3 lb steel posts.

2. Utility Marker Signs. Furnished by the City of Saginaw.

Construction

In accordance with section 810 of the Standard Specification for Construction, and as specified herein.

1. Install at locations as indicated on the Drawings.

2. See Standard Plan Sign-700-series for sign connection and Sign-200-series for installation details.

3. Object Marker signs shall have a minimum of 4 foot clearance.

Measurement and Payment

The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	Pay Unit
City Supplied Sign, Install	Each

City Supplied Sign, Install will be measured and paid for at the contract unit price per Each, which price shall include all necessary labor, material, and equipment needed to mount and install sign provided by the City. Sign post(s) and all mounting hardware shall be included in the cost for **City Supplied Sign, Install.**

CITY OF SAGINAW

SPECIAL PROVISION FOR COLD MILLING HMA SURFACE

COS:Fishbeck Page 1 of 2 April 2026

DESCRIPTION

Accurately remove existing HMA surface to the depths indicated on the plans.

EQUIPMENT

Use cold milling machine(s) equipped with positive depth control adjustments and a positive means for controlling the cross slope. Cold milling equipment must be capable of removing the chips from the pavement and preventing dust from escaping into the air.

METHOD OF CONSTRUCTION

Cold mill the existing pavement in the areas shown on the plans, to the depths shown on the plans and as directed by the Engineer. Collect and dispose of the excess material resulting from the operations as specified in subsections 103.07 and 204.03.B of the 2020 Michigan Department of Transportation Standard Specifications for Construction.

Provide a final surface texture that is reasonably smooth and free of gouges, holes or large depressions. Prevent damage to the adjacent concrete. Where material is removed below the depth specified due to poor cold-milling practice, backfill and compact the resulting holes or depressions by hand patching according to subsection 502.03C.9 of the 2020 Michigan Department of Transportation Standard Specification for Construction. Repair all damage to adjacent surfaces as directed by the Engineer. All costs associated with this corrective work will be borne by the Contractor. Upon completion of the cold milling, the contractor will immediately clean the milled surface so that the Engineer can identify any additional areas requiring full depth pavement replacement.

MEASUREMENT AND PAYMENT

The completed work will be paid for at the contract unit price for the following contract pay items:

Pay Item	Pay Unit
Cold Milling HMA Surface, ___ inch	Square Yard

Payment for **Cold Milling HMA Surface, ___ Inch** shall include removing, loading, hauling, and disposal of the pavement material. Material picked up by sweeping after cold-milling will not be paid for separately. This work will be measured by area in square yards and will be paid for at the contract unit price per square yard at the specified depth, regardless of the number of passes required to remove the pavement and regardless of the type of material removed.

All pavement around existing structures must be removed either by milling or by other means. Material removed by other means will not be paid for separately but will be considered included in the price per square yard for Cold Milling HMA Surface, ___ inch.

CITY OF SAGINAW

SPECIAL PROVISION FOR CONCRETE CURB AND GUTTER

COS:Fishbeck 1 of 1 April 2026

Description

This work shall consist of furnishing and installing concrete curb and concrete curb and gutter in accordance with section 802 the Standard Specifications for Construction and MDOT Standard Plan R-30-series, except as modified herein.

Materials

Materials provided for curb and gutters shall be in accordance with section 802 of the Standard Specifications for Construction with the following exception:

Materials for all concrete items shall be Concrete, Grade 3500, 6-sack, in accordance with Section 1004 of Standard Specifications for Construction.

Construction

Prior to beginning construction, the Contractor shall submit the name and plant location of the proposed concrete supplier for the project.

Prior to beginning construction, the Contractor shall submit mix designs for the proposed concrete mixtures proposed for use on the project for the Engineer to review.

A 4-inch minimum aggregate base shall be constructed for all concrete curb and gutter and shall be compacted to 95 percent of maximum unit weight. Aggregate shall be MDOT 21AA.

Measurement and Payment

Payment for the completed work for the various concrete pay items in this contract using a six full sack mix shall be at their individual contract unit prices as follows.

Pay Item	Pay Unit
Curb and Gutter, Conc, Det _, Modified	Foot
Driveway Opening, Conc, Det _, Modified	Foot

Payment for the 4inch aggregate base shall be included in the contract unit price for all concrete curb and gutter.

Curb and Gutter, Conc, Det _, Modified and **Driveway Opening, Conc, Det _, Modified** will be measured in place by the foot. Payment includes all labor, materials, aggregate base, and equipment necessary to install curb and gutter.

CITY OF SAGINAW

SPECIAL PROVISION FOR CONCRETE DRIVEWAYS

COS:Fishbeck 1 of 1 April 2026

Description

This work consists of placing concrete driveways where shown on the plans or as directed by the Engineer and shall be in accordance with section 801 of the Standard Specifications for Construction except as specified herein.

Materials

Material provided shall be in accordance with section 801 of the Standard Specifications for Construction with the following exception: Materials for all concrete items shall be Concrete, grade 3500, in accordance with section 1004 of the Standard Specifications for Construction.

Construction

Prior to beginning construction, the Contractor shall submit the name and plant location of the proposed concrete supplier for the project.

Prior to beginning construction, the Contractor shall submit mix designs for the proposed concrete mixtures proposed for use on the project for the Engineer to review.

Driveway pay items shall include furnishing, placement, and compaction of the aggregate base and/or sand base prior to placing proposed driveway material. Work includes, compaction, sawing if required, proper placement of driveway material, and expansion material as required.

A 6-inch minimum sand base shall be constructed for all driveways and shall be compacted to 95 percent of maximum unit weight. Sand base shall be MDOT Class II granular material.

Measurement and Payment

The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	Pay Unit
Driveway, Nonreinf Conc, _ inch, Modified	Square Yard

This item will be measured by area in square yards and will be paid for at the contract unit price per square yard which shall be payment in full for material, labor and equipment needed to accomplish the work, including furnishing, placing and compacting the sand base.

CITY OF SAGINAW

SPECIAL PROVISION FOR CONCRETE PAVEMENT

COS:Fishbeck 1 of 2 April 2026

Description

This special provision sets forth requirements for concrete pavement and concrete road patch repairs of concrete pavement as indicated on the Plans and as indicated by the Engineer. Complete this work according to section 602 and 603 of the Standard Specifications for Construction and Standard Plan, except as modified herein.

Materials

The materials specified in section 1004 & 1006 of the Standard Specifications for Construction apply unless modified by this special provision or otherwise directed by the Engineer.

The Contractor shall use a power screed for finishing concrete. The use of a manual roller screed shall be approved by the Engineer.

Construction

Construct the concrete pavement and pavement repairs according to section 602 and 603 of the Standard Specifications for Construction.

Saw a relief cut in the new concrete in alignment with the longitudinal joint in the existing concrete. Saw a relief cut in the new concrete transversely to create panel lengths of 8 to 12 feet for all repairs 16 feet or longer. Make the relief cut when the concrete has hardened enough that no excess raveling or spalling occurs, but before random cracks develop.

Establish transverse joint reservoirs and load transfer in accordance with Standard Detail R-44 Series for Concrete Pavement Repair.

Place hot poured rubber asphalt joint in accordance with Standard Detail R-44 Series for Concrete Pavement Repair.

Curb replacement shall be included, if applicable, and shall match the existing witnessed elevations and detail in accordance with the Plans.

All dowels, lane ties, jointing, sealing, shall not be paid for separately.

Prior to beginning construction, the Contractor shall submit the name and plant location of the proposed concrete supplier for the project.

Prior to beginning construction, the Contractor shall submit mix designs for the proposed concrete mixtures proposed for use on the project for the Engineer to review.

Measurement and Payment

The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	Pay Unit
Conc Pavt, Nonreinf, _ inch, Modified	Square Yard

This item will be measured by area in square yards and will be paid for at the contract unit price per square yard which shall be payment in full for furnishing, placing, finishing, texturing, and curing the concrete; furnishing any additional concrete required to correct low base conditions; sawing, cleaning, and preparing the transverse and longitudinal joint reservoir and relief cuts; furnishing and installing dowel bars, lane ties, grout filler, and fiber joint fillers, and furnishing and installing joint sealant. Placement of hook bolts as directed by the Engineer shall also be considered included. Integral curb shall also be included. Aggregate base material shall be paid for separately.

CITY OF SAGINAW

SPECIAL PROVISION
FOR
CONCRETE SIDEWALK

COS:Fishbeck 1 of 2 April 2026

Description

This work shall consist of furnishing and installing sidewalk and sidewalk ramps at intersections in accordance with the Standard Specifications for Construction and MDOT Standard Plans, except as modified herein.

Materials

Sidewalk, curb ramps, and curb ramp openings shall be constructed in accordance with section 602 and 803 of the Standard Specifications for Construction, MDOT Standard Plan R-28 Series, and Sidewalk Ramp Details with the following exception:

Materials for all concrete items shall be Concrete, Grade 3500 Six Full Sack Mix, in accordance with section 602 of the Standard Specifications for Construction.

Detectable Warning Surface shall be cast-iron detectable warning inlays installed, according to the manufacturer's instructions and MDOT Standard Plan R-28 Series. Color shall be black with asphaltic dip finish, as approved by the Engineer.

Construction

Prior to beginning construction, the Contractor shall submit the name and plant location of the proposed concrete supplier for the project.

Prior to beginning construction, the Contractor shall submit mix designs for the proposed concrete mixtures proposed for use on the project for the Engineer to review.

A 4-inch minimum sand base shall be constructed for all sidewalks compacted to 95 percent of maximum unit weight. Sand base shall be MDOT Class II granular material.

Construction of sidewalk ramps shall be per MDOT Standard Plan R-28 Series.

All sidewalk replaced through driveways shall match proposed driveway depth.

Measurement and Payment

The completed work will be paid for at the contract unit price for the following pay item(s):

Pay Item	Pay Unit
Detectable Warning Surface, Modified	Foot
Curb Ramp Opening, Modified	Foot
Sidewalk, Conc, _ inch, Modified	Square Foot
Curb Ramp, Conc, _ inch, Modified	Square Foot

Sidewalk, Conc, __ inch, Modified and **Curb Ramp, Conc, _ inch, Modified** of the type called for on the plans, will be measured in place by area in square foot. Payment for the 4-inch minimum sand base shall be included in the contract unit price for all sidewalk items. The contract unit price for sidewalk and ramps includes compensation for placement of sand base, furnishing, placing, and curing concrete; furnishing and placing expansion joints; furnishing and placing backfill regardless of amount; and cleanup. All grading required to meet ADA standards shall be included in the items listed above. All labor, equipment, and materials necessary to protect the concrete sidewalk from weather damage and/or vandalism shall be considered included in the pay items above.

Detectable Warning Surface, Modified and **Curb Ramp Opening, Modified** will be measured in place by the foot. Payment includes all labor, materials, and equipment necessary to install detectable warning surface.

CITY OF SAGINAW

SPECIAL PROVISION
FOR
DRAINAGE STRUCTURE COVERS

COS:Fishbeck 1 of 1 April 2026

Description

This work consists of furnishing all labor, equipment and materials necessary to install drainage structure covers in the standard plans and ADA compliant cover including the casting and grate as provided in the standard plans and modified for grate opening size.

Materials

Structure covers shall adhere to subsection 403.02 of the Standard Specifications for Construction except as modified herein.

The frame and cover for ADA compliance must be manufactured by East Jordan, Neenah Foundry, or approved equal, and must comply with all dimensioning in the standard plans for drainage structure covers except that the openings must not permit passage of a sphere more than 0.5 inch in diameter. Elongated openings must be placed so that the long dimension is perpendicular to the dominant direction of travel.

Construction

Furnish and install the drainage structure covers as indicated on the plans or as directed by the Engineer. All work must comply with subsection 403.03 of the Standard Specifications for Construction**.**

Measurement and Payment

The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	Pay Unit
Dr Structure Cover, Type _, Modified	Each

This item includes cast iron frame and cover (grate) placed, and removal and disposal or salvaging of existing drainage structure cover.

Salvaging of existing covers to be directed by the Engineer.

CITY OF SAGINAW

SPECIAL PROVISION FOR DRIVEWAY, REM

COS:Fishbeck **1** of **1** April 2026

Description

This work shall be in accordance with the requirements of section 204 of the Standard Specifications for Construction, except as modified herein.

Construction

Driveway, Rem consists of the removal and disposal of existing driveways as specified on the plans, in the proposal, or as directed by the Engineer. Driveway, Rem shall be performed in accordance with the Standard Specifications, regardless of thickness. Additional payment will not be made for multiple layers of pavement, regardless of depth and type of pavement.

Measurement and Payment

The completed work as describe, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	Pay Unit
Driveway, Rem	Square Yard

Driveway, Rem will be measured by area in square yards of surface to be removed, regardless of the depth of material being removed, and regardless of the layers or type of underlying material, and will be paid for at the contract unit price per square yard which price shall be payment in full for all labor, equipment, and materials needed to accomplish this work.

CITY OF SAGINAW

SPECIAL PROVISION
FOR
GAS AND WATER SHUTOFF, ADJ, MODIFIED

COS:Fishbeck 1 of 1 April 2026

Description

This work shall be done in accordance with Section 403 of the Michigan Department of Transportation Standard Specifications for Construction and as modified herein. This work shall include the proper setting of utility shutoffs within the right-of-way.

Construction

This item shall include adjusting existing water and gas valve castings and covers to the grades as directed by the Engineer. Remove the pavement adjacent to the valve casting by coring a minimum 2-foot diameter circle. Compact soil using a method approved by the Engineer. Match the valve cover to the finished elevation and slope (longitudinal and transverse). Place Concrete Grade P1 (or P-NC if required by the Engineer).

Where shutoff is located in an area where concrete is to be placed, adjustment to final grade shall be made prior to placement of concrete.

Measurement and Payment

The completed work will be paid for at the contract unit price for the following pay item(s):

Pay Item	Pay Unit
Gas and Water Shutoff, Adj, Modified	Each

Gas and Water Shutoff, Adj, Modified will be measured and paid for at the contract unit price per Each, which price shall include payment in full for all labor, equipment, and materials needed to accomplish this work.

Payment for the sawcutting, removal, and replacement of pavement adjacent to the adjusted gas or water shutoff is considered included in the payment for **Gas and Water Shutoff, Adj, Modified**.

CITY OF SAGINAW

SPECIAL PROVISION
FOR
HOT MIX ASPHALT (HMA) APPLICATION ESTIMATE

COS:Fishbeck 1 of 1 April 2026

DESCRIPTION

This work shall be done in accordance with the requirements of Division 5 of the Michigan Department of Transportation Standard Specifications for Construction except as modified herein.

CONSTRUCTION METHODS

Testing performed in accordance with Section 501.03.N will apply for this project.

MATERIALS

Top course shall be **HMA, 5EMH** with an estimated thickness of 1.5 inches and a yield of 165 pounds per square yard (lbs/syd) placed in one lift. Aggregate Wear Index number shall be 260. The Performance Grade asphalt binder range for the Mixture shall be PG 64-28.

Leveling course shall be **HMA, 4EMH** with an estimated thickness of 2 inches and a yield of 220 pounds per square yard (lbs/syd) placed in one lift. The Performance Grade asphalt binder range for the Mixture shall be PG 64-28.

Base course shall be **HMA, 3EMH** with an estimated thickness of 3 inches and a yield of 330 pounds per square yard (lbs/syd) placed in one lift. The Performance Grade asphalt binder rang for the Mixture shall be PG 64-28.

Hand Patching shall be **HMA, 13A** and shall be placed with an average yield of 440 lbs/syd placed in two lifts. The Performance Grade asphalt binder range for the Mixture shall be PG 58-28.

The HMA bond coat mixture shall be per Section 501. The application rate on existing or between courses shall be 0.05 to 0.15 gallons per square yard. The HMA bond coat mixture will not be paid for separately, but will be included in HMA pay items.

Measurement and Payment

Measurement and payment shall be at the contract unit price per ton. No additional payment will be made for HMA bond coat mixture.

Pay Item	Pay Unit
Hand Patching	Ton
HMA, _ EMH	Ton

Payment for each shall include the material, labor and equipment necessary to construct each item according to the plans, specifications and any special provisions included with this contract.

CITY OF SAGINAW

SPECIAL PROVISION
FOR
MACHINE GRADING, MODIFIED

COS:Fishbeck 1 of 1 April 2026

Description

This work shall consist of all excavation, including earth, necessary to shape the subgrade and aggregate base to the cross-sections shown on the plans for pavements, sidewalks, curbs, drive approaches, etc. within the construction limits of the project, further defined as the road right-of-way plus the side street approach removal limits and grading permit areas. The work shall include removal of landscape beds including timbers and shrubs within the right-of-way as needed to facilitate sidewalk construction. The work shall include proper disposal of excavated materials. This work shall also include all embankment and grading necessary to shape areas behind curb and gutter around all drives and all sidewalks to allow for placement of topsoil.

Materials

None specified.

Construction

This work shall conform to the requirements of section 205 of Standard Specifications for Construction of machine grading, earth excavation, embankment, and density except as modified herein.

Measurement and Payment

The completed work as measured will be paid for at the contract unit price for the following pay item:

Pay Item	Pay Unit
Machine Grading, Modified	Station

Machine Grading, Modified will be measured by length in stations along the road centerline and will be paid for at the contract unit price per station. This price shall be payment in full for all labor, equipment, and materials including embankment, excavation, and disposal of excavated material needed to accomplish this work for the entire width of the construction limits.

Approximately 500 cubic yards of earth will be excavated. Suitable excavated material, as determined by the Engineer, may be used as fill material behind proposed curb. Approximately 100 cubic yards (LM) of embankment will be placed. Use of excavated material for fill material will be considered as included in the work of **Machine Grading, Modified**.

CITY OF SAGINAW

SPECIAL PROVISION
FOR
MAINTAINING TRAFFIC

COS:Fishbeck 1 of 2 April 2026

General Requirements

This work shall be performed in accordance with the requirements of Sections 104.07C, 104.11, 812 and 922 of the Michigan Department of Transportation Standard Specifications for Construction and as herein specified. The contractor is advised that the 2025 Michigan Manual on Uniform Traffic Control Devices is hereby established as governing all work in connection with traffic control devices, barricade lighting, etc., required on this project.

The Contractor shall furnish, erect, and maintain any traffic control devices, temporary signs, and temporary pavement markings necessary to accomplish the maintenance of traffic in a safe manner. Traffic Regulators shall be used whenever necessary to assist in traffic flow and shall be included for payment under the item Traffic Regulator Control. Upon completion of the work, the contractor shall remove all temporary signs and traffic control devices.

The Contractor shall provide 24-hour emergency contacts to the Engineer. During non-working periods, the Contractor shall have a maximum two-hour response time for addressing issues within the work zone.

Walks, driveways, and entrances to buildings shall not be unnecessarily blocked. Vehicular access shall be maintained to all commercial and residential properties as directed by the Engineer. Unless otherwise specified herein, construction shall be completed in such a manner so as to maintain the required entrance width for traffic at all times. Maintenance gravel, if required, shall not be paid separately and will be considered incidental to the maintaining traffic items. The Contractor may use roadway millings as a means to maintain temporary access through and within the project site, as approved by the Engineer.

All diamond shaped warning signs shall be 36” x 36”. All temporary signs shall be mounted at a minimum seven-foot bottom height.

For HMA paving, no traffic shall be allowed on the surface being placed until rolling has been completed and the surface has cooled sufficiently to prevent damage from traffic. The contractor shall provide traffic regulators in sufficient number to maintain traffic as described herein, to keep traffic off sections being surfaced, and to provide for safe travel at all times.

Traffic Restrictions

The following roads which have water main construction and surface restoration will be closed to through traffic as follows:

N. Mason Street – Houghton Street to State Street
Traffic control staging shall also ensure that the N. Mason & Congress intersection and the N. Mason & Genesee intersections are not closed at the same time.

Superior Street – Burrows Street to Maine Street

All other roads listed in Scope of Work will remain open with lane closures as necessary.
The N. Mason and Cooper intersection shall be constructed with lane closures only.

Access to homes and businesses within each road will be maintained.

Specific Requirements

The Contractor will be responsible for coordinating construction activities with local businesses, keeping them advised in advance of any construction activities which will affect vehicular and pedestrian movements to their business.

The Contractor is responsible for the collection and transport of rubbish and yard waste from the residents' normal curb-side pick-up point to the nearest adjacent intersection outside the project limits on trash pick-up day if access by the waste hauler is not feasible. The collection and transport of the rubbish and yard waste must be completed by 8:00 am on trash pick-up day. The collection and transport of the rubbish and yard waste is considered incidental to other Maintaining Traffic pay items.

No work shall be performed between the hours of 10:00 pm and 7:00 am in accordance with City Ordinance. No deviation from these restrictions will be allowed unless otherwise approved by the Engineer.

Measurement and Payment

The Maintaining Traffic Pay Items will be paid for at the Contract Unit Price in accordance with the MDOT 2020 Standard Specifications for Construction, which shall be payment in full for all labor, material, and equipment needed to accomplish this work. All traffic control item quantities are based on the maximum amount required at any time for one street. All items shall be used one street at a time and moved when that street is completed.

Payment for temporary signs will be made based on the maximum square feet of dissimilar sign legends in use at any one time during the project.

Payment for barricades, lighted arrows, and plastic drums will be made based on the maximum number in use at any one time during the project.

CITY OF SAGINAW

SPECIAL PROVISION FOR MANHOLE COVER, COLLAR

COS:Fishbeck 1 of 1 April 2026

Description

Around existing and proposed storm sewer, sanitary sewer, and water main manholes within the paved surface, after the top course of HMA has been placed, the Contractor shall install concrete collar as described below, and as shown in the plans. Work shall in accordance with sections 403 & 602 of the Standard Specifications for Construction, or as modified herein.

Materials

The materials shall be in accordance with sections 403 and 602 and division 10 of the Standard Specifications for Construction. Concrete shall be Grade P-NC and thermoplastic molding form for collar shall be MDOT approved.

Construction

The Contractor shall perform temporary lowering of existing and proposed drainage structures in accordance with s u b section 403.03.A.8. The structure shall be located by GPS to the center of the proposed cover location. The structure opening shall be temporarily plated and the roadway base and surface shall be constructed adjacent to and over the structure in a contiguous and homogenous manner to the surrounding road base and surface material. Density requirements over the structure plate for the aggregate base and HMA surface shall be the same as the surrounding material, pursuant to the specifications.

After the top course of HMA has been placed, the Contractor shall core the existing pavement full depth, centered on the manhole, remove loose material, remove temporary drainage structure plate, install thermoplastic molding collar, trim collar to heights and slope, reinstall casting, and pour concrete to match finished road surface.

Measurement and Payment

The cost for this work will not be paid separately, but will be paid for with **Combined Sewer Manhole Cover, Adj, Case 1**.

CITY OF SAGINAW

SPECIAL PROVISION
FOR
PAVEMENT, REM, MODIFIED

COS:Fishbeck 1 of 1 April 2026

General Requirements

This work shall be in accordance with the requirements of Section 204 of the Michigan Department of Transportation Standard Specifications for Construction, except as modified herein.

Description of Work

Pavement, Rem, Modified consists of the removal and disposal of existing pavement; as specified on the plans, in the proposal, or as directed by the Engineer. Pavement, Rem, Modified shall be performed in accordance with the Standard Specifications, except that additional payment will not be made for multiple layers of pavement regardless of depth and type of pavement. Additional payment will not be made for excavation of subbase material to provide the correct plan grade as shown on the plans for the pavement replacement cross section.

Measurement and Payment

The completed work as measured will be paid for at the contract unit price for the following pay item:

Pay Item	Pay Unit
Pavement, Rem, Modified…….....	Square Yard

Pavement, Rem, Modified will be measured by area in square yards of surface to be removed - regardless of depth of material being removed, and regardless of status or type of the underlying material, and shall include integral concrete curb removal. **Pavement, Rem, Modified** will be paid for at the contract unit price per square yard which price shall be payment in full for all labor, equipment, and materials needed to remove the pavement and excavate the subbase to the correct plan grade to provide the pavement replacement cross section as shown on the plans.

Payment for sawcutting will be included in **Pavement, Rem, Modified** and will not be paid for separately. Sawed joints for pavement removal shall be either parallel or perpendicular to the longitudinal centerline. Sawed joints shall extend substantially through the full thickness of pavement so a clean break is provided and the adjacent existing pavement or structures to remain in place are not damaged. If adjacent pavement or structures to remain are damaged as a result of the Contractor’s operations, they shall be replaced as directed by the Engineer at the Contractor’s expense.

HURON AND EASERN RAILWAY

SPECIAL PROVISION FOR RAILROAD INSURANCE REQUIREMENTS

1 of 2 April 2026

Description

This work consists of providing Railroad Protective Liability Insurance before work is commenced and kept in effect until all work required to be performed under the terms of the contract is satisfactorily completed as evidenced by the formal acceptance by the City of Saginaw (City).

Insurance Requirements

To carry the following insurance, in a form, and with an insurer or insurers, acceptable to the City and Huron and Eastern Railway (Railroad), its parent companies, and affiliates, on all insurance forms listed below with railroad contact information as noted in the Coordination Clause for Work on Railroad Property.

1. Railroad Protective Liability Insurance on behalf of Huron and Eastern Railway, its parent companies and affiliates, as the named insured.

The Contractor must furnish to the City and to the Railroad copies of policies as evidence that, with respect to Contractor or Subcontractor operations standard Railroad Protective Liability Insurance is carried providing for limits of liability in the amount of two million dollars ($2,000,000) combined single limit per occurrence for bodily injury, death, and property damage with an aggregate limit of six million dollars ($6,000,000) applying separately to each annual period. Said Railroad Protective Liability Insurance must conform to the regulations prescribed therefore in the Federal-Aid Policy Guide, Part 646, Subpart A of the Federal Highway Administration dated December 9, 1991, and amendments thereto.

2. Provide insurance as required in subsection 107.10 of the Standard Specifications for Construction except with the modifications stated herein. Provide Commercial General Liability Insurance.

A. Single occurrence limit is two million dollars ($2,000,000).

B. Aggregate limit is six million dollars ($6,000,000).

C. List Huron and Eastern Railway, its parent companies, and affiliates, as additional insured on automobile insurance policy.

D. Shall contain Insurance Services Office Standard Endorsement CS 2417 or its equivalent.

E. A waiver of subrogation in favor of the railroad must also be shown as an endorsement to the policy.

The Contractor must furnish to the City evidence of any reductions in the limits of liability herein described as determined by the Railroad.

The policy must contain the following endorsement:

"It is hereby agreed that 30 days prior written notice of cancellation, expiration, termination, or reduction of coverage provided by this policy will be given to the City of Saginaw and Huron and Eastern Railway".

Construction

If any of the insurance is canceled, the Contractor and all subcontractors must cease operations as of the date of cancellation and cannot resume operations until new insurance is in force.

Measurement and Payment

The Contractor must pay for all railroad insurance. Insurance costs as described in this special provision will be included as part of other pay items.

CITY OF SAGINAW

SPECIAL PROVISION FOR SEWER TRAP

COS:Fishbeck 1 of 1 April 2026

Description

This work consists of all labor, equipment, and materials required to furnish and install a sewer trap within catch basins as specified in the details in the Plans or as directed by the Engineer in the field. All work is to be done in accordance with sections 402 and 403 of the Standard Specifications for Construction, except as modified herein.

Materials

The sewer trap material for shall be a 6-inch diameter SDR-26 90-degree elbow with premium joints meeting all of the applicable standards established by ASTM.

Construction

Installation of the sewer trap shall be constructed in accordance with the detail sheet in the Plans and per manufacturer specifications as directed by the Engineer.

Measurement and Payment

The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	Pay Unit
Sewer Trap, _ inch	Each

Sewer Trap, _ inch will be measured by units of each and will be paid for at the contract unit price which shall be payment in full for all necessary labor, material, and equipment needed to accomplish this work.

Payment for **Sewer Trap, _ inch** shall only include the 90-degree elbow. Proposed sewer pipe shall be paid for separately as **Sewer, _inch, SDR-26**.

CITY OF SAGINAW

SPECIAL PROVISION
FOR
SIDEWALK, REM, MODIFIED

COS:Fishbeck 1 of 1 April 2026

General Requirements

This work shall be in accordance with the requirements of Section 204 of the Michigan Department of Transportation Standard Specifications for Construction, except as modified herein.

Description of Work

Sidewalk, Rem, Modified consists of the removal and disposal of existing sidewalk as specified on the plans, in the proposal, or as directed by the Engineer. Sidewalk, Rem, Modified shall be performed in accordance with the Standard Specifications, except that additional payment will not be made for removal of sidewalk greater than 6 inches in thickness regardless of depth. The excavation of existing subbase material to provide the correct grade for the sidewalk replacement and 4 inch sand subbase shall be included in the pay item.

Measurement and Payment

The completed work as measured will be paid for at the contract unit price for the following pay item:

Pay Item	Pay Unit
Sidewalk, Rem, Modified…….....	Square Yard

Sidewalk, Rem, Modified will be measured by area in square yards of surface to be removed, regardless of depth of material being removed, and regardless of status or type of the underlying material and will be paid for at the contract unit price per square yard which price shall be payment in full for all labor, equipment, and materials needed to remove the sidewalk. Excavation of the subbase to the correct plan for the installation of the sand subbase and sidewalk shall be included in the pay item.

Payment for saw cutting will be included in **Sidewalk, Rem, Modified** and will not be paid for separately. Sawed joints shall extend substantially through the full thickness of sidewalk so a clean break is provided and the adjacent existing sidewalk to remain in place is not damaged. If adjacent sidewalk to remain is damaged as a result of the Contractor's operations, it shall be replaced as directed by the Engineer at the Contractor's expense.

CITY OF SAGINAW
SPECIAL PROVISION
FOR
STRUCTURE ADJUSTMENTS

COS:Fishbeck 1 of 2 April 2026

DESCRIPTION

This work shall be done in accordance with section 403 of the Standard Specifications for Construction, the detail sheet in the Plans, and as modified herein.

This item shall include adjusting manhole castings and covers to the grades as directed by the Engineer. It shall also address areas where additional depth is required to adjust structures greater than six inches.

MATERIALS

Materials for all concrete items shall be in accordance with section 1004 of the Standard Specification for Construction.

The cover shall be sealed to the structure using a heat shrinkable sleeve system, Boa Tape, or a rubber seal system such as Wrapid Seal, Canusa, Infi-Shield, Cretex “X-85”, or Engineer-approved equal. The seal shall extend down the cover and adjusting brick as shown within the detail sheet in the Plans and as recommended by the manufacturer. Where required, galvanized steel compression bands or manufacturer recommended coupling system shall be used for extension sleeves.

CONSTRUCTION

This work shall be performed only when all asphalt has been placed. The adjacent pavement shall be cored and placed to the original elevation with concrete, grade 3500.

Where additional depth of replacement greater than 6 inches is required, the work to replace pre-cast sections of the structure shall be completed prior to paving. Final adjustments will be made only when all asphalt has been placed except for the top course. This work will occur in two separate operations.

Use of brick or block to reach final elevations and repair damaged structures will be allowed to a maximum depth of 12 inches. For work in excess of 12 vertical inches, all components must be pre-cast in conformance with the City of Saginaw Alterations to the Municipal Combined Sewer System special provision requirements and as shown in the Plans.

MEASUREMENT AND PAYMENT

The completed work as measured will be paid for at the contract unit price for the following pay item(s).

Pay Item	Pay Unit
Combined Sewer Manhole Cover, Adj, Case _	Each
Combined Sewer Manhole, Adj, Add Depth	Foot

Combined Sewer Manhole Cover, Adj, Case 1 will be measured by units of each and will be paid for at the contract unit price per each. This price shall be payment in full for all labor, equipment, and materials needed to accomplish this work.

Combined Sewer Manhole Cover, Adj, Case 1 includes the cost of the following:

1. Coring existing pavement.
2. Adjusting the cover up or down.
3. Removing and replacing pavement adjacent to the adjusted cover.
4. Concrete 3500 collar.

The City of Saginaw will only pay for **Combined Sewer Manhole Cover, Adj, Case 2** for structure adjustments located outside existing pavement, curb, and curb and gutter.

Combined Sewer Manhole, Adj, Add Depth will be measured by the vertical foot and will be paid for at the contract unit price per vertical foot, of the required diameter and depth, beginning 6 inches from the level of the existing structure, in the direction of adjustment, to the limit of the additional adjustment depth. This price shall be payment in full for all labor, equipment, and materials needed to accomplish this work.

CITY OF SAGINAW

SPECIAL PROVISION
FOR
SUBGRADE UNDERCUTTING, TYPE II, MODIFIED

COS:Fishbeck 1 of 1 April 2026

Description

The work of Subgrade Undercutting, Type II, Modified, shall consist of excavation below subgrade and furnishing and placing crushed limestone compacted-in-place, in accordance with Section 205 of the Michigan Department of Transportation 2020 Standard Specifications for Construction except as modified herein. Depth of excavation will be 6 inches or as directed by the Engineer.

Materials

Materials for Subgrade Undercutting, Type II, Modified, shall be 100% crushed limestone conforming to 23A Aggregate in accordance with Section 902 of MDOT 2020 Standard Specifications for Construction.

Measurement and Payment

The completed work as measured will be paid for at the contract unit price for the following pay item:

Pay Item	Pay Unit
Subgrade Undercutting, Type II, Modified	Cubic Yard

Subgrade Undercutting, Type II, Modified, will be measured by area in cubic yards; and will be paid for at the contract unit price per cubic yard; which price shall be payment in full for all labor, materials, excavation disposal of existing materials, and equipment needed to accomplish this work.

CITY OF SAGINAW

SPECIAL PROVISION FOR
TURF ESTABLISHMENT, PERFORMANCE

COS:Fishbeck 1 of 5 April 2026

Description

Section 816 of the Standard Specifications for Construction is deleted and replaced by this special provision. The Contractor shall be responsible for the performance and quality of turf growth in the areas indicated on the plans and as identified by the Engineer. The Contractor shall comply with all state and federal laws and regulations in completing this work.

The Contractor shall establish a durable, permanent, weed-free, mature, perennial turf. The work consists of fundamental turf work, including but not limited to top soiling, seeding, mulching, erosion control, maintenance, and repair of turf as described herein during the life of the contract.

The Contractor shall choose and implement proven turf establishment industry practices; provide all necessary labor and equipment; select and provide all turf establishment materials; and control erosion and any subsequent sedimentation at all times.

The Contractor shall be responsible for a site analysis and its interpretation for their own use to ensure compliance with this specification. The site analysis will take into consideration topsoil needs, fertilizer and pH requirements, seed mix, existing and future soil moisture levels, slopes and grades, required erosion control items and devices, maintenance requirements, local highway snow deicing practices, and any other characteristics that influence and affect turf establishment.

Section 107.11 of the Standard Specifications for Construction is revised relative to the Contractor's responsibility for the repair of turf establishment work as follows. The Contractor shall be responsible, at no additional cost to the contract, for the repair of turf establishment work occasioned by storm events up to and including 3 inches of rain in a 24 hour period as documented by local meteorological data submitted to the Engineer for review and approval. All other portions of Section 107.11 remain unchanged.

1. **Contractor Turf Establishment Experience Requirements.** The Contractor shall possess valid Michigan Department of Agriculture commercial pesticide applicator's certificate for right-of-way category.

   All herbicide applications shall be made by a commercial applicator licensed in the State of Michigan. All individuals applying pesticides shall possess a valid Michigan Department of Agriculture commercial pesticide applicator's certificate for the appropriate category. All application procedures and materials shall meet all federal, state and local regulations.

   At least 10 days prior to start of turf establishment, the Contractor performing the turf establishment work shall provide the Engineer with documentation that they will meet one or both of the following requirements.

   A. At least one person employed by the Contractor and assigned to the job site shall have

a degree or certificate in Turf Management, Horticulture, or related field.

B. At least one person employed by the Contractor and assigned to the job site shall have at least five (5) years of experience in roadside turf establishment.

Materials

The Contractor shall use topsoil, seed, mulch, pesticide, herbicide and/or mulch blankets and any other unique erosion control materials as necessary to fulfill this specification, as detailed in the plans, and as indicated in the work plan. The Contractor may use additional materials as necessary to meet the standards set forth for turf establishment in this special provision. The use of any sod on the project requires the prior approval of the Engineer and if approved, may be used at limited site locations only.

Selection of all materials is the responsibility of the Contractor with the following minimum conditions.

1. **Soil.** The Contractor shall provide furnished or salvaged topsoil which may be blended compost that will provide vigorous growth. It shall be humus bearing and of not less than four inches in depth. It shall be free of stones larger than 1 inch in diameter and other debris. The finished slope shall be trimmed and graded according to subsection 205.03.N of the Standard Specifications for Construction.

2. **Seed.** Use M.D.O.T. turf seeding mixture Turf Urban Freeway (TUF). All species and their cultivars or varieties must be guaranteed hardy for Michigan.

   A. The seed shall be legally saleable in Michigan. The seed product shall not contain more than 10 percent inert materials. The seed source shall be from an MDOT approved certified vendor.

   B. The species and varieties of seed shall be adapted to all site conditions, to the site use, and to the soils, moisture, and local climate. Site use may include but is not limited to detention pond, wildlife habitat, playground, wetlands, forested wetland, rural roadside, urban roadside and highly maintained front yard.

   C. At least two of the species in the mixture proposed to be planted within fifteen (15) feet behind the curb or the shoulder shall be salt tolerant.

3. **Mulch.** Seeded areas shall be mulched with the appropriate materials for the site conditions, shall promote germination and growth of seed and to mitigate soil erosion and sedimentation.

4. **Herbicides.** The Contractor shall comply with all federal, state and local laws as noted in the standard specifications, Section 107. A weed control application will require the Contractor to make proper notifications and/or postings as per label and MDA requirements for all locations that will be sprayed. The Contractor will also notify selected City of Saginaw staff 48 hours prior to any applications being made. The Contractor shall furnish and apply herbicide(s) as needed. It shall be the Contractor's responsibility to select the herbicide(s) and the rate at which it will be used. The work and herbicide(s) shall be approved by the Engineer prior to the application of the material. A spray log will be required to be completed and submitted to the project office, each day an application is made.

No water shall be drawn from any waterway (i.e. river, ditch, creek, lake etc.) that is located on any state, county or municipal right-of-way, for mixing with herbicides.

5. **Fertilizers.** The Contractor shall furnish and apply fertilizer(s) as needed. It shall be the Contractor's responsibility to select the fertilizer(s) and the rate at which it will be used. The work and fertilizer(s) shall be approved by the Engineer prior to the application of the material.

6. **Water.** The Contractor shall furnish and apply water from an approved source as specified in the work plan at a rate of promote healthy growth.

Construction

The Contractor shall be responsible for all work and any and all construction methods used in completing this work. Any part of MDOT standard specifications or standard plans chosen to be implemented by the Contractor shall not imply responsibility on the part of the City of Saginaw for acceptability of the Contractor's construction methods or for the quality of the Contractor's work outcome at any time.

1. **Inspection of the work.** The Contractor shall be responsible for all inspection of turf establishment work.

   The Contractor shall use a Contractor's Daily Report approved by the Engineer to report inspections made and to document turf establishment work performed on this project. The Contractor's Daily Report shall be completed and submitted to the Engineer when any work performed under this special provision is in progress.

   The Contractor's Daily Report shall be accompanied by all necessary materials documentation including tests slips, certifications, etc.

   The Engineer shall determine the acceptability of these reports in terms of their completeness and accuracy. The Engineer reserves the right to verify all submitted measurements and computations. Failure by the Contractor to submit acceptable and timely reports to the Engineer may result in withholding of progress pay estimates on turf-related items until such time as reports are submitted in an acceptable and timely fashion.

   The Engineer reserves the right to inspect the project for any reason in accordance with subsection 104.01 of the Standard Specifications for Construction, including the fulfillment of other inspection requirements such as soil erosion and sedimentation control, NPDES, etc. These inspections made by the Engineer shall not relieve the Contractor of the inspections required by this special provision or the Contractor's responsibilities for erosion control and turf establishment.

2. **Erosion Control.** Erosion shall be controlled at all times according to Section 208 of the standard specifications. Control of soil erosion is the responsibility of the Contractor. However, sedimentation controls shall be placed as indicated on the plans or as directed by the Engineer. The site shall be continuously monitored by the Contractor for needed erosion repair from any cause as addressed in the contract documents. All eroded areas shall be returned to their original grade as detailed in the contract documents.

If sedimentation occurs in drainage structures or any watercourse or water containment area, corrective action shall be taken immediately and all disturbed areas contributing to this sedimentation shall be restored within 24 hours of erosion occurrence. Sediment deposited as a result of the Contractor's inability to control the soil erosion shall be removed at the Contractor's expense.

The Contractor shall reimburse the City for any costs levied against the City, such as fines, environmental costs, costs for remedies required, or any other costs as a result of the Contractor's failure to comply with this specification and with all federal, state, and local laws.

3. Erosion Repair. The Contractor is responsible for all repair and liable for all consequences (legal, monetary, or other) associated with erosion or sedimentation damage to finished or unfinished work.

All erosion occurrences and the repairs made by the Contractor shall be reported to the Engineer in the format and at the frequency required by the Engineer. Any erosion, displacement, or disturbance to ongoing or completed work by any cause shall be repaired by the Contractor at no additional cost to the contract unless otherwise noted herein.

The Contractor shall be responsible and liable for all traffic control and safety measures required to repair and protect damaged turf areas. Any eroded area that may affect the support of the roadbed or safety of the public shall be repaired within 24 hours of the erosion occurrence.

Protection devices such as barriers, directional sign/signals, temporary fence, or any other safety measures shall be placed by the Contractor immediately after any erosion damage occurs that has the potential of endangering the public. In these instances, the Contractor shall, within 24 hours of the occurrence of the damage, provide the Engineer with a written summary of the immediate action taken and describing the repairs made and the safety measures taken.

4. Final Acceptance

A. **Final Acceptance Parameters.** Before final acceptance of the turf establishment work, all of the following minimum parameters shall be met throughout all exposed areas of the project designated on the plans or identified by the Engineer as turf establishment areas. There shall be no exposed bare soil and the turf shall be fully germinated, erosion free, weed free, disease free, dark green in color and in a vigorous growing condition.

The Engineer will notify the Contractor of the dates and times of all acceptance inspections. The Contractor may accompany the Engineer while these inspections are being made. If the Contractor does not agree with the decision made by the Engineer, the Contractor can request an inspection by a mutually agreed upon third party (Michigan State University Extension service or other). A joint inspection, including the Engineer, the Contractor, and the third party, will be scheduled. All expert fees and expenses charged by the third party will be paid by the Contractor.

Any and all claims for extra compensation shall be according to subsection 104.09 of the Standard Specifications.

Measurement and Payment

The completed work as measured will be paid for at the contract unit price for the following contract item (Pay Item):

Pay Item	Pay Unit
Turf Establishment, Performance	Square Yard

Turf Establishment, Performance shall be paid by square yard. All materials, labor, and equipment required or selected by the Contractor to install, maintain, inspect, repair, and meet the acceptance parameters for turf establishment specified in this special provision, including preparation, updating, and submittal of the Contractor's work plan and Contractor's Daily Reports, will not be paid separately but will be considered included in the contract unit price bid for **Turf Establishment, Performance**.

Repairs made to damaged turf establishment areas as a result of a documented storm by local meteorological data resulting in rainfall amounts of more than 3 inches in a 24 hour period will be paid for as an increase to original quantities as described in subsection 109.07 of the Standard Specifications for Construction.

The following schedule of payment applies to work performed according to this special provision. Upon completion of topsoil surfacing stage, fifty percent of the authorized amount for **Turf Establishment, Performance** will be paid to the Contractor. The remaining authorized amount will be paid upon completion of all other work necessary to comply with this special provision and to meet all final acceptance parameters for **Turf Establishment, Performance**.

CITY OF SAGINAW

SPECIAL PROVISION
FOR
VALVE BOX, COLLAR

COS:Fishbeck 1 of 1 April 2026

Description

Around existing and proposed water valve boxes within the paved surface, after the top course of HMA has been placed, the Contractor shall install concrete collar as described below. Work shall be in accordance with sections 602 & 823 of the Standard Specifications for Construction, or as modified herein.

Materials

The materials shall be in accordance with sections 823, 602 and 1004 of the Standard Specifications for Construction. Concrete shall be Grade 3500.

Construction

The Contractor shall core the existing pavement full depth, centered on the valve box, remove loose material, temporary lowering plate, adjust valve box, and pour concrete to match road finished surface on new or existing valve boxes as described herein, and as shown in the plans.

The valve box shall be located by GPS to the center of the proposed cover location. The valve box shall be temporarily plated and the roadway base and surface shall be constructed adjacent to and over the structure in a contiguous and homogenous manner to the surrounding road base and surface material. Density requirements over the structure plate for the aggregate base and HMA surface shall be the same as the surrounding material, pursuant to the specifications.

Measurement and Payment

The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	Pay Unit
Valve Box, Collar	Each

The work of **Valve Box, Collar** will be measured by the unit each and will be paid for at the contract unit price per each, which price shall be payment in full for all labor, material, and equipment necessary to accomplish this work. Adjustment of existing water main gate valves will be paid for as **Gate Box Adj, Case _** along with **Valve Box, Collar**. Valve boxes that are installed new with this contract will not be paid for **Gate Box, Adj, Case _**, but this concrete collar will be required and will be paid for as **Valve Box, Collar.**

CITY OF SAGINAW

SPECIAL PROVISION
FOR
WORK NEAR RAILROAD

1 of 1 April 2026

Description

This work consists of the Contractor consulting with the representative of the Huron and Eastern Railway (herein after called the Railroad) to determine the necessity for, the type of, and cost of protection required for ensuring the safety and continuity of Railroad traffic and payment to the Railroad for protective services when doing work on, above, or below the Railroad property.

Materials

None specified.

Construction

Contact the Railroad 30 calendar days prior to starting work in the vicinity of their tracks. Provide documentation to the Engineer with the details of the contact including the person contacted, phone number or email used and the specific time and date. Ensure construction methods are in compliance with the requirements in the contract and as directed by the Engineer.

Pay (or pre-pay when required by the Railroad) the cost for right of entry permit, flagpersons, watchpersons, training, and other protective services and devices furnished or required by the Railroad and made necessary in the judgment of the representative of the Railroad because of the Contractors' operations which are within 50' of each side of centerline of track or impacted by traffic control operations. All Railroad bills for such protection costs must be paid within 14 days if not prepaid.

Monitor and provide immediate preference to clearing any traffic which backs up over the crossing as a result of flag control away from the crossing.

Measurement and Payment

Review the accuracy of costs from the Railroad and resolve any inconsistencies prior to submitting to Engineer for reimbursement. Submit satisfactory evidence or certification to the Engineer indicating all bills for protective services and devices furnished by the Railroad have been paid.

The City will reimburse the Contractor for the costs incurred that have satisfactory evidence of payment to the Railroad using the following pay item.

Pay Item	Pay Unit
Railroad Protection, Huron and Eastern Railway	Dollar

fishbeck

Appendix

MATERIALS TESTING CONSULTANTS

January 20, 2026
Project No. 251823

Fishbeck
4805 Towne Center Road
Saginaw, Michigan 48604

Attention: Heather Bowers, P.E.
Senior Civil Engineer

Reference: Report of Geotechnical Investigation
Saginaw 2026 DWSRF Water Main Replacements
Saginaw, Michigan

Dear Ms. Bowers:

MATERIALS TESTING CONSULTANTS, INC. has completed a geotechnical investigation for the above-referenced project. The findings of the study along with recommendations for the proposed water main installation are presented in the attached report.

We appreciate this opportunity to provide geotechnical engineering services and express our interest in providing continuing services in the areas of subgrade verification, and quality testing on various construction materials. Please contact our office should you have any questions or require further assistance.

Sincerely,

MATERIALS TESTING CONSULTANTS, INC.

Kathryn A. Crow, P.E.
Project Manager

Robert J. Warren, P.E.
Senior Project Manager

att: Report

MATERIALS TESTING CONSULTANTS

REPORT OF GEOTECHNICAL INVESTIGATION

SAGINAW 2026 DWSRF WATER MAIN REPLACEMENTS
SAGINAW, MICHIGAN

Prepared For:

FISHBECK
Saginaw, Michigan

Prepared By:

MATERIALS TESTING CONSULTANTS, INC.

JANUARY 2026
MTC Project No. 251823

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REPORT OF GEOTECHNICAL INVESTIGATION
SAGINAW 2026 DWSRF WATER MAIN REPLACEMENTS

1.0 INTRODUCTION

MATERIALS TESTING CONSULTANTS, INC. (MTC) has completed a geotechnical investigation for the proposed Saginaw 2026 DWSRF Water Main Replacements project, located in Saginaw, Michigan. This work has been performed as described in our proposal, number 19952 and dated October 14, 2025, with modifications as approved by Heather Bowers, P.E. of Fishbeck by email on October 31, 2025, and December 22 and 28, 2025. The modifications included reducing the exploration depth of 8 borings from 15 ft to 10 ft, the deletion of 2 drill rig boring locations and 1 hand auger boring location, and changing one drill rig boring to a hand auger boring (SB-11). Authorization to proceed was received from Ms. Heather Bowers, P.E. of Fishbeck in an email dated October 29, 2025. The scope of this study was described in an RFP letter dated September 30, 2025.

The scope of this study in general includes the following:

- performance of a field investigation including soil test borings and field engineering reconnaissance;
- review of recovered samples by one of our engineers and assignment of technical soil classifications;
- performance of laboratory testing on selected soil samples;
- engineering evaluation of encountered conditions with respect to the proposed construction; and
- preparation of this report.

Presented herein are descriptions of our understanding of the design considerations, the investigation program, encountered conditions and engineering recommendations. The Appendix contains the report limitations, boring log terminology, soil classification chart, boring logs and laboratory test data.

2.0 DESIGN CONSIDERATIONS

2.1 Available Information

We have been provided the following documents and information for use in this investigation:

- A soil boring RFP with proposed areas of water main improvements provided by Ms. Heather Bowers, P.E. of Fishbeck in an email dated September 30, 2025.
- A set of draft plans for the proposed water main improvements prepared by Fishbeck and dated January 12, 2026, provided by Ms. Heather Bowers, P.E. in an email dated January 14, 2026.
- Telephone and email conversations with Ms. Heather Bowers, P.E. of Fishbeck regarding the type of construction and scope of geotechnical investigation.

2.2 Location and Type of Structure

The proposed construction will be located in plan as shown on the attached Boring Location Plans, Figure Nos. 1 through 5.

The project will consist of the construction of 2 new segments of water main as follows:

- *North Mason Street Water Main Segment* – Will include an approximately 2,600-ft segment of new 8-inch diameter water main beneath the North Mason Street roadway. The alignment will generally extend beneath the right northbound lane of North Mason Avenue beginning at Houghton Avenue extending north and will transition to the left northbound lane between the cross streets of Union Avenue and West Genesee Avenue and continuing north to State Street (M-58). The new water main will include tie-ins to an existing 12-inch diameter water main on Houghton Avenue, existing 8-inch diameter water mains on Cooper Avenue and Congress Avenue, and existing 6-inch diameter water mains on Irving Avenue, Union Avenue, West Genesee Avenue, and State Street (M-58).

- *Maine Street Looping Segment* – Will include approximately 1,900-ft of new water main on the north side of the Huron and Eastern Railway easement in 3 segments. The first segment will be an 8-inch diameter water main extending approximately 600-ft from A

Street eastward to B Street, the second segment will be an 8-inch diameter water main extending approximately 1,000-ft from C Street eastward to Larch Street, and the third segment will be a 6-inch diameter water main teeing from the second segment at Forest Street and extending north beneath the southbound lane approximately 250-ft to Maine Street. The new water main will include tie-ins to an existing 20-inch water main at Superior Street and existing 6-inch diameter water mains at A Street, B Street, C Street, Grove Street, Larch Street, and Maine Street.

We understand the water main installation will primarily utilize open cut (also referred to as direct burial) methods or braced excavations. The proposed water main will be composed of either ductile iron pipe or C909 PVC pipe, and installed to achieve a minimum cover depth of 6 ft. We understand that proposed finished grades along the alignment will generally be within 1 ft of existing grades.

As a result of open cut excavations within roadways associated with the water main construction, we understand the affected roadways will be reconstructed. We anticipate the reconstructed roadways will be either concrete or asphalt paved in congruence with the existing pavement types.

We should be informed of any changes between the actual design conditions and those described herein as this information may affect our recommendations.

3.0 INVESTIGATION METHODOLOGY

3.1 Field Investigation

Subsurface conditions were investigated by 16 conventional soil test borings and 8 hand auger soil borings. The conventional soil borings, SB-1 through SB-8, SB-10, and SB-12 through SB-18, were drilled to a depth 10-ft below the existing ground surface. Due to utility constraints, the soil boring SB-11 was switched from a conventional soil boring to a hand auger boring and performed to a depth of 5 ft below the existing ground surface. The soil borings along the main street looping segment were performed offset from the proposed water main alignment due to overhead utility and rig access restrictions; therefore, the hand

auger borings, HA-11 through HA-17, were generally performed closer to the proposed water main alignment to depths ranging from 2.5 to 5 ft below the existing ground surface. Boring locations are shown on the attached plans, Figure Nos. 1 through 5.

MTC staked the approximate boring locations in the field. Boring elevations were approximated by a survey-grade GPS. The elevations used in this report are given in feet and are based on NAVD88 datum, with boring coordinates based on the Michigan State Plane South coordinate system. If more precise location and elevation data are desired, a registered professional land surveyor should be retained to locate the borings and determine their ground elevations.

For rig borings, the drilling was performed using conventional hollow-stem auger methods to advance the boreholes. For hand auger borings, boreholes were advanced using a 3 ¼-inch diameter hand auger. At the hand auger location within the roadway, SB-11, pavement was cored with a portable coring machine equipped with a 4-inch diameter core barrel. The boreholes were backfilled to the original ground surface after drilling completion and patched at the surface with asphalt cold patch as needed.

For rig borings, soil samples were recovered at regular intervals by means of the Standard Penetration Test (SPT), ASTM D1586. The SPT test involves the use of a 140-lb hammer with a 30-inch drop to drive a standard 2.0-inch O.D. split spoon sampler. The number of hammer blows required to drive the sampler 12 inches, after seating 6 inches, is termed the soil N-value and provides an indication of the soil's relative density and strength parameters at the sample location. SPT blow counts in 6-inch increments are recorded on the boring logs. The drill rig was equipped with an automatic hammer system which delivers a more consistent driving energy to the sampler compared to the rope and cathead system. For hand auger borings, grab samples were collected at regular intervals.

Recovered samples were sealed, labeled and transported to our laboratory. All soil samples will be discarded after sixty days unless a longer hold time is specifically requested.

Borings were drilled and other sampling was conducted solely to obtain indications of subsurface conditions as part of a geotechnical exploration program. No services were performed to evaluate subsurface environmental conditions.

3.2 Laboratory

The recovered soil samples were reviewed by an engineer and technically classified according to the methods of ASTM D2488 "Standard Practice for Description and Identification of Soils (Visual-Manual Procedure)". Estimates of the unconfined compressive strength of the cohesive samples were made using a calibrated penetrometer. A copy of the test boring logs along with a description of the terminology used on the logs and a chart of the ASTM D2488 group symbol names are provided in the Appendix.

Selected samples were subjected to moisture content testing via ASTM D2216 "Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass". The ASTM D2488 classifications are included on the boring logs. Results of the laboratory tests have been summarized in a table provided in the Appendix.

4.0 INVESTIGATION RESULTS

4.1 Regional Geology

The *Map of the Surface Formations of the Southern Peninsula of Michigan*, published by the State of Michigan, indicates the proposed North Mason Street water main segment is in an area of clay lake beds and that the proposed Maine Street Looping water main segment is in an area of waterlaid moraines. Soil conditions typically are found to be normally consolidated or overconsolidated clay deposits in clay lake beds and are found to be sand and clay in waterlaid moraines.

The *Map of Bedrock Topography of the Southern Peninsula of Michigan* indicates bedrock to be between els 450 and 500, over 100 ft below the existing ground surface.

4.2 Site Conditions

North Mason Street Water Main Segment

At the time of our field work, the proposed North Mason Street water main alignment was covered with asphalt pavement with concrete curb and gutter. The existing grades along the alignment were relatively flat and ranged between els 603 and 605.

Maine Street Looping Segment

At the time of our fieldwork, the proposed Maine Street Looping water main alignment was covered with a combination of grass, dense low-lying vegetation, or concrete pavement. The existing grades along the alignment were generally rolling and ranged between els 604 and 614.

4.3 Subsurface Conditions

North Mason Street Water Main Segment (Borings SB-1 through SB-8 and SB-10)

In general, a pavement section consisting of 4 3/4 to 8 inches of asphalt overlying 3 to 10 inches of gravel or sand base was generally encountered at the ground surface, with the exception of the pavement section encountered at Boring SB-10, which consisted of 2 inches of asphalt overlying 6 inches of concrete and 2 inches of gravel base.

Granular and cohesive fill soils, consisting of very stiff to hard lean clay (CL) and medium dense poorly graded sand with silt (SP-SM), were encountered beneath the pavement section within Borings SB-1 through SB-8 and extended to depths ranging from 2.5 to 5.5 ft (els 598.1 to 601.6).

Native stiff to hard lean clay (CL) was encountered beneath the pavement section and fill soils within the borings and extended to the explored depths of 10 ft (els 593.1 to 594.1).

Maine Street Looping Segment (Borings SB-11 through SB-18 and HA-11 through HA-17)

In general, a pavement section consisting of 4 3/4 to 7 inches of concrete was encountered at the ground surface of Borings SB-12 through SB-18, while the pavement section encountered at Boring SB-11 consisted of 3 inches of asphalt overlying 1.5 inches of concrete and 9.5 inches of gravel base, and the pavement section encountered at Boring SB-18 consisted of 4 inches of asphalt overlying 4 inches of gravel base.

Approximately 2 to 18 inches of clayey topsoil were generally encountered at the ground surface of Borings HA-11 through HA-17; however, no discernable topsoil was encountered at the surface of Boring HA-14.

Granular and cohesive fill soils, consisting of soft to hard lean clay (CL) and loose to medium dense poorly graded sand with varying amounts of silty fines (SP, SP-SM, and SM), were encountered at the ground surface or beneath the topsoil and pavement section within Borings SB-11 through SB-18, HA-11, HA-12, HA-14, HA-15, and HA-17, and extended to depths ranging from 2 to 3.3 ft (els 603.0 to 608.2). Very loose silty sand (SM) fill was encountered to a depth of 2.5 ft (el 608.2) in Boring SB-16.

Generally, native stiff to hard lean clay (CL) was encountered beneath the topsoil and fill soils within each boring and extended to the explored depths ranging from 4.5 to 10 ft (els 595.9 to 605.4). However, the native lean clay (CL) was very soft to soft in consistency within Boring HA-12 and between the approximate depths of 2 to 3 ft (els 604.8 to 605.8) within Boring HA-15.

The relative density of granular soil is based on recorded SPT N-values while the consistency of cohesive soil is based on both recorded SPT N-values and on estimates of the unconfined compressive strength obtained with a calibrated penetrometer.

Borings SB-1 through SB-17 encountered poor sampler recovery due to possible coarse gravel or cobble, within the upper 2.5 to 10 ft (els 593.6 to 608.2). In addition, Borings HA-14 and HA-16 encountered shallow hand auger refusal at depths of 2.5 and 4.5 ft (els 605.0 and 605.4), respectively, due to possible coarse gravel or cobble. Boulder may be present where cobble is noted.

Groundwater was encountered during the drilling activities in Boring SB-3 in the form of seepage within a sand seam at a depth of 7.1 ft (el 597.0) and in Boring HA-12 perched within sand fill at a depth of 1.9 ft (el 604.0). Groundwater levels may fluctuate due to seasonal variations such as precipitation, snowmelt, nearby river or lake levels and other factors that may not be evident at the time of measurement. Groundwater levels may be different at the time of construction.

This section has provided a generalized description of the encountered subsurface soil conditions. The boring logs located in the Appendix should be reviewed for detailed soil descriptions. Some variation between boring locations may be expected.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Key geotechnical challenges associated with this project are expected to include, but not necessarily limited to, the following:

- Temporary support of adjacent utilities, structures, and adjacent properties during construction where open cut or braced excavations are utilized.
- Groundwater control during utility placement and the possible need for dewatering due to the shallow groundwater in HA-12 and near the excavation depth in SB-3.

5.1 Subgrade Considerations

Subgrade conditions encountered near the proposed water main invert depths of approximately 6 to 8 ft below grade consisting of generally stiff to hard lean clay (CL). These conditions are anticipated to provide appropriate support of the proposed water main following subgrade preparation measures as described herein.

All topsoil, vegetation, roots and any other miscellaneous debris should be removed from within the proposed construction areas. The limits of the proposed construction area, prior to the placement of any structures or engineered fill material, should be confirmed to be stable with confirmation of acceptable unconfined compressive strength. In areas where unsuitable

subgrade, such as weak or yielding subgrade, is observed, special subgrade preparation measures may be recommended to provide an acceptable subgrade condition.

All subgrade in exposed excavation areas should be observed and approved by qualified geotechnical personnel.

Due to the presence of soft lean clay, occasional surficial fill, and due to variations that may exist between borings, it is possible that some form of subgrade improvement may be required over portions of water main alignment to provide suitable subgrade conditions. Subgrade improvement may include, but not be necessarily limited to, densification of existing soil in-place or excavation of all unsuitable material to an approved subgrade and replacement with engineered fill. If overexcavation is selected, it should encompass soil within the stress influence region of the pipe and bedding, defined as a region bordered by 2V:1H planes extending down and away from the edge of bedding to the approved bearing stratum.

The roadway subgrade, prior to the placement of any structures or engineered fill, should be proof rolled by the Contractor. Proof rolling is defined as the passing or relatively heavy construction equipment over the soil subgrade under observation by the Geotechnical Engineer. The response of the soil, when subjected to the applied load, is subjectively evaluated by qualified geotechnical personnel with respect to its ability to support the overlying soil or structure. In areas where excessive deflection is observed, special subgrade preparation measures may be recommended to provide an acceptable subgrade condition. These measures may consist of compaction of the subgrade at moisture contents close to the optimum value, undercutting affected areas and replacing with engineered fill, use of a geotextile separation fabric or some combination of these measures.

Engineered fill should meet the requirements for MDOT Class II granular material, compacted to at least 95 percent of the soil's maximum dry density as determined by the Modified Proctor test (ASTM D1557). Vibratory compaction methods are typically found to be most effective in granular soils. The fill should be placed and compacted in horizontal layers not exceeding 9 inches. Field density tests should be taken on each lift, as the fill is being placed, to verify compliance with compaction specifications.

If the earthwork takes place during winter months, fill must not be placed on frozen ground and fill with frozen conglomerations of soil must not be used.

We recommend a pre-construction survey be performed for all structures and right-of-way located within 75 ft of the utility alignment. The preconstruction survey should be performed by the Contractor's professional videographer and include an assessment of the existing structural condition and photo or video-documentation of existing cracks and structural defects. Crack monitors capable of measuring crack displacement and rotation to the nearest 1 mm and settlement monitoring points should be set prior to construction and monitored through construction. We recommend the contractor install crack monitors and settlement markers at locations agreed upon by the Project Engineer after the performance of the preconstruction survey. Crack monitor and settlement marker readings should be obtained one week before construction, and every 2 hours during construction within 100 ft of the marker by optical or laser level to the nearest 0.01 ft. Results of the monitoring program shall be submitted to the Project Engineer daily for review. The construction should be stopped, reviewed and a revised action plan be evaluated should any movement be observed.

5.2 Bedding and Backfill

Bedding for water main should consist of MDOT Class II sand with 100 percent of the material passing the 3/8-inch sieve. General backfill above the water main pipe should consist of MDOT Class II sand. Sand bedding and backfill should be compacted to 95 percent of its maximum dry density (ASTM D1557). Backfill outside the stress influence region of roadways, sidewalks, or other structures can consist of native excavated inorganic soil compacted to 90 percent of its maximum dry density (ASTM D1557). In general, due to the variable soil conditions encountered, it should be considered that all bedding and MDOT Class II backfill will have to be imported.

5.3 Temporary Slopes and Excavation Support

We have considered excavations on the order of 6 to 8 ft in depth will be required to perform the water main installation. The Contractor should be fully responsible for determining suitable excavation slope angles, excavation and soil support methods and assessing the need for lateral earth retention to protect the integrity of all existing structures. The Contractor

should make themselves aware of and become familiar with applicable local, state, and federal safety regulations, including current OSHA excavation and trench safety standards. Construction site safety generally is the sole responsibility of the Contractor. The Contractor shall also be solely responsible for the means, methods, techniques, sequences and operations of construction operations. We are providing the following information solely as a service on this project and, under no circumstances, should our provision of the following information be construed to mean that we are assuming responsibility for construction site safety or the Contractor's activities; such responsibility is not implied and should not be inferred.

The support and protection of all soil, structures, and utilities outside of the right-of-way/contract limits and existing utilities and structures within the right-of-way limits are the responsibility of the Contractor. The Contractor shall be responsible for evaluating the need for and constructing and maintaining any temporary support systems in a safe manner and monitoring the system's performance throughout construction.

The Contractor should be aware that slope height, slope inclination, and excavation depths (including utility trench excavations) should in no case exceed those specified in local, state, or federal safety regulations; e.g., OSHA Health and Safety Standards for Excavations, 29 CFR Part 1926, or successor regulations. The angle of repose and the design of the necessary supporting system for an excavation shall be determined by the Contractor. For this site, the overburden soil encountered in our exploratory program is a combination of cohesive and granular soil. We anticipate that OSHA will classify these materials as Types A and C, respectively. OSHA recommends a maximum slope inclination of ¾H:1V for Type A and 1½H:1V for Type C soil under ideal conditions.

5.4 Groundwater

Groundwater seepage was encountered during the drilling activities within a sand seam at a depth of 7.1 ft (el 597.0) in Boring SB-3 and perched groundwater was encountered within sand fill at a depth of 1.9 ft (el 604.0) within Boring HA-12. Groundwater will likely be encountered during construction in isolated sand seams and suitable control of groundwater should be anticipated and planned for accordingly before the start of construction. The Contractor should be responsible for selecting and implementing an appropriate groundwater

control system. The contractor should have previous dewatering experience on sites with similar conditions. Suitable silt and sediment traps should be incorporated into the dewatering system.

5.5 Pavements

Rigid Pavements (Forest Street and Residential Side Streets)

For the anticipated traffic conditions consisting primarily of passenger vehicles with occasional light truck traffic, a minimum concrete thickness of 6 inches is recommended. A plain jointed (unreinforced) concrete pavement with proper spacing of control joints is recommended. Load transfer devices (dowel bars) are not expected to be necessary given the expected axle loadings from primarily passenger vehicles. A minimum 6-in base of MDOT Class II sand should be placed underneath the concrete. The concrete strength should be designed for a minimum modulus of rupture, S'_c, of 600 psi and the concrete should be air-entrained. The pavement should be properly jointed (sawcut) with the joints sealed. A jointing plan should be prepared as part of the design. Typically, joints are placed every 12 to 15 ft with the sawcut extending approximately 1/4 of the pavement depth.

Flexible Pavements (North Mason Street)

Subgrade preparation in pavement areas should be as described in the “Subgrade Considerations" section of this report. The pavement sections recommended in this section are based on procedures contained in the 1993 AASHTO Guide for Design of Pavement Structures.

We have prepared pavement design recommendations based on a 5-yr average of 5,278 AADT for North Mason Street as specified within the MDOT traffic count data with a commercial traffic estimated of 3% and considering a traffic growth estimate of 1.5% annually over the course of the life of the pavement.

The design recommendations provided are based on the following:

Table 5.5.1 - Flexible Pavement Basis of Design

Design Period	20 years
Level of reliability	85 percent
Combined Standard Error (S_o)	0.49
Initial Serviceability Index (p_i)	4.5
Terminal Serviceability Index (p_t)	2.5

The following flexible pavement section is recommended:

Table 5.5.2 - Flexible Pavement Section

Sand subbase thickness, inches	10.0
Aggregate base thickness, inches	8.0
Bituminous base course thickness, inches	3.0
Bituminous leveling course thickness, inches	1.5
Bituminous wearing course thickness, inches	1.5

The following materials are recommended:

Table 5.5.3 - Flexible Pavement Materials

Sand subbase	MDOT Class II granular
Aggregate base	MDOT 21AA Natural Aggregate
Bituminous base	MDOT 3EML
Bituminous leveling	MDOT 4EMH
Bituminous wearing	MDOT 5EMH

Sand subbase material should be laboratory tested to confirm MDOT Class II grading requirement. MDOT standard specifications for materials and placement should be observed. The binder grade should be a minimum of PG 64-28.

A natural aggregate base product, often consisting of crushed limestone, is recommended relative to crushed concrete aggregate base products considering the long-term performance risk crushed concrete presents due to potential hydration of free cement and decreased permeability over time.

Construction procedures and workmanship are of key importance with respect to pavement appearance and long-term pavement performance. Key components of workmanship include appropriate joint construction resulting in sufficient density, prevention of segregation, and maintaining a minimum temperature during placement. At a minimum, the procedures outlined in Section 501 of the 2020 MDOT Specifications should be followed with respect to equipment, placement, and temperatures. Compaction of the asphalt courses should range between 92 and 96 percent of the Theoretical Maximum Density (TMD) based on MDOT requirements. Due to the presence of utilities, we recommend consideration be given to excluding vibratory rollers.

It is recommended that cracks that may develop in the pavement be quickly and properly sealed through a regular maintenance program. Also, the subgrade should be sufficiently sloped to provide drainage within the sand subbase and underdrains should be provided within the subbase, at catch basins and pavement edges, to facilitate drainage. At each catch basin, four underdrains with a watertight connection should extend out radially at least 20 ft. A suitable rubberized asphalt sealant should be placed between all concrete curb/HMA joints immediately after paving.

6.0 CLOSURE

In this report, descriptions of the geotechnical investigation, encountered conditions and recommendations for the proposed water main installation have been provided. The limitations of this study are described in the Appendix.

The recommendations presented in this report are based upon a limited number of subsurface samples obtained from various sampling locations. The samples may not fully indicate the nature and extent of the variations that actually exist between sampling locations. For that reason, among others, we strongly recommend that a qualified geotechnical firm be retained to observe earthwork construction. If variations or other latent conditions become evident during construction, it will be necessary for us to review these conditions and our recommendations as appropriate.

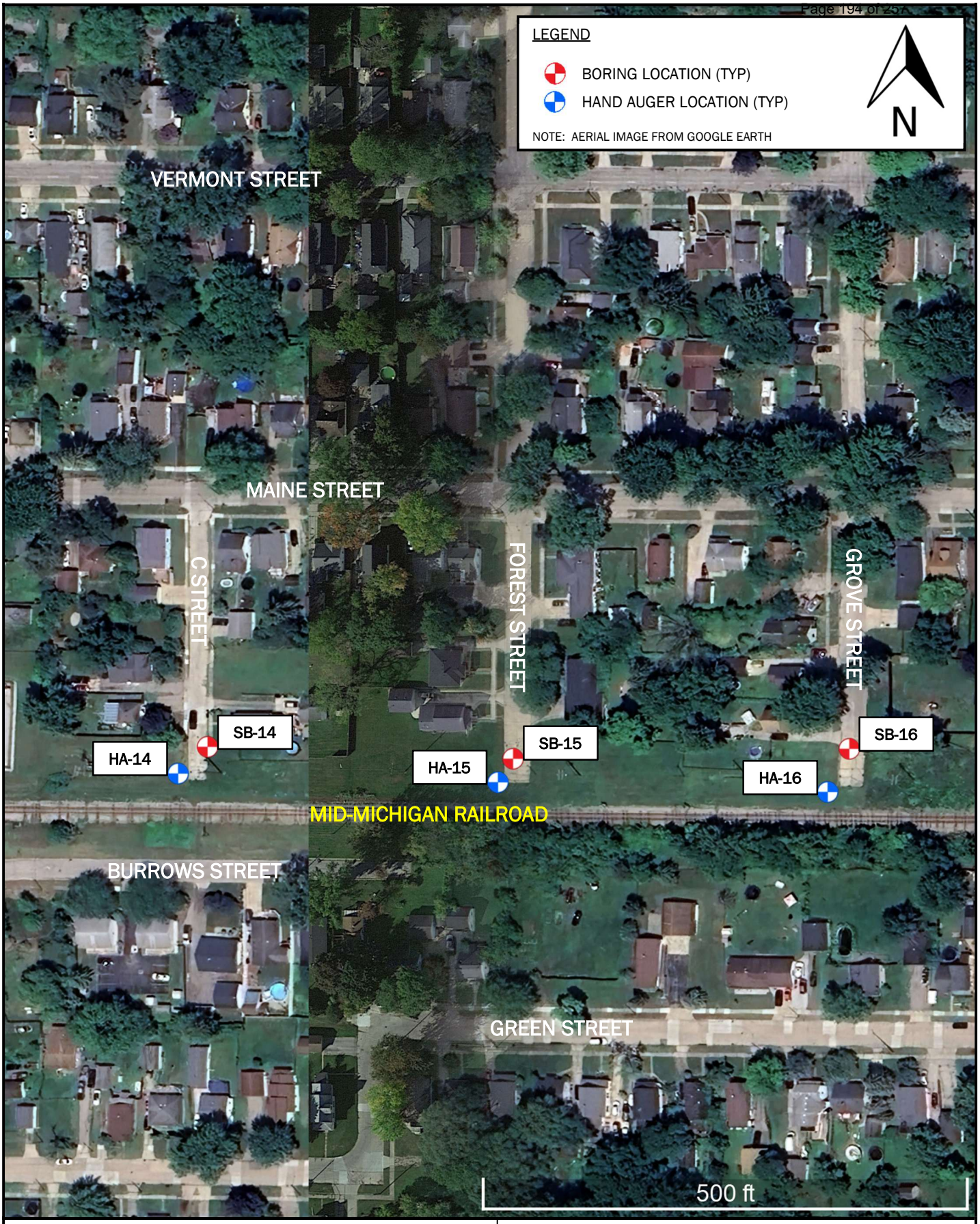
TITLE: BORING LOCATION PLAN		PROJECT: SAGINAW 2026 DWSRF WATER MAIN REPLACEMENTS
SCALE: AS SHOWN	DATE: 01/20/26	PROJECT NO.: 251823
FIG. NO.: 1	DR. BY: SS	REV. BY: KC

MTC MATERIALS TESTING CONSULTANTS

TITLE: BORING LOCATION PLAN		PROJECT: SAGINAW 2026 DWSRF WATER MAIN REPLACEMENTS
SCALE: AS SHOWN	DATE: 01/20/26	PROJECT NO.: 251823
FIG. NO.: 2	DR. BY: SS	REV. BY: KC

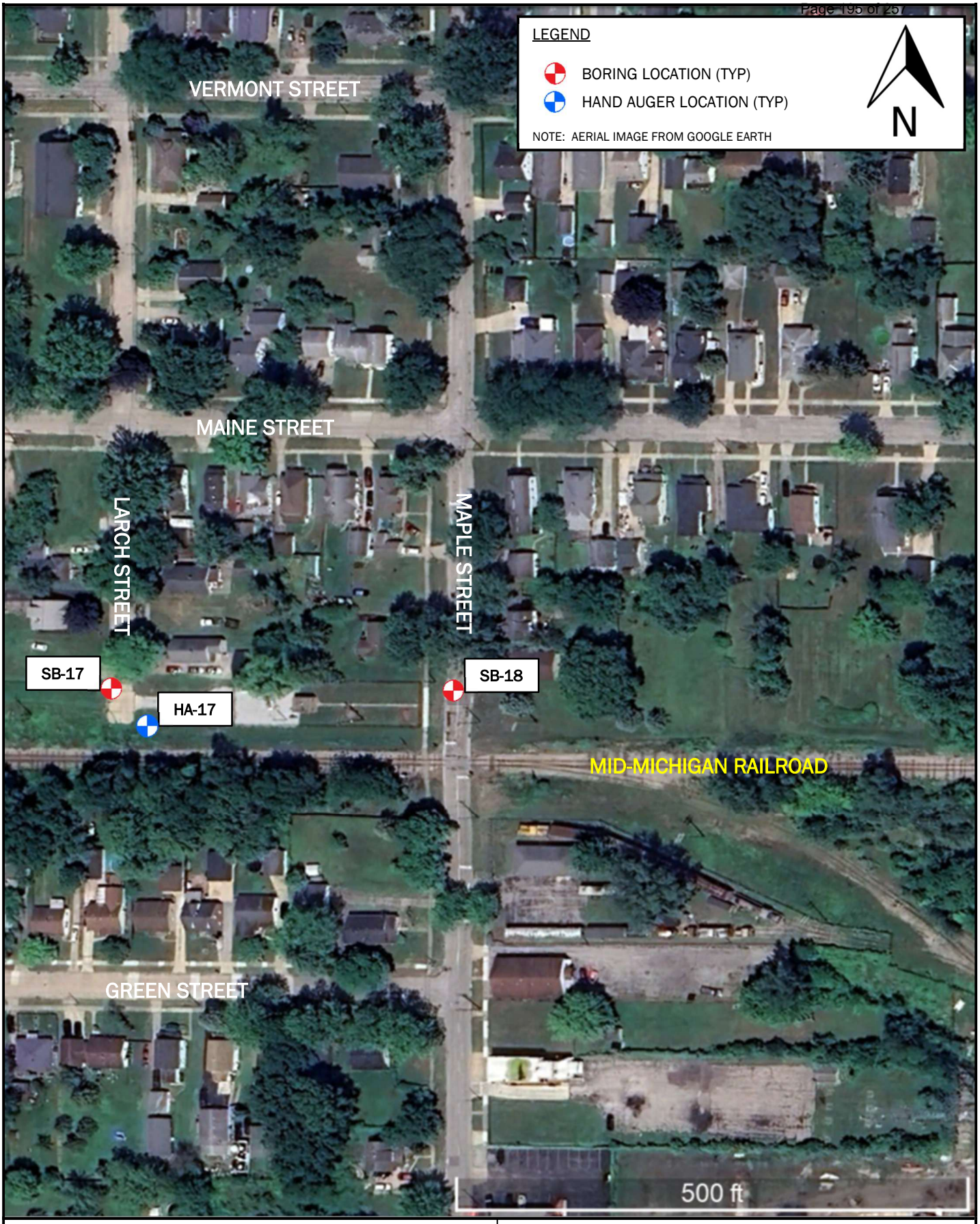
MTC MATERIALS TESTING CONSULTANTS

TITLE: BORING LOCATION PLAN			PROJECT: SAGINAW 2026 DWSRF WATER MAIN REPLACEMENTS
SCALE: AS SHOWN	DATE: 01/20/26	PROJECT NO.: 251823	MTC MATERIALS TESTING CONSULTANTS
FIG. NO.: 3	DR. BY: SS	REV. BY: KC	



TITLE: BORING LOCATION PLAN		PROJECT: SAGINAW 2026 DWSRF WATER MAIN REPLACEMENTS
SCALE: AS SHOWN	DATE: 01/20/26	PROJECT NO.: 251823
FIG. NO.: 4	DR. BY: SS	REV. BY: KC

MTC MATERIALS TESTING CONSULTANTS



TITLE: BORING LOCATION PLAN		PROJECT: SAGINAW 2026 DWSRF WATER MAIN REPLACEMENTS
SCALE: AS SHOWN	DATE: 01/20/26	PROJECT NO.: 251823
FIG. NO.: 5	DR. BY: SS	REV. BY: KC

MTC MATERIALS TESTING CONSULTANTS

APPENDIX

- Limitations
- Test Drilling and Sampling Procedures
- Boring Log Terminology and Classification Outline
- Boring Logs
- Summary of Laboratory Test Data

LIMITATIONS

Soil Variations

The recommendations in this report are based upon the data obtained from the soil borings. This report does not reflect variations which may occur between these borings, and which would not become evident until construction. If variations then become evident, it would be necessary for a re-evaluation of recommendations of this report, after performing on-site observations.

Warranties

We have prepared this report in accordance with generally accepted soil and foundation engineering practices. We make no other warranties, either expressed or implied, as to the professional advice provided under the terms of our agreement and included in this report. This report is prepared exclusively for our client and may not be relied upon by other parties without written consent from our office.

Boring Logs

In the process of obtaining and testing samples and preparing this report, we follow reasonable and accepted practice in the field of soil engineering. Field logs maintained during drilling describe field occurrences, sampling locations, and other information. The samples obtained in the field are subjected to additional testing in the laboratory and differences may exist between the field logs and the final logs. The engineer reviews the field logs and laboratory test data, and then prepares the final boring logs. Our recommendations are based on the contents of the final logs.

Review of Design Plans and Specifications

In the event that any changes in the design of the building or the location, however slight, are planned, our recommendations shall not be considered valid unless modified or approved in writing by our office. We recommend that we be provided the opportunity to review the final design and specifications in order to determine whether changes in the original concept may have affected the validity of our recommendations, and whether our recommendations have, in fact, been implemented in the design and specifications.

TEST DRILLING AND SAMPLING PROCEDURES

Test Drilling Methods:

- [X] Hollow stem auger, ASTM D6151
- [ ] Mud rotary, ASTM D5783
- [ ] Casing advancer, ASTM D5872
- [ ] Rock coring, ASTM D2113
- [X] Core/Hand Auger

Note: Cone penetration test data can be used to interpret subsurface stratigraphy and can provide data on engineering properties of soils. The ASTM procedure does not include a procedure for determining soil classification from CPT testing. Soil classifications shown on CPT logs are based on published procedures and are not based on physical ASTM soil classification tests.

Sampling Methods:

- [X] SPT, ASTM D1586, Auto hammer (140 lb., 30" drop, 2" OD split spoon sampler)
- [X] Grab Samples

Note: The number of hammer blows required to drive the SPT sampler 12 inches, after seating 6 inches, is termed the soil N-value and provides an indication of the soil's relative density and strength parameters at the sample location. SPT blow counts in 6 inch increments are recorded on the boring logs.

Drill Rig:

- [ ] CME 55 (ATV)
- [ ] Acker Renegade (ATV)
- [X] CME 45 Truck
- [ ] Geoprobe 7822 (ATV)
- [ ] Geoprobe Rotary Sonic

Boreholes Backfilled With:

- [X] Excavated soil
- [ ] Cement bentonite grout
- [ ] Piezometer or Monitoring Well (see notes on logs)
- [X] Concrete or asphalt patch where appropriate

Sample Handling and Disposition:

- [X] Samples labeled, placed in jars, returned to MTC Laboratory
- [X] Discard after 60 days

BORING LOG TERMINOLOGY AND ASTM D 2488 CLASSIFICATION OUTLINE

TERMS DESCRIBING CONSISTENCY OR CONDITION

COARSE-GRAINED SOILS (major portions retained on No. 200 sieve): includes (1) clean gravel and sands and (2) silty or clayey gravels and sands. Condition is rated according to relative density as determined by laboratory tests or standard penetration resistance tests.

Descriptive Terms	Relative Density	SPT Blow Count
Very loose	0 to 15 %	< 5
Loose	15 to 35 %	5 to 10
Medium dense	35 to 65 %	10 to 30
Dense	65 to 85 %	30 to 50
Very dense	85 to 100 %	> 50

Per ASTM D2487, the following conditions must be met based on laboratory testing to justify the label 'well graded' in a soil description.

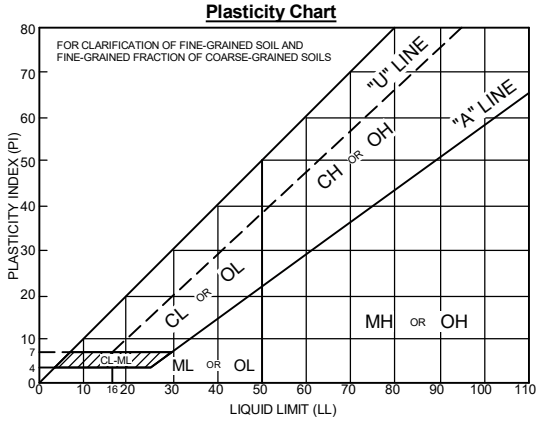
Gravel: $C_U = \frac{D_{60}}{D_{10}}$ greater than 4; $C_C = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3

Sand: $C_U = \frac{D_{60}}{D_{10}}$ greater than 6; $C_C = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3

FINE-GRAINED SOILS (major portions passing on No. 200 sieve): includes (1) inorganic and organic silts and clays, (2) gravelly, sandy, or silty clays, and (3) clayey silts. Consistency is rated according to shearing strength, as indicated by penetrometer readings, SPT blow count, or unconfined compression tests.

Descriptive Terms	Unconfined Compressive Strength TSF	SPT Blow Count
Very soft	< 0.25	< 2
Soft	0.25 to 0.5	2 to 4
Medium stiff	0.5 to 1.0	4 to 8
Stiff	1.0 to 2.0	8 to 15
Very stiff	2.0 to 4.0	15 to 30
Hard	> 4.0	> 30

Plasticity Chart



MAJOR DIVISIONS					TYPICAL NAMES
COARSE-GRAINED SOILS MORE THAN HALF IS COARSER THAN NO. 200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	CLEAN GRAVELS WITH LESS THAN 15% FINES	GW		WELL-GRADED GRAVELS WITH OR WITHOUT SAND
			GP		POORLY-GRADED GRAVELS WITH OR WITHOUT SAND
		GRAVELS WITH 15% OR MORE FINES	GM		SILTY GRAVELS WITH OR WITHOUT SAND
			GC		CLAYEY GRAVELS WITH OR WITHOUT SAND
	SANDS MORE THAN HALF COARSE FRACTION IS FINER THAN NO. 4 SIEVE SIZE	CLEAN SANDS WITH LESS THAN 15% FINES	SW		WELL-GRADED SANDS WITH OR WITHOUT GRAVEL
			SP		POORLY-GRADED SANDS WITH OR WITHOUT GRAVEL
			SP-SM		POORLY-GRADED SANDS WITH SILT WITH OR WITHOUT GRAVEL
		SANDS WITH 15% OR MORE FINES	SM		SILTY SANDS WITH OR WITHOUT GRAVEL
			SC		CLAYEY SANDS WITH OR WITHOUT GRAVEL
FINE-GRAINED SOILS MORE THAN HALF IS FINER THAN NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT 50% OR LESS		ML		INORGANIC SILTS OF LOW TO MEDIUM PLASTICITY WITH OR WITHOUT SAND OR GRAVEL
			CL		INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY WITH OR WITHOUT SAND OR GRAVEL
			OL		ORGANIC SILTS OR CLAYS OF LOW TO MEDIUM PLASTICITY WITH OR WITHOUT SAND OR GRAVEL
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50%		MH		INORGANIC SILTS OF HIGH PLASTICITY WITH OR WITHOUT SAND OR GRAVEL
			CH		INORGANIC CLAYS OF HIGH PLASTICITY WITH OR WITHOUT SAND OR GRAVEL
			OH		ORGANIC SILTS OR CLAYS OF HIGH PLASTICITY WITH OR WITHOUT SAND OR GRAVEL
HIGHLY ORGANIC SOILS			PT/OL		PEAT AND OTHER HIGHLY ORGANIC SOILS

GENERAL NOTES

1. Classifications are based on the United Soil Classification System and include consistency, moisture, and color. Field descriptions have been modified to reflect results of laboratory tests where deemed appropriate.

2. "Grades with" or "Grades without" may be used to describe soil when characteristics vary within a stratum.

3. Preserved soil samples will be discarded after 60 days unless alternate arrangements have been made.

GROUNDWATER OBSERVATIONS:

During - indicates water level encountered during the boring
End- indicates water level immediately after drilling
Date and Depth - Measurements at indicated date

SAMPLE TYPES AND NUMBERING

S	SPT, split barrel sample, ASTM D1586
U	Shelby tube sample, ASTM D1587
R	Rock core run
*S	Other than 2" split barrel sample
L	SPT with liner, ASTM D1586
A	Auger cuttings
G	Geoprobe liner

MINOR COMPONENT QUANTIFYING TERMS

Less than 5%	TRACE
5 to 10%	FEW
15 to 25%	LITTLE
30 to 40%	SOME
50 to 100%	MOSTLY

GRAIN SIZE

BOULDER	>12"
COBBLE	12" to 3"
COARSE GRAVEL	3" to 0.75"
FINE GRAVEL	0.75" to No. 4
COARSE SAND	No. 4 to No. 10
MEDIUM SAND	No. 10 to No.40
FINE SAND	No. 40 to No. 200

LOG OF BORING

Project No.: 251823
Boring No.: SB-1
Sheet: 1 of 1

Project: Saginaw 2026 DWSRF Water Main Replacements
Client: Fishbeck
Location: Saginaw, Michigan
Drill Type: CME 45
Crew Chief: JC Field Eng.: MN Rev. By: KC
Coordinates: N=703425.7 E=13231202.7 (MI South ift)
Elevation: 603.5 ft Datum: NAVD 88 (GPS Observation)
Notes:

Plugging Record: Backfilled borehole with compacted cuttings, patched pavement with cold patch. Cave in at 2.5 ft.

Date Begin: 12/23/2025 Date End: 12/23/2025

Tooling	Type	Dia.	Groundwater, ft.	
Casing	HSA	4 1/4"	During	None
Sampler	SPT	2"	End	NA
Core			Delayed Groundwater, ft.	
Tube			Date	Depth, ft.
SPT Hammer	Auto			

Depth Drilled: 10.0 ft.

Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100%

QP = Calibrated Penetrometer (tons/sq. ft.)

Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Penetration (Blows Per 6") ASTM D 1586	*USCS Group Symbol	*DESCRIPTION	QP tsf	MST %	DD pcf	REMARKS
603.0	0.5					5 3/4" HMA (0.5)				Fill: 0.0' to 2.5'
602.5	1.0					4 3/4" Gravel Base (0.8)				S-1: Poor recovery; possible coarse gravel / COBBLE
602.0	1.5	S-1	0.4	13-16-4 N=20	CL	Brown lean CLAY with sand; mostly clayey fines, little coarse to fine sand, trace fine gravel, moist, Fill	4.0			
601.5	2.0									
601.0	2.5					(2.5)				
600.5	3.0					Brown lean CLAY; mostly clayey fines, few fine sand, trace fine gravel, moist				
600.0	3.5									
599.5	4.0									
599.0	4.5	S-2	1.5	4-6-9 N=15			4.25	11.5		
598.5	5.0									
598.0	5.5									
597.5	6.0									
597.0	6.5				CL					
596.5	7.0	S-3	1.5	6-10-12 N=22			4.5+			
596.0	7.5									
595.5	8.0									
595.0	8.5									
594.5	9.0									
594.0	9.5	S-4	1.5	5-8-10 N=18			4.5+	11.1		
593.5	10.0					(10.0)				
						End of Boring				

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.

LOG OF BORING

Project No.: 251823
Boring No.: SB-2
Sheet: 1 of 1

Project: Saginaw 2026 DWSRF Water Main Replacements
Client: Fishbeck
Location: Saginaw, Michigan
Drill Type: CME 45
Crew Chief: JC Field Eng.: MN Rev. By: KC
Coordinates: N=703689.8 E=13231202.8 (MI South ift)
Elevation: 603.1 ft Datum: NAVD 88 (GPS Observation)
Notes:

Plugging Record: Backfilled borehole with compacted cuttings, patched pavement with cold patch. Cave in at 3.5 ft.

Date Begin: 12/23/2025 Date End: 12/23/2025

Tooling	Type	Dia.	Groundwater, ft.	
Casing	HSA	4 1/4"	During	None
Sampler	SPT	2"	End	NA
Core			Delayed Groundwater, ft.	
Tube			Date	Depth, ft.
SPT Hammer	Auto			

Depth Drilled: 10.0 ft.

Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100%

QP = Calibrated Penetrometer (tons/sq. ft.)

Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Penetration (Blows Per 6") ASTM D 1586	*USCS Group Symbol	*DESCRIPTION	QP tsf	MST %	DD pcf	REMARKS
602.6	0.5					5 1/2" HMA (0.5)				Fill: 0.0' to 2.5'
602.1	1.0					3" Sandy Gravel Base (0.7)				S-1: Poor recovery; possible coarse gravel / COBBLE
601.6	1.5	S-1	0.8	10-7-7 N=14	SP-SM	Brown poorly graded SAND with silt; mostly coarse to fine sand, few silty fines, trace fine gravel, moist, Fill				
601.1	2.0									
600.6	2.5					(2.5)				
600.1	3.0					Brown and gray mottled lean CLAY; mostly clayey fines, few coarse to fine sand, trace coarse to fine gravel, moist				
599.6	3.5									
599.1	4.0									
598.6	4.5	S-2	1.5	3-4-8 N=12	CL		4.5+			
598.1	5.0									
597.6	5.5					(5.5)				
597.1	6.0					Gray lean CLAY; mostly clayey fines, few fine sand, trace coarse to fine gravel, moist				
596.6	6.5									
596.1	7.0	S-3	1.5	5-6-8 N=14			3.5	11.2		
595.6	7.5									
595.1	8.0				CL					
594.6	8.5									
594.1	9.0									
593.6	9.5	S-4	1.5	4-7-9 N=16			4.25			
593.1	10.0					(10.0)				
						End of Boring				

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.

LOG OF BORING

Project No.: 251823
Boring No.: SB-3
Sheet: 1 of 1

Project: Saginaw 2026 DWSRF Water Main Replacements
Client: Fishbeck
Location: Saginaw, Michigan
Drill Type: CME 45
Crew Chief: JC Field Eng.: MN Rev. By: KC
Coordinates: N=704026.3 E=13231198.2 (MI South ift)
Elevation: 604.1 ft Datum: NAVD 88 (GPS Observation)
Notes:

Plugging Record: Backfilled borehole with compacted cuttings, patched pavement with cold patch. Cave in at 3.1 ft.

Date Begin: 12/23/2025 Date End: 12/23/2025

Tooling	Type	Dia.	Groundwater, ft.	
Casing	HSA	4 1/4"	During	7.1
Sampler	SPT	2"	End	NA
Core			Delayed Groundwater, ft.	
Tube			Date	Depth, ft.
SPT Hammer	Auto			

Depth Drilled: 10.0 ft.

Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100%

QP = Calibrated Penetrometer (tons/sq. ft.)

Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Penetration (Blows Per 6") ASTM D 1586	*USCS Group Symbol	*DESCRIPTION	QP tsf	MST %	DD pcf	REMARKS
603.6	0.5					4 3/4" HMA 0.4				Fill: 0.0' to 2.5'
603.1	1.0					4" Gravel Base 0.7				S-1, S-3: Poor recovery; possible coarse gravel / COBBLE
602.6	1.5	S-1	0.8	31-11-6 N=17	CL	Dark brown lean CLAY with sand; mostly clayey fines, little fine sand, moist, Fill	4.5+			
602.1	2.0					2.5				
601.6	2.5					Brown and gray mottled lean CLAY; mostly clayey fines, trace fine sand, moist				
601.1	3.0									
600.6	3.5									
600.1	4.0									
599.6	4.5	S-2	1.5	2-2-2 N=4			1.5	21.9		
599.1	5.0									
598.6	5.5				CL					
598.1	6.0									
597.6	6.5									
597.1	7.0	S-3	0.4	6-7-8 N=15			1.0			
596.6	7.5					Wet sand seam at 7.1'				
596.1	8.0					8.0				
595.6	8.5					Gray lean CLAY; mostly clayey fines, trace fine sand, trace fine gravel, moist				
595.1	9.0									
594.6	9.5	S-4	1.5	2-6-7 N=13	CL		4.5+			
594.1	10.0					10.0				
						End of Boring				

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.

LOG OF BORING

Project No.: 251823
Boring No.: SB-4
Sheet: 1 of 1

Project: Saginaw 2026 DWSRF Water Main Replacements
Client: Fishbeck
Location: Saginaw, Michigan
Drill Type: CME 45
Crew Chief: JC Field Eng.: MN Rev. By: KC
Coordinates: N=704286.3 E=13231196.9 (MI South ift)
Elevation: 603.8 ft Datum: NAVD 88 (GPS Observation)
Notes:

Plugging Record: Backfilled borehole with compacted cuttings, patched pavement with cold patch. Cave in at 2.7 ft.

Date Begin: 12/23/2025 Date End: 12/23/2025

Tooling	Type	Dia.	Groundwater, ft.	
Casing	HSA	4 1/4"	During	None
Sampler	SPT	2"	End	NA
Core			Delayed Groundwater, ft.	
Tube			Date	Depth, ft.
SPT Hammer	Auto			

Depth Drilled: 10.0 ft.

Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100%

QP = Calibrated Penetrometer (tons/sq. ft.)

Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Penetration (Blows Per 6") ASTM D 1586	*USCS Group Symbol	*DESCRIPTION	QP tsf	MST %	DD pcf	REMARKS
603.3	0.5					4 3/4" HMA 0.4				Fill: 0.0' to 5.5'
602.8	1.0	S-1	0.6	17-8-4 N=12		5" Gravel Base 0.8	4.0			S-1: Poor recovery; possible coarse gravel / COBBLE
602.3	1.5					Brown and gray mottled lean CLAY with sand; mostly clayey fines, little coarse to fine sand, trace fine gravel, moist, Fill				
601.8	2.0									
601.3	2.5									
600.8	3.0									
600.3	3.5				CL					
599.8	4.0	S-2	1.5	2-8-8 N=16			4.5+			
599.3	4.5									
598.8	5.0									
598.3	5.5					5.5				
597.8	6.0					Brown lean CLAY; mostly clayey fines, few fine sand, trace fine gravel, moist				
597.3	6.5	S-3	1.5	5-9-10 N=19			2.5	11.1		
596.8	7.0									
596.3	7.5									
595.8	8.0				CL					
595.3	8.5									
594.8	9.0	S-4	1.5	3-5-5 N=10			4.5+			
594.3	9.5					Grades with sandy clay seam from 9.5' to 9.8'				
593.8	10.0					10.0				
						End of Boring				

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.

LOG OF BORING

Project No.: 251823
Boring No.: SB-5
Sheet: 1 of 1

Project: Saginaw 2026 DWSRF Water Main Replacements
Client: Fishbeck
Location: Saginaw, Michigan
Drill Type: CME 45
Crew Chief: JC Field Eng.: BT Rev. By: KC
Coordinates: N=704551.2 E=13231195.9 (MI South ift)
Elevation: 603.6 ft Datum: NAVD 88 (GPS Observation)
Notes:

Plugging Record: Backfilled borehole with compacted cuttings, patched pavement with cold patch. Cave in at 3.1 ft.

Date Begin: 12/24/2025 Date End: 12/24/2025

Tooling	Type	Dia.	Groundwater, ft.	
Casing	HSA	3 1/4"	During	None
Sampler	SPT	2"	End	NA
Core			Delayed Groundwater, ft.	
Tube			Date	Depth, ft.
SPT Hammer	Auto			

Depth Drilled: 10.0 ft.

Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100%

QP = Calibrated Penetrometer (tons/sq. ft.)

Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Penetration (Blows Per 6") ASTM D 1586	*USCS Group Symbol	*DESCRIPTION	QP tsf	MST %	DD pcf	REMARKS
603.1	0.5					7" HMA (0.6)				Fill: 0.0' to 5.5'
602.6	1.0					8" Gravel Base (1.3)	2.0			S-1, S-2, S-4: Poor recovery; possible coarse gravel / COBBLE
602.1	1.5	S-1	0.5	10-4-4 N=8		Gray lean CLAY; mostly clayey fines, few coarse to fine sand, trace fine gravel, moist, Fill				
601.6	2.0									
601.1	2.5									
600.6	3.0									
600.1	3.5				CL					
599.6	4.0									
599.1	4.5	S-2	1.0	2-4-5 N=9		Grades gray and brown mottled	2.0			
598.6	5.0									
598.1	5.5					(5.5)				
597.6	6.0					Brown lean CLAY; mostly clayey fines, trace coarse to fine sand, trace fine gravel, moist				
597.1	6.5									
596.6	7.0	S-3	1.5	3-7-9 N=16			4.5+	11.8		
596.1	7.5									
595.6	8.0				CL					
595.1	8.5									
594.6	9.0									
594.1	9.5	S-4	0.5	7-10-14 N=24			1.75			
593.6	10.0					(10.0)				
						End of Boring				

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.

LOG OF BORING

Project No.: 251823
Boring No.: SB-6
Sheet: 1 of 1

Project: Saginaw 2026 DWSRF Water Main Replacements
Client: Fishbeck
Location: Saginaw, Michigan
Drill Type: CME 45
Crew Chief: JC Field Eng.: BT Rev. By: KC
Coordinates: N=704753.2 E=13231196.1 (MI South ift)
Elevation: 603.4 ft Datum: NAVD 88 (GPS Observation)
Notes:

Plugging Record: Backfilled borehole with compacted cuttings, patched pavement with cold patch. Cave in at 3.0 ft.

Date Begin: 12/24/2025 Date End: 12/24/2025

Tooling	Type	Dia.	Groundwater, ft.	
Casing	HSA	3 1/4"	During	None
Sampler	SPT	2"	End	NA
Core			Delayed Groundwater, ft.	
Tube			Date	Depth, ft.
SPT Hammer	Auto			

Depth Drilled: 10.0 ft.

Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100%

QP = Calibrated Penetrometer (tons/sq. ft.)

Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Penetration (Blows Per 6") ASTM D 1586	*USCS Group Symbol	*DESCRIPTION	QP tsf	MST %	DD pcf	REMARKS
602.9	0.5					8" HMA (0.7)				Fill: 0.0' to 2.5'
602.4	1.0					7" Gravel Base (1.3)				S-1: Poor recovery; possible coarse gravel / COBBLE
601.9	1.5	S-1	0.4	15-13-8 N=21	SP-SM	Brown and gray poorly graded SAND with silt; mostly fine to coarse sand, few silty fines, moist, Fill (2.5)				
601.4	2.0									
600.9	2.5									
600.4	3.0					Brown lean CLAY; mostly clayey fines, trace coarse to fine sand, trace fine gravel, moist				
599.9	3.5									
599.4	4.0									
598.9	4.5	S-2	1.5	3-6-8 N=14			4.0			
598.4	5.0									
597.9	5.5									
597.4	6.0									
596.9	6.5				CL					
596.4	7.0	S-3	1.5	6-8-12 N=20			4.5	12.3		
595.9	7.5									
595.4	8.0									
594.9	8.5									
594.4	9.0									
593.9	9.5	S-4	1.5	5-10-14 N=24			4.5+			
593.4	10.0					(10.0)				
						End of Boring				

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.

LOG OF BORING

Project No.: 251823
Boring No.: SB-7
Sheet: 1 of 1

Project: Saginaw 2026 DWSRF Water Main Replacements
Client: Fishbeck
Location: Saginaw, Michigan
Drill Type: CME 45
Crew Chief: JC Field Eng.: BT Rev. By: KC
Coordinates: N=705045.5 E=13231195.9 (MI South ift)
Elevation: 603.9 ft Datum: NAVD 88 (GPS Observation)
Notes:

Plugging Record: Backfilled borehole with compacted cuttings, patched pavement with cold patch. Cave in at 2.0 ft.

Date Begin: 12/24/2025 Date End: 12/24/2025

Tooling	Type	Dia.	Groundwater, ft.	
Casing	HSA	3 1/4"	During	None
Sampler	SPT	2"	End	NA
Core			Delayed Groundwater, ft.	
Tube			Date	Depth, ft.
SPT Hammer	Auto			

Depth Drilled: 10.0 ft.

Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100%

QP = Calibrated Penetrometer (tons/sq. ft.)

Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Penetration (Blows Per 6") ASTM D 1586	*USCS Group Symbol	*DESCRIPTION	QP tsf	MST %	DD pcf	REMARKS
603.4	0.5					7 1/2" HMA (0.6)				Fill: 0.0' to 5.5'
602.9	1.0									S-1: Poor recovery; possible coarse gravel / COBBLE
602.4	1.5	S-1	0.3	17-17-6 N=23		10" Gravel Base (1.5)				
601.9	2.0					Brown sandy lean CLAY; mostly clayey fines, some coarse to fine sand, trace fine gravel, moist, Fill				
601.4	2.5									
600.9	3.0									
600.4	3.5				CL					
599.9	4.0									
599.4	4.5	S-2	1.5	4-6-10 N=16		Grades with occasional sand seams	4.5			
598.9	5.0									
598.4	5.5					(5.5)				
597.9	6.0					Brown lean CLAY; mostly clayey fines, trace coarse to fine sand, trace fine gravel, moist				
597.4	6.5									
596.9	7.0	S-3	1.5	4-5-8 N=13			3.5	10.9		
596.4	7.5									
595.9	8.0				CL					
595.4	8.5									
594.9	9.0									
594.4	9.5	S-4	1.5	6-8-13 N=21			4.5			
593.9	10.0					(10.0)				
						End of Boring				

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.

LOG OF BORING

Project No.: 251823
Boring No.: SB-8
Sheet: 1 of 1

Project: Saginaw 2026 DWSRF Water Main Replacements
Client: Fishbeck
Location: Saginaw, Michigan
Drill Type: CME 45
Crew Chief: JC Field Eng.: BT Rev. By: KC
Coordinates: N=705310.5 E=13231195.3 (MI South ift)
Elevation: 603.8 ft Datum: NAVD 88 (GPS Observation)
Notes:

Plugging Record: Backfilled borehole with compacted cuttings, patched pavement with cold patch. Cave in at 2.0 ft.

Date Begin: 12/24/2025 Date End: 12/24/2025

Tooling	Type	Dia.	Groundwater, ft.	
Casing	HSA	3 1/4"	During	None
Sampler	SPT	2"	End	NA
Core			Delayed Groundwater, ft.	
Tube			Date	Depth, ft.
SPT Hammer	Auto			

Depth Drilled: 10.0 ft.

Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100%

QP = Calibrated Penetrometer (tons/sq. ft.)

Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Penetration (Blows Per 6") ASTM D 1586	*USCS Group Symbol	*DESCRIPTION	QP tsf	MST %	DD pcf	REMARKS
603.3	0.5					7" HMA (0.6)				Fill: 0.0' to 2.5'
602.8	1.0					3" Gravel Base (0.8)				S-1: Poor recovery; possible coarse gravel / COBBLE
602.3	1.5	S-1	0.7	2-4-5 N=9	CL	Brown and dark brown lean CLAY; mostly clayey fines, trace coarse to fine sand, trace fine gravel, moist, Fill	4.0			
601.8	2.0									
601.3	2.5					(2.5)				
600.8	3.0					Brown lean CLAY; mostly clayey fines, trace coarse to fine sand, trace fine gravel, moist				
600.3	3.5									
599.8	4.0									
599.3	4.5	S-2	1.5	4-7-10 N=17			4.5+	13.3		
598.8	5.0									
598.3	5.5									
597.8	6.0									
597.3	6.5				CL					
596.8	7.0	S-3	1.5	6-8-10 N=18		Grades with occasional sand lenses	4.5+			
596.3	7.5									
595.8	8.0									
595.3	8.5									
594.8	9.0									
594.3	9.5	S-4	1.5	6-9-13 N=22			4.5+			
593.8	10.0					(10.0)				
						End of Boring				

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.

LOG OF BORING

Project No.: 251823
Boring No.: SB-10
Sheet: 1 of 1

Project: Saginaw 2026 DWSRF Water Main Replacements
Client: Fishbeck
Location: Saginaw, Michigan
Drill Type: CME 45
Crew Chief: JC Field Eng.: BT Rev. By: KC
Coordinates: N=705887.3 E=13231181.6 (MI South ift)
Elevation: 603.2 ft Datum: NAVD 88 (GPS Observation)
Notes:

Plugging Record: Backfilled borehole with compacted cuttings, patched pavement with cold patch. Cave in at 1.8 ft.

Date Begin: 12/24/2025 Date End: 12/24/2025

Tooling	Type	Dia.	Groundwater, ft.	
Casing	HSA	3 1/4"	During	None
Sampler	SPT	2"	End	NA
Core			Delayed Groundwater, ft.	
Tube			Date	Depth, ft.
SPT Hammer	Auto			

Depth Drilled: 10.0 ft.

Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100%

QP = Calibrated Penetrometer (tons/sq. ft.)

Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Penetration (Blows Per 6") ASTM D 1586	*USCS Group Symbol	*DESCRIPTION	QP tsf	MST %	DD pcf	REMARKS
602.7	0.5					2" HMA (0.2)				
602.2	1.0					6" Concrete (0.7)				
601.7	1.5	S-1	0.7	3-4-5 N=9		2" Gravel Base (0.8)	3.0	12.9		S-1: Poor recovery; possible coarse gravel / COBBLE
601.2	2.0					Brown lean CLAY; mostly clayey fines, few coarse to fine sand, trace fine gravel, moist				
600.7	2.5									
600.2	3.0									
599.7	3.5									
599.2	4.0									
598.7	4.5	S-2	1.5	6-10-13 N=23			4.0			
598.2	5.0									
597.7	5.5				CL					
597.2	6.0									
596.7	6.5									
596.2	7.0	S-3	1.5	5-7-8 N=15		Grade with trace coarse to fine sand	4.5+			
595.7	7.5									
595.2	8.0									
594.7	8.5									
594.2	9.0									
593.7	9.5	S-4	1.5	6-8-12 N=20			4.5+			
593.2	10.0					10.0				
						End of Boring				

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.

LOG OF BORING

Project No.: 251823
Boring No.: SB-11
Sheet: 1 of 1

Project: Saginaw 2026 DWSRF Water Main Replacements
Client: Fishbeck
Location: Saginaw, Michigan
Drill Type: Hand Auger
Crew Chief: Field Eng.: DH Rev. By: KC
Coordinates: N=695682.1 E=13222114.9 (MI South ift)
Elevation: 607.2 ft Datum: NAVD 88 (GPS Observation)
Notes:

Plugging Record: Backfilled borehole with compacted cuttings, patched pavement with cold patch.

Date Begin: 01/02/2026 Date End: 01/02/2026

Tooling	Type	Dia.	Groundwater, ft.	
Casing			During	None
Sampler	Hand Auger	3 1/4"	End	NA
Core			Delayed Groundwater, ft.	
Tube			Date	Depth, ft.
SPT Hammer				

Depth Drilled: 5.0 ft.

Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100%

QP = Calibrated Penetrometer (tons/sq. ft.)

Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Dyn. Cone Eq. "N": ASTM STP 399	*USCS Group Symbol	*DESCRIPTION	QP tsf	MST %	DD pcf	REMARKS
606.7	0.5					3" HMA (0.3)				Fill: 0.0' to 3.3'
606.2	1.0					1 1/2" Concrete (0.4)				
605.7	1.5	A-1				9 1/2" Gravel Base (1.2)				
605.2	2.0				SM	Dark brown silty SAND; mostly fine sand, little silty fines, trace fine gravel, moist, Fill with occasional root fragments				
604.7	2.5	A-2				Grades brown with little coarse to fine gravel, without root fragments				
604.2	3.0									
603.7	3.5					(3.3)				
603.2	4.0	A-3			CL	Brown lean CLAY with sand, mostly clayey fines, little coarse to fine sand, trace fine gravel, moist	2.5			
602.7	4.5									
602.2	5.0					(5.0)				
						End of Boring				

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.

LOG OF BORING

Project No.: 251823
Boring No.: SB-12
Sheet: 1 of 1

Project: Saginaw 2026 DWSRF Water Main Replacements
Client: Fishbeck
Location: Saginaw, Michigan
Drill Type: CME 45
Crew Chief: JC Field Eng.: MN Rev. By: KC
Coordinates: N=695604.3 E=13222416.5 (MI South ift)
Elevation: 607.6 ft Datum: NAVD 88 (GPS Observation)
Notes:

Plugging Record: Backfilled borehole with compacted cuttings, patched pavement with cold patch. Cave in at 3.1 ft.

Date Begin: 12/23/2025 Date End: 12/23/2025

Tooling	Type	Dia.	Groundwater, ft.	
Casing	HSA	4 1/4"	During	None
Sampler	SPT	2"	End	NA
Core			Delayed Groundwater, ft.	
Tube			Date	Depth, ft.
SPT Hammer	Auto			

Depth Drilled: 10.0 ft.

Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100%

QP = Calibrated Penetrometer (tons/sq. ft.)

Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Penetration (Blows Per 6") ASTM D 1586	*USCS Group Symbol	*DESCRIPTION	QP tsf	MST %	DD pcf	REMARKS
607.1	0.5					5 1/2" Concrete 0.5				Fill: 0.0' to 2.5'
606.6	1.0					Dark brown silty SAND; mostly fine sand, little silty fines, moist, Fill				S-1: Poor recovery; possible coarse gravel / COBBLE
606.1	1.5	S-1	0.9	6-5-3 N=8	SM					
605.6	2.0									
605.1	2.5					2.5				
604.6	3.0					Brown lean CLAY; mostly clayey fines, few coarse to fine sand, trace coarse to fine gravel, moist				
604.1	3.5									
603.6	4.0									
603.1	4.5	S-2	1.5	3-4-8 N=12			4.5+	14.8		
602.6	5.0									
602.1	5.5									
601.6	6.0									
601.1	6.5				CL					
600.6	7.0	S-3	1.5	6-9-12 N=21		Grades with trace fine gravel	4.5+			
600.1	7.5									
599.6	8.0									
599.1	8.5									
598.6	9.0									
598.1	9.5	S-4	1.5	6-9-12 N=21			4.5+	13.4		
597.6	10.0					10.0				
						End of Boring				

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.

LOG OF BORING

Project No.: 251823
Boring No.: SB-13
Sheet: 1 of 1

Project: Saginaw 2026 DWSRF Water Main Replacements
Client: Fishbeck
Location: Saginaw, Michigan
Drill Type: CME 45
Crew Chief: JC Field Eng.: MN Rev. By: KC
Coordinates: N=695703.2 E=13222755.9 (MI South ift)
Elevation: 605.9 ft Datum: NAVD 88 (GPS Observation)
Notes:

Plugging Record: Backfilled borehole with compacted cuttings, patched pavement with cold patch. Cave in at 2.0 ft.

Date Begin: 12/23/2025 Date End: 12/23/2025

Tooling	Type	Dia.	Groundwater, ft.	
Casing	HSA	4 1/4"	During	None
Sampler	SPT	2"	End	NA
Core			Delayed Groundwater, ft.	
Tube			Date	Depth, ft.
SPT Hammer	Auto			

Depth Drilled: 10.0 ft.

Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100%

QP = Calibrated Penetrometer (tons/sq. ft.)

Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Penetration (Blows Per 6") ASTM D 1586	*USCS Group Symbol	*DESCRIPTION	QP tsf	MST %	DD pcf	REMARKS
605.4	0.5					6" Concrete 0.5				Fill: 0.0' to 2.5'
604.9	1.0	S-1	0.8	4-4-6 N=10	CL	Dark brown and brown mottled lean CLAY; mostly clayey fines, few coarse to fine sand, trace fine gravel, moist, Fill	4.5+			S-1: Poor recovery; possible coarse gravel / COBBLE
604.4	1.5									
603.9	2.0									
603.4	2.5					2.5				
602.9	3.0					Brown lean CLAY; mostly clayey fines, few coarse to fine sand, trace fine gravel, moist				
602.4	3.5									
601.9	4.0	S-2	1.5	5-6-11 N=17			4.5+			
601.4	4.5									
600.9	5.0									
600.4	5.5									
599.9	6.0									
599.4	6.5	S-3	1.5	5-11-13 N=24	CL		4.5+	11.7		
598.9	7.0									
598.4	7.5									
597.9	8.0									
597.4	8.5									
596.9	9.0	S-4	1.5	8-11-15 N=26			4.5+			
596.4	9.5									
595.9	10.0					10.0				
						End of Boring				

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.

LOG OF BORING

Project No.: 251823
Boring No.: SB-14
Sheet: 1 of 1

Project: Saginaw 2026 DWSRF Water Main Replacements
Client: Fishbeck
Location: Saginaw, Michigan
Drill Type: CME 45
Crew Chief: JC Field Eng.: MN Rev. By: KC
Coordinates: N=695599.1 E=13223403.3 (MI South ift)
Elevation: 607.5 ft Datum: NAVD 88 (GPS Observation)
Notes:

Plugging Record: Backfilled borehole with compacted cuttings, patched pavement with cold patch. Cave in at 3.1 ft.

Date Begin: 12/22/2025 Date End: 12/22/2025

Tooling	Type	Dia.	Groundwater, ft.	
Casing	HSA	4 1/4"	During	None
Sampler	SPT	2"	End	NA
Core			Delayed Groundwater, ft.	
Tube			Date	Depth, ft.
SPT Hammer	Auto			

Depth Drilled: 10.0 ft.

Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100%

QP = Calibrated Penetrometer (tons/sq. ft.)

Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Penetration (Blows Per 6") ASTM D 1586	*USCS Group Symbol	*DESCRIPTION	QP tsf	MST %	DD pcf	REMARKS
607.0	0.5					4 3/4" Concrete 0.4				Fill: 0.0' to 2.5'
606.5	1.0	S-1	0.9	2-2-3 N=5	CL	Dark brown and brown mottled lean CLAY with sand; mostly clayey fines, little coarse to fine sand, trace coarse to fine gravel, moist, Fill	1.75			S-1: Poor recovery; possible coarse gravel / COBBLE
606.0	1.5									
605.5	2.0									
605.0	2.5					2.5				
604.5	3.0					Brown lean CLAY; mostly clayey fines, few coarse to fine sand, trace fine gravel, moist				
604.0	3.5									
603.5	4.0	S-2	1.5	5-7-12 N=19			4.5+	13.8		
603.0	4.5									
602.5	5.0									
602.0	5.5									
601.5	6.0									
601.0	6.5	S-3	1.5	6-10-13 N=23	CL	Grades with trace coarse to fine sand	4.5+			
600.5	7.0									
600.0	7.5									
599.5	8.0									
599.0	8.5									
598.5	9.0	S-4	1.5	7-9-14 N=23			4.5+			
598.0	9.5									
597.5	10.0					10.0				
						End of Boring				

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.

LOG OF BORING

Project No.: 251823
Boring No.: SB-15
Sheet: 1 of 1

Project: Saginaw 2026 DWSRF Water Main Replacements
Client: Fishbeck
Location: Saginaw, Michigan
Drill Type: CME 45
Crew Chief: JC Field Eng.: MN Rev. By: KC
Coordinates: N=695588.4 E=13223717.5 (MI South ift)
Elevation: 607.9 ft Datum: NAVD 88 (GPS Observation)
Notes:

Plugging Record: Backfilled borehole with compacted cuttings, patched pavement with cold patch. Cave in at 3.1 ft.

Date Begin: 12/22/2025 Date End: 12/22/2025

Tooling	Type	Dia.	Groundwater, ft.	
Casing	HSA	4 1/4"	During	None
Sampler	SPT	2"	End	NA
Core			Delayed Groundwater, ft.	
Tube			Date	Depth, ft.
SPT Hammer	Auto			

Depth Drilled: 10.0 ft.

Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100%

QP = Calibrated Penetrometer (tons/sq. ft.)

Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Penetration (Blows Per 6") ASTM D 1586	*USCS Group Symbol	*DESCRIPTION	QP tsf	MST %	DD pcf	REMARKS
607.4	0.5					7" Concrete 0.6				Fill: 0.0' to 2.5'
606.9	1.0				CL	Brown lean CLAY with sand; mostly clayey fines, little coarse to fine sand, trace coarse to fine gravel, moist, Fill	3.25			S-1: Poor recovery; possible coarse gravel / COBBLE
606.4	1.5	S-1	0.6	3-2-3 N=5						
605.9	2.0									
605.4	2.5					2.5				
604.9	3.0					Brown and gray mottled lean CLAY; mostly clayey fines, few coarse to fine sand, trace fine gravel, moist				
604.4	3.5									
603.9	4.0									
603.4	4.5	S-2	1.5	3-4-8 N=12			4.5+	15.9		
602.9	5.0									
602.4	5.5									
601.9	6.0									
601.4	6.5				CL					
600.9	7.0	S-3	1.5	5-10-11 N=21		Grades brown with trace coarse to fine sand	4.5+			
600.4	7.5									
599.9	8.0									
599.4	8.5									
598.9	9.0									
598.4	9.5	S-4	1.5	6-9-14 N=23			4.5+			
597.9	10.0					10.0				
						End of Boring				

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.

LOG OF BORING

Project No.: 251823
Boring No.: SB-16
Sheet: 1 of 1

Project: Saginaw 2026 DWSRF Water Main Replacements
Client: Fishbeck
Location: Saginaw, Michigan
Drill Type: CME 45
Crew Chief: JC Field Eng.: MN Rev. By: KC
Coordinates: N=695600 E=13224063.3 (MI South ift)
Elevation: 610.7 ft Datum: NAVD 88 (GPS Observation)
Notes:

Plugging Record: Backfilled borehole with compacted cuttings, patched pavement with cold patch. Cave in at 4.0 ft.

Date Begin: 12/22/2025 Date End: 12/22/2025

Tooling	Type	Dia.	Groundwater, ft.	
Casing	HSA	4 1/4"	During	None
Sampler	SPT	2"	End	NA
Core			Delayed Groundwater, ft.	
Tube			Date	Depth, ft.
SPT Hammer	Auto			

Depth Drilled: 10.0 ft.

Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100%

QP = Calibrated Penetrometer (tons/sq. ft.)

Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Penetration (Blows Per 6") ASTM D 1586	*USCS Group Symbol	*DESCRIPTION	QP tsf	MST %	DD pcf	REMARKS
610.2	0.5					6 1/4" Concrete 0.5				Fill: 0.0' to 2.5'
609.7	1.0					Brown silty SAND; mostly fine sand, little silty fines, moist, Fill				S-1: Poor recovery; possible coarse gravel / COBBLE
609.2	1.5	S-1	0.9	5-2-2 N=4	SM					
608.7	2.0									
608.2	2.5					2.5				
607.7	3.0					Brown lean CLAY; mostly clayey fines, few coarse to fine sand, trace fine gravel, moist				
607.2	3.5									
606.7	4.0									
606.2	4.5	S-2	1.5	5-9-15 N=24			4.5+			
605.7	5.0									
605.2	5.5									
604.7	6.0									
604.2	6.5				CL					
603.7	7.0	S-3	1.5	8-12-14 N=26			4.5+	13.1		
603.2	7.5									
602.7	8.0									
602.2	8.5									
601.7	9.0									
601.2	9.5	S-4	1.5	8-14-17 N=31		Grades with trace coarse to fine sand	4.5+			
600.7	10.0					10.0				
						End of Boring				

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.

LOG OF BORING

Project No.: 251823
Boring No.: SB-17
Sheet: 1 of 1

Project: Saginaw 2026 DWSRF Water Main Replacements
Client: Fishbeck
Location: Saginaw, Michigan
Drill Type: CME 45
Crew Chief: JC Field Eng.: MN Rev. By: KC
Coordinates: N=695595.7 E=13224383.5 (MI South ift)
Elevation: 609.4 ft Datum: NAVD 88 (GPS Observation)
Notes:

Plugging Record: Backfilled borehole with compacted cuttings, patched pavement with cold patch. Cave in at 3.5 ft.

Date Begin: 12/22/2025 Date End: 12/22/2025

Tooling	Type	Dia.	Groundwater, ft.	
Casing	HSA	4 1/4"	During	None
Sampler	SPT	2"	End	NA
Core			Delayed Groundwater, ft.	
Tube			Date	Depth, ft.
SPT Hammer	Auto			

Depth Drilled: 10.0 ft.

Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100%

QP = Calibrated Penetrometer (tons/sq. ft.)

Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Penetration (Blows Per 6") ASTM D 1586	*USCS Group Symbol	*DESCRIPTION	QP tsf	MST %	DD pcf	REMARKS
608.9	0.5					6 1/2" Concrete 0.5				Fill: 0.0' to 2.5'
608.4	1.0					Dark brown lean CLAY with sand; mostly clayey fines, little coarse to fine sand, trace fine gravel, moist, Fill with occasional root fragments	2.25			S-1: Poor recovery; possible coarse gravel / COBBLE
607.9	1.5	S-1	0.9	3-3-2 N=5	CL					
607.4	2.0									
606.9	2.5					2.5				
606.4	3.0					Brown and gray mottled lean CLAY; mostly clayey fines, trace coarse to fine sand, trace fine gravel, moist				
605.9	3.5									
605.4	4.0									
604.9	4.5	S-2	1.3	4-3-5 N=8	CL		3.5	15.1		
604.4	5.0									
603.9	5.5									
603.4	6.0					6.0				
602.9	6.5					Brown lean CLAY; mostly clayey fines, trace coarse to fine sand, trace fine gravel, moist				
602.4	7.0	S-3	1.5	4-8-12 N=20			4.5+			
601.9	7.5									
601.4	8.0				CL					
600.9	8.5									
600.4	9.0									
599.9	9.5	S-4	1.5	6-8-12 N=20			4.5+			
599.4	10.0					10.0				
						End of Boring				

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.

LOG OF BORING

Project No.: 251823
Boring No.: SB-18
Sheet: 1 of 1

Project: Saginaw 2026 DWSRF Water Main Replacements
Client: Fishbeck
Location: Saginaw, Michigan
Drill Type: CME 45
Crew Chief: JC Field Eng.: MN Rev. By: KC
Coordinates: N=695594.1 E=13224716.7 (MI South ift)
Elevation: 610.6 ft Datum: NAVD 88 (GPS Observation)
Notes:

Plugging Record: Backfilled borehole with compacted cuttings, patched pavement with cold patch. Cave in at 2.5 ft.

Date Begin: 12/23/2025 Date End: 12/23/2025

Tooling	Type	Dia.	Groundwater, ft.	
Casing	HSA	4 1/4"	During	None
Sampler	SPT	2"	End	NA
Core			Delayed Groundwater, ft.	
Tube			Date	Depth, ft.
SPT Hammer	Auto			

Depth Drilled: 10.0 ft.

Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100%
QP = Calibrated Penetrometer (tons/sq. ft.)

Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Penetration (Blows Per 6") ASTM D 1586	*USCS Group Symbol	*DESCRIPTION	QP tsf	MST %	DD pcf	REMARKS
610.1	0.5					4" HMA (0.3)				Fill: 0.0' to 2.5'
609.6	1.0					4" Sandy Gravel Base (0.7)				S-1 to S-3: Poor recovery; possible coarse gravel / COBBLE
609.1	1.5	S-1	0.8	14-5-7 N=12	SM	Dark brown to black silty SAND; mostly coarse to fine sand, little silty fines, trace coarse to fine gravel, moist, Fill				
608.6	2.0									
608.1	2.5					(2.5)				
607.6	3.0					Brown lean CLAY with sand; mostly clayey fines, little coarse to fine sand, trace fine gravel, moist				
607.1	3.5									
606.6	4.0									
606.1	4.5	S-2	1.0	2-2-2 N=4			2.25	20.2		
605.6	5.0									
605.1	5.5				CL					
604.6	6.0									
604.1	6.5									
603.6	7.0	S-3	0.2	3-5-9 N=14			2.25			
603.1	7.5									
602.6	8.0					(8.0)				
602.1	8.5					Brown lean CLAY; mostly clayey fines, trace coarse to fine sand, trace fine gravel, moist				
601.6	9.0				CL					
601.1	9.5	S-4	1.5	5-9-13 N=22			4.5+			
600.6	10.0					(10.0)				
						End of Boring				

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.

LOG OF BORING

Project No.: 251823
Boring No.: HA-11
Sheet: 1 of 1

Project: Saginaw 2026 DWSRF Water Main Replacements
Client: Fishbeck
Location: Saginaw, Michigan
Drill Type: Hand Auger
Crew Chief: Field Eng.: DH Rev. By: KC
Coordinates: N=695613.5 E=13222123.4 (MI South ift)
Elevation: 606.1 ft Datum: NAVD 88 (GPS Observation)
Notes:

Plugging Record: Backfilled borehole with compacted cuttings.

Date Begin: 12/30/2025 Date End: 12/30/2025

Tooling	Type	Dia.	Groundwater, ft.	
Casing			During	None
Sampler	Hand Auger	3 1/4"	End	NA
Core			Delayed Groundwater, ft.	
Tube			Date	Depth, ft.
SPT Hammer				

Depth Drilled: 5.0 ft.

Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100%
QP = Calibrated Penetrometer (tons/sq. ft.)

Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Dyn. Cone Eq. "N": ASTM STP 399	*USCS Group Symbol	*DESCRIPTION	QP tsf	MST %	DD pcf	REMARKS
605.6	0.5					10" Clayey Topsoil 0.8				Fill: 0.0' to 2.0'
605.1	1.0	A-1			SM	Dark brown silty SAND; mostly coarse to fine sand, some silty fines, trace coarse gravel, moist, Fill 2.0				
604.6	1.5									
604.1	2.0	A-2								
603.6	2.5									
603.1	3.0									
602.6	3.5	A-3			CL	Brown and grave mottled lean CLAY; mostly clayey fines, few coarse to fine sand, trace gravel, moist 5.0	2.5			
602.1	4.0									
601.6	4.5									
601.1	5.0									
						End of Boring				

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.

LOG OF BORING

Project No.: 251823
Boring No.: HA-12
Sheet: 1 of 1

Project: Saginaw 2026 DWSRF Water Main Replacements
Client: Fishbeck
Location: Saginaw, Michigan
Drill Type: Hand Auger
Crew Chief: Field Eng.: DH Rev. By: KC
Coordinates: N=695582.1 E=13222381.1 (MI South ift)
Elevation: 605.9 ft Datum: NAVD 88 (GPS Observation)
Notes:

Plugging Record: Backfilled borehole with compacted cuttings.

Date Begin: 12/30/2025 Date End: 12/30/2025

Tooling	Type	Dia.	Groundwater, ft.	
Casing			During	1.9
Sampler	Hand Auger	3 1/4"	End	NA
Core			Delayed Groundwater, ft.	
Tube			Date	Depth, ft.
SPT Hammer				

Depth Drilled: 5.0 ft.

Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100%
QP = Calibrated Penetrometer (tons/sq. ft.)

Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Dyn. Cone Eq. "N": ASTM STP 399	*USCS Group Symbol	*DESCRIPTION	QP tsf	MST %	DD pcf	REMARKS
605.4	0.5					5" Clayey Topsoil 0.4				Fill: 0.0' to 2.9'
604.9	1.0	A-1			SM	Dark brown silty SAND; mostly coarse to fine sand, some silty fines, trace coarse gravel, moist, Fill with occasional roots				
604.4	1.5									
603.9	2.0					1.9				
603.4	2.5	A-2			SP	Brown poorly graded SAND; mostly coarse to fine sand, trace silty fines, wet, Fill				
602.9	3.0					2.9				
602.4	3.5	A-3			CL	Brown lean CLAY; mostly clayey fines, trace coarse to fine sand, trace fine gravel, moist	<0.5			
601.9	4.0									
601.4	4.5									
600.9	5.0					5.0				
						End of Boring				

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.

LOG OF BORING

Project No.: 251823
Boring No.: HA-13
Sheet: 1 of 1

Project: Saginaw 2026 DWSRF Water Main Replacements
Client: Fishbeck
Location: Saginaw, Michigan
Drill Type: Hand Auger
Crew Chief: Field Eng.: DH Rev. By: KC
Coordinates: N=695563.7 E=13222741.6 (MI South ift)
Elevation: 605.7 ft Datum: NAVD 88 (GPS Observation)
Notes:

Plugging Record: Backfilled borehole with compacted cuttings.

Date Begin: 12/30/2025 Date End: 12/30/2025

Tooling	Type	Dia.	Groundwater, ft.	
Casing			During	None
Sampler	Hand Auger	3 1/4"	End	NA
Core			Delayed Groundwater, ft.	
Tube			Date	Depth, ft.
SPT Hammer				

Depth Drilled: 5.0 ft.

Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100%
QP = Calibrated Penetrometer (tons/sq. ft.)

Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Dyn. Cone Eq. "N": ASTM STP 399	*USCS Group Symbol	*DESCRIPTION	QP tsf	MST %	DD pcf	REMARKS
605.2	0.5					10" Clayey Topsoil (0.8)				
604.7	1.0	A-1					1.0			
604.2	1.5					Brown and gray mottled lean CLAY; mostly clayey fines, trace coarse to fine sand, trace fine gravel, moist				
603.7	2.0									
603.2	2.5									
602.7	3.0				CL					
602.2	3.5									
601.7	4.0									
601.2	4.5									
600.7	5.0					(5.0)				
						End of Boring				

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.

LOG OF BORING

Project No.: 251823
Boring No.: HA-14
Sheet: 1 of 1

Project: Saginaw 2026 DWSRF Water Main Replacements
Client: Fishbeck
Location: Saginaw, Michigan
Drill Type: Hand Auger
Crew Chief: Field Eng.: DH Rev. By: KC
Coordinates: N=695571.7 E=13223373.1 (MI South ift)
Elevation: 607.5 ft Datum: NAVD 88 (GPS Observation)
Notes:

Plugging Record: Backfilled borehole with compacted cuttings.

Date Begin: 12/30/2025 Date End: 12/30/2025

Tooling	Type	Dia.	Groundwater, ft.	
Casing			During	None
Sampler	Hand Auger	3 1/4"	End	NA
Core			Delayed Groundwater, ft.	
Tube			Date	Depth, ft.
SPT Hammer				

Depth Drilled: 2.5 ft.

Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100%
QP = Calibrated Penetrometer (tons/sq. ft.)

Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Dyn. Cone Eq. "N": ASTM STP 399	*USCS Group Symbol	*DESCRIPTION	QP tsf	MST %	DD pcf	REMARKS
607.0	0.5									
606.5	1.0									
606.0	1.5				SP-SM	Brown poorly graded SAND with silt and gravel; mostly coarse to fine sand, little coarse to fine gravel, few silty fines, moist, Fill				Fill: 0.0' to 2.5'
605.5	2.0	A-1								
605.0	2.5					2.5				
						End of Boring				Hand auger refusal at 2.5' due to possible coarse gravel / COBBLE

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.

LOG OF BORING

Project No.: 251823
Boring No.: HA-15
Sheet: 1 of 1

Project: Saginaw 2026 DWSRF Water Main Replacements
Client: Fishbeck
Location: Saginaw, Michigan
Drill Type: Hand Auger
Crew Chief: Field Eng.: DH Rev. By: KC
Coordinates: N=695564.2 E=13223702.1 (MI South ift)
Elevation: 607.8 ft Datum: NAVD 88 (GPS Observation)
Notes:

Plugging Record: Backfilled borehole with compacted cuttings.

Date Begin: 01/02/2026 Date End: 01/02/2026

Tooling	Type	Dia.	Groundwater, ft.	
Casing			During	None
Sampler	Hand Auger	3 1/4"	End	NA
Core			Delayed Groundwater, ft.	
Tube			Date	Depth, ft.
SPT Hammer				

Depth Drilled: 5.0 ft.

Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100%

QP = Calibrated Penetrometer (tons/sq. ft.)

Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Dyn. Cone Eq. "N": ASTM STP 399	*USCS Group Symbol	*DESCRIPTION	QP tsf	MST %	DD pcf	REMARKS
607.3	0.5					2" Clayey Topsoil (0.2)				Fill: 0.0' to 2.0'
606.8	1.0				CL	Dark brown lean CLAY with sand; mostly clayey fines, little coarse to fine sand, trace fine gravel, moist, Fill with occasional roots				
606.3	1.5	A-1					<0.5			
605.8	2.0					(2.0)				
605.3	2.5	A-2				Brown and gray mottled lean CLAY; mostly clayey fines, trace coarse to fine gravel, trace fine sand, moist	0.5			
604.8	3.0									
604.3	3.5				CL					
603.8	4.0									
603.3	4.5	A-3					1.0			
602.8	5.0					(5.0)				
						End of Boring				

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.

LOG OF BORING

Project No.: 251823
Boring No.: HA-16
Sheet: 1 of 1

Project: Saginaw 2026 DWSRF Water Main Replacements
Client: Fishbeck
Location: Saginaw, Michigan
Drill Type: Hand Auger
Crew Chief: Field Eng.: DH Rev. By: KC
Coordinates: N=695555.8 E=13224041.2 (MI South ift)
Elevation: 609.9 ft Datum: NAVD 88 (GPS Observation)
Notes:

Plugging Record: Backfilled borehole with compacted cuttings.

Date Begin: 01/02/2026 Date End: 01/02/2026

Tooling	Type	Dia.	Groundwater, ft.	
Casing			During	None
Sampler	Hand Auger	3 1/4"	End	NA
Core			Delayed Groundwater, ft.	
Tube			Date	Depth, ft.
SPT Hammer				

Depth Drilled: 4.5 ft.

Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100%

QP = Calibrated Penetrometer (tons/sq. ft.)

Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Dyn. Cone Eq. "N": ASTM STP 399	*USCS Group Symbol	*DESCRIPTION	QP tsf	MST %	DD pcf	REMARKS
609.4	0.5					18" Clayey Topsoil				
608.9	1.0									
608.4	1.5					1.5				
607.9	2.0					Brown and gray mottled lean CLAY; mostly clayey fines, few coarse to fine sand, trace fine gravel, moist				
607.4	2.5	A-1					1.0			
606.9	3.0				CL					
606.4	3.5									
605.9	4.0	A-2				Grades brown	2.75			
605.4	4.5					4.5				
						End of Boring				Hand auger refusal at 4.5' due to possible coarse gravel / COBBLE

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.

LOG OF BORING

Project No.: 251823
Boring No.: HA-17
Sheet: 1 of 1

Project: Saginaw 2026 DWSRF Water Main Replacements
Client: Fishbeck
Location: Saginaw, Michigan
Drill Type: Hand Auger
Crew Chief: Field Eng.: DH Rev. By: KC
Coordinates: N=695557.3 E=13224420.2 (MI South ift)
Elevation: 609.2 ft Datum: NAVD 88 (GPS Observation)
Notes:

Plugging Record: Backfilled borehole with compacted cuttings.

Date Begin: 01/02/2026 Date End: 01/02/2026

Tooling	Type	Dia.	Groundwater, ft.	
Casing			During	None
Sampler	Hand Auger	3 1/4"	End	NA
Core			Delayed Groundwater, ft.	
Tube			Date	Depth, ft.
SPT Hammer				

Depth Drilled: 5.0 ft.

Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100%

QP = Calibrated Penetrometer (tons/sq. ft.)

Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Dyn. Cone Eq. "N": ASTM STP 399	*USCS Group Symbol	*DESCRIPTION	QP tsf	MST %	DD pcf	REMARKS
608.7	0.5					2" Clayey Topsoil (0.2)				Fill: 0.0' to 2.0'
608.2	1.0				CL	Dark brown lean CLAY; mostly clayey fines, few coarse to fine sand, trace coarse to fine gravel, moist, Fill with occasional root fragments (2.0)	1.0			
607.7	1.5	A-1								
607.2	2.0									
606.7	2.5				CL	Brown lean CLAY; mostly clayey fines, trace coarse to fine sand, trace fine gravel, moist (3.5)	1.5			
606.2	3.0	A-2								
605.7	3.5									
605.2	4.0				CL	Brown lean CLAY; mostly clayey fines, few coarse to fine sand, trace fine gravel, moist (5.0)	1.75			
604.7	4.5	A-3								
604.2	5.0									
						End of Boring				

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed. Stratification changes are approximated between samples.

SUMMARY OF LABORATORY TEST DATA

Boring Number	Sample Number	Depth (ft)	USCS Classification	Natural Moisture Content (ASTM D2216) (%)
SB-1	S-2	3.5-5.0	CL	11.5
SB-1	S-4	8.5-10.0	CL	11.1
SB-2	S-3	6.0-7.5	CL	11.2
SB-3	S-2	3.5-5.0	CL	21.9
SB-4	S-3	6.0-7.5	CL	11.1
SB-5	S-3	6.0-7.5	CL	11.8
SB-6	S-3	6.0-7.5	CL	12.3
SB-7	S-3	6.0-7.5	CL	10.9
SB-8	S-2	3.5-5.0	CL	13.3
SB-10	S-1	0.7-2.2	CL	12.9
SB-12	S-2	3.5-5.0	CL	14.8
SB-12	S-4	8.5-10.0	CL	13.4
SB-13	S-3	6.0-7.5	CL	11.7
SB-14	S-2	3.5-5.0	CL	13.8
SB-15	S-2	3.5-5.0	CL	15.9
SB-16	S-3	6.0-7.5	CL	13.1
SB-17	S-2	3.5-5.0	CL	15.1
SB-18	S-2	3.5-5.0	CL	20.2

PROJECT NO.: 251823
PAGE: 1 OF 1

City of Saginaw

Dead End Elimination/Looping and N. Mason Street Water Main Replacement

Saginaw, Michigan

Issued for Bids and Construction April 2, 2026
Project Number 2501567
DWSRF Project #7900-01

fishbeck
Engineers | Architects | Scientists | Constructors

fishbeck.com
800.456.3824

4805 Towne Centre Road
Saginaw, Michigan

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1-800-482-7171
on the web at: www.missdig.org

UTILITY INFORMATION

THE EXISTING UTILITIES SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN LOCATED FROM UTILITY RECORD DRAWINGS. ACTUAL UTILITY LOCATIONS MAY VARY FROM WHAT IS SHOWN. ALL UTILITIES TO BE FIELD VERIFIED BY UTILITY OWNER PRIOR TO CONSTRUCTION.

CITY OF SAGINAW SEWER & WATER DEPARTMENT
TONY FOLINO
1435 S WASHINGTON AVE
SAGINAW, MI 48601
989-759-1611

CITY OF SAGINAW TRAFFIC SIGNALS, SIGNS, STREET LIGHTS
JOE NUGENT
1435 S WASHINGTON AVE
SAGINAW, MI 48601
989-737-5583

CONSUMERS GAS
SAM OLIVERI
517-915-8819

CONSUMERS ELECTRIC
VIRGIE DOWNS
989-791-5938

CONSUMERS ELECTRIC (HIGH VOLTAGE)
JUSTIN RUMFELT
517-528-8820

CMU FIBER
989-774-7144

ATT FIBER
JEFF SCHUSTER
231-510-1381

SAGINAW CO FIBER
TODD STONE
248-467-1017

CHARTER CABLE
MARK KELLY
989-233-9404

GENERAL

1 TITLE SHEET
2 GENERAL NOTES AND LEGENDS
3 DETAILS
4 DETAILS

REMOVALS AND SESC

5 DEAD END LOOPING - A STREET TO B STREET
6 DEAD END LOOPING - C STREET TO GROVE STREET
7 DEAD END LOOPING - GROVE STREET TO MAPLE STREET
8 FOREST STREET
9 N. MASON STREET - POB TO STA 8+00
10 N. MASON STREET - STA 8+00 TO STA 17+00
11 N. MASON STREET - STA 17+00 TO POE

WATER MAIN AND RECONSTRUCTION

12 DEAD END LOOPING - A STREET TO SUPERIOR STREET
13 DEAD END LOOPING - SUPERIOR STREET TO B STREET
14 DEAD END LOOPING - C STREET TO FOREST STREET
15 DEAD END LOOPING - FOREST STREET TO GROVE STREET
16 DEAD END LOOPING - GROVE STREET TO LARCH STREET
17 FOREST STREET
18 N. MASON STREET - POB TO STA 3+50
19 N. MASON STREET - STA 3+50 TO STA 8+00
20 N. MASON STREET - STA 8+00 TO STA 12+50
21 N. MASON STREET - STA 12+50 TO STA 17+00
22 N. MASON STREET - STA 17+00 TO STA 21+75
23 N. MASON STREET - STA 21+75 TO POE
24 WATER MAIN PROFILES - SIDE STREETS
25 WATER MAIN PROFILES - SIDE STREETS
26 WATER SERVICE DATA

DETAILED GRADES

27 HOUGHTON AVENUE
28 COOPER AVENUE & UNION AVENUE
29 GENESEE AVENUE & M-58

PAVEMENT MARKINGS

30 N. MASON STREET

MAINTENANCE OF TRAFFIC

31 SUPERIOR DETOUR ROUTE
32 N. MASON DETOUR ROUTE
33 N. GENESEE & CONGRESS DETOUR ROUTE

LOCATION MAP

NORTH
NO SCALE

Maps created with: OpenStreetMap, openstreetmap.org

GRAPHIC SYMBOLS

PLAN DESIGNATION
PLAN
SCALE: 1" = 20'
NORTH
0 10 20 40
VERT SCALE: 1" = 2'

ELEVATION, SECTION, AND DETAIL DESIGNATION
1 SECTION
SCALE: 1" = 20'

NORTH ARROW DESIGNATION
NORTH

ENLARGED DETAIL FRAME
1 / C101

SECTION CUT LINE
1 / C101

DEMOLITION KEY NOTE 2
NEW CONSTRUCTION KEY NOTE 1
REVISION CLOUD
ADDENDUM IDENTIFICATION A1
BULLETIN IDENTIFICATION B1

SEAL

STATE OF MICHIGAN
HEATHER MARIE BOWERS
ENGINEER
No. 6201061330
LICENSED PROFESSIONAL ENGINEER

fishbeck
Engineers | Architects | Scientists | Constructors

City of Saginaw
Saginaw, Michigan
Dead End Elimination/Looping and N. Mason Street Water Main Replacement

REVISIONS

4/2/2026	BIDS AND CONSTRUCTION

Drawn By	MHITCH/LKEENER
Designer	MHITCH/LKEENER
Reviewer	JKRAMER
Manager	HBOWERS

Hard copy is intended to be 22"x34" when plotted. Scale(s) indicated and graphic quality may not be accurate for any other size.

PROJECT NO.
2501567

SHEET NO.
1

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PLOT INFO: \\CORP.FTCH.COM\ALLPROJECTS\2025\2501567\CAD\CD\2501567_TITLE.DWG LAYOUT: 1 DATE: 3/27/2026 TIME: 12:01:03 AM USER: HBOWERS

GEOTECHNICAL NOTES

1. GEOTECHNICAL FIELD INVESTIGATION AND REPORT PREPARED BY MTC IN 12/2025 AND REFLECT CONDITIONS AT THAT TIME.
2. USCS SOIL CLASSIFICATION: LEAN CLAY, POORLY GRADED SAND WITH SILT, SILTY SAND, POORLY GRADED SAND.

SURVEY NOTES

1. TOPOGRAPHIC SURVEY WAS COMPLETED BY FISHBECK IN 10/2026 AND REFLECTS CONDITIONS AT THAT TIME. THE CONTRACTOR IS RESPONSIBLE FOR VISITING THE SITE PRIOR TO BIDDING TO CONFIRM EXISTING CONDITIONS AS SHOWN ON THE PLANS. REPORT ALL DISCREPANCIES TO THE ENGINEER.
2. THE HORIZONTAL AND VERTICAL INFORMATION PROVIDED IS BASED ON THE STATE PLANE COORDINATE SYSTEM, ZONE MICHIGAN SOUTH, INTERNATIONAL FEET, WITH NAD83 HORIZONTAL AND NAVD88 VERTICAL DATUM, RESPECTIVELY.
3. UNDERGROUND UTILITIES ARE SHOWN BASED ON SURFACE MANHOLE AND VALVE LOCATIONS, RECORD DRAWINGS, AND OWNER PROVIDED UTILITY MAPS AND MAY NOT BE ACCURATE. CONTRACTOR SHALL CONTACT MISS DIG PRIOR TO ANY EXCAVATION. CONTACT ENGINEER IF UTILITIES ARE FOUND IN DIFFERENT CONDITIONS THAN SHOWN ON THESE PLANS.

REMOVAL NOTES

1. PRIOR TO BEGINNING OF ANY REMOVALS, CONTRACTOR SHALL NOTIFY THE CITY OF SAGINAW TRANSPORTATION DEPARTMENT. ALL REMOVALS SHALL CONFORM TO THE REQUIREMENTS OF THE LOCAL GOVERNING AGENCY. ALL DEMOLITION OPERATIONS SHALL COMPLY WITH MIOSHA REGULATIONS.
2. NO ATTEMPT IS MADE TO IDENTIFY EVERY REQUIRED ITEM OF REMOVAL ON THE PLANS. CONTRACTOR MUST VISIT THE PROJECT AREA AND STUDY THE PHYSICAL CONDITIONS OF THE SITE AND REVIEW THE PROPOSED CONSTRUCTION DRAWINGS AND REACH THEIR OWN CONCLUSIONS ON REMOVALS NECESSARY TO ACCOMPLISH THE INTENDED RESULTS AS DESCRIBED BY THE CONSTRUCTION DRAWINGS.
3. THE CONTRACTOR IS REQUIRED TO COORDINATE WITH THE UTILITY OWNERS IN A TIMELY FASHION REGARDING ANY REQUIRED UTILITY RELOCATION.
4. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL OF ASPHALT PAVEMENT OR CONCRETE PAVEMENT REMOVED AS PART OF THIS PROJECT.
5. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL OF EXCESS EXCAVATED MATERIAL.
6. ALL ASPHALT OR CONCRETE REMOVED AS PART OF THIS PROJECT SHALL BE SAWCUT, FULL DEPTH, ALONG A STRAIGHT LINE AND 6" MINIMUM BEYOND THE EDGE OF TRENCH. ADJACENT PAVEMENT SHALL NOT BE UNDERMINED. IF UNDERMINING OCCURS THE CONTRACTOR SHALL REMOVE ADDITIONAL ADJACENT PAVEMENT TO A POINT PAST THE UNDERMINED PAVEMENT AND REPLACE AT NO ADDITIONAL CHARGE TO THE OWNER.
7. CONSTRUCTION DEBRIS GENERATED FROM THE CONSTRUCTION OF THIS PROJECT SHALL BE DISPOSED OF IN A LAWFUL MATTER. BURNING OF DEBRIS IS NOT ALLOWED.

GENERAL NOTES

1. CALL MISS DIG @ 1-800-482-7171 AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO CONFIRM THE LOCATIONS OF EXISTING BURIED UTILITIES. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE PART OF THE "MISS DIG" ALERT SYSTEM. COORDINATE THE RELOCATION OF EXISTING UTILITIES WITH THE UTILITY OWNER. BE RESPONSIBLE FOR PROTECTING EXISTING UTILITIES AND REPAIRING DAMAGE TO EXISTING UTILITIES RESULTING FROM THE WORK. BE RESPONSIBLE FOR THE COSTS OF REPAIRING OR REPLACING ANY DAMAGED UTILITIES AT NO EXPENSE TO THE OWNER.
2. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING BUILDINGS, BASEMENTS, PAVEMENT, UTILITY STRUCTURES, AND UNDERGROUND UTILITY PIPING FROM DAMAGE THROUGHOUT THE PROJECT DURATION.
3. THE INFORMATION CONTAINED ON THESE DRAWINGS PERTAINING TO EXISTING CONDITIONS, SUCH AS BUT NOT LIMITED TO, UTILITIES, TOPOGRAPHY, SUBSURFACE CONDITIONS, IS FURNISHED SOLELY AS THE BEST INFORMATION AVAILABLE AND ITS ACCURACY IS NOT GUARANTEED. THE USE OF THIS INFORMATION DOES NOT PROVIDE RELIEF FOR ANY RESPONSIBILITY FOR DAMAGES DUE TO ANY INACCURACIES. PRIOR TO THE START OF ANY EXCAVATION OR REMOVAL ACTIVITIES, THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES.
4. THE HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING UNDERGROUND UTILITIES, AS SHOWN, HAVE BEEN DETERMINED BY VISIBLE EVIDENCE, RECORD DRAWINGS, OR AS MARKED BY MISS DIG. THESE PLANS DO NOT GUARANTEE THE ACCURACY OF HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING UTILITIES, THEREFORE NO WARRANTY IS GIVEN, EXPRESSED, OR IMPLIED, THAT THE MAP IS ALL INCLUSIVE OR AS TO THE PRECISION OF ACTUAL UTILITY LOCATIONS. MISS DIG SHALL BE CONTACTED NO LESS THAN 72 HOURS PRIOR TO ANY CONSTRUCTION OR EXCAVATION.
5. CONTRACTOR MUST PROTECT THE PUBLIC AT ALL TIMES WITH FENCING, BARRICADES, ENCLOSURES, AND OTHER MEANS NECESSARY TO THE BEST PRACTICES PER MIOSHA GUIDELINES.
6. CONTRACTOR SHALL SECURE CONSTRUCTION AREA WITH APPROPRIATE SAFETY MEASURES AT THE END OF EACH CONSTRUCTION DAY.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE LABOR AND MATERIAL NECESSARY FOR MAINTAINING ALL UTILITIES AND PROVIDING UN-INTERRUPTED SERVICES THROUGHOUT CONSTRUCTION. THIS INCLUDES BYPASS LINES, PIPE SUPPORTS, PUMPS, HAND EXCAVATION, AND OTHER MEANS NECESSARY.
8. CONTRACTOR SHALL PROVIDE THE OWNERS OF EACH PROPERTY, ALONG THE PROJECT LIMITS, NOTIFICATIONS REGARDING THE PROPOSED CONSTRUCTION. NOTIFICATION SHALL INCLUDE ANTICIPATED CONSTRUCTION SCHEDULE. CONTRACTOR SHALL COPY CONSUMERS ENERGY REPRESENTATIVE WITH ALL CORRESPONDENCE.
9. EXCEPT WHERE OTHERWISE INDICATED ON THE PLANS OR IN THE PROPOSAL AND SUPPLEMENTAL SPECIFICATIONS CONTAINED THEREIN, ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND THE SUPPLEMENTAL SPECIFICATIONS, 2020 EDITION.

SYMBOL LEGEND

SURVEY

- BENCH MARK (BM)
- SECTION CORNER
- CENTER OF SECTION
- QUARTER CORNER
- CONCRETE MONUMENT
- PROPERTY IRON
- SET PROPERTY IRON
- LOT LINE (AS PLATTED)
- PROPERTY HOOK (COMMON PROPERTY OWNERSHIP)
- TITLE LINE / PROPERTY LINE
- ROW LINE
- SECTION LINE
- EASEMENT CENTERLINE
- EASEMENT LINE
- SURVEY LINE STATIONING
- TRAVERSE POINT
- SOIL BORING LOCATION

TOPOGRAPHY – PLAN

- SHRUBS
- CONIFEROUS TREE
- DECIDUOUS TREE
- HEDGE / EDGE OF WOODS
- MARSH (SWAMP)
- EXISTING DITCH
- PROPOSED DITCH
- EDGE OF WATER
- CONTOUR MAJOR (725)
- CONTOUR MINOR (724)
- MONITORING WELL
- SOIL BORING
- LIGHT
- GUY ANCHOR
- UTILITY POLE
- SIGN
- FLAG POLE
- MAIL BOX
- PARKING METER
- RAILROAD TRACKS SCALE: 1" = 60' OR LESS
- RAILROAD TRACKS SCALE: 1" = 100' OR MORE
- GUARD RAIL
- EXISTING FENCE
- PROPOSED FENCE
- GRAVEL SURFACE
- PAVED SURFACE
- EXISTING CURB & GUTTER
- PROPOSED CURB & GUTTER
- PROPOSED INVERTED CURB & GUTTER
- PROPOSED TURN DOWN CONCRETE SLAB
- PROPOSED CROSSWALK (PAINTED)
- PROPOSED PAVEMENT MARKING (PAINTED)
- PROPOSED PAVEMENT MARKING DIRECTION ARROWS (PAINTED)
- PROPOSED BARRIER FREE PARKING STALL
- PROPOSED BARRIER FREE RAMP (BF)
- A.D.A. TACTILE SURFACE
- PROPOSED SILT FENCE
- PROPOSED SIGN
- PROPOSED CONTOUR MAJOR (725)
- PROPOSED CONTOUR MINOR (724)
- GRADING FLOW ARROW

855.00 GR	PROPOSED GRADE ELEVATION
855.00 GP	PROPOSED GUTTER PAN ELEVATION
855.50 TC	PROPOSED TOP OF CURB ELEVATION
855.00 TP	PROPOSED TOP OF PAVEMENT ELEVATION
855.00 TW	PROPOSED TOP OF WALL ELEVATION
855.00 EW	PROPOSED EDGE OF WALK ELEVATION
855.00 FF	PROPOSED FINISHED FLOOR ELEVATION
855.00 EM	PROPOSED EDGE OF METAL ELEVATION
855.00 HP	PROPOSED HIGH POINT ELEVATION
855.00 LP	PROPOSED LOW POINT ELEVATION

EXISTING UTILITIES

- 8" SAN. — SANITARY SEWER & MANHOLE
- 12" STM. — STORM SEWER & MANHOLE
- CATCH BASIN CURB TYPE
- CATCH BASIN LAWN TYPE
- VALVE
- HYDRANT
- PLUG
- 6" WTR. — WATER MAIN
- 4" FM — FORCE MAIN
- 2" GAS — GAS MAIN
- ELEC. — UNDERGROUND ELECTRIC
- OP. — FIBER OPTICS
- TEL. — UNDERGROUND TELEPHONE
- 2" OIL — OIL TRANSMISSION LINE
- 6" STEAM — UNDERGROUND STEAM
- 2" SPRK. — UNDERGROUND SPRINKLER
- CATV — CABLE TELEVISION
- TELEPHONE PEDESTAL
- PIPE-ONLY CULVERT
- FLARED END SECTION CULVERT
- HEADWALL CULVERT

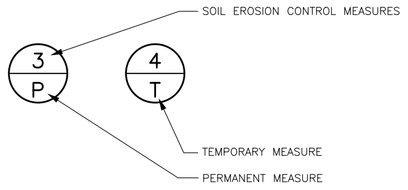
PROPOSED UTILITIES

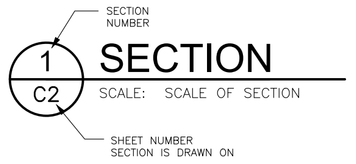
- 8" SAN. — SANITARY SEWER & MANHOLE
- WYE & LEAD
- RISER & LEAD
- STANDARD SEWER CLEAN OUT
- 832.56 — MAX. ELEVATION OF LOT LEAD AT PROPERTY LINE
- 12" STM. — STORM SEWER & MANHOLE
- CATCH BASIN
- UNDER DRAIN
- 8" WATER — WATER MAIN
- VALVE & BOX
- VALVE & CHAMBER
- M — METER
- PLUG
- STANDARD FIRE HYDRANT ASSEMBLY
- CURB STOP & BOX
- 6" FM — FORCE MAIN
- FORCE MAIN AIR RELEASE STRUCTURE
- GAS PIPE
- TELEPHONE LINE
- 12" CSP — PIPE-ONLY CULVERT
- 12" CSP — FLARED END SECTION CULVERT

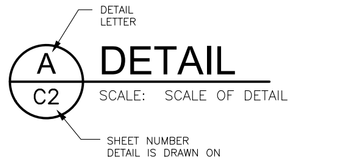
MISCELLANEOUS

- ADJ — ADJUST STRUCTURE COVER

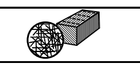
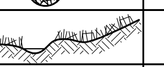
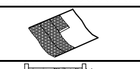
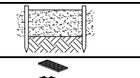
SOIL EROSION CONTROL







SOIL EROSION AND SEDIMENTATION CONTROL MEASURES

KEY	DESCRIPTION	DETAIL	CHARACTERISTICS
E6	MULCH		For use in areas subject to erosive surface flows or severe wind or on newly seeded areas.
E7	TEMPORARY SEEDING		Stabilization method utilized on construction sites where earth change has been initiated but not completed within a 2 week period.
E8	PERMANENT SEEDING		Stabilization method utilized on sites where earth change has been completed (final grading attained).
E9	MULCH BLANKETS		On exposed slopes, newly seeded areas, new ditch bottoms, or areas subject to erosion.
S51	SILT FENCE		Use adjacent to critical areas, to prevent sediment laden sheet flow from entering these areas.
S58	INLET PROTECTION FABRIC DROP		Use at stormwater inlets, especially at construction sites.

City of Saginaw
Saginaw, Michigan

Dead End Elimination/Looping and
N. Mason Street Water Main Replacement

REVISIONS

4/2/2026	BIDS AND CONSTRUCTION

Drawn By	MHITCH/LKEENER
Designer	MHITCH/LKEENER
Reviewer	JKRAMER
Manager	HBOWERS

Hard copy is intended to be 22"x34" when plotted. Scale(s) indicated and graphic quality may not be accurate for any other size.

PROJECT NO.
2501567

SHEET NO.
2

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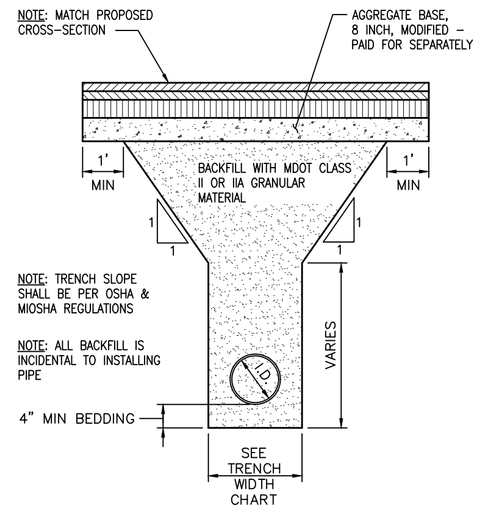
PLOT INFO: Z:\2025\2501567\CAD\CD\2501567_LEGEND&NOTES.DWG LAYOUT: 2 DATE: 3/26/2026 TIME: 10:20:15 PM USER: HBOWERS



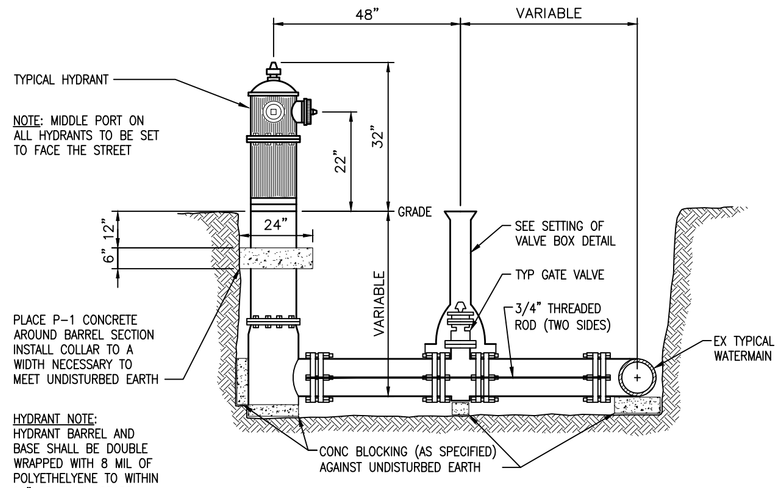
TYP TRENCH DETAIL
DUCTILE OR C909 IRON PIPE
NO SCALE TYPTRENCH.DWG

NOTE: EXISTING SURFACE CONDITIONS ON THE PROPOSED TRENCH CENTERLINE SHALL GOVERN THE TYPE OF SURFACE RESTORATION THE CONTRACTOR SHALL PERFORM. THE TYPE OF PIPE BACKFILL AND BEDDING SHALL BE AS STATED IN THE PLANS AND SPECIFICATIONS AND APPROPRIATE BID UNITS SHOWN IN THE PROPOSAL.

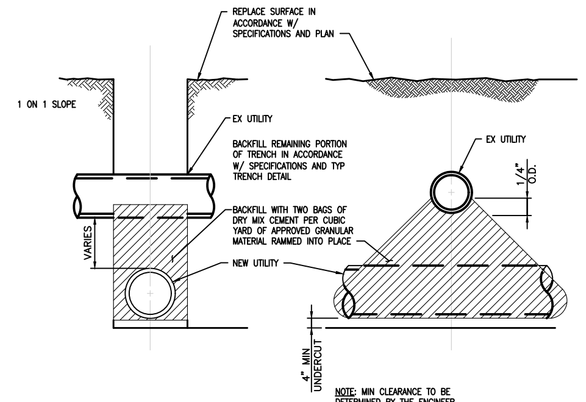
BACKFILL FOR WATER MAIN TRENCH TO BE INCLUDED IN THE PAY ITEM FOR WATER MAIN, ___"-___" TR DET ___, MODIFIED

TRENCH WIDTH CHART

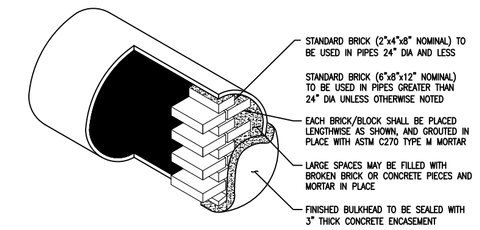
PIPE SIZE	MINIMUM	MAXIMUM
6", 8", 10"	24"	30"
12" & 15"	30"	36"
18"	34"	40"
21"	38"	42"
24"	42"	46"
27"	45"	49"
30"	49"	53"
36"	56"	60"
LARGER THAN 36"	I.D. +20"	I.D. +24"



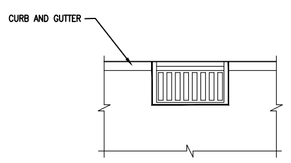
HYDRANT, COMPLETE, 6 INCH
NO SCALE HYD.DWG



CROSSING EXISTING UTILITY
NO SCALE CRSEXT.DWG
(FOR WATER MAIN & SEWER)

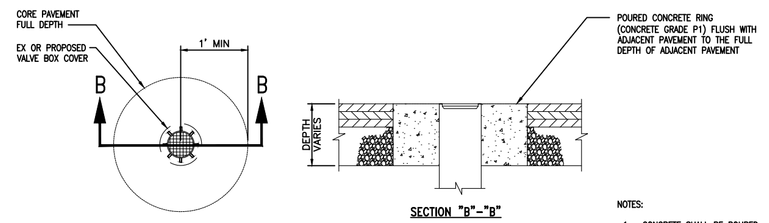


STANDARD BULKHEAD/PLUG DETAIL
NO SCALE STDBLK.DWG



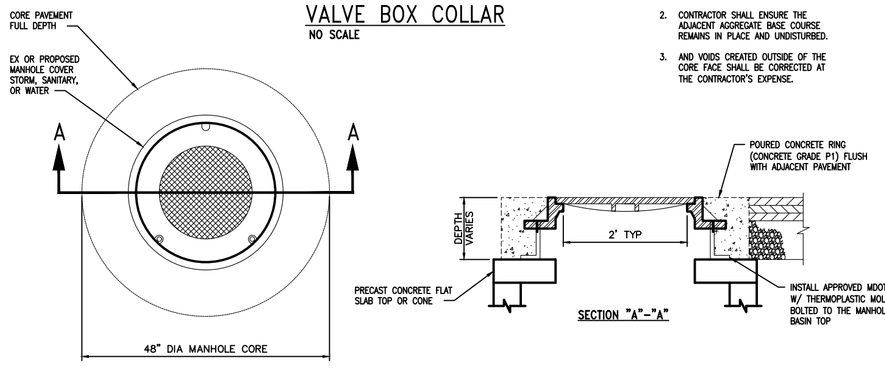
CATCHBASIN COVERS

ALL PAVEMENT TO BE REPLACED WITH GRADE 35-HE CONCRETE TO A LEVEL 2 INCHES BELOW STRUCTURE GRADE



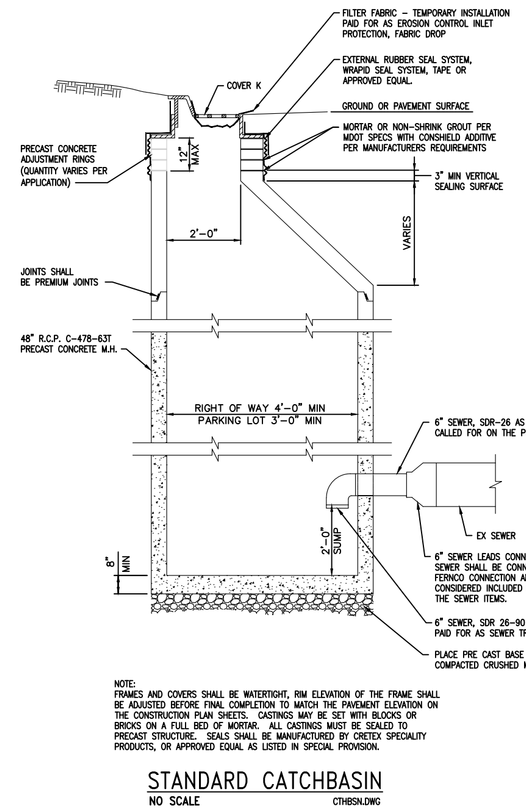
VALVE BOX COLLAR
NO SCALE

NOTES:
1. CONCRETE SHALL BE POURED IMMEDIATELY UPON CORING THE STRUCTURE.
2. CONTRACTOR SHALL ENSURE THE ADJACENT AGGREGATE BASE COURSE REMAINS IN PLACE AND UNDISTURBED.
3. AND VOIDS CREATED OUTSIDE OF THE CORE FACE SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.



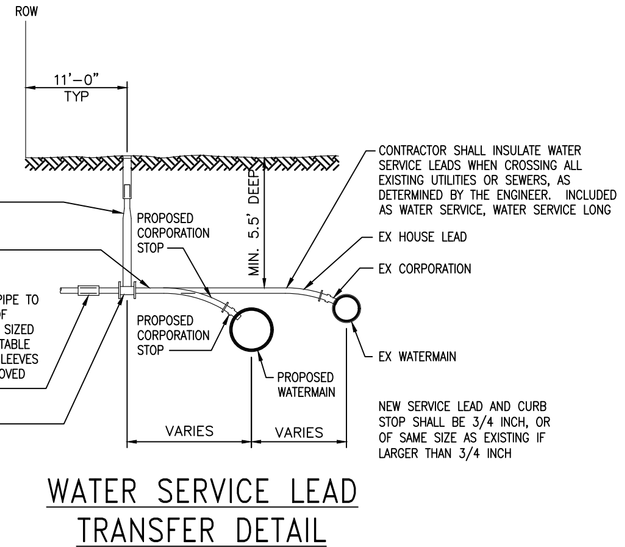
DR STRUCTURE COLLAR IN PAVED AREAS
NO SCALE STRCOL.DWG

NOTES:
1. CONCRETE SHALL BE POURED IMMEDIATELY UPON CORING THE STRUCTURE.
2. CONTRACTOR SHALL ENSURE THE ADJACENT AGGREGATE BASE COURSE REMAINS IN PLACE AND UNDISTURBED.
3. AND VOIDS CREATED OUTSIDE OF THE CORE FACE SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.

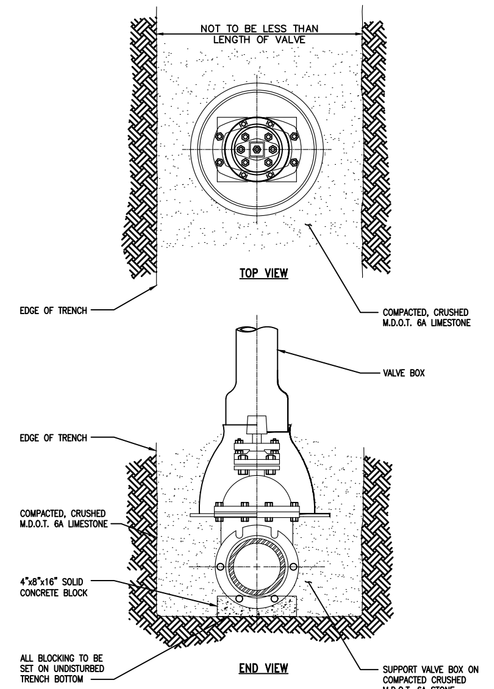


NOTE:
FRAMES AND COVERS SHALL BE WATERTIGHT, RIM ELEVATION OF THE FRAME SHALL BE ADJUSTED BEFORE FINAL COMPLETION TO MATCH THE PAVEMENT ELEVATION ON THE CONSTRUCTION PLAN SHEETS. CASTINGS MAY BE SET WITH BLOCKS OR BRICKS ON A FULL BED OF MORTAR. ALL CASTINGS MUST BE SEALED TO PRECAST STRUCTURE. SEALS SHALL BE MANUFACTURED BY CRETEX SPECIALITY PRODUCTS, OR APPROVED EQUAL AS LISTED IN SPECIAL PROVISION.

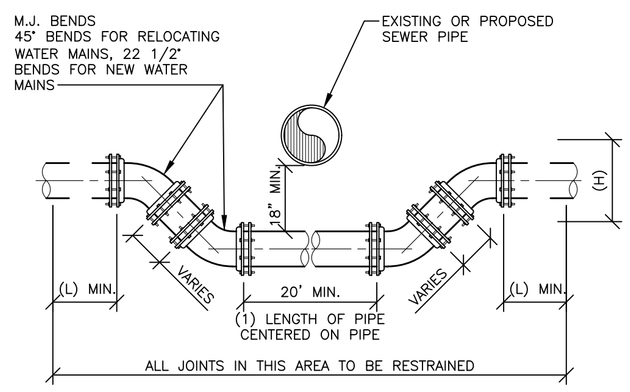
STANDARD CATCHBASIN
NO SCALE CTHBSN.DWG



WATER SERVICE LEAD
TRANSFER DETAIL
NO SCALE WTRLEAD.DWG



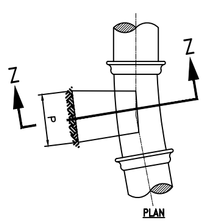
SETTING OF VALVE BOX DETAIL
NO SCALE VLVBOX.DWG

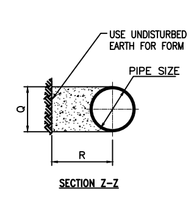


NEW WATER MAIN INSTALLATION SCHEDULE	
PIPE DIA.	(L)
6	5'
8	6'
10	7'
12	9'

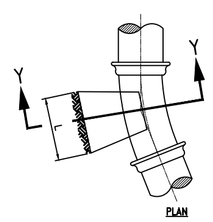
EXISTING WATER MAIN RELOCATIONS SCHEDULE			
PIPE DIA.	(W)	(D)	(H)
6	2'	3'	3'
8	2'	3'	3'
10	3'	3'	3'
12	4'	4'	3'

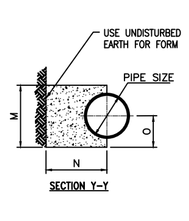
WATER MAIN LOWERING DETAIL
NO SCALE WM-002



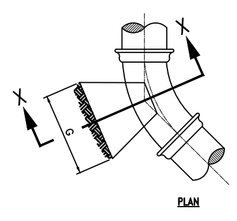


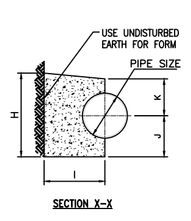
DETAIL OF BLOCK FOR 11 1/4° BEND
NO SCALE 11.25 BEND.DWG



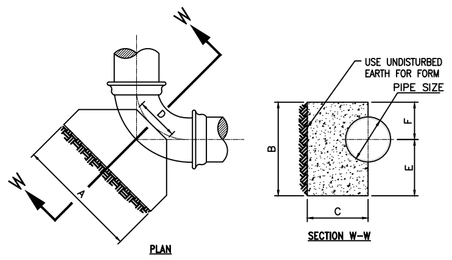


DETAIL OF BLOCK FOR 22 1/2° BEND
NO SCALE 22.5 BEND.DWG

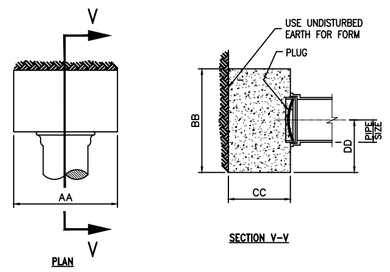




DETAIL OF BLOCK FOR 45° BEND
NO SCALE 45 BEND.DWG



DETAIL OF BLOCK FOR 90° BEND
NO SCALE 90 BEND.DWG



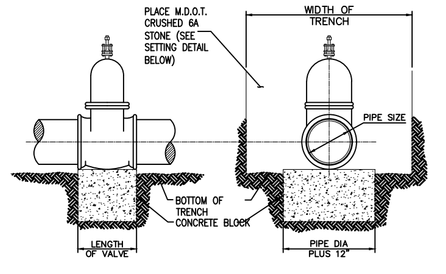
DETAIL OF BLOCK FOR PLUGS
NO SCALE PLUGS.DWG

-WATER MAIN- BLOCKING

NOTE: TABLE BELOW IS BASED IN WATER MAIN PRESSURE OF 100 P.S.I. WITH NORMAL CLAY SOIL FOR WATER MAIN PRESSURE OF 150 P.S.I., INCREASE THE END AREA BY 50% FOR 180 P.S.I., INCREASE BY BOX AND ETC., FOR SOFT AND ABNORMAL SOIL CONDITIONS, THE THRUST BLOCK SIZE SHALL BE DETERMINED BY THE ENGINEER.

NOTE: THE CONCRETE USED FOR BLOCKING SHALL BE A MINIMUM COMPRESSIVE STRENGTH OF 3000 POUNDS PER SQUARE INCH IN TWENTY-EIGHT (28) DAYS.

SIZE OF MAIN	PLUGS AA	BB	CC	DD	MINIMUM CONCRETE REQUIRED	90° BENDS OR TEE A	B	C	D	E	F	MINIMUM CONCRETE REQUIRED	45° BENDS G	H	I	J	K	MINIMUM CONCRETE REQUIRED	22 1/2° BENDS L	M	N	O	MINIMUM CONCRETE REQUIRED	11 1/4° BENDS P	Q	R	MINIMUM CONCRETE REQUIRED	SIZE OF MAIN
4"	1'-0"	1'-0"	1'-0"	0'-6"	0.04 CYD	1'-0"	1'-0"	0'-8"	0'-8"	0'-6"	0'-6"	0.04 CYD	1'-6"	1'-0"	0'-6"	0'-6"	0'-6"	0.04 CYD	0'-8"	0'-8"	1'-0"	0'-6"	0.03 CYD	0'-6"	0'-6"	1'-0"	0.01 CYD	4"
6"	1'-0"	1'-0"	1'-0"	0'-6"	0.04	1'-0"	1'-0"	0'-8"	0'-8"	0'-6"	0'-6"	0.04	1'-6"	1'-0"	0'-6"	0'-6"	0'-6"	0.04	0'-8"	0'-8"	1'-0"	0'-6"	0.03	0'-6"	0'-6"	1'-0"	0.01	6"
8"	2'-0"	1'-6"	1'-0"	0'-9"	0.11	2'-0"	2'-0"	1'-0"	0'-9"	1'-0"	0'-9"	0.12	2'-0"	1'-0"	1'-0"	0'-9"	0'-6"	0.08	1'-6"	1'-0"	1'-0"	0'-6"	0.04	0'-9"	0'-9"	1'-0"	0.02	8"
10"	2'-0"	2'-0"	1'-3"	1'-0"	0.19	3'-0"	2'-0"	1'-3"	0'-10"	1'-0"	0'-9"	0.19	2'-0"	1'-6"	1'-3"	0'-9"	0'-9"	0.11	1'-6"	1'-0"	1'-3"	0'-6"	0.07	1'-0"	1'-0"	1'-3"	0.04	10"
12"	2'-0"	2'-0"	1'-6"	1'-3"	0.28	3'-0"	2'-6"	1'-6"	1'-0"	1'-3"	1'-0"	0.32	2'-0"	2'-0"	1'-6"	1'-0"	0'-9"	0.15	2'-0"	1'-3"	1'-6"	0'-7"	0.08	1'-3"	1'-3"	1'-6"	0.05	12"
14"	3'-0"	2'-6"	1'-9"	1'-3"	0.49	3'-0"	3'-0"	1'-9"	1'-3"	1'-6"	1'-3"	0.49	3'-0"	2'-0"	1'-9"	1'-0"	1'-0"	0.29	2'-0"	1'-6"	1'-9"	0'-9"	0.16	1'-6"	1'-6"	1'-9"	0.12	14"
16"	3'-6"	3'-0"	2'-0"	1'-6"	0.52	4'-0"	3'-0"	2'-0"	1'-4"	1'-6"	1'-3"	0.69	3'-0"	3'-0"	2'-0"	1'-6"	1'-3"	0.47	2'-0"	2'-0"	2'-0"	1'-0"	0.24	2'-0"	1'-6"	2'-0"	0.20	16"
18"	4'-0"	3'-0"	2'-3"	1'-6"	1.00	4'-0"	4'-0"	2'-3"	1'-6"	2'-0"	1'-6"	1.06	3'-0"	3'-0"	2'-3"	1'-6"	1'-3"	0.51	3'-0"	2'-0"	2'-3"	1'-0"	0.48	2'-0"	1'-9"	2'-3"	0.24	18"
20"	4'-0"	4'-0"	2'-6"	2'-0"	1.45	5'-0"	4'-6"	2'-6"	1'-8"	2'-3"	1'-9"	1.23	4'-0"	3'-0"	2'-6"	1'-9"	1'-6"	0.82	3'-0"	2'-6"	2'-6"	1'-3"	0.58	2'-0"	1'-10"	2'-6"	0.30	20"
24"	5'-0"	5'-0"	3'-0"	2'-6"	2.78	6'-0"	5'-6"	3'-0"	2'-0"	2'-9"	1'-9"	2.74	4'-0"	4'-0"	3'-0"	2'-0"	1'-9"	1.21	3'-0"	3'-0"	3'-0"	1'-6"	0.80	2'-6"	2'-3"	3'-0"	0.42	24"
30"	6'-0"	6'-0"	3'-9"	3'-0"	4.96	7'-0"	7'-0"	3'-9"	2'-6"	3'-6"	2'-3"	5.39	5'-0"	5'-0"	3'-9"	2'-6"	2'-0"	2.14	4'-0"	3'-9"	3'-9"	1'-9"	1.33	3'-0"	2'-9"	3'-9"	0.68	30"
36"	8'-0"	6'-0"	4'-6"	3'-0"	8.00 *	8'-0"	7'-6"	4'-6"	3'-0"	3'-9"	2'-9"	8.12 *	6'-0"	6'-0"	4'-6"	3'-0"	2'-6"	4.03 *	5'-0"	4'-0"	4'-6"	2'-0"	2.77 *	3'-0"	3'-3"	4'-6"	1.36 *	36"
42"	8'-0"	8'-0"	5'-3"	4'-0"	12.44 *	9'-0"	8'-0"	5'-3"	3'-6"	4'-0"	3'-0"	11.58 *	7'-0"	7'-0"	5'-3"	3'-6"	3'-0"	6.43 *	5'-0"	5'-0"	5'-3"	2'-6"	3.85 *	4'-0"	3'-9"	5'-3"	2.17 *	42"



DETAIL OF BLOCK FOR VALVES
NO SCALE VLVBLK.DWG
(CU YD CONCRETE PER BLOCK VARIES)

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City of Saginaw
Saginaw, Michigan

Dead End Elimination/Looping and
N. Mason Street Water Main Replacement

REVISIONS

4/2/2026	BIDS AND CONSTRUCTION
Drawn By	MHITCH/LKEENER
Designer	MHITCH/LKEENER
Reviewer	JKRAMER
Manager	HBOWERS

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PROJECT NO.
2501567

SHEET NO.
3

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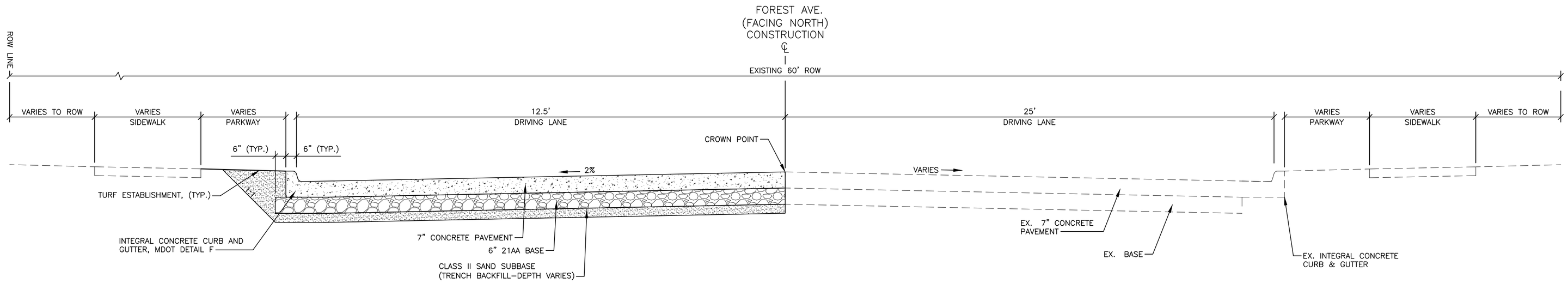
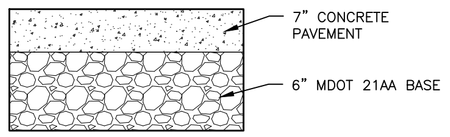


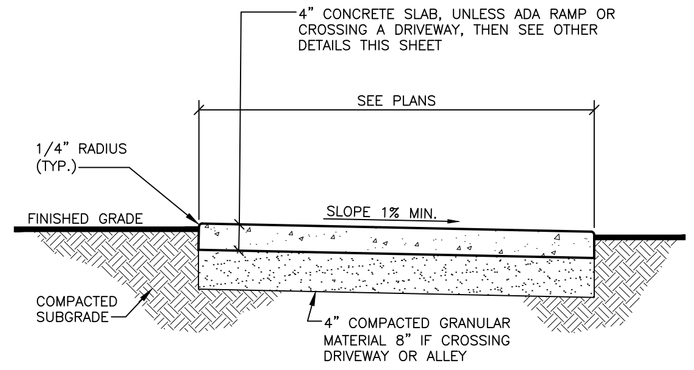
FOREST AVE. PROPOSED TYPICAL

APPLIES TO STATION RANGES: 0+38 TO 3+24

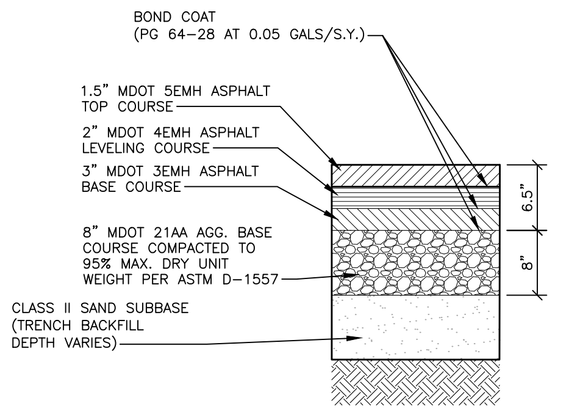


CONCRETE PAVEMENT DETAIL
NO SCALE

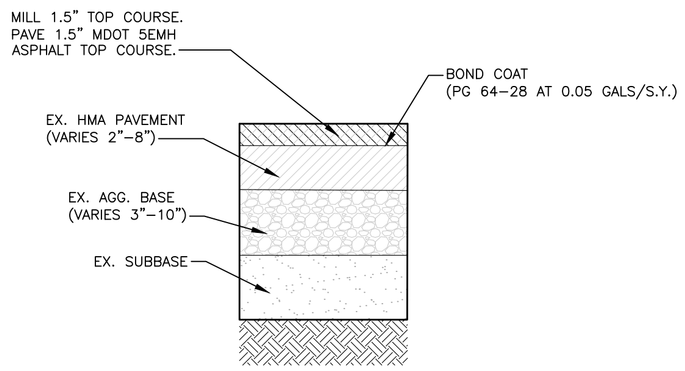
APPLIES TO: IRVING AVE.
CONGRESS AVE.
UNION AVE.



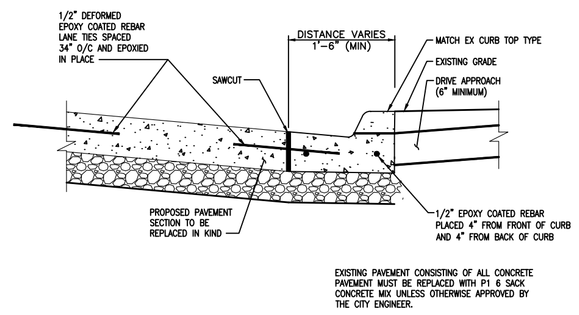
SIDEWALK DETAIL
NO SCALE CP-002



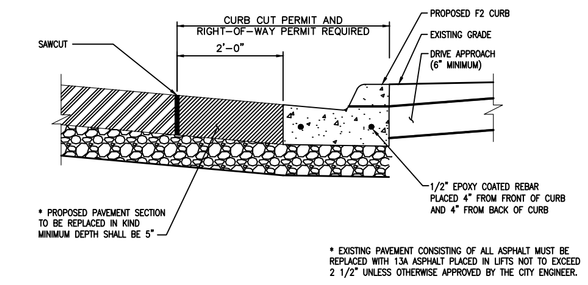
FULL DEPTH ASPHALT PAVEMENT
NO SCALE



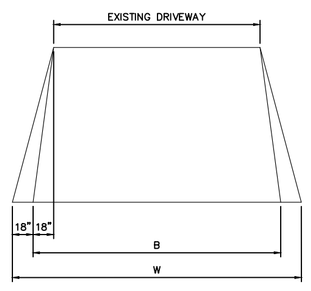
MILL & FILL ASPHALT PAVEMENT
NO SCALE



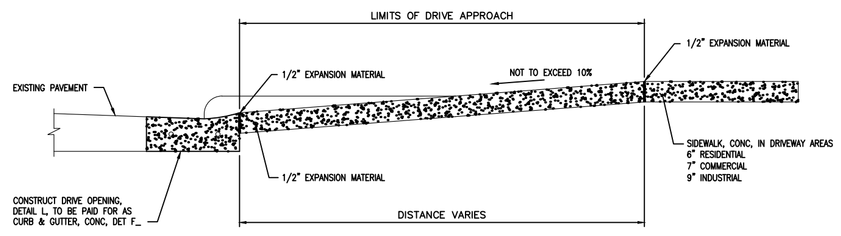
FULL DEPTH CONCRETE
PAVEMENT SECTION DETAIL – INTEGRAL PAVEMENT
NO SCALE CURB.DWG



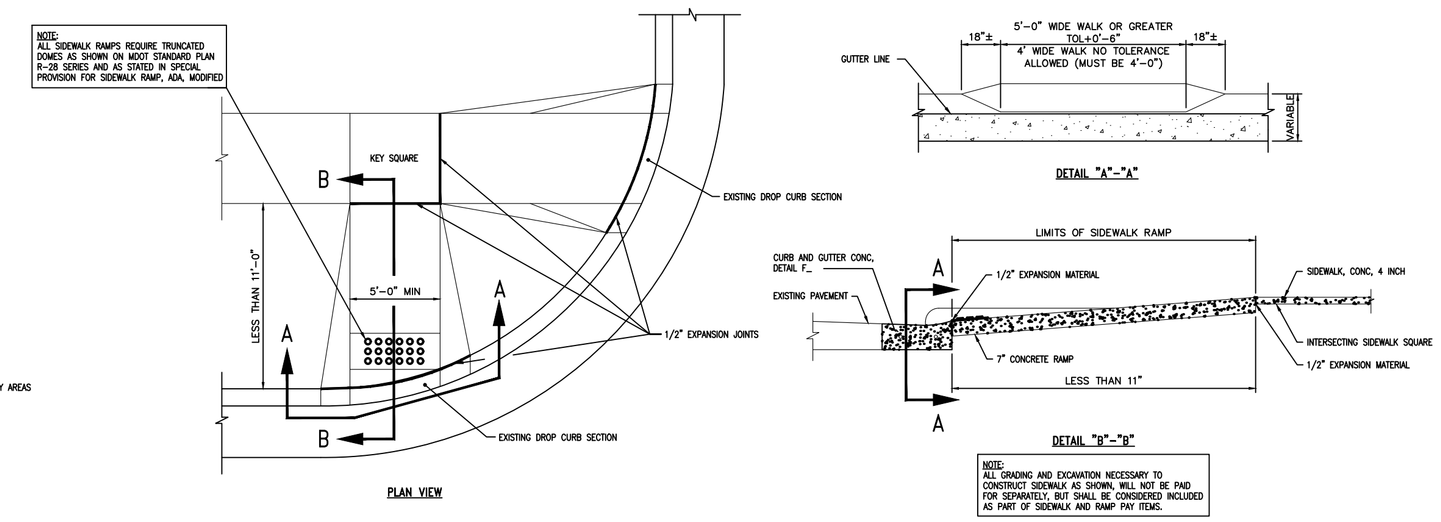
TYPICAL CROSS SECTION AT PROPOSED CURB REPLACEMENT
NO SCALE FULASP.DWG



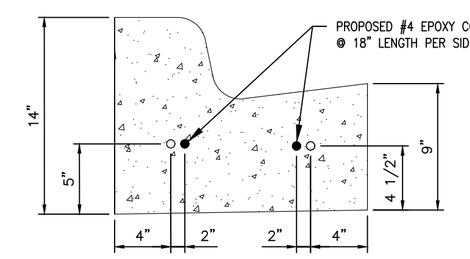
DRIVEWAY APPROACH PLAN
NO SCALE DRVAPP.DWG



DRIVEWAY APPROACH CROSS SECTION
NO SCALE DRVAPP.DWG



ADA HANDICAP RAMP DETAILS
NO SCALE ADA.DWG



NOTE: IN AREAS WHERE CONTRACTOR IS REPLACING EXISTING CURB WITH NEW CURB. CONTRACTOR SHALL DRILL EXISTING CURB AND INSTALL 2-#4 EPOXY COATED BARS PER EACH SIDE OF NEW CURB AS DIRECTED BY THE ENGINEER. COST TO PERFORM THIS WORK SHALL BE INCLUDED IN CURB AND GUTTER, CONC, DETAIL F2.

CURB REPLACEMENT DETAIL
NO SCALE CURBREP.DWG

PLOT INFO: Z:\2025\2501567\CAD\CD\2501567_DETAILS.DWG LAYOUT: 4 DATE: 3/26/2026 TIME: 10:20:29 PM USER: MHITCH

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Dead End Elimination/Looping and
N. Mason Street Water Main Replacement

REVISIONS

4/2/2026	BIDS AND CONSTRUCTION
Drawn By	MHITCH/LKEENER
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Reviewer	JKRAMER
Manager	HBOWERS

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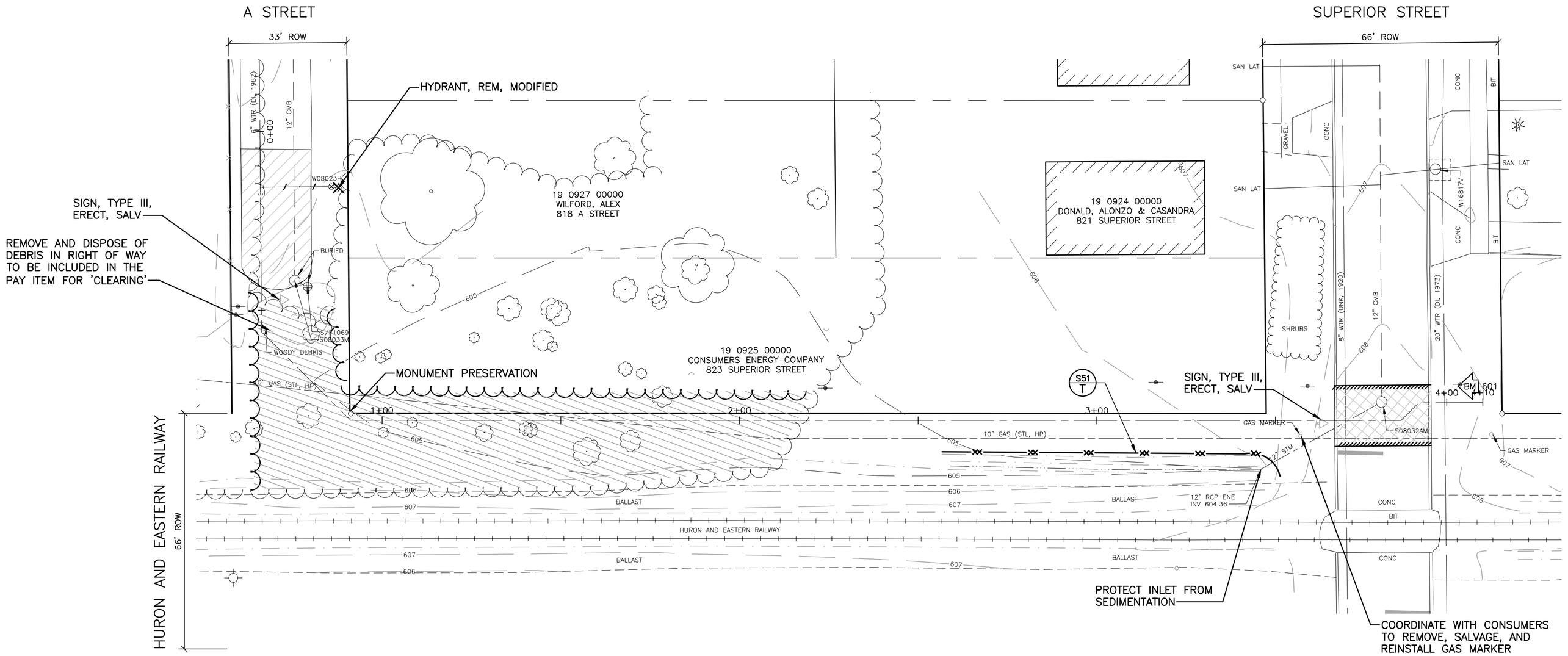

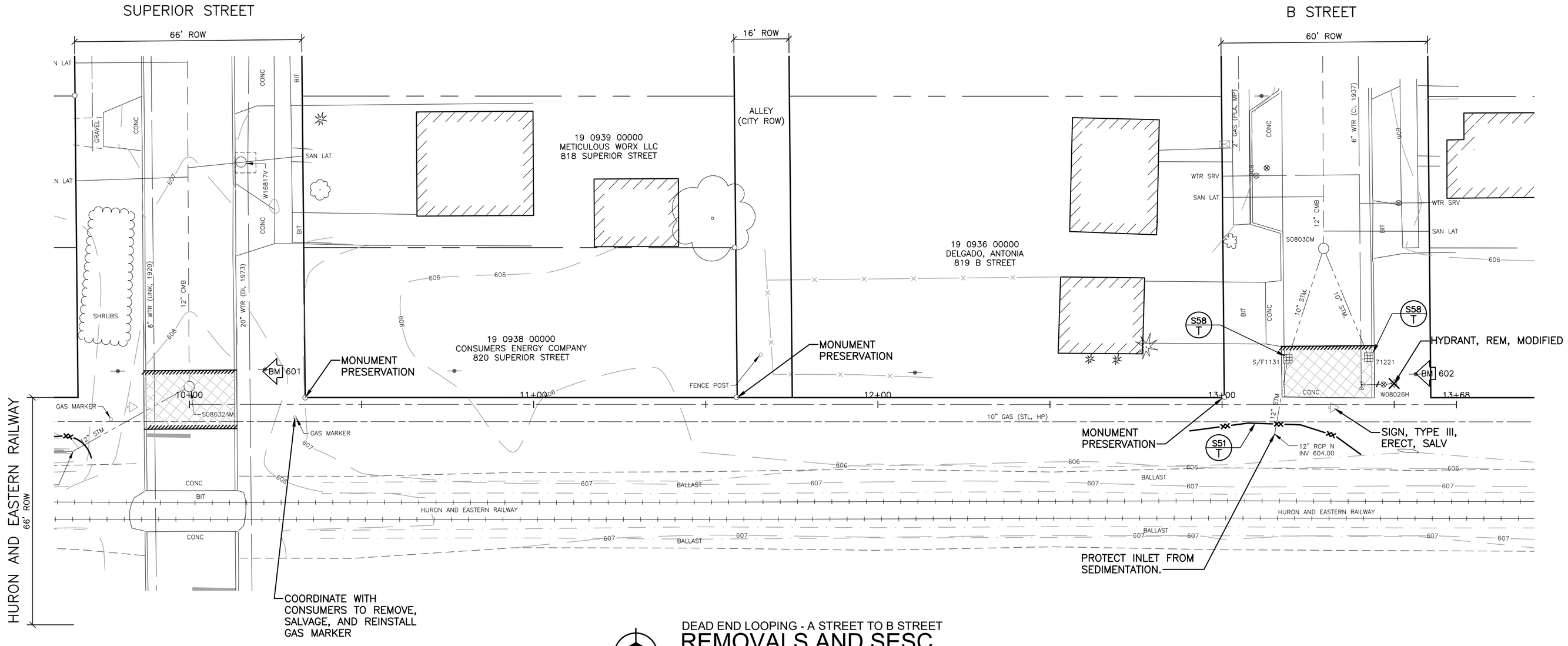

DEAD END LOOPING - A STREET TO B STREET

REMOVALS AND SESC

SCALE: 1" = 20'

0 10 20 40

NORTH

BENCH MARKS

BENCH MARK 600 ELEVATION: 609.35
COTTON SPINDLE IN EAST FACE OF CONSUMERS ENERGY UTILITY POLE #0581674 ON WEST SIDE OF A STREET, 105' SOUTH OF MAINE STREET

BENCH MARK 601 ELEVATION: 608.82
COTTON SPINDLE IN WEST FACE OF CONSUMERS ENERGY UTILITY POLE #0557471 ON EAST SIDE OF SUPERIOR STREET, 35' NORTH OF RAILROAD TRACKS

BENCH MARK 602 ELEVATION: 606.42
COTTON SPINDLE IN WEST FACE OF UTILITY POLE ON EAST SIDE OF SOUTH END OF B STREET, 35' NORTH OF RAILROAD TRACKS

SYMBOL LEGEND

- SAWCUT
- CURB REMOVAL
- REMOVE PIPE
- ABANDON PIPE
- SILT FENCE
- REMOVE OBJECT
- REMOVE BITUMINOUS PAVEMENT FULL DEPTH
- REMOVE CONCRETE PAVEMENT
- CLEARING
- TREE PROTECTION
- TREE REMOVAL

NOTES

1. FIELD VERIFY THE EXTENT OF REMOVALS AND DEMOLITION PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DEVIATIONS FROM INFORMATION SHOWN.
2. PRIOR TO CONSTRUCTION ALL FENCING, BARRICADES, ENCLOSURES, ETC., MUST BE INSTALLED AND APPROVED BY OWNER OR ENGINEER.
3. DISPOSE OF DEMOLITION AND EXCAVATION MATERIALS IN ACCORDANCE WITH CONTRACT DOCUMENTS.
4. SOIL EROSION AND SEDIMENTATION CONTROL MEASURES MUST BE IN PLACE PRIOR TO STARTING REMOVALS AND DEMOLITION.
5. UNLESS SPECIFICALLY NOTED FOR REMOVAL ON THE PLANS, PROTECT ALL SIDEWALKS, DRIVES, CULVERTS, DRAINAGE STRUCTURES, AND ABOVE AS WELL AS BELOW GRADE UTILITIES. REMOVE AND REPLACE ALL SUCH ITEMS DAMAGED OR DESTROYED DURING CONSTRUCTION WITH NEW AT NO ADDITIONAL COST TO THE OWNER.
6. PROTECT EXISTING TREES TO REMAIN WITH TEMPORARY FENCING AT THE DRIP LINE. NO GROUND DISTURBANCE OR STORAGE OF MATERIAL/EQUIPMENT SHALL OCCUR WITHIN THE DRIP LINE LIMITS.
7. COORDINATE REMOVAL OR REPLACEMENT OF ELECTRICAL, TELEPHONE, CABLE TV, WATER, FIBER OPTIC CABLE AND/OR GAS LINES WITH THE AFFECTED UTILITY COMPANY. ADEQUATE TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY AS NECESSARY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE. PAY CLOSE ATTENTION TO EXISTING UTILITIES WITHIN THE CONSTRUCTION LIMITS. GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DESTRUCTION AND REMOVAL OF ALL SERVICE LINES AND CAP ALL LINES BEFORE PROCEEDING WITH THE WORK.
8. PERFORM CLEARING, GRUBBING, TREE AND STUMP REMOVAL, TOPSOIL REMOVAL AND STOCKPILING IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
9. BEFORE REMOVING OR ABANDONING ANY UTILITY PIPES, VERIFY NEW UTILITY PIPE HAS BEEN INSTALLED, TESTED AND IS OPERATIONAL.
10. ALL REMOVED VALVES AND HYDRANTS ARE TO BE SALVAGED AND RETURNED TO THE CITY.
11. IF UTILITY TO BE ABANDONED IS LARGER THAN 8", UTILITY TO BE ABANDONED WITH FLOWABLE FILL. IF UTILITY IS 8" OR SMALLER, UTILITY TO BE ABANDONED BY PLUGGING ANY EXPOSED ENDS WITH NON-SHRINK GROUT.
12. SAWCUT AND REMOVE PAVEMENT TO NEAREST JOINT.

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City of Saginaw
Saginaw, Michigan

Dead End Elimination/Looping and
N. Mason Street Water Main Replacement

REVISIONS

4/2/2026	BIDS AND CONSTRUCTION
Drawn By	MHITCH/LKEENER
Designer	MHITCH/LKEENER
Reviewer	JKRAMER
Manager	HBOWERS

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SHEET NO.
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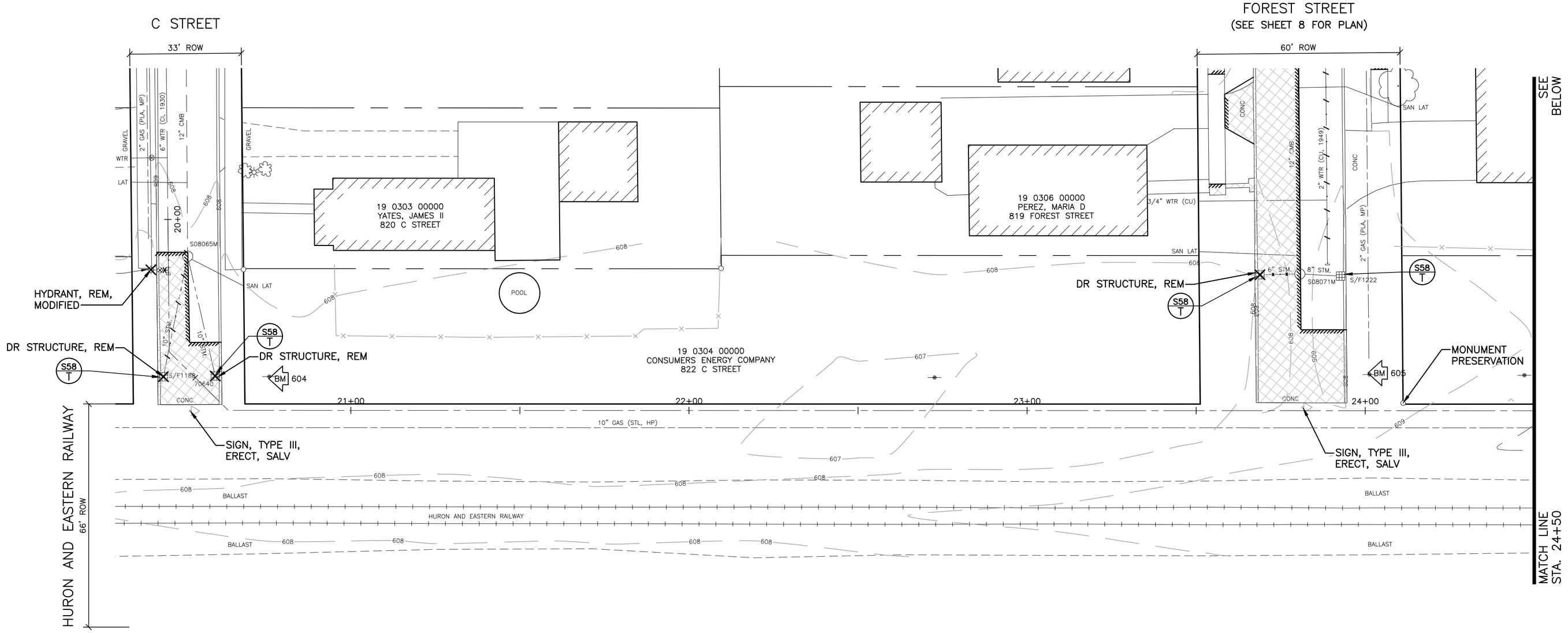

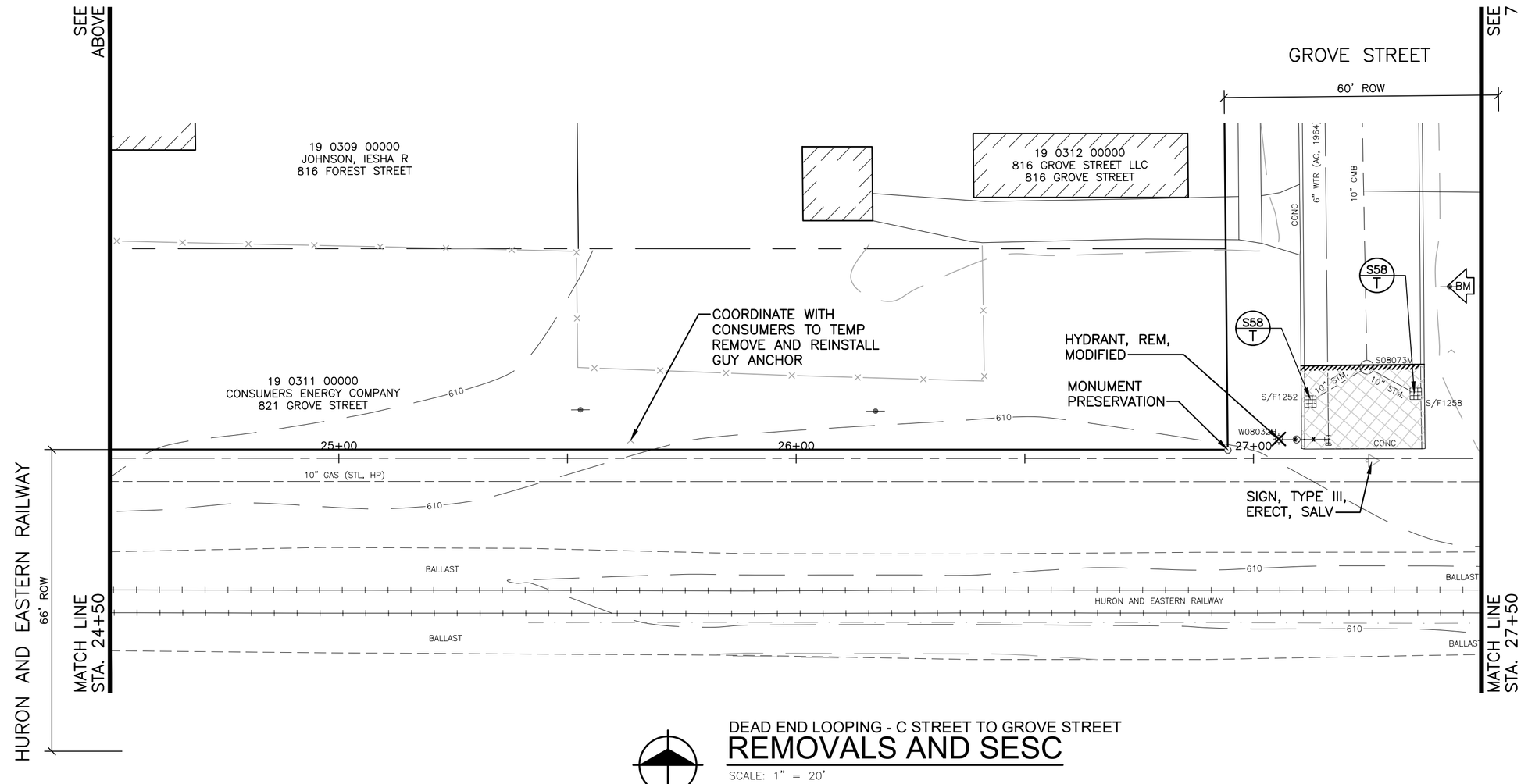

NORTH

DEAD END LOOPING - C STREET TO GROVE STREET

REMOVALS AND SESC

SCALE: 1" = 20'

0 10 20 40

VERT SCALE: 1" = 4'

BENCH MARKS

BENCH MARK 604 ELEVATION: 607.56
COTTON SPINDLE IN WEST FACE OF CONSUMERS ENERGY UTILITY POLE #1711882 ON EAST SIDE OF SOUTH END OF C STREET, 35' NORTH OF RAILROAD TRACKS

BENCH MARK 605 ELEVATION: 608.64
COTTON SPINDLE IN NORTHWEST FACE OF CONSUMERS ENERGY UTILITY/LIGHT POLE #1711883 ON EAST SIDE OF SOUTH END OF FOREST STREET, 35' NORTH OF RAILROAD TRACKS

BENCH MARK 608 ELEVATION: 612.21
COTTON SPINDLE IN WEST FACE OF CONSUMERS ENERGY UTILITY/LIGHT POLE #1711890 ON EAST SIDE OF SOUTH END OF GROVE STREET, 35' NORTH OF RAILROAD TRACKS

SYMBOL LEGEND

- SAWCUT
- CURB REMOVAL
- REMOVE PIPE
- ABANDON PIPE
- SILT FENCE
- REMOVE OBJECT
- REMOVE BITUMINOUS PAVEMENT FULL DEPTH
- REMOVE CONCRETE PAVEMENT
- CLEARING
- TREE PROTECTION
- TREE REMOVAL

NOTES

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12. SAWCUT AND REMOVE PAVEMENT TO NEAREST JOINT.

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Designer	MHITCH/LKEENER
Reviewer	JKRAMER
Manager	HBOWERS

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SHEET NO.
6

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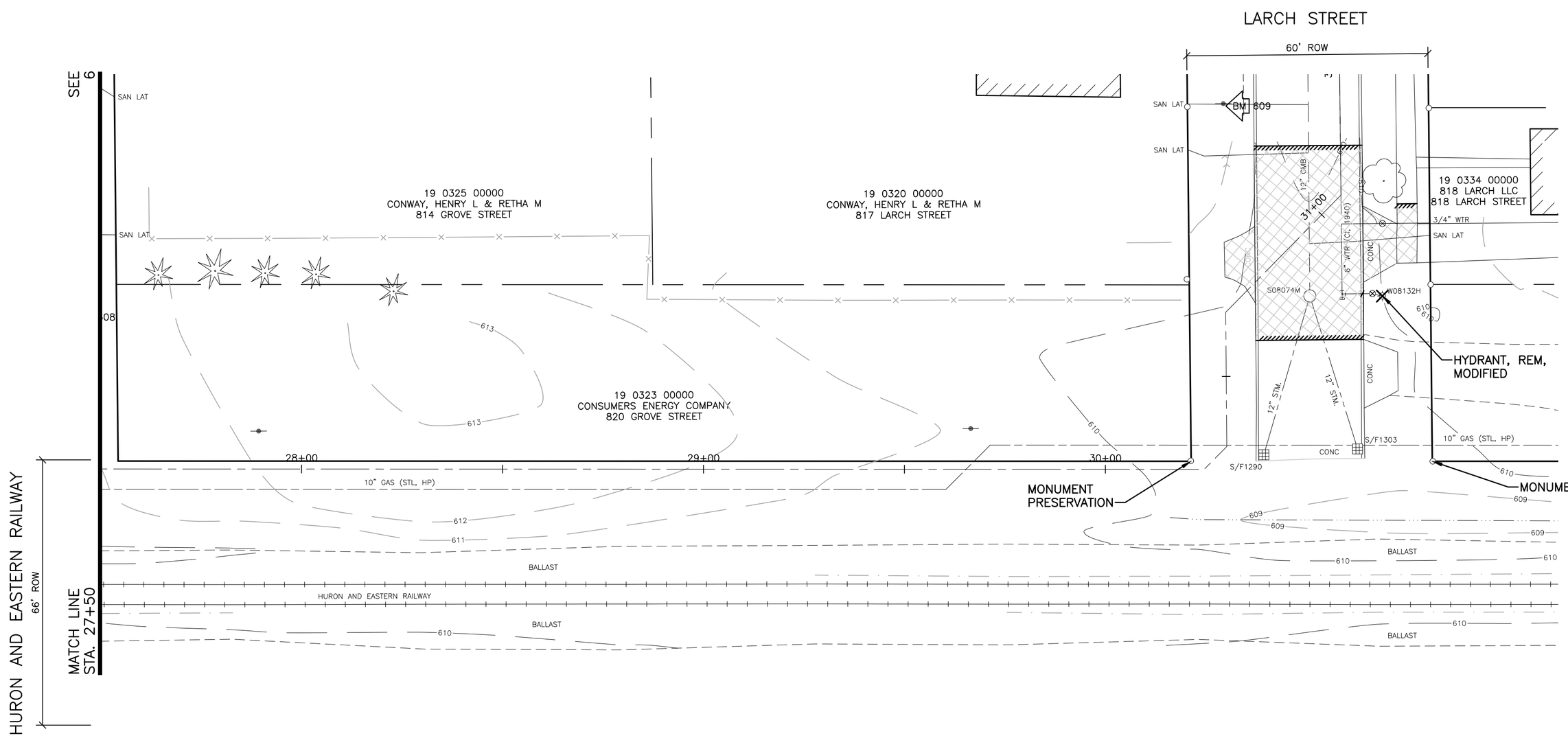
PLOT INFO: Z:\2025\2501567\CAD\CD\2501567_REMOVAL_LOOP.DWG LAYOUT 6 DATE: 3/26/2026 TIME: 10:21:08 PM USER: HBOWERS



NORTH

DEAD END LOOPING - GROVE STREET TO LARCH STREET

REMOVALS AND SESC

SCALE: 1" = 20'

0 10 20 40

VERT SCALE: 1" = 4'

BENCH MARKS

BENCH MARK 609 ELEVATION: 611.44
COTTON SPINDLE IN SOUTHEAST FACE OF CONSUMERS ENERGY UTILITY/LIGHT POLE #1711919 ON WEST SIDE OF LARCH STREET, 30' EAST OF SOUTHEAST CORNER OF HOUSE #817 LARCH STREET

BENCH MARK 610 ELEVATION: 611.65
COTTON SPINDLE IN SOUTHWEST FACE OF CONSUMERS ENERGY UTILITY POLE #1711899 ON EAST SIDE OF MAPLE STREET, 35' NORTH OF RAILROAD TRACKS

SYMBOL LEGEND

- SAWCUT
- CURB REMOVAL
- REMOVE PIPE
- ABANDON PIPE
- SILT FENCE
- REMOVE OBJECT
- REMOVE BITUMINOUS PAVEMENT FULL DEPTH
- REMOVE CONCRETE PAVEMENT
- CLEARING
- TREE PROTECTION
- TREE REMOVAL

NOTES

1. FIELD VERIFY THE EXTENT OF REMOVALS AND DEMOLITION PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DEVIATIONS FROM INFORMATION SHOWN.
2. PRIOR TO CONSTRUCTION ALL FENCING, BARRICADES, ENCLOSURES, ETC., MUST BE INSTALLED AND APPROVED BY OWNER OR ENGINEER.
3. DISPOSE OF DEMOLITION AND EXCAVATION MATERIALS IN ACCORDANCE WITH CONTRACT DOCUMENTS.
4. SOIL EROSION AND SEDIMENTATION CONTROL MEASURES MUST BE IN PLACE PRIOR TO STARTING REMOVALS AND DEMOLITION.
5. UNLESS SPECIFICALLY NOTED FOR REMOVAL ON THE PLANS, PROTECT ALL SIDEWALKS, DRIVES, CULVERTS, DRAINAGE STRUCTURES, AND ABOVE AS WELL AS BELOW GRADE UTILITIES. REMOVE AND REPLACE ALL SUCH ITEMS DAMAGED OR DESTROYED DURING CONSTRUCTION WITH NEW AT NO ADDITIONAL COST TO THE OWNER.
6. PROTECT EXISTING TREES TO REMAIN WITH TEMPORARY FENCING AT THE DRIP LINE. NO GROUND DISTURBANCE OR STORAGE OF MATERIAL/EQUIPMENT SHALL OCCUR WITHIN THE DRIP LINE LIMITS.
7. COORDINATE REMOVAL OR REPLACEMENT OF ELECTRICAL, TELEPHONE, CABLE TV, WATER, FIBER OPTIC CABLE AND/OR GAS LINES WITH THE AFFECTED UTILITY COMPANY. ADEQUATE TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY AS NECESSARY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE. PAY CLOSE ATTENTION TO EXISTING UTILITIES WITHIN THE CONSTRUCTION LIMITS. GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DESTRUCTION AND REMOVAL OF ALL SERVICE LINES AND CAP ALL LINES BEFORE PROCEEDING WITH THE WORK.
8. PERFORM CLEARING, GRUBBING, TREE AND STUMP REMOVAL, TOPSOIL REMOVAL AND STOCKPILING IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
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10. ALL REMOVED VALVES AND HYDRANTS ARE TO BE SALVAGED AND RETURNED TO THE CITY.
11. IF UTILITY TO BE ABANDONED IS LARGER THAN 8", UTILITY TO BE ABANDONED WITH FLOWABLE FILL. IF UTILITY IS 8" OR SMALLER, UTILITY TO BE ABANDONED BY PLUGGING ANY EXPOSED ENDS WITH NON-SHRINK GROUT.
12. SAWCUT AND REMOVE PAVEMENT TO NEAREST JOINT.

fishbeck
Engineers | Architects | Scientists | Constructors

City of Saginaw
Saginaw, Michigan

Dead End Elimination/Looping and
N. Mason Street Water Main Replacement

REVISIONS

4/2/2026	BIDS AND CONSTRUCTION

Drawn By	MHITCH/LKEENER
Designer	MHITCH/LKEENER
Reviewer	JKRAMER
Manager	HBOWERS

Hard copy is intended to be 22"x34" when plotted. Scale(s) indicated and graphic quality may not be accurate for any other size.

PROJECT NO.
2501567

SHEET NO.
7

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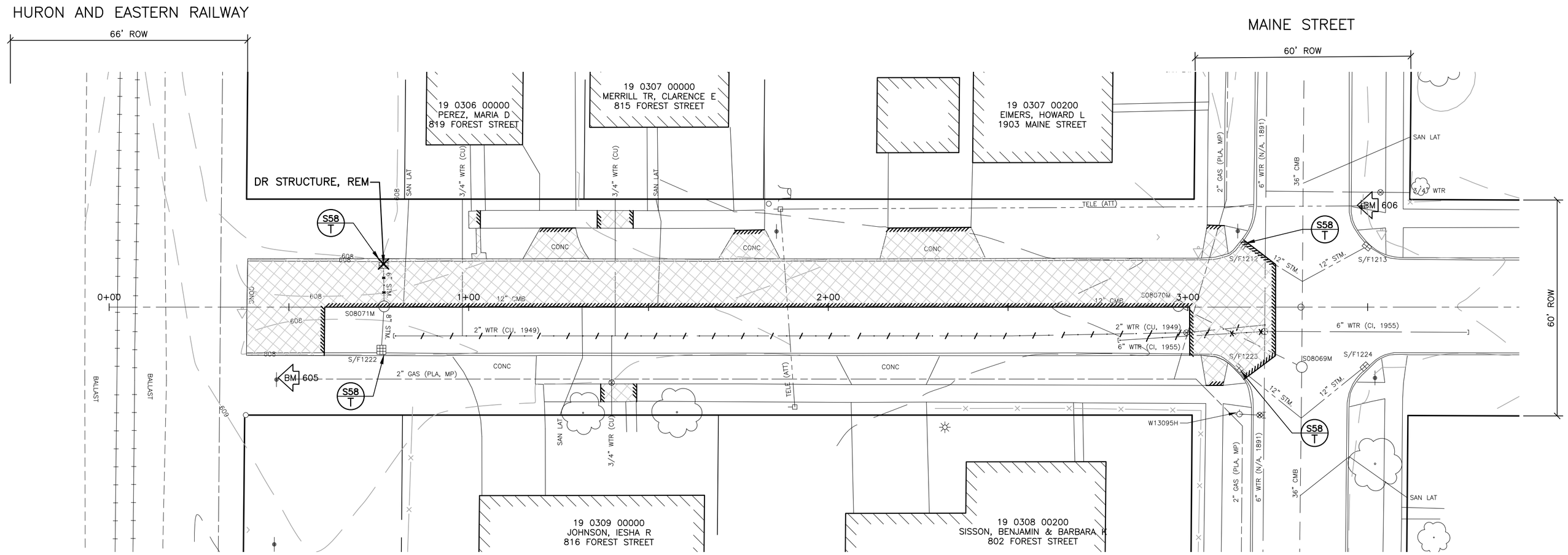
PLOT INFO: Z:\2025\2501567\CAD\CD\2501567_REMOVAL_LOOP.DWG LAYOUT: 7 DATE: 3/26/2026 TIME: 10:21:11 PM USER: HBOWERS



FOREST STREET
REMOVALS AND SESC

SCALE: 1" = 20'

0 10 20 40

NORTH

BENCH MARKS

BENCH MARK 605 ELEVATION: 608.64

COTTON SPINDLE IN NORTHWEST FACE OF CONSUMERS ENERGY UTILITY/LIGHT POLE #1711883 ON EAST SIDE OF SOUTH END OF FOREST STREET, 35' NORTH OF RAILROAD TRACKS

SYMBOL LEGEND

- SAWCUT
- CURB REMOVAL
- REMOVE PIPE
- ABANDON PIPE
- SILT FENCE
- REMOVE OBJECT
- REMOVE BITUMINOUS PAVEMENT FULL DEPTH
- REMOVE CONCRETE PAVEMENT
- CLEARING
- TREE PROTECTION
- TREE REMOVAL

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12. SAWCUT AND REMOVE PAVEMENT TO NEAREST JOINT.

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City of Saginaw
Saginaw, Michigan

Dead End Elimination/Looping and
N. Mason Street Water Main Replacement

REVISIONS

4/2/2026	BIDS AND CONSTRUCTION

Drawn By	MHITCH/LKEENER
Designer	MHITCH/LKEENER
Reviewer	JKRAMER
Manager	HBOWERS

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SHEET NO.
8

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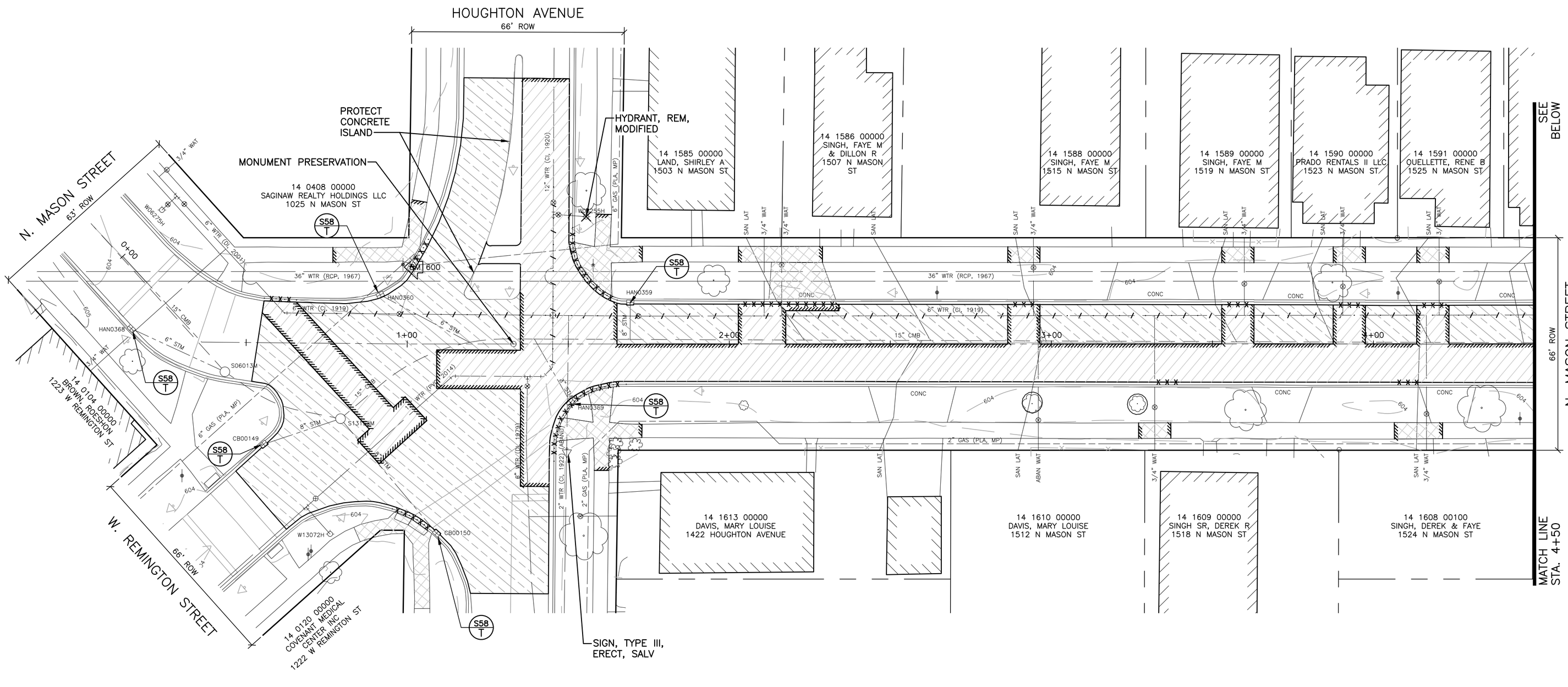
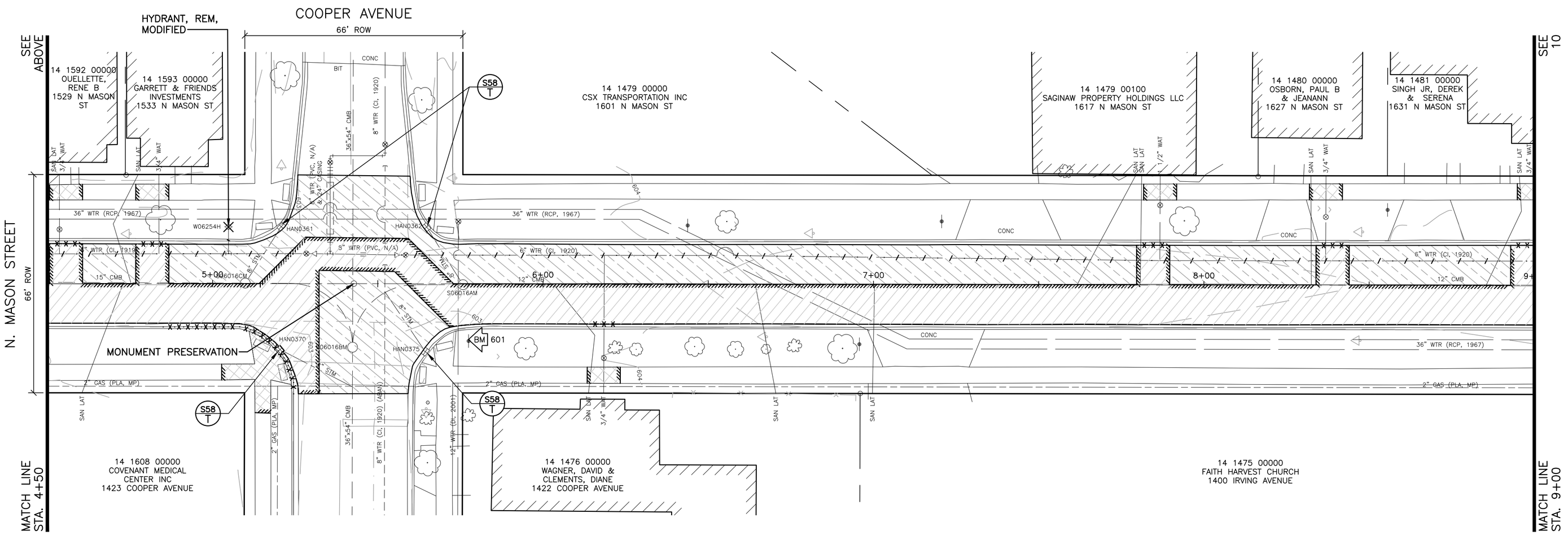
PLOT INFO: Z:\2025\2501567\CAD\CD\2501567_REMOVAL_LOOP.DWG LAYOUT: 8 DATE: 3/26/2026 TIME: 10:21:16 PM USER: HBOWERS





N. MASON STREET - POB TO STA. 9+00

REMOVALS AND SESC

SCALE: 1" = 20'

0 10 20 40

NORTH

BENCH MARKS

BENCH MARK 600 ELEVATION: 603.70
COTTON SPINDLE IN NORTHEAST SIDE OF UTILITY/LIGHT POLE AT SOUTHWEST CORNER OF INTERSECTION OF NORTH MASON STREET & HOUGHTON AVENUE

BENCH MARK 601 ELEVATION: 603.59
COTTON SPINDLE IN SOUTHWEST SIDE OF UTILITY/LIGHT POLE AT NORTHEAST CORNER OF INTERSECTION OF NORTH MASON STREET & COOPER AVENUE

SYMBOL LEGEND

- SAWCUT
- CURB REMOVAL
- REMOVE PIPE
- ABANDON PIPE
- REMOVE OBJECT
- HMA COLD MILLING
- REMOVE BITUMINOUS PAVEMENT FULL DEPTH
- REMOVE CONCRETE PAVEMENT
- TREE PROTECTION
- TREE REMOVAL

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12. SAWCUT AND REMOVE PAVEMENT TO NEAREST JOINT.

fishbeck
Engineers | Architects | Scientists | Constructors

City of Saginaw
Saginaw, Michigan

Dead End Elimination/Looping and
N. Mason Street Water Main Replacement

REVISIONS

4/2/2026	BIDS AND CONSTRUCTION

Drawn By	MHITCH/LKEENER
Designer	MHITCH/LKEENER
Reviewer	JKRAMER
Manager	HBOWERS

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PROJECT NO.
2501567

SHEET NO.
9

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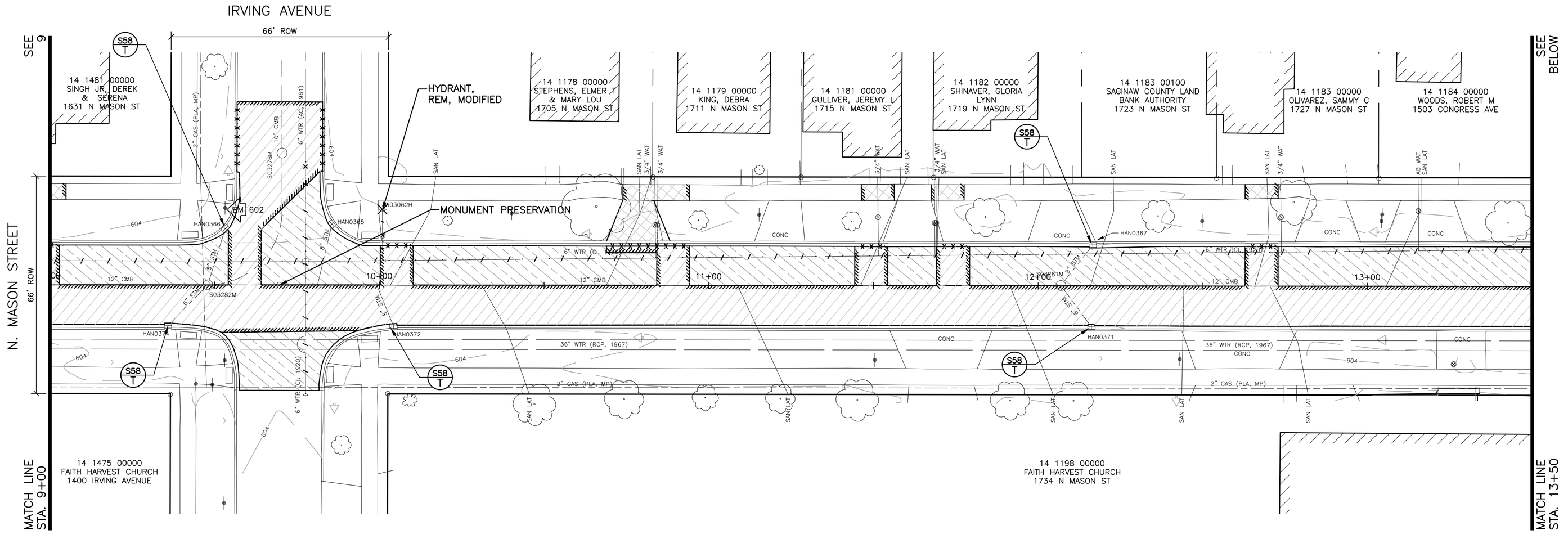
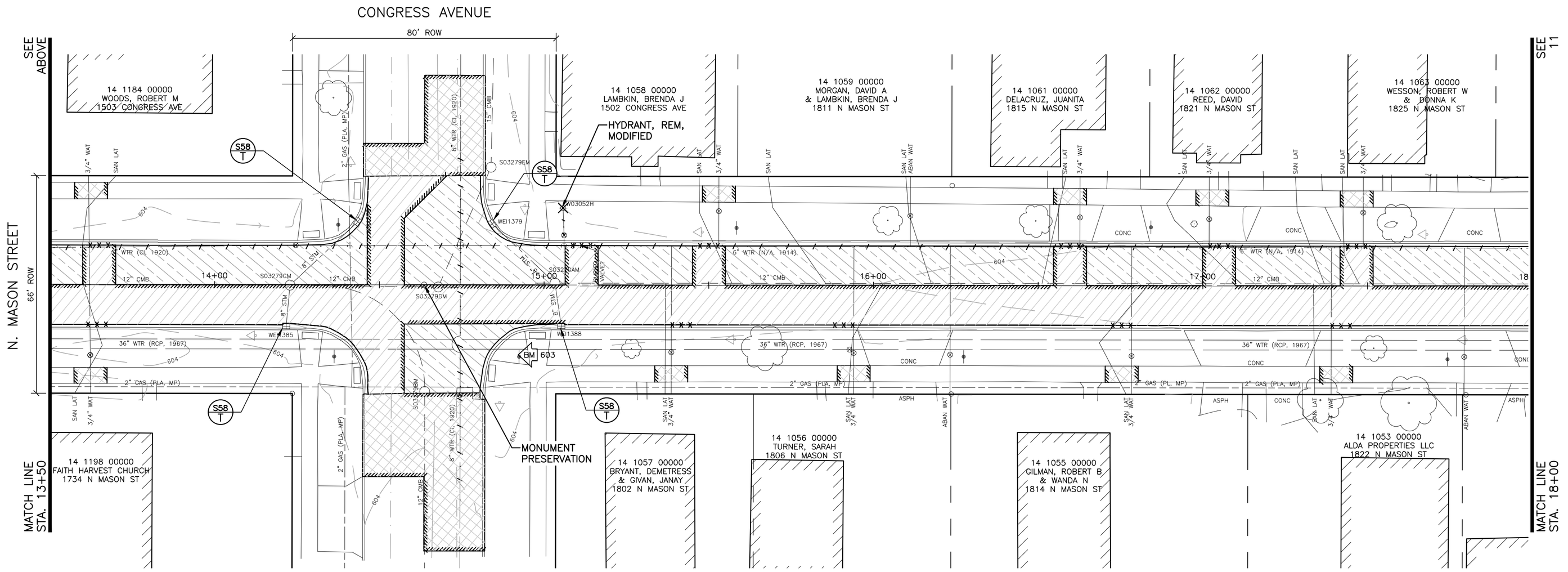
PLOT INFO: Z:\2025\2501567\CAD\CD\2501567_REMOVAL_MASON.DWG LAYOUT: 9 DATE: 3/26/2026 TIME: 10:21:52 PM USER: HBOWERS





N. MASON STREET - STA. 9+00 TO STA. 18+00

REMOVALS AND SESC

SCALE: 1" = 20'

0 10 20 40

NORTH

BENCH MARKS

BENCH MARK 602 ELEVATION: 603.79
COTTON SPINDLE IN NORTHEAST SIDE OF UTILITY POLE AT SOUTHWEST CORNER OF INTERSECTION OF NORTH MASON STREET & IRVING AVENUE

BENCH MARK 603 ELEVATION: 603.84
COTTON SPINDLE IN WEST SIDE OF GUY POLE AT NORTHEAST CORNER OF INTERSECTION OF NORTH MASON STREET & CONGRESS AVENUE

SYMBOL LEGEND

- SAWCUT
- CURB REMOVAL
- REMOVE PIPE
- ABANDON PIPE
- REMOVE OBJECT
- HMA COLD MILLING
- REMOVE BITUMINOUS PAVEMENT FULL DEPTH
- REMOVE CONCRETE PAVEMENT
- TREE PROTECTION
- TREE REMOVAL

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12. SAWCUT AND REMOVE PAVEMENT TO NEAREST JOINT.

fishbeck
Engineers | Architects | Scientists | Constructors

City of Saginaw
Saginaw, Michigan

Dead End Elimination/Looping and
N. Mason Street Water Main Replacement

REVISIONS

4/2/2026	BIDS AND CONSTRUCTION

Drawn By	MHITCH/LKEENER
Designer	MHITCH/LKEENER
Reviewer	JKRAMER
Manager	HBOWERS

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PROJECT NO.
2501567

SHEET NO.
10

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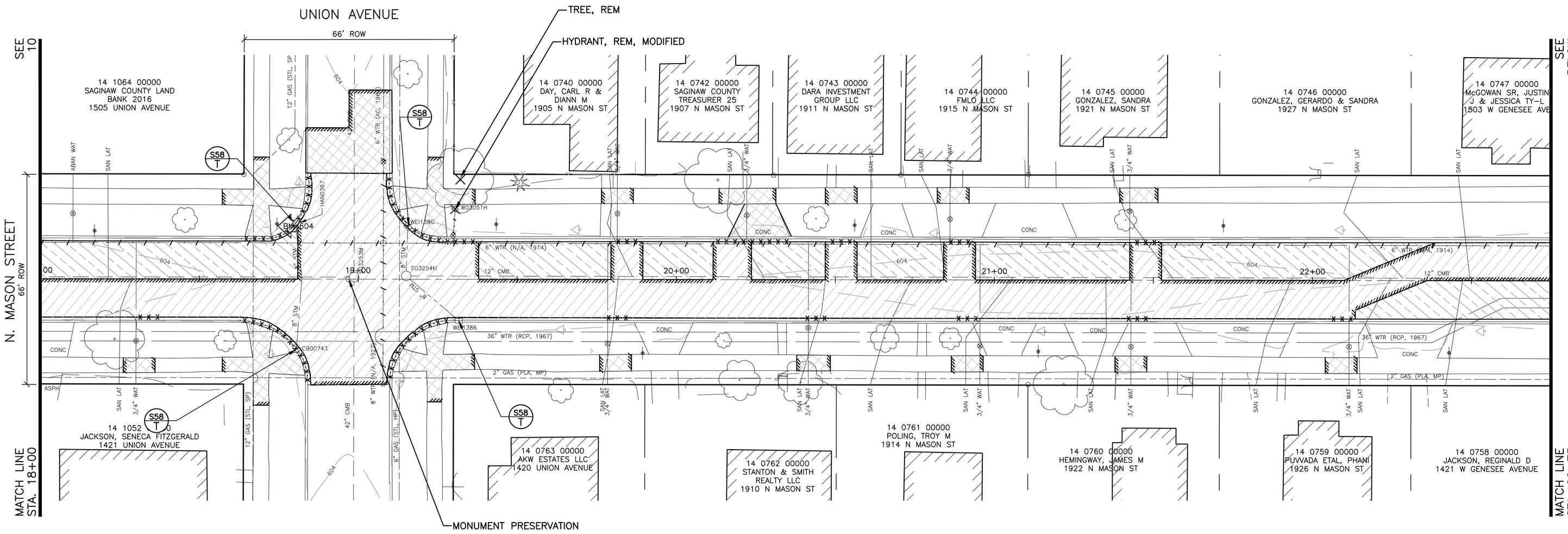
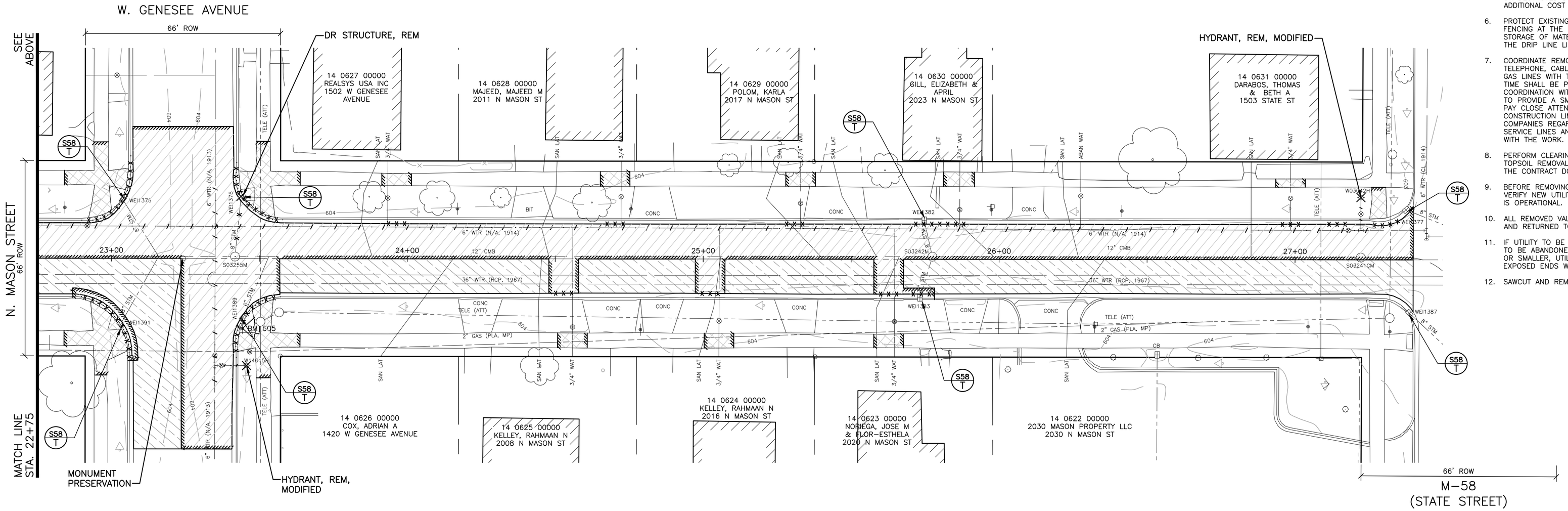
PLOT INFO: Z:\2025\2501567\CAD\CD\2501567_REMOVAL_MASON.DWG LAYOUT: 10 DATE: 3/26/2026 TIME: 10:21:59 PM USER: HBOWERS





NORTH

N. MASON STREET - STA. 18+00 TO POE

REMOVALS AND SESC

SCALE: 1" = 20'

0 10 20 40

BENCH MARKS

BENCH MARK 604 ELEVATION: 604.25
COTTON SPINDLE IN NORTHEAST SIDE OF UTILITY/LIGHT POLE AT SOUTHWEST CORNER OF INTERSECTION OF NORTH MASON STREET & UNION AVENUE

BENCH MARK 605 ELEVATION: 603.87
COTTON SPINDLE IN WEST SIDE OF UTILITY/LIGHT POLE AT NORTHEAST CORNER OF INTERSECTION OF NORTH MASON STREET & GENESEE AVENUE

BENCH MARK 606 ELEVATION: 603.57
MAG NAIL IN TOP OF CONCRETE BASE OF STRAIN POLE AT NORTHEAST CORNER OF INTERSECTION OF NORTH MASON STREET & STATE AVENUE

SYMBOL LEGEND

- SAWCUT
- CURB REMOVAL
- REMOVE PIPE
- ABANDON PIPE
- REMOVE OBJECT
- HMA COLD MILLING
- REMOVE BITUMINOUS PAVEMENT FULL DEPTH
- REMOVE CONCRETE PAVEMENT
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PROJECT NO.
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SHEET NO.
11

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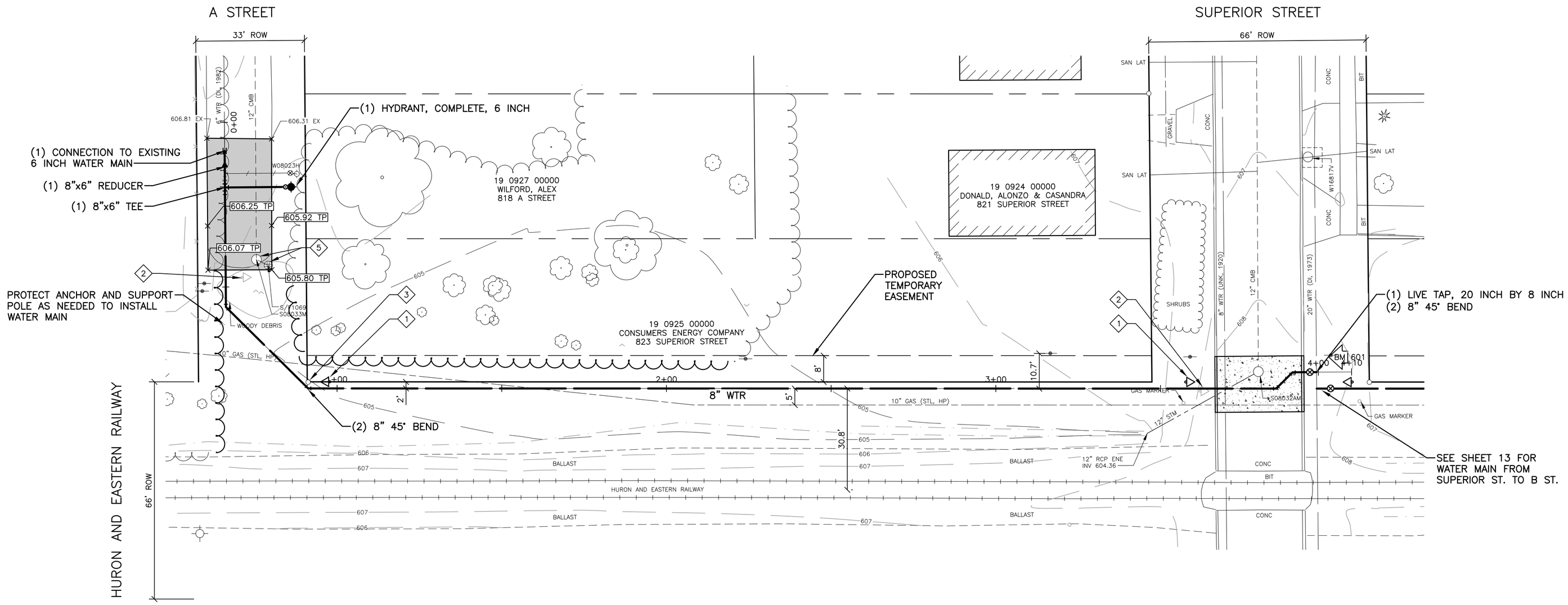
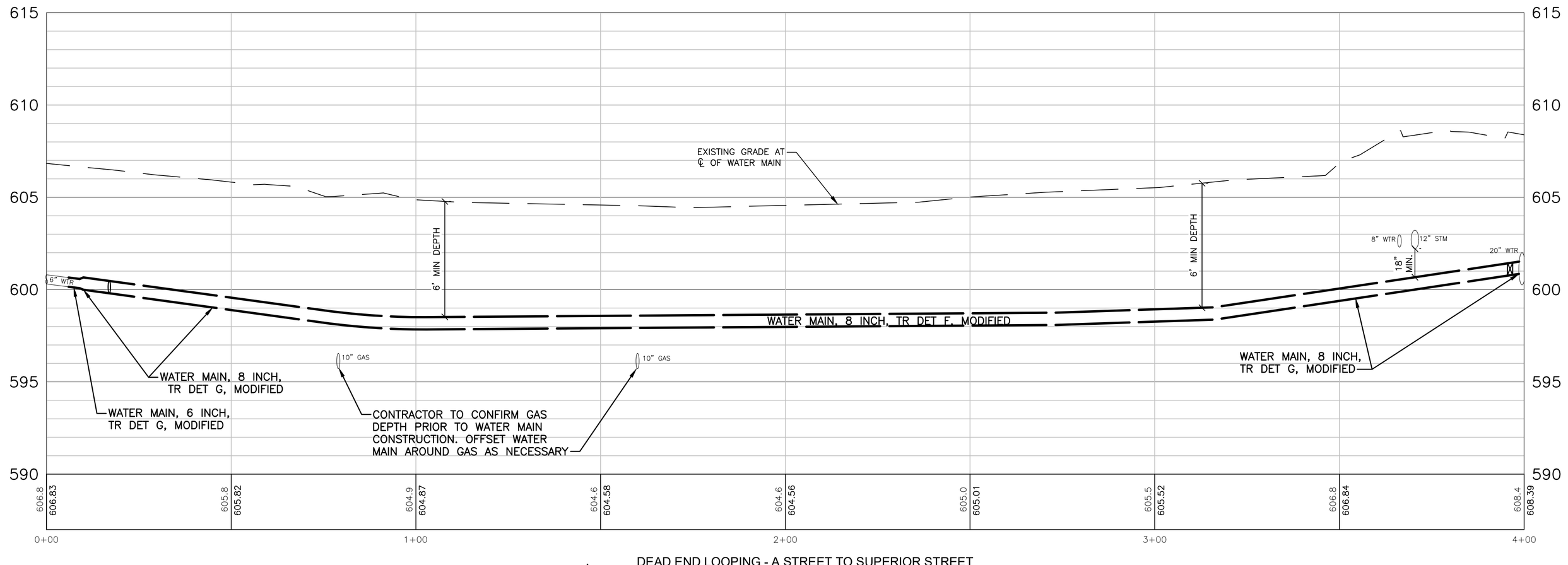
PLOT INFO: Z:\2025\2501567\CAD\CD\2501567_REMOVAL_MASON.DWG LAYOUT: 11 DATE: 3/26/2026 TIME: 10:22:09 PM USER: HBOWERS





DEAD END LOOPING - A STREET TO SUPERIOR STREET

WATER MAIN AND RECONSTRUCTION

SCALE: 1" = 20'

0 10 20 40

VERT SCALE: 1" = 4'

NORTH

BENCH MARKS

BENCH MARK 600 ELEVATION: 609.35
COTTON SPINDLE IN EAST FACE OF CONSUMERS ENERGY UTILITY POLE #0581674 ON WEST SIDE OF A STREET, 105' SOUTH OF MAINE STREET

BENCH MARK 601 ELEVATION: 608.82
COTTON SPINDLE IN WEST FACE OF CONSUMERS ENERGY UTILITY POLE #0557471 ON EAST SIDE OF SUPERIOR STREET, 35' NORTH OF RAILROAD TRACKS

RECONSTRUCTION LEGEND

	PAVEMENT, HMA
	PAVEMENT, CONC
969.19 EX	EXISTING SPOT ELEVATION
724.50 XX	PROPOSED SPOT ELEVATION
TP	TOP OF PAVEMENT

WATER MAIN GENERAL NOTES

1. MAINTAIN AT LEAST 18" VERTICAL SEPARATION BETWEEN WATER MAIN AND SEWERS AT ALL EXISTING AND PROPOSED CROSSINGS PER WATER MAIN LOWERING DETAIL, SHEET 3.
2. VERIFY LATERAL DEPTHS PRIOR TO WATER MAIN PLACEMENT. MAINTAIN AT LEAST 6" OF VERTICAL SEPARATION AT ALL LATERAL CROSSINGS.
3. IF UTILITY TO BE ABANDONED IS LARGER THAN 8", UTILITY TO BE ABANDONED WITH FLOWABLE FILL. IF UTILITY IS 8" OR SMALLER, UTILITY TO BE ABANDONED BY PLUGGING ANY EXPOSED ENDS WITH NON-SHRINK GROUT.
4. VERIFY THE LOCATION OF ALL EXISTING WATER SERVICES PRIOR TO CUTTING PAVEMENT FOR NEW SERVICE. NOTIFY ENGINEER OF ANY ADJUSTMENTS.
5. DEFLECT NEW WATER MAIN UNDER EXISTING WATER MAIN IF FOUND TO BE IN CONFLICT, UNLESS DIRECTED OTHERWISE BY ENGINEER. ADDITIONAL FITTINGS TO BE INCLUDED IN THE COST OF THE PROPOSED WATER MAIN.
6. MAINTAIN ADEQUATE RESTRAINT LENGTH AND THRUST BLOCKING AT ALL FITTINGS, INCLUDING CONNECTIONS TO EXISTING WATER MAIN.
7. TRENCH WATER MAIN IN ACCORDANCE WITH MDOT STANDARD PLAN R-83, DETAIL F FOR WATER MAINS NOT UNDER ROADBED AND DETAIL G FOR WATER MAINS UNDER ROADBED OR WITHIN INFLUENCE OF ROADBED.

KEY NOTES

1. CITY SUPPLIED SIGN, INSTALL (OWNER TO PROVIDE SIGN)
2. REINSTALL SALVAGED SIGN (PAID AS "SIGN, TYPE III, ERECT, SALV")
3. REINSTALL MONUMENT PRESERVED DURING DEMOLITION (PAID AS "MONUMENT PRESERVATION")
4. MONUMENT BOX
5. COMBINED SEWER MANHOLE COVER, ADJ, CASE 1
6. DR STRUCTURE COVER, TYPE B, MODIFIED
7. DR STRUCTURE COVER, TYPE K, MODIFIED

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City of Saginaw
Saginaw, Michigan

Dead End Elimination/Looping and
N. Mason Street Water Main Replacement

REVISIONS

4/2/2026	BIDS AND CONSTRUCTION

Drawn By	MHITCH/LKEENER
Designer	MHITCH/LKEENER
Reviewer	JKRAMER
Manager	HBOWERS

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PROJECT NO.
2501567

SHEET NO.
12

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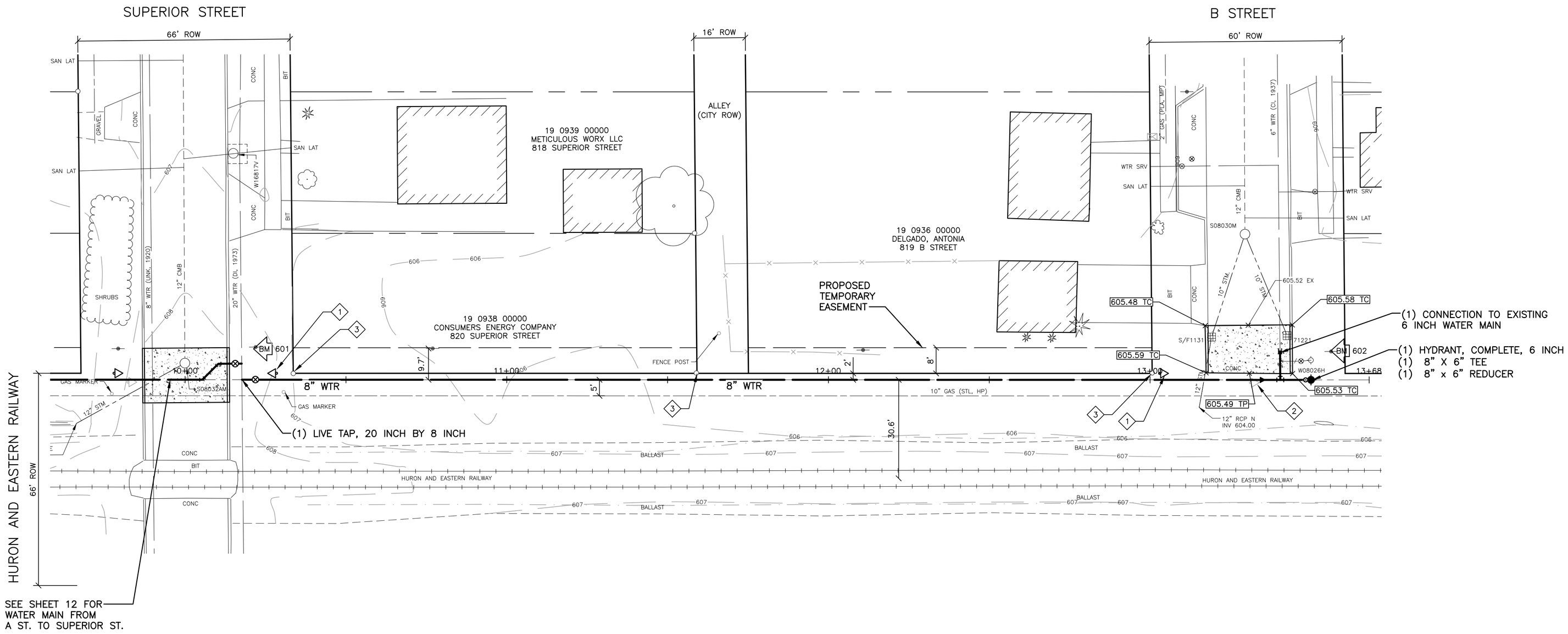

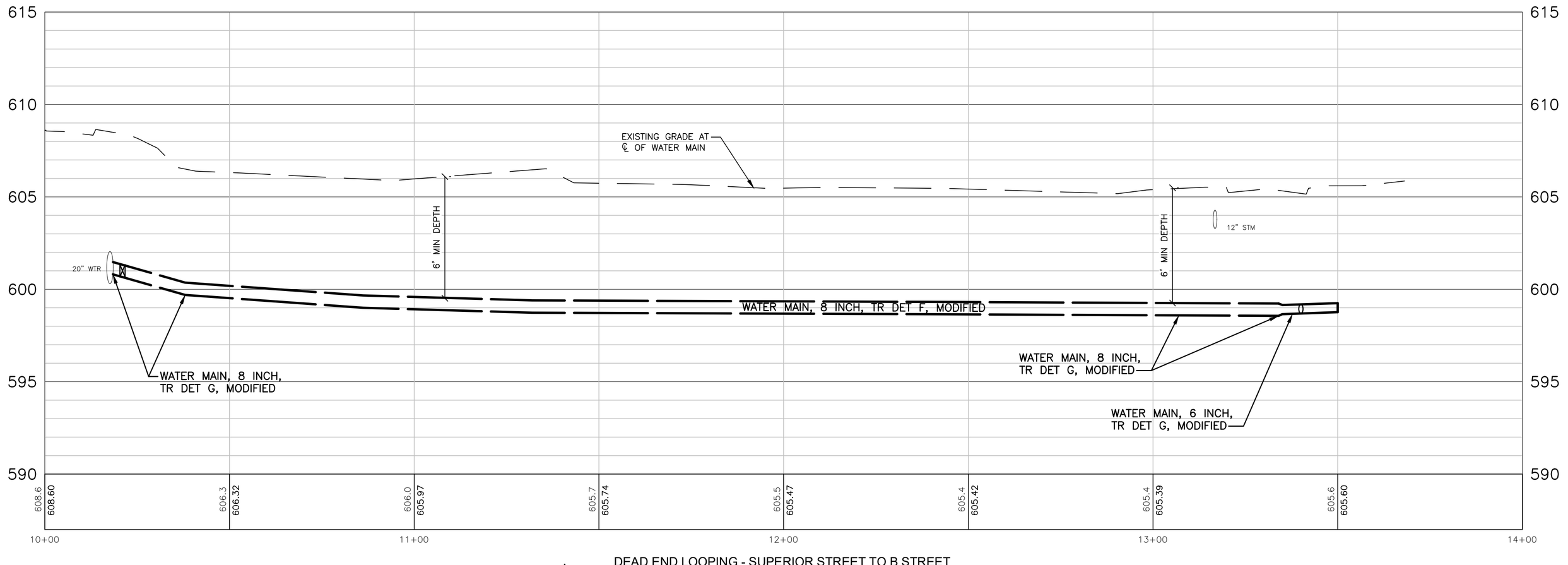

NORTH

DEAD END LOOPING - SUPERIOR STREET TO B STREET

WATER MAIN AND RECONSTRUCTION

SCALE: 1" = 20'

0 10 20 40

VERT SCALE: 1" = 4'

BENCH MARKS

BENCH MARK 601 ELEVATION: 608.82
COTTON SPINDLE IN WEST FACE OF CONSUMERS ENERGY UTILITY POLE #05574?1 ON EAST SIDE OF SUPERIOR STREET, 35' NORTH OF RAILROAD TRACKS

BENCH MARK 602 ELEVATION: 606.42
COTTON SPINDLE IN WEST FACE OF UTILITY POLE ON EAST SIDE OF SOUTH END OF B STREET, 35' NORTH OF RAILROAD TRACKS

RECONSTRUCTION LEGEND

	PAVEMENT, CONC
969.19 EX	EXISTING SPOT ELEVATION
724.50 XX	PROPOSED SPOT ELEVATION
TP	TOP OF PAVEMENT
TC	TOP OF CURB

WATER MAIN GENERAL NOTES

1. MAINTAIN AT LEAST 18" VERTICAL SEPARATION BETWEEN WATER MAIN AND SEWERS AT ALL EXISTING AND PROPOSED CROSSINGS PER WATER MAIN LOWERING DETAIL, SHEET 3.
2. VERIFY LATERAL DEPTHS PRIOR TO WATER MAIN PLACEMENT. MAINTAIN AT LEAST 6" OF VERTICAL SEPARATION AT ALL LATERAL CROSSINGS.
3. IF UTILITY TO BE ABANDONED IS LARGER THAN 8", UTILITY TO BE ABANDONED WITH FLOWABLE FILL. IF UTILITY IS 8" OR SMALLER, UTILITY TO BE ABANDONED BY PLUGGING ANY EXPOSED ENDS WITH NON-SHRINK GROUT.
4. VERIFY THE LOCATION OF ALL EXISTING WATER SERVICES PRIOR TO CUTTING PAVEMENT FOR NEW SERVICE. NOTIFY ENGINEER OF ANY ADJUSTMENTS.
5. DEFLECT NEW WATER MAIN UNDER EXISTING WATER MAIN IF FOUND TO BE IN CONFLICT, UNLESS DIRECTED OTHERWISE BY ENGINEER. ADDITIONAL FITTINGS TO BE INCLUDED IN THE COST OF THE PROPOSED WATER MAIN.
6. MAINTAIN ADEQUATE RESTRAINT LENGTH AND THRUST BLOCKING AT ALL FITTINGS, INCLUDING CONNECTIONS TO EXISTING WATER MAIN.
7. TRENCH WATER MAIN IN ACCORDANCE WITH MDOT STANDARD PLAN R-83, DETAIL F FOR WATER MAINS NOT UNDER ROADBED AND DETAIL G FOR WATER MAINS UNDER ROADBED OR WITHIN INFLUENCE OF ROADBED.

KEY NOTES

1. CITY SUPPLIED SIGN, INSTALL (OWNER TO PROVIDE SIGN)
2. REINSTALL SALVAGED SIGN (PAID AS "SIGN, TYPE III, ERECT, SALV")
3. REINSTALL MONUMENT PRESERVED DURING DEMOLITION (PAID AS "MONUMENT PRESERVATION")
4. MONUMENT BOX
5. COMBINED SEWER MANHOLE COVER, ADJ, CASE 1
6. DR STRUCTURE COVER, TYPE B, MODIFIED
7. DR STRUCTURE COVER, TYPE K, MODIFIED

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Reviewer	JKRAMER
Manager	HBOWERS

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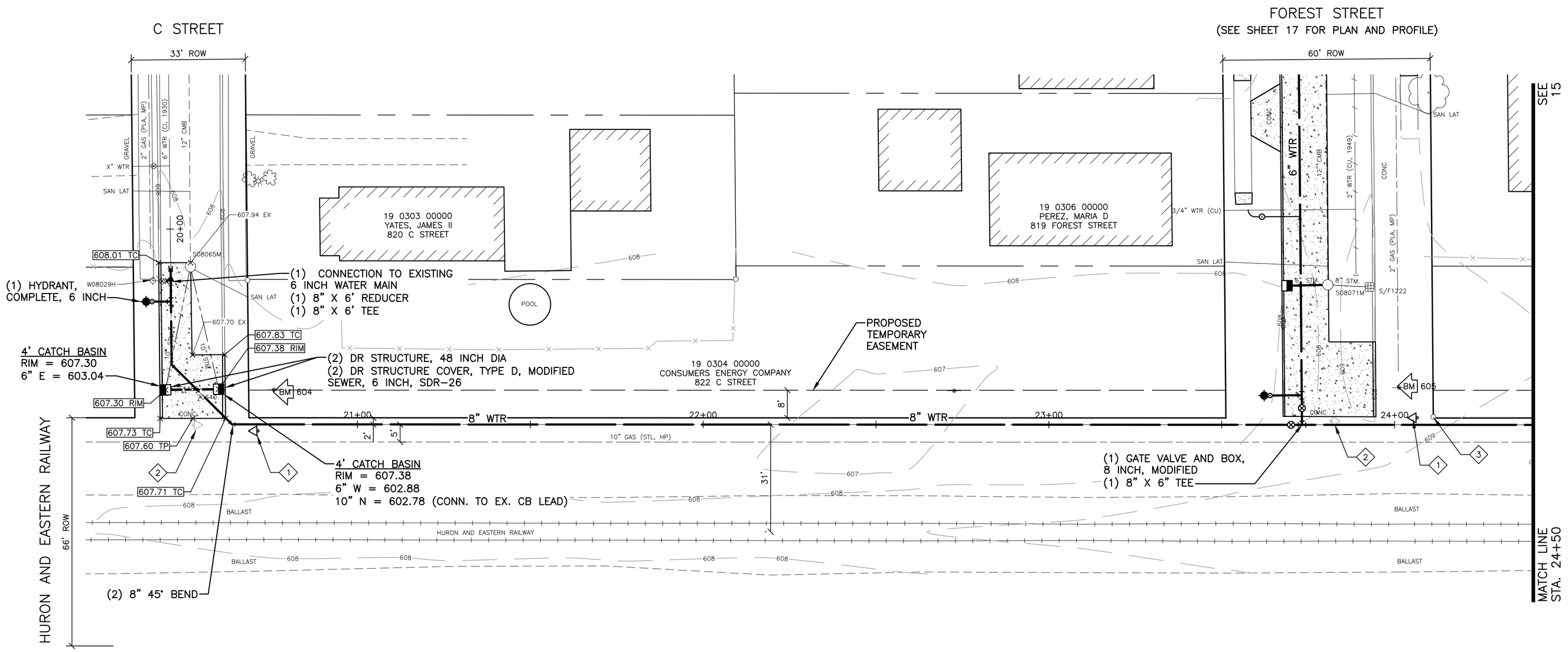

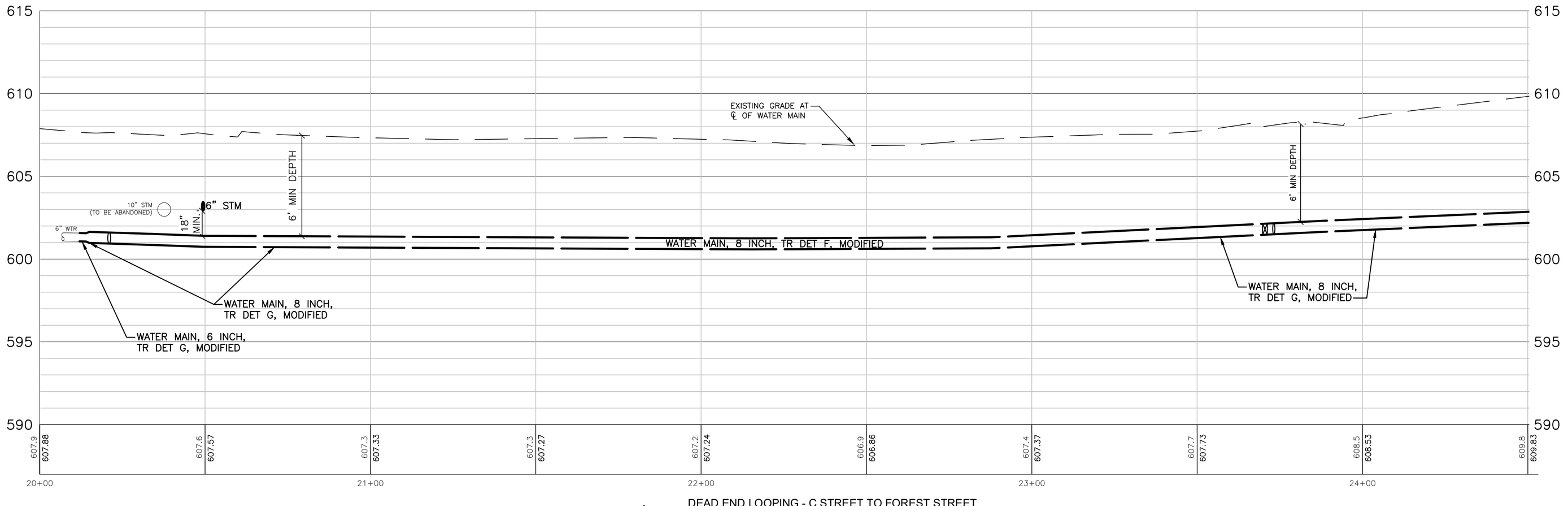

DEAD END LOOPING - C STREET TO FOREST STREET

WATER MAIN AND RECONSTRUCTION

SCALE: 1" = 20'

0 10 20 40

VERT SCALE: 1" = 4'

NORTH

BENCH MARKS

BENCH MARK 604 ELEVATION: 607.56
COTTON SPINDLE IN WEST FACE OF CONSUMERS ENERGY UTILITY POLE #1711882 ON EAST SIDE OF SOUTH END OF C STREET, 35' NORTH OF RAILROAD TRACKS

BENCH MARK 605 ELEVATION: 608.64
COTTON SPINDLE IN NORTHWEST FACE OF CONSUMERS ENERGY UTILITY/LIGHT POLE #1711883 ON EAST SIDE OF SOUTH END OF FOREST STREET, 35' NORTH OF RAILROAD TRACKS

RECONSTRUCTION LEGEND

	PAVEMENT, CONC
969.19 EX	EXISTING SPOT ELEVATION
724.50 XX	PROPOSED SPOT ELEVATION
TP	TOP OF PAVEMENT
TC	TOP OF CURB
RIM	RIM ELEVATION

WATER MAIN GENERAL NOTES

1. MAINTAIN AT LEAST 18" VERTICAL SEPARATION BETWEEN WATER MAIN AND SEWERS AT ALL EXISTING AND PROPOSED CROSSINGS PER WATER MAIN LOWERING DETAIL, SHEET 3.
2. VERIFY LATERAL DEPTHS PRIOR TO WATER MAIN PLACEMENT. MAINTAIN AT LEAST 6" OF VERTICAL SEPARATION AT ALL LATERAL CROSSINGS.
3. IF UTILITY TO BE ABANDONED IS LARGER THAN 8", UTILITY TO BE ABANDONED WITH FLOWABLE FILL. IF UTILITY IS 8" OR SMALLER, UTILITY TO BE ABANDONED BY PLUGGING ANY EXPOSED ENDS WITH NON-SHRINK GROUT.
4. VERIFY THE LOCATION OF ALL EXISTING WATER SERVICES PRIOR TO CUTTING PAVEMENT FOR NEW SERVICE. NOTIFY ENGINEER OF ANY ADJUSTMENTS.
5. DEFLECT NEW WATER MAIN UNDER EXISTING WATER MAIN IF FOUND TO BE IN CONFLICT, UNLESS DIRECTED OTHERWISE BY ENGINEER. ADDITIONAL FITTINGS TO BE INCLUDED IN THE COST OF THE PROPOSED WATER MAIN.
6. MAINTAIN ADEQUATE RESTRAINT LENGTH AND THRUST BLOCKING AT ALL FITTINGS, INCLUDING CONNECTIONS TO EXISTING WATER MAIN.
7. TRENCH WATER MAIN IN ACCORDANCE WITH MDOT STANDARD PLAN R-83, DETAIL F FOR WATER MAINS NOT UNDER ROADBED AND DETAIL G FOR WATER MAINS UNDER ROADBED OR WITHIN INFLUENCE OF ROADBED.

KEY NOTES

1. CITY SUPPLIED SIGN, INSTALL (OWNER TO PROVIDE SIGN)
2. REINSTALL SALVAGED SIGN (PAID AS "SIGN, TYPE III, ERECT, SALV")
3. REINSTALL MONUMENT PRESERVED DURING DEMOLITION (PAID AS "MONUMENT PRESERVATION")
4. MONUMENT BOX
5. COMBINED SEWER MANHOLE COVER, ADJ, CASE 1
6. DR STRUCTURE COVER, TYPE B, MODIFIED
7. DR STRUCTURE COVER, TYPE K, MODIFIED

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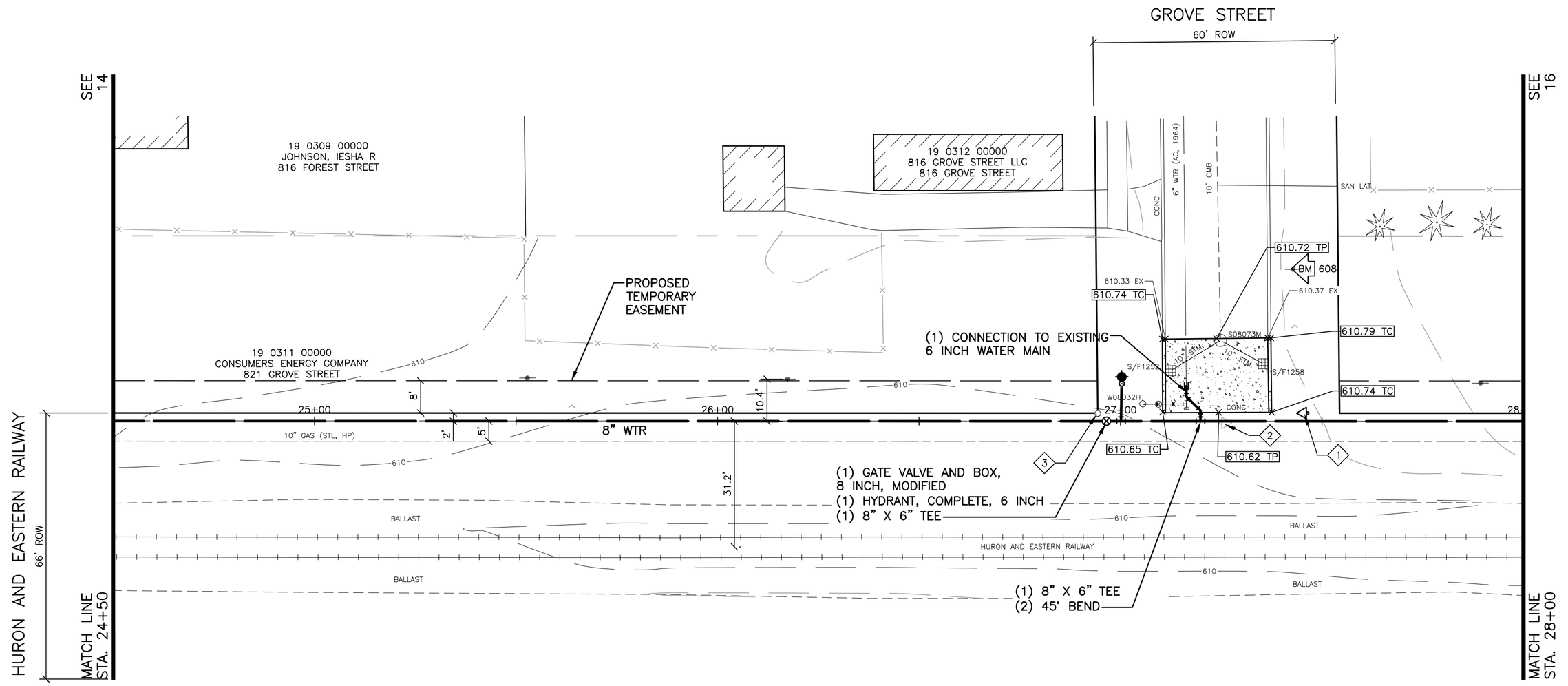

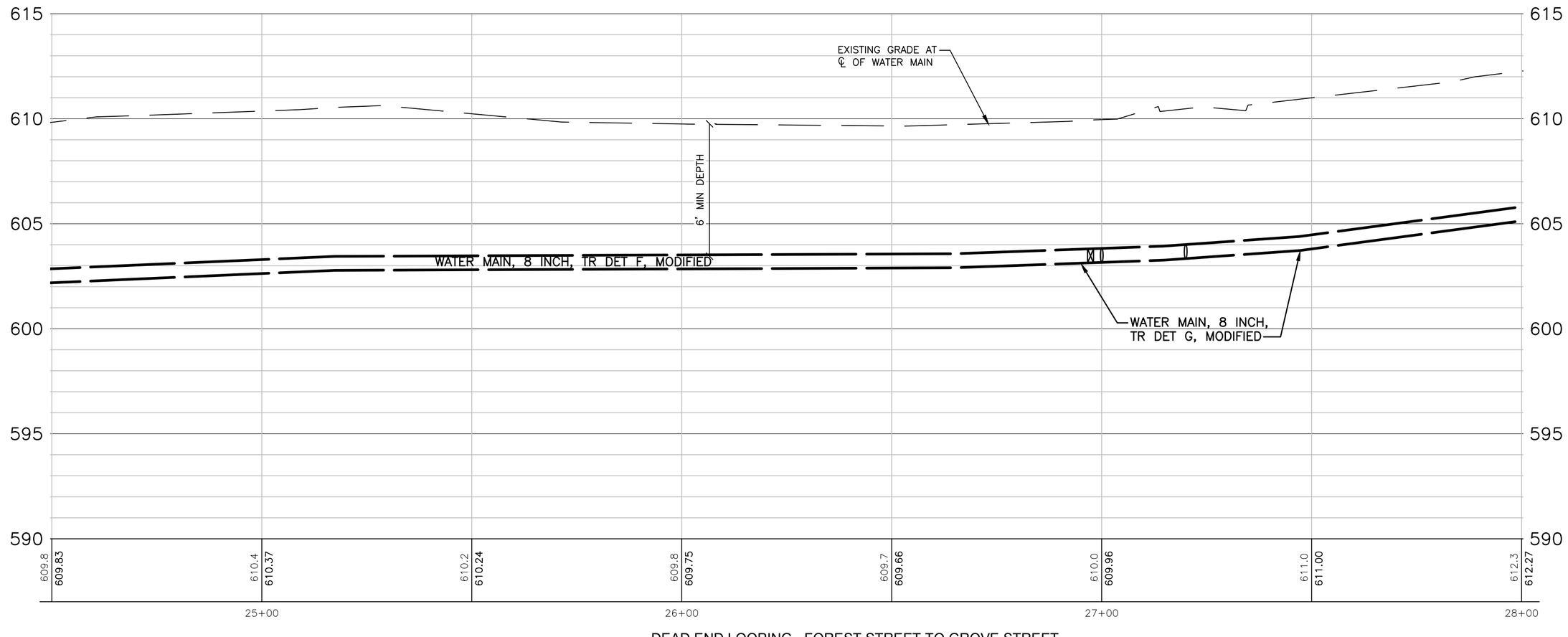

NORTH

DEAD END LOOPING - FOREST STREET TO GROVE STREET

WATER MAIN AND RECONSTRUCTION

SCALE: 1" = 20'

0 10 20 40

VERT SCALE: 1" = 4'

BENCH MARKS

BENCH MARK 608 ELEVATION: 612.21

COTTON SPINDLE IN WEST FACE OF CONSUMERS ENERGY UTILITY/LIGHT POLE #1711890 ON EAST SIDE OF SOUTH END OF GROVE STREET, 35' NORTH OF RAILROAD TRACKS

RECONSTRUCTION LEGEND

	PAVEMENT, CONC
969.19 EX	EXISTING SPOT ELEVATION
724.50 XX	PROPOSED SPOT ELEVATION
TP	TOP OF PAVEMENT
TC	TOP OF CURB

WATER MAIN GENERAL NOTES

1. MAINTAIN AT LEAST 18" VERTICAL SEPARATION BETWEEN WATER MAIN AND SEWERS AT ALL EXISTING AND PROPOSED CROSSINGS PER WATER MAIN LOWERING DETAIL, SHEET 3.
2. VERIFY LATERAL DEPTHS PRIOR TO WATER MAIN PLACEMENT. MAINTAIN AT LEAST 6" OF VERTICAL SEPARATION AT ALL LATERAL CROSSINGS.
3. IF UTILITY TO BE ABANDONED IS LARGER THAN 8", UTILITY TO BE ABANDONED WITH FLOWABLE FILL. IF UTILITY IS 8" OR SMALLER, UTILITY TO BE ABANDONED BY PLUGGING ANY EXPOSED ENDS WITH NON-SHRINK GROUT.
4. VERIFY THE LOCATION OF ALL EXISTING WATER SERVICES PRIOR TO CUTTING PAVEMENT FOR NEW SERVICE. NOTIFY ENGINEER OF ANY ADJUSTMENTS.
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KEY NOTES

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2. REINSTALL SALVAGED SIGN (PAID AS "SIGN, TYPE III, ERECT, SALV")
3. REINSTALL MONUMENT PRESERVED DURING DEMOLITION (PAID AS "MONUMENT PRESERVATION")
4. MONUMENT BOX
5. COMBINED SEWER MANHOLE COVER, ADJ, CASE 1
6. DR STRUCTURE COVER, TYPE B, MODIFIED
7. DR STRUCTURE COVER, TYPE K, MODIFIED

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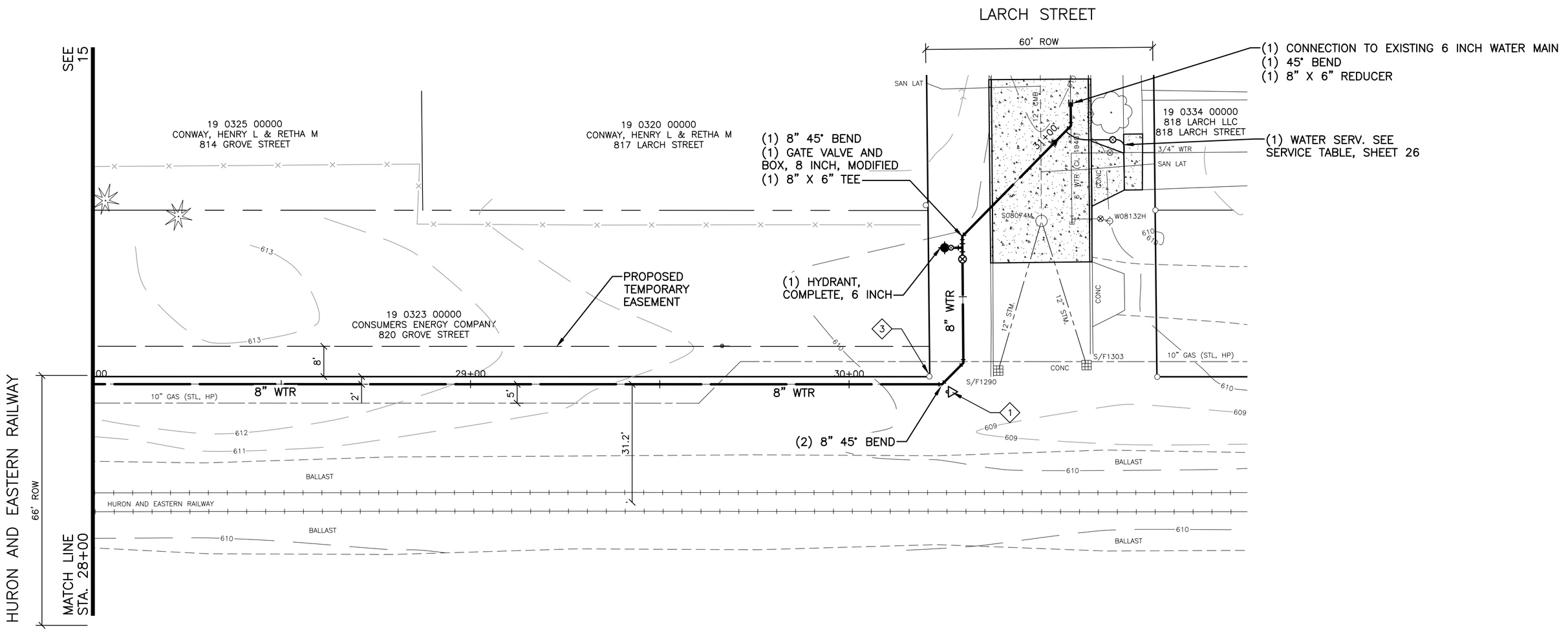

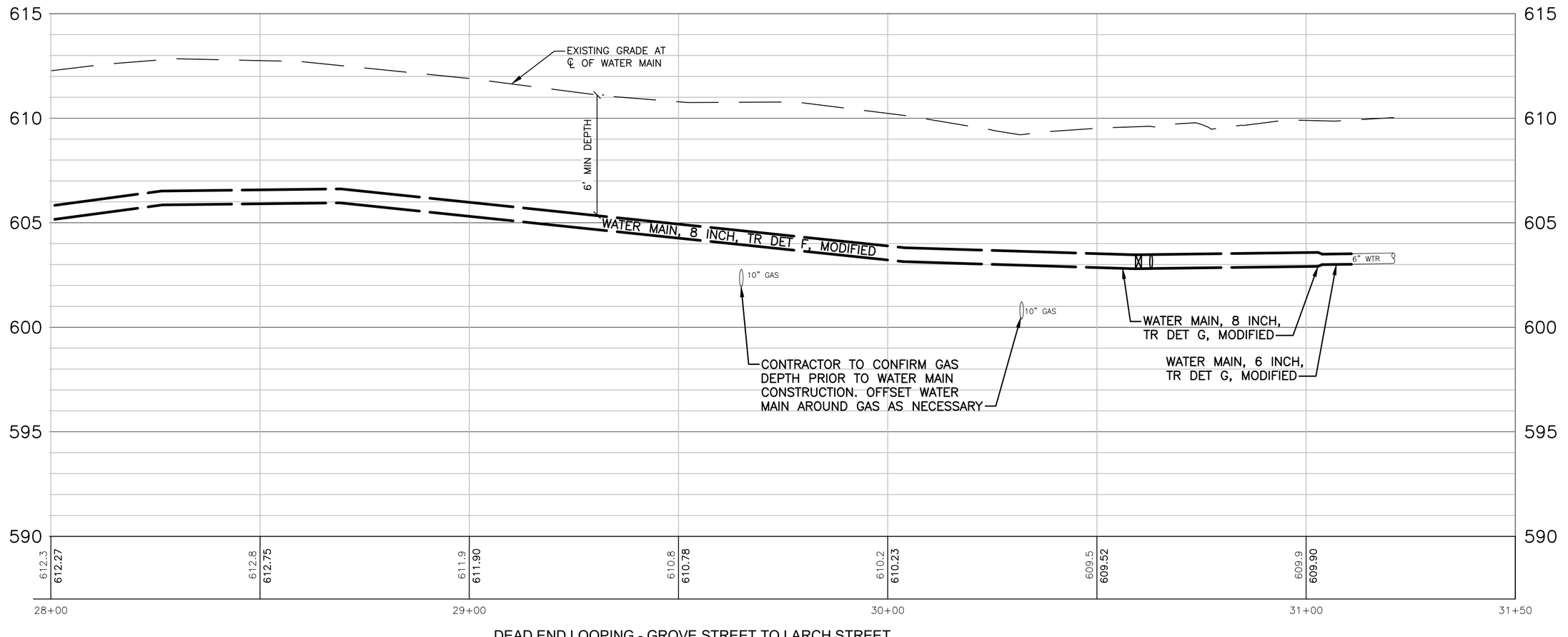

DEAD END LOOPING - GROVE STREET TO LARCH STREET

WATER MAIN AND RECONSTRUCTION

SCALE: 1" = 20'

0 10 20 40

VERT SCALE: 1" = 4'

NORTH

BENCH MARKS

BENCH MARK 609 ELEVATION: 611.44

COTTON SPINDLE IN SOUTHEAST FACE OF CONSUMERS ENERGY UTILITY/LIGHT POLE #1711919 ON WEST SIDE OF LARCH STREET, 30' EAST OF SOUTHEAST CORNER OF HOUSE #817 LARCH STREET

RECONSTRUCTION LEGEND

PAVEMENT, CONC

WATER MAIN GENERAL NOTES

1. MAINTAIN AT LEAST 18" VERTICAL SEPARATION BETWEEN WATER MAIN AND SEWERS AT ALL EXISTING AND PROPOSED CROSSINGS PER WATER MAIN LOWERING DETAIL, SHEET 3.
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KEY NOTES

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2. REINSTALL SALVAGED SIGN (PAID AS "SIGN, TYPE III, ERECT, SALV")
3. REINSTALL MONUMENT PRESERVED DURING DEMOLITION (PAID AS "MONUMENT PRESERVATION")
4. MONUMENT BOX
5. COMBINED SEWER MANHOLE COVER, ADJ, CASE 1
6. DR STRUCTURE COVER, TYPE B, MODIFIED
7. DR STRUCTURE COVER, TYPE K, MODIFIED

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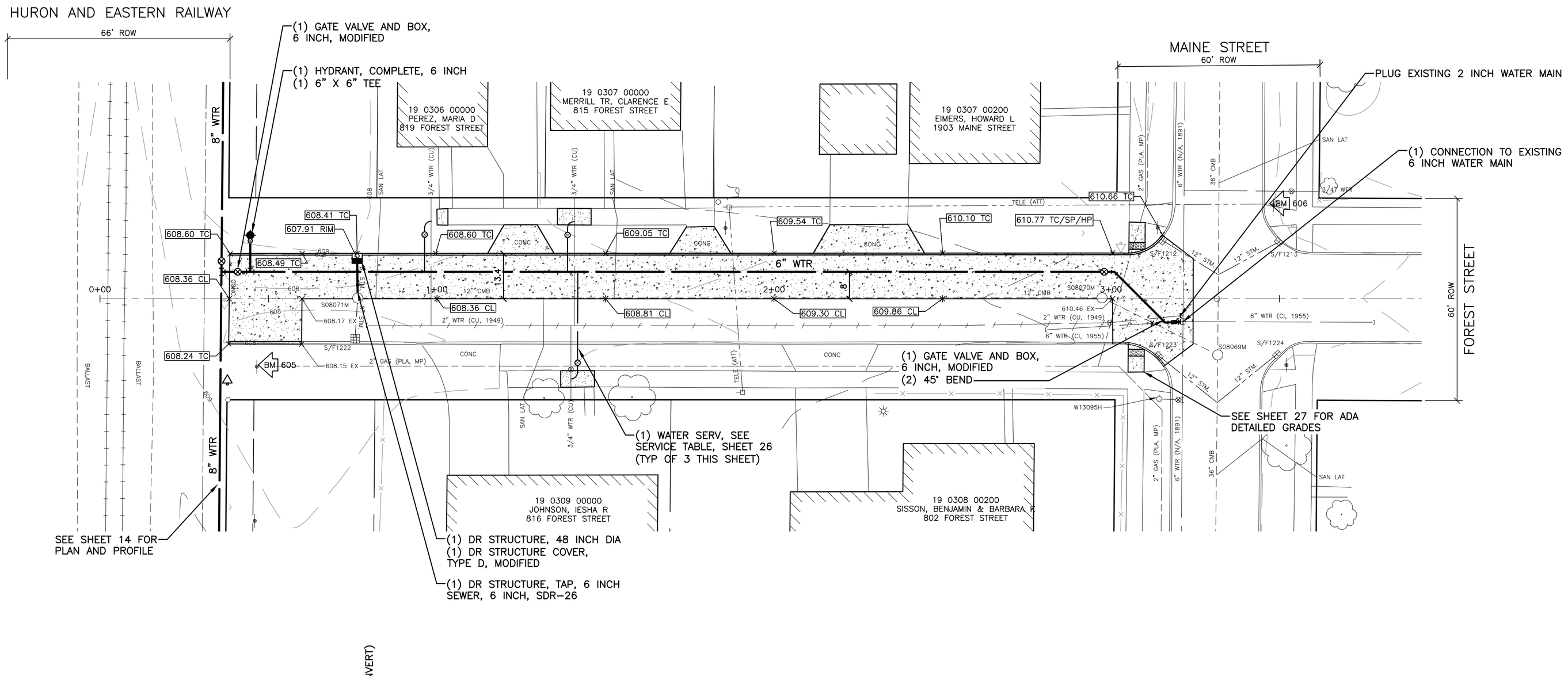

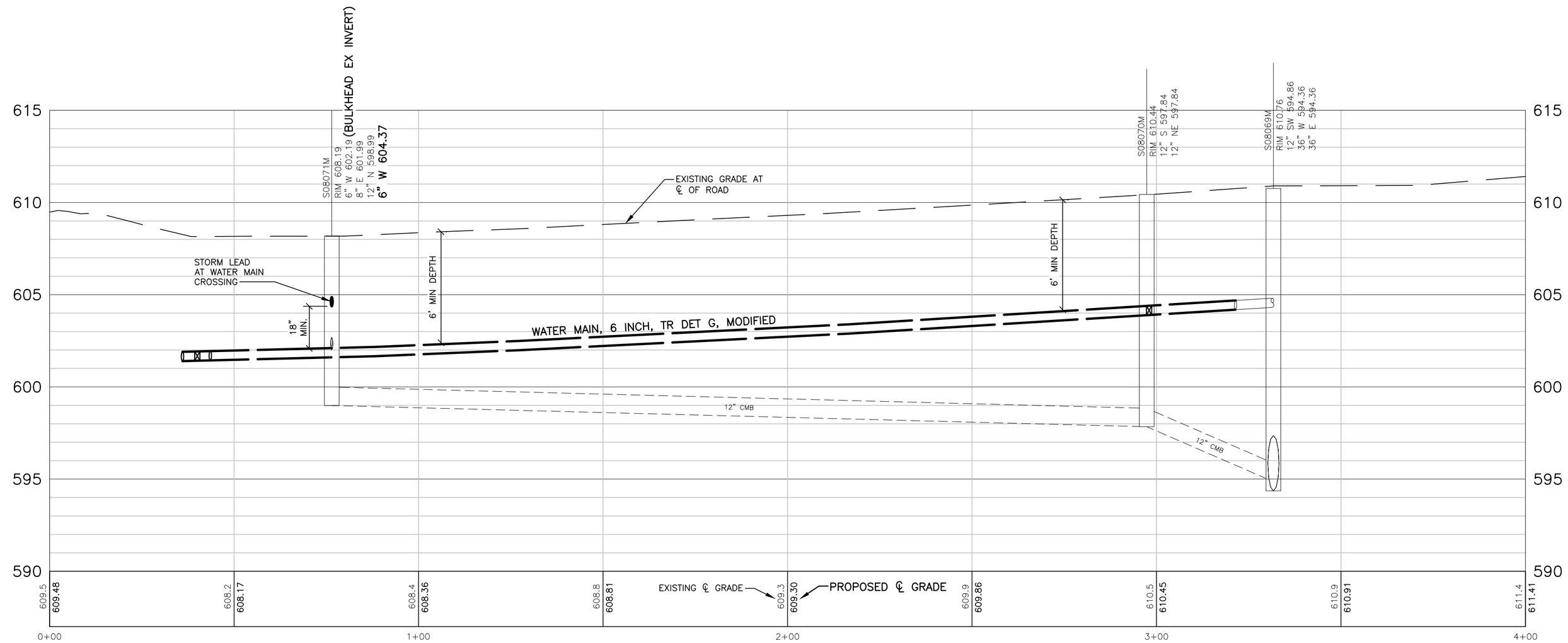

NORTH

FOREST STREET
WATER MAIN AND RECONSTRUCTION

SCALE: 1" = 20'
0 10 20 40
VERT SCALE: 1" = 4'

BENCH MARKS

BENCH MARK 605 ELEVATION: 608.64
COTTON SPINDLE IN NORTHWEST FACE OF CONSUMERS ENERGY UTILITY/LIGHT POLE #171188J ON EAST SIDE OF SOUTH END OF FOREST STREET, 35' NORTH OF RAILROAD TRACKS

RECONSTRUCTION LEGEND

	PAVEMENT, CONC
969.19 EX	EXISTING SPOT ELEVATION
724.50 XX	PROPOSED SPOT ELEVATION
TP	TOP OF PAVEMENT
TC	TOP OF CURB
SP	SPRING POINT
HP	HIGH POINT

WATER MAIN GENERAL NOTES

1. MAINTAIN AT LEAST 18" VERTICAL SEPARATION BETWEEN WATER MAIN AND SEWERS AT ALL EXISTING AND PROPOSED CROSSINGS PER WATER MAIN LOWERING DETAIL, SHEET 3.
2. VERIFY LATERAL DEPTHS PRIOR TO WATER MAIN PLACEMENT. MAINTAIN AT LEAST 6" OF VERTICAL SEPARATION AT ALL LATERAL CROSSINGS.
3. IF UTILITY TO BE ABANDONED IS LARGER THAN 8", UTILITY TO BE ABANDONED WITH FLOWABLE FILL. IF UTILITY IS 8" OR SMALLER, UTILITY TO BE ABANDONED BY PLUGGING ANY EXPOSED ENDS WITH NON-SHRINK GROUT.
4. VERIFY THE LOCATION OF ALL EXISTING WATER SERVICES PRIOR TO CUTTING PAVEMENT FOR NEW SERVICE. NOTIFY ENGINEER OF ANY ADJUSTMENTS.
5. DEFLECT NEW WATER MAIN UNDER EXISTING WATER MAIN IF FOUND TO BE IN CONFLICT, UNLESS DIRECTED OTHERWISE BY ENGINEER. ADDITIONAL FITTINGS TO BE INCLUDED IN THE COST OF THE PROPOSED WATER MAIN.
6. MAINTAIN ADEQUATE RESTRAINT LENGTH AND THRUST BLOCKING AT ALL FITTINGS, INCLUDING CONNECTIONS TO EXISTING WATER MAIN.
7. TRENCH WATER MAIN IN ACCORDANCE WITH MDOT STANDARD PLAN R-83, DETAIL F FOR WATER MAINS NOT UNDER ROADBED AND DETAIL G FOR WATER MAINS UNDER ROADBED OR WITHIN INFLUENCE OF ROADBED.

KEY NOTES

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3. REINSTALL MONUMENT PRESERVED DURING DEMOLITION (PAID AS "MONUMENT PRESERVATION")
4. MONUMENT BOX
5. COMBINED SEWER MANHOLE COVER, ADJ, CASE 1
6. DR STRUCTURE COVER, TYPE B, MODIFIED
7. DR STRUCTURE COVER, TYPE K, MODIFIED

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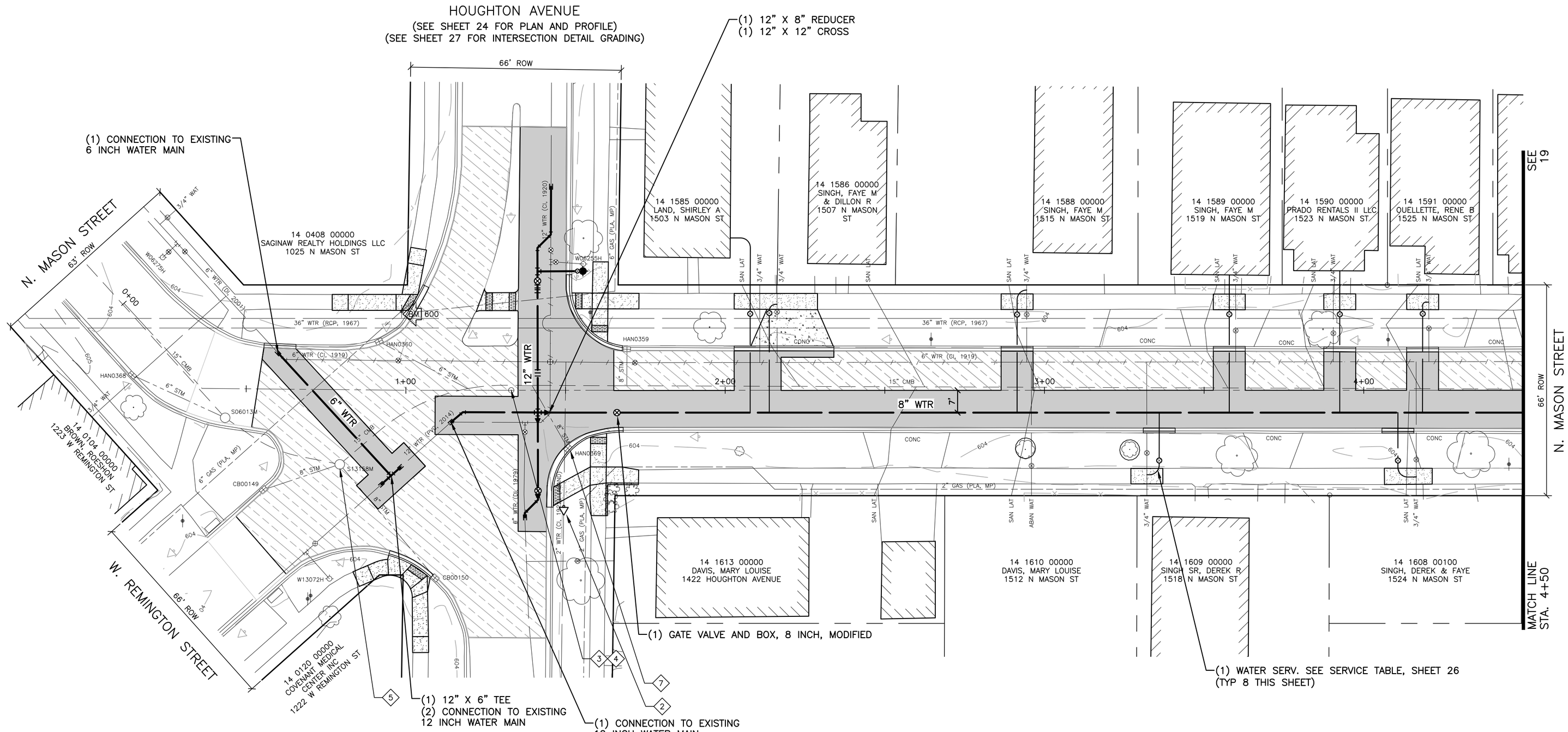

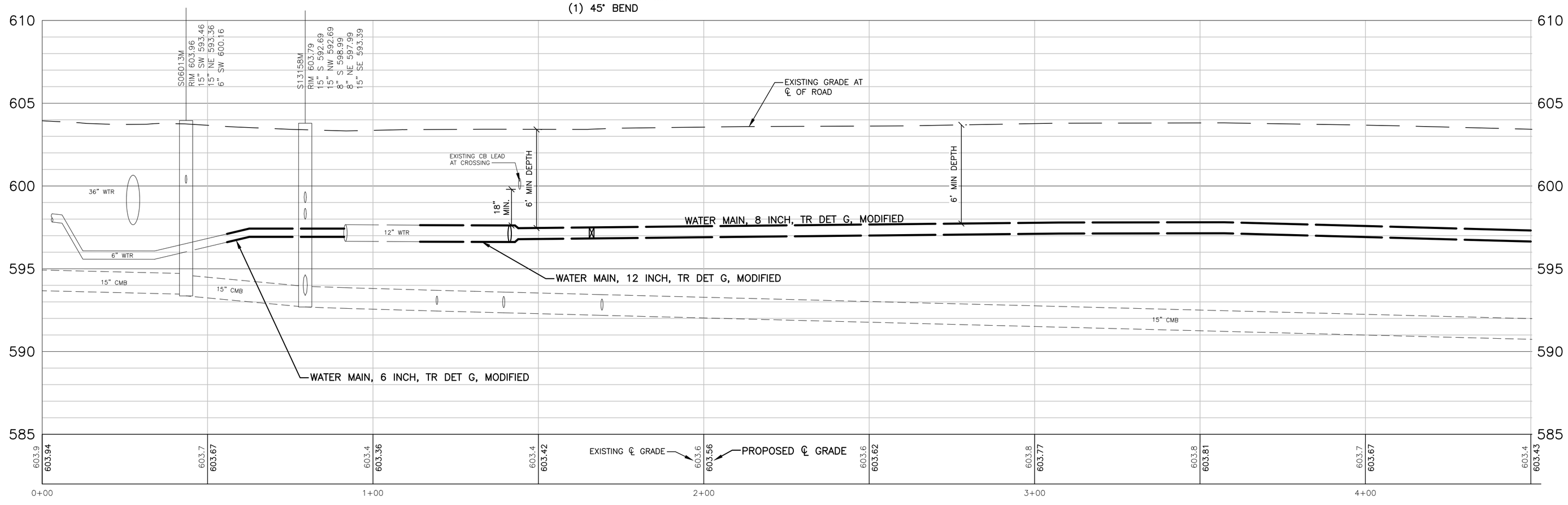

NORTH

N. MASON STREET - POB TO STA. 4+50

WATER MAIN AND RECONSTRUCTION

SCALE: 1" = 20'
0 10 20 40
VERT SCALE: 1" = 4'

BENCH MARKS

BENCH MARK 600 ELEVATION: 603.70
COTTON SPINDLE IN NORTHEAST SIDE OF UTILITY/LIGHT POLE AT SOUTHWEST CORNER OF INTERSECTION OF NORTH MASON STREET & HOUGHTON AVENUE

RECONSTRUCTION LEGEND

- PAVEMENT, HMA (FULL DEPTH)
- PAVEMENT, HMA (TOP COURSE)
- CONC PAVT, NONREINF, 7 INCH, MODIFIED
  DRIVEWAY, NONREINF CONC, 6 INCH, MODIFIED
- SIDEWALK, CONC, 4 INCH, MODIFIED
  CURB RAMP, CONC, 7 INCH, MODIFIED
- DETECTABLE WARNING SURFACE, MODIFIED

WATER MAIN GENERAL NOTES

1. MAINTAIN AT LEAST 18" VERTICAL SEPARATION BETWEEN WATER MAIN AND SEWERS AT ALL EXISTING AND PROPOSED CROSSINGS PER WATER MAIN LOWERING DETAIL, SHEET 3.
2. VERIFY LATERAL DEPTHS PRIOR TO WATER MAIN PLACEMENT. MAINTAIN AT LEAST 6" OF VERTICAL SEPARATION AT ALL LATERAL CROSSINGS.
3. IF UTILITY TO BE ABANDONED IS LARGER THAN 8", UTILITY TO BE ABANDONED WITH FLOWABLE FILL. IF UTILITY IS 8" OR SMALLER, UTILITY TO BE ABANDONED BY PLUGGING ANY EXPOSED ENDS WITH NON-SHRINK GROUT.
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5. DEFLECT NEW WATER MAIN UNDER EXISTING WATER MAIN IF FOUND TO BE IN CONFLICT, UNLESS DIRECTED OTHERWISE BY ENGINEER. ADDITIONAL FITTINGS TO BE INCLUDED IN THE COST OF THE PROPOSED WATER MAIN.
6. MAINTAIN ADEQUATE RESTRAINT LENGTH AND THRUST BLOCKING AT ALL FITTINGS, INCLUDING CONNECTIONS TO EXISTING WATER MAIN.
7. TRENCH WATER MAIN IN ACCORDANCE WITH MDOT STANDARD PLAN R-83, DETAIL F FOR WATER MAINS NOT UNDER ROADBED AND DETAIL G FOR WATER MAINS UNDER ROADBED OR WITHIN INFLUENCE OF ROADBED.
8. PROTECT THE 36-INCH TRANSMISSION WATER MAIN DURING ALL UTILITY CROSSING OPERATIONS. WHEN CROSSING BENEATH THE TRANSMISSION MAIN, EXCAVATE USING CONTROLLED METHODS AND PROVIDE TEMPORARY SUPPORT AS NECESSARY TO PREVENT ANY SETTLEMENT OR MOVEMENT OF THE PIPE. INSTALL BRACING OR SUPPORT SYSTEM IF A TRANSMISSION MAIN JOINT IS UNCOVERED OR IF GREATER THAN 5 FEET OF TRANSMISSION MAIN IS EXPOSED BELOW THE SPRING LINE OF THE PIPE. NOTIFY THE ENGINEER IMMEDIATELY IF ADDITIONAL EXCAVATION IS REQUIRED OR IF UNFORESEEN FIELD CONDITIONS ARE ENCOUNTERED.
9. SEE WATER SERVICE TABLE SHEET 26 FOR LIST OF EXISTING WATER SERVICE DATA.

KEY NOTES

1. CITY SUPPLIED SIGN, INSTALL (OWNER TO PROVIDE SIGN)
2. REINSTALL SALVAGED SIGN (PAID AS "SIGN, TYPE III, ERECT, SALV")
3. REINSTALL MONUMENT PRESERVED DURING DEMOLITION (PAID AS "MONUMENT PRESERVATION")
4. MONUMENT BOX
5. COMBINED SEWER MANHOLE COVER, ADJ, CASE 1
6. DR STRUCTURE COVER, TYPE B, MODIFIED
7. DR STRUCTURE COVER, TYPE K, MODIFIED

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Manager	HBOWERS

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PROJECT NO.
2501567

SHEET NO.
18

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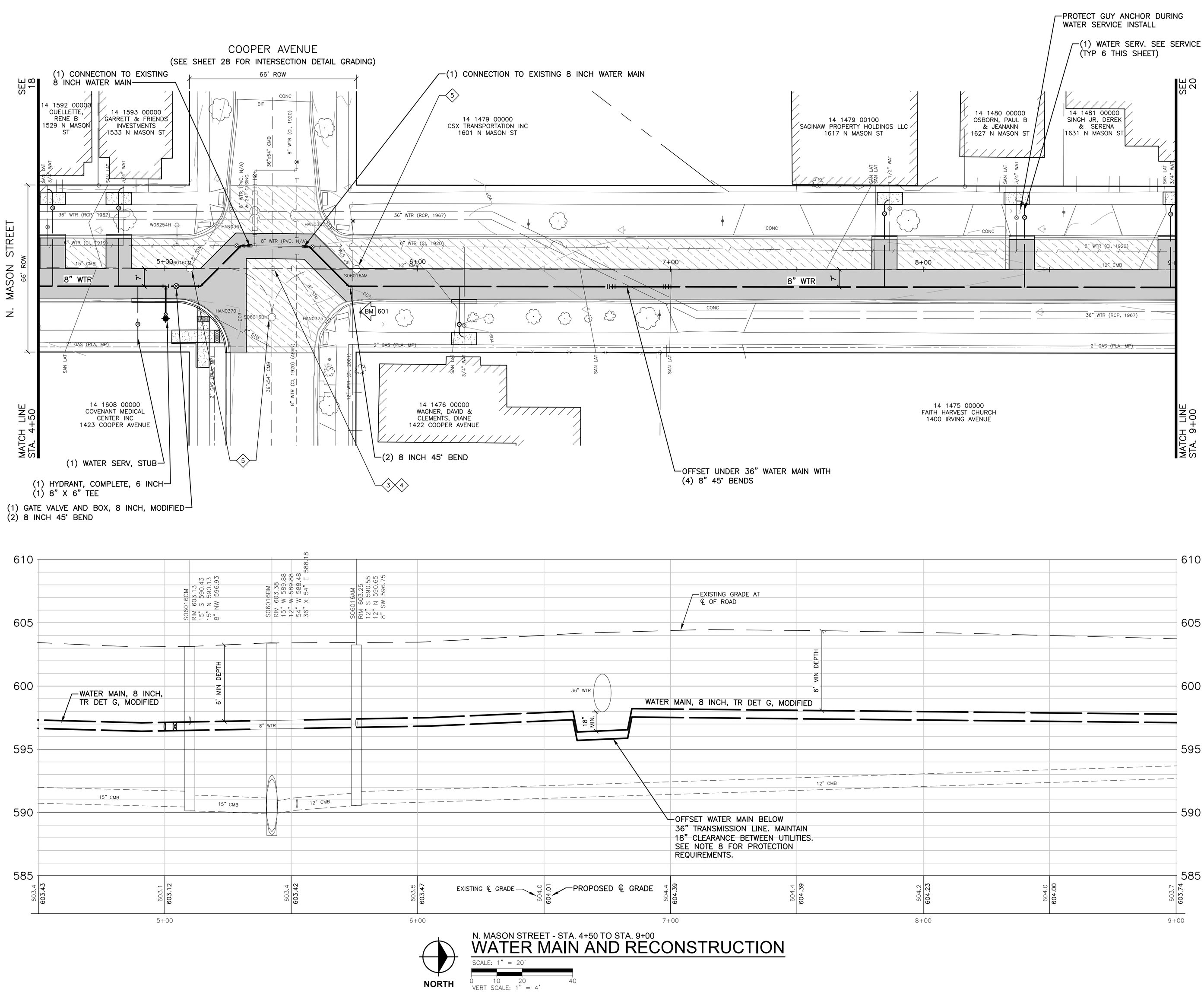
PLOT INFO: Z:\2025\2501567\CAD\CD\2501567_WATERECON_MASON.DWG LAYOUT: 18 DATE: 3/20/2026 TIME: 11:34:27 PM USER: MHITCH



BENCH MARKS

BENCH MARK 601 ELEVATION: 603.59
COTTON SPINDLE IN SOUTHWEST SIDE OF UTILITY/LIGHT POLE AT NORTHEAST CORNER OF INTERSECTION OF NORTH MASON STREET & COOPER AVENUE

RECONSTRUCTION LEGEND

- PAVEMENT, HMA (FULL DEPTH)
- PAVEMENT, HMA (TOP COURSE)
- CONC PAVT, NONREINF, 7 INCH, MODIFIED DRIVEWAY, NONREINF CONC, 6 INCH, MODIFIED
- SIDEWALK, CONC, 4 INCH, MODIFIED CURB RAMP, CONC, 7 INCH, MODIFIED
- DETECTABLE WARNING SURFACE, MODIFIED

WATER MAIN GENERAL NOTES

1. MAINTAIN AT LEAST 18" VERTICAL SEPARATION BETWEEN WATER MAIN AND SEWERS AT ALL EXISTING AND PROPOSED CROSSINGS PER WATER MAIN LOWERING DETAIL, SHEET 3.
2. VERIFY LATERAL DEPTHS PRIOR TO WATER MAIN PLACEMENT. MAINTAIN AT LEAST 6" OF VERTICAL SEPARATION AT ALL LATERAL CROSSINGS.
3. IF UTILITY TO BE ABANDONED IS LARGER THAN 8", UTILITY TO BE ABANDONED WITH FLOWABLE FILL. IF UTILITY IS 8" OR SMALLER, UTILITY TO BE ABANDONED BY PLUGGING ANY EXPOSED ENDS WITH NON-SHRINK GROUT.
4. VERIFY THE LOCATION OF ALL EXISTING WATER SERVICES PRIOR TO CUTTING PAVEMENT FOR NEW SERVICE. NOTIFY ENGINEER OF ANY ADJUSTMENTS.
5. DEFLECT NEW WATER MAIN UNDER EXISTING WATER MAIN IF FOUND TO BE IN CONFLICT, UNLESS DIRECTED OTHERWISE BY ENGINEER. ADDITIONAL FITTINGS TO BE INCLUDED IN THE COST OF THE PROPOSED WATER MAIN.
6. MAINTAIN ADEQUATE RESTRAINT LENGTH AND THRUST BLOCKING AT ALL FITTINGS, INCLUDING CONNECTIONS TO EXISTING WATER MAIN.
7. TRENCH WATER MAIN IN ACCORDANCE WITH MDOT STANDARD PLAN R-83, DETAIL F FOR WATER MAINS NOT UNDER ROADBED AND DETAIL G FOR WATER MAINS UNDER ROADBED OR WITHIN INFLUENCE OF ROADBED.
8. PROTECT THE 36-INCH TRANSMISSION WATER MAIN DURING ALL UTILITY CROSSING OPERATIONS. WHEN CROSSING BENEATH THE TRANSMISSION MAIN, EXCAVATE USING CONTROLLED METHODS AND PROVIDE TEMPORARY SUPPORT AS NECESSARY TO PREVENT ANY SETTLEMENT OR MOVEMENT OF THE PIPE. INSTALL BRACING OR SUPPORT SYSTEM IF A TRANSMISSION MAIN JOINT IS UNCOVERED OR IF GREATER THAN 5 FEET OF TRANSMISSION MAIN IS EXPOSED BELOW THE SPRING LINE OF THE PIPE. NOTIFY THE ENGINEER IMMEDIATELY IF ADDITIONAL EXCAVATION IS REQUIRED OR IF UNFORESEEN FIELD CONDITIONS ARE ENCOUNTERED.
9. SEE WATER SERVICE TABLE SHEET 26 FOR LIST OF EXISTING WATER SERVICE DATA.

KEY NOTES

1. CITY SUPPLIED SIGN, INSTALL (OWNER TO PROVIDE SIGN)
2. REINSTALL SALVAGED SIGN (PAID AS "SIGN, TYPE III, ERECT, SALV")
3. REINSTALL MONUMENT PRESERVED DURING DEMOLITION (PAID AS "MONUMENT PRESERVATION")
4. MONUMENT BOX
5. COMBINED SEWER MANHOLE COVER, ADJ, CASE 1
6. DR STRUCTURE COVER, TYPE B, MODIFIED
7. DR STRUCTURE COVER, TYPE K, MODIFIED

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City of Saginaw
Saginaw, Michigan

Dead End Elimination/Looping and
N. Mason Street Water Main Replacement

REVISIONS

4/2/2026	BIDS AND CONSTRUCTION

Drawn By	MHITCH/LKEENER
Designer	MHITCH/LKEENER
Reviewer	JKRAMER
Manager	HBOWERS

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PROJECT NO.
2501567

SHEET NO.
19

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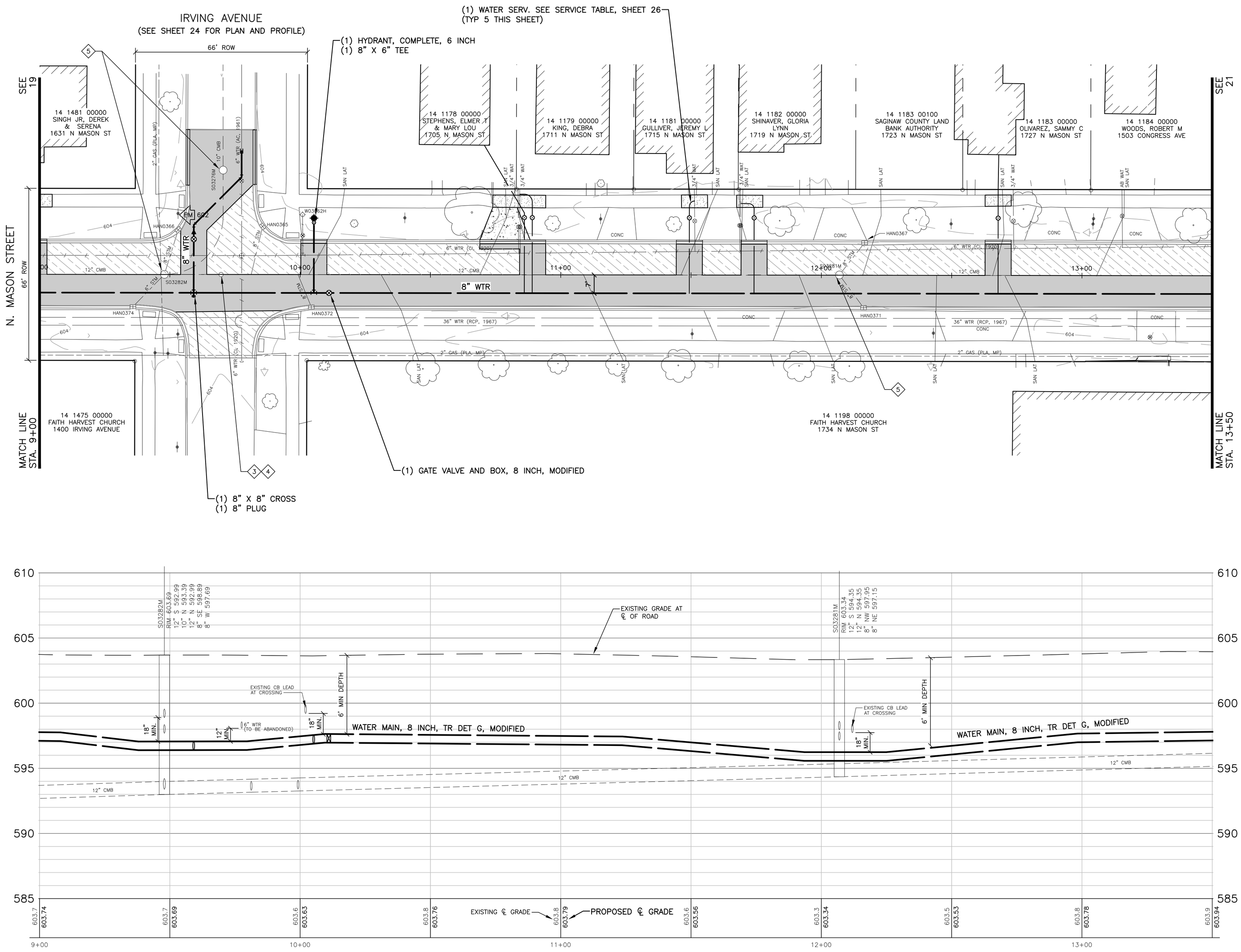
PLOT INFO: Z:\2025\2501567\CAD\CD\2501567_WAT&RECON_MASON.DWG LAYOUT: 19 DATE: 3/26/2026 TIME: 11:35:16 PM USER: MHITCH



N. MASON STREET - STA. 9+00 TO STA. 13+50

WATER MAIN AND RECONSTRUCTION

SCALE: 1" = 20'
0 10 20 40
VERT SCALE: 1" = 4'

NORTH

BENCH MARKS

BENCH MARK 602 ELEVATION: 603.79
COTTON SPINDLE IN NORTHEAST SIDE OF UTILITY POLE AT SOUTHWEST CORNER OF INTERSECTION OF NORTH MASON STREET & IRVING AVENUE

RECONSTRUCTION LEGEND

- PAVEMENT, HMA (FULL DEPTH)
- PAVEMENT, HMA (TOP COURSE)
- CONC PAVT, NONREINF, 7 INCH, MODIFIED
  DRIVEWAY, NONREINF CONC, 6 INCH, MODIFIED
- SIDEWALK, CONC, 4 INCH, MODIFIED
  CURB RAMP, CONC, 7 INCH, MODIFIED
- DETECTABLE WARNING SURFACE, MODIFIED

WATER MAIN GENERAL NOTES

1. MAINTAIN AT LEAST 18" VERTICAL SEPARATION BETWEEN WATER MAIN AND SEWERS AT ALL EXISTING AND PROPOSED CROSSINGS PER WATER MAIN LOWERING DETAIL, SHEET 3.
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9. SEE WATER SERVICE TABLE SHEET 26 FOR LIST OF EXISTING WATER SERVICE DATA.

KEY NOTES

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Saginaw, Michigan

Dead End Elimination/Looping and
N. Mason Street Water Main Replacement

REVISIONS

4/2/2026	BIDS AND CONSTRUCTION

Drawn By	MHITCH/LKEENER
Designer	MHITCH/LKEENER
Reviewer	JKRAMER
Manager	HBOWERS

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PROJECT NO.
2501567

SHEET NO.
20

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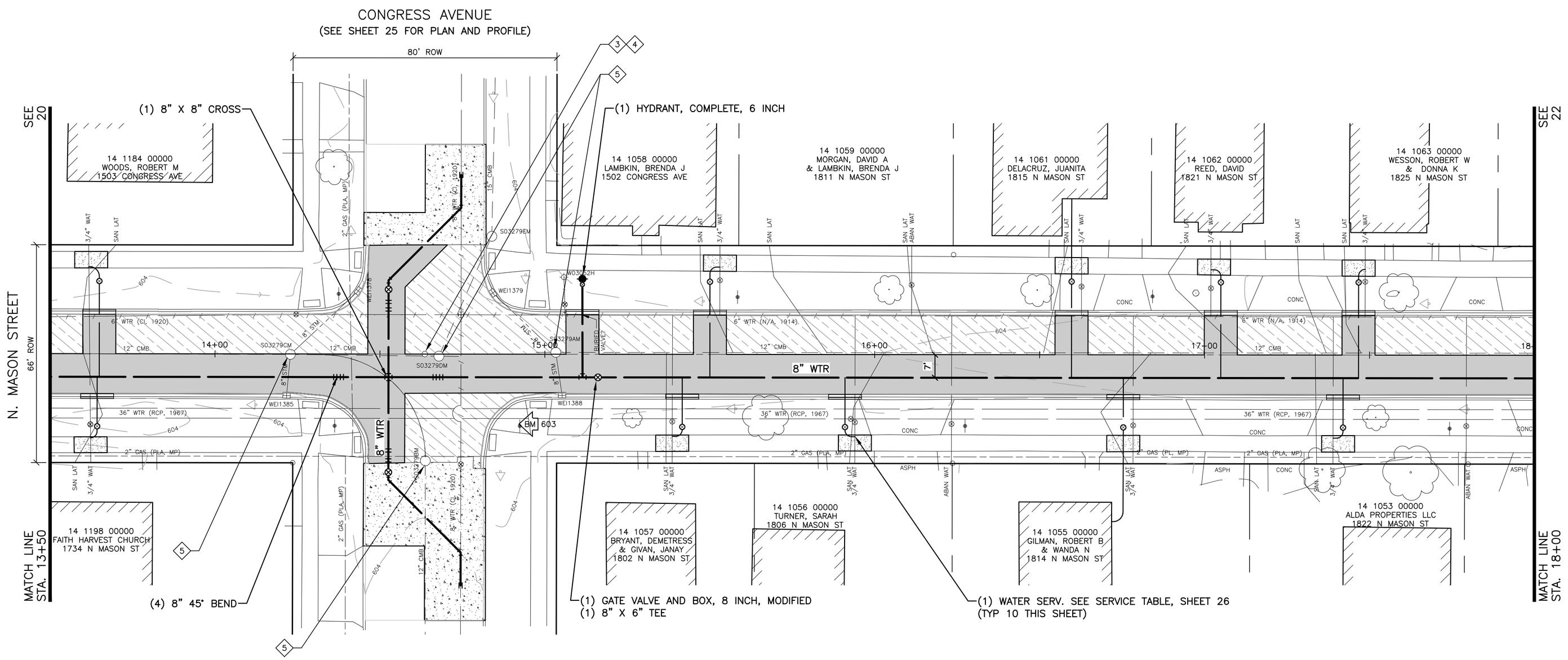
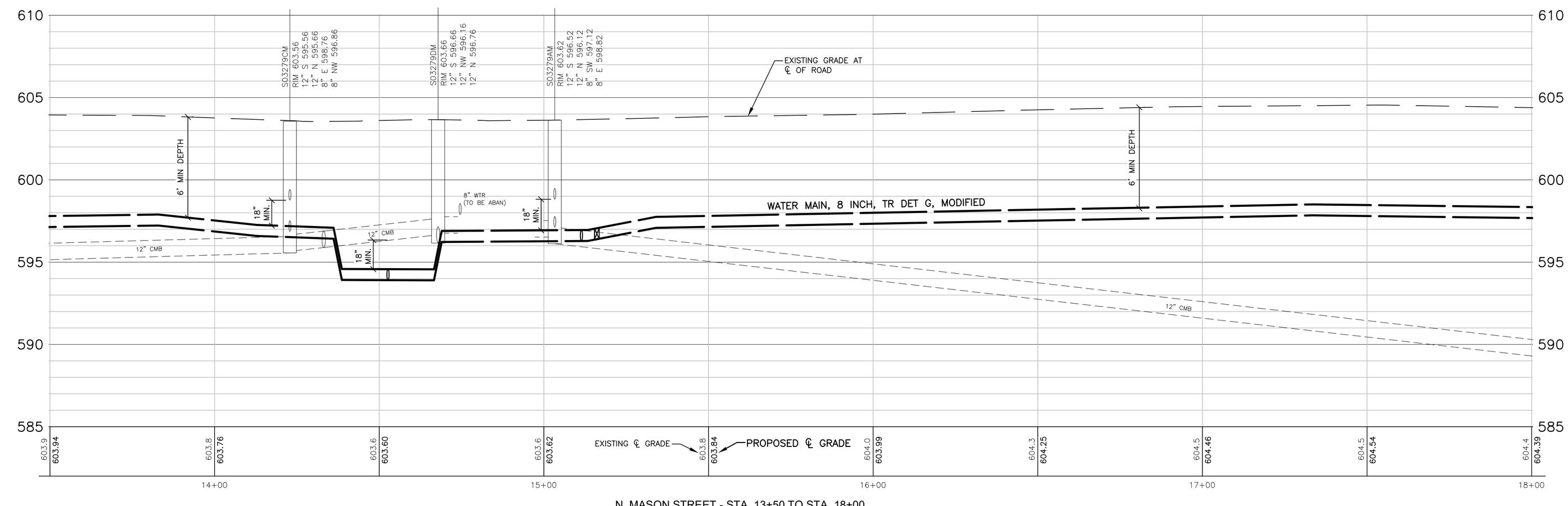
PLOT INFO: Z:\2025\2501567\CAD\CD\2501567_WATERECON_MASON.DWG LAYOUT: 20 DATE: 3/26/2026 TIME: 11:36:14 PM USER: MHITCH





N. MASON STREET - STA. 13+50 TO STA. 18+00

WATER MAIN AND RECONSTRUCTION

SCALE: 1" = 20'
0 10 20 40
VERT SCALE: 1" = 4'

NORTH

BENCH MARKS

BENCH MARK 603 ELEVATION: 603.84
COTTON SPINDLE IN WEST SIDE OF GUY POLE AT NORTHEAST CORNER OF INTERSECTION OF NORTH MASON STREET & CONGRESS AVENUE

RECONSTRUCTION LEGEND

- PAVEMENT, HMA (FULL DEPTH)
- PAVEMENT, HMA (TOP COURSE)
- CONC PAVT, NONREINF, 7 INCH, MODIFIED
  DRIVEWAY, NONREINF CONC, 6 INCH, MODIFIED
- SIDEWALK, CONC, 4 INCH, MODIFIED
  CURB RAMP, CONC, 7 INCH, MODIFIED
- DETECTABLE WARNING SURFACE, MODIFIED

WATER MAIN GENERAL NOTES

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KEY NOTES

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Saginaw, Michigan

Dead End Elimination/Looping and
N. Mason Street Water Main Replacement

REVISIONS

4/2/2026	BIDS AND CONSTRUCTION

Drawn By	MHITCH/LKEENER
Designer	MHITCH/LKEENER
Reviewer	JKRAMER
Manager	HBOWERS

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PROJECT NO.
2501567

SHEET NO.
21

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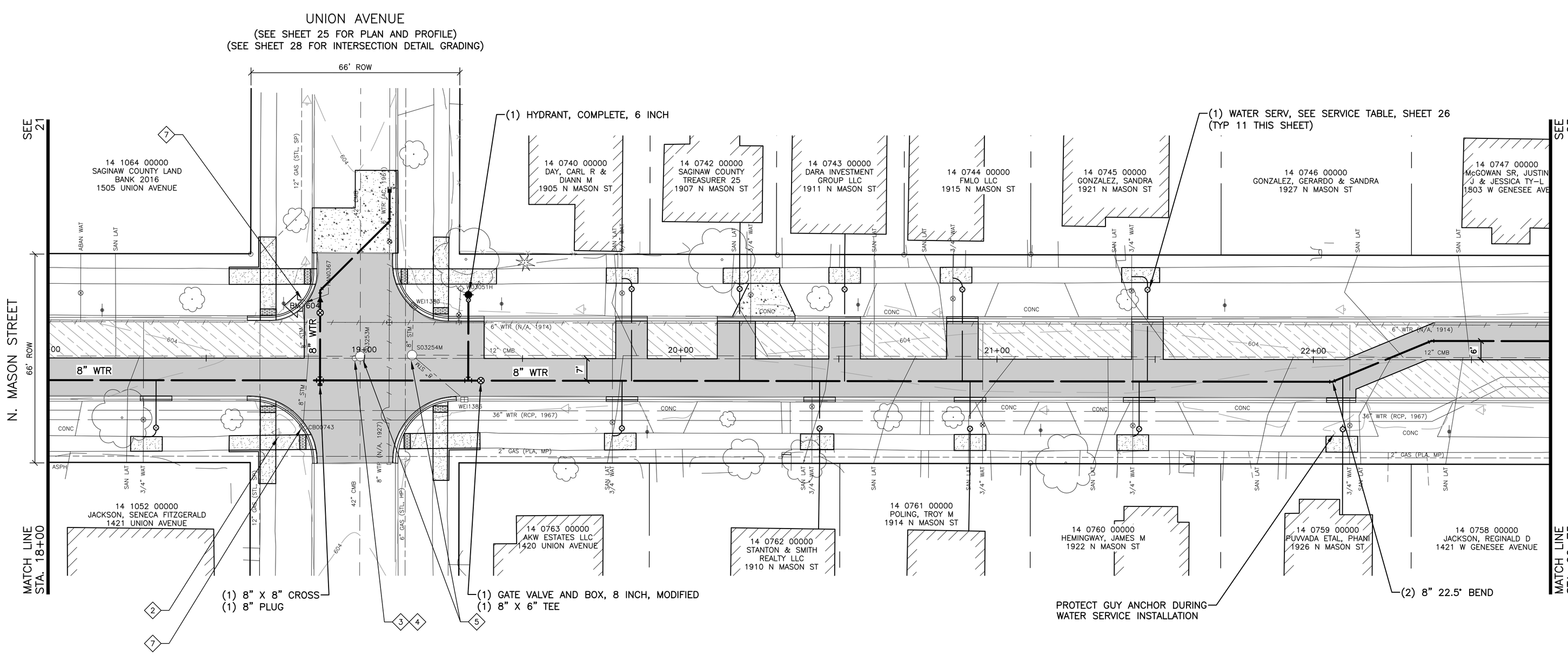
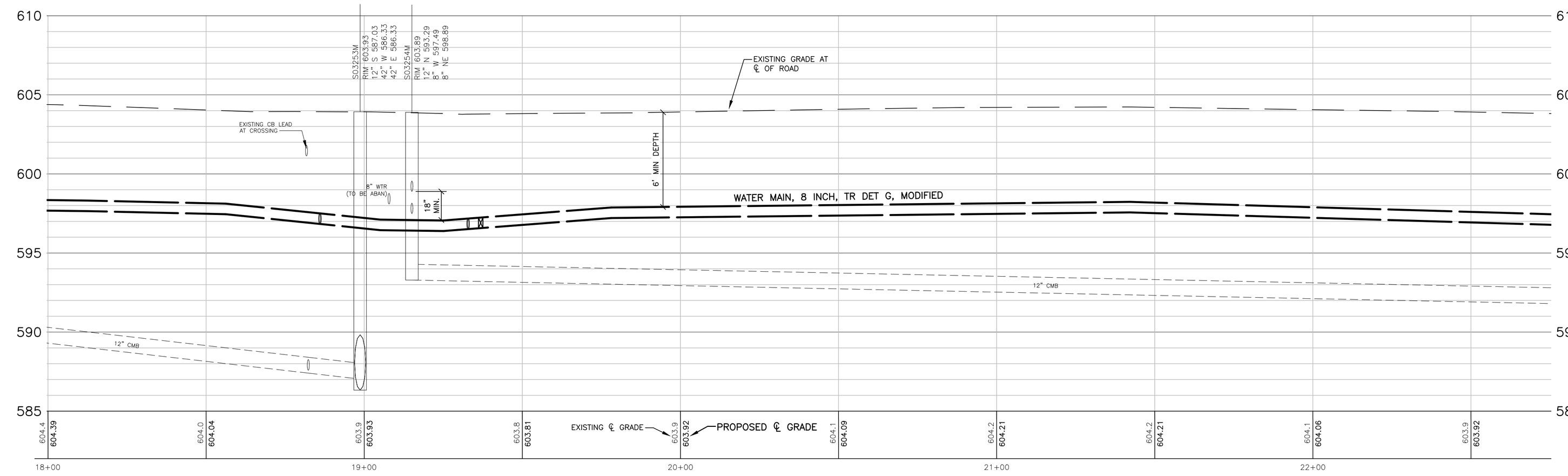
PLOT INFO: Z:\2025\2501567\CAD\CD\2501567_WAT&RECON_MASON.DWG LAYOUT: 21 DATE: 3/26/2026 TIME: 11:37:03 PM USER: MHITCH





N. MASON STREET - STA. 18+00 TO STA. 22+75

WATER MAIN AND RECONSTRUCTION

SCALE: 1" = 20'
0 10 20 40
VERT SCALE: 1" = 4'

NORTH

BENCH MARKS

BENCH MARK 604 ELEVATION: 604.25
COTTON SPINDLE IN NORTHEAST SIDE OF UTILITY/LIGHT POLE AT SOUTHWEST CORNER OF INTERSECTION OF NORTH MASON STREET & UNION AVENUE

RECONSTRUCTION LEGEND

- PAVEMENT, HMA (FULL DEPTH)
- PAVEMENT, HMA (TOP COURSE)
- CONC PAVT, NONREINF, 7 INCH, MODIFIED DRIVEWAY, NONREINF CONC, 6 INCH, MODIFIED
- SIDEWALK, CONC, 4 INCH, MODIFIED CURB RAMP, CONC, 7 INCH, MODIFIED
- DETECTABLE WARNING SURFACE, MODIFIED

WATER MAIN GENERAL NOTES

1. MAINTAIN AT LEAST 18" VERTICAL SEPARATION BETWEEN WATER MAIN AND SEWERS AT ALL EXISTING AND PROPOSED CROSSINGS PER WATER MAIN LOWERING DETAIL, SHEET 3.
2. VERIFY LATERAL DEPTHS PRIOR TO WATER MAIN PLACEMENT. MAINTAIN AT LEAST 6" OF VERTICAL SEPARATION AT ALL LATERAL CROSSINGS.
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8. PROTECT THE 36-INCH TRANSMISSION WATER MAIN DURING ALL UTILITY CROSSING OPERATIONS. WHEN CROSSING BENEATH THE TRANSMISSION MAIN, EXCAVATE USING CONTROLLED METHODS AND PROVIDE TEMPORARY SUPPORT AS NECESSARY TO PREVENT ANY SETTLEMENT OR MOVEMENT OF THE PIPE. INSTALL BRACING OR SUPPORT SYSTEM IF A TRANSMISSION MAIN JOINT IS UNCOVERED OR IF GREATER THAN 5 FEET OF TRANSMISSION MAIN IS EXPOSED BELOW THE SPRING LINE OF THE PIPE. NOTIFY THE ENGINEER IMMEDIATELY IF ADDITIONAL EXCAVATION IS REQUIRED OR IF UNFORESEEN FIELD CONDITIONS ARE ENCOUNTERED.
9. SEE WATER SERVICE TABLE SHEET 26 FOR LIST OF EXISTING WATER SERVICE DATA.

KEY NOTES

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2. REINSTALL SALVAGED SIGN (PAID AS "SIGN, TYPE III, ERECT, SALV")
3. REINSTALL MONUMENT PRESERVED DURING DEMOLITION (PAID AS "MONUMENT PRESERVATION")
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City of Saginaw
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Dead End Elimination/Looping and
N. Mason Street Water Main Replacement

REVISIONS

4/2/2026	BIDS AND CONSTRUCTION
Drawn By	MHITCH/LKEENER
Designer	MHITCH/LKEENER
Reviewer	JKRAMER
Manager	HBOWERS

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PROJECT NO.
2501567

SHEET NO.
22

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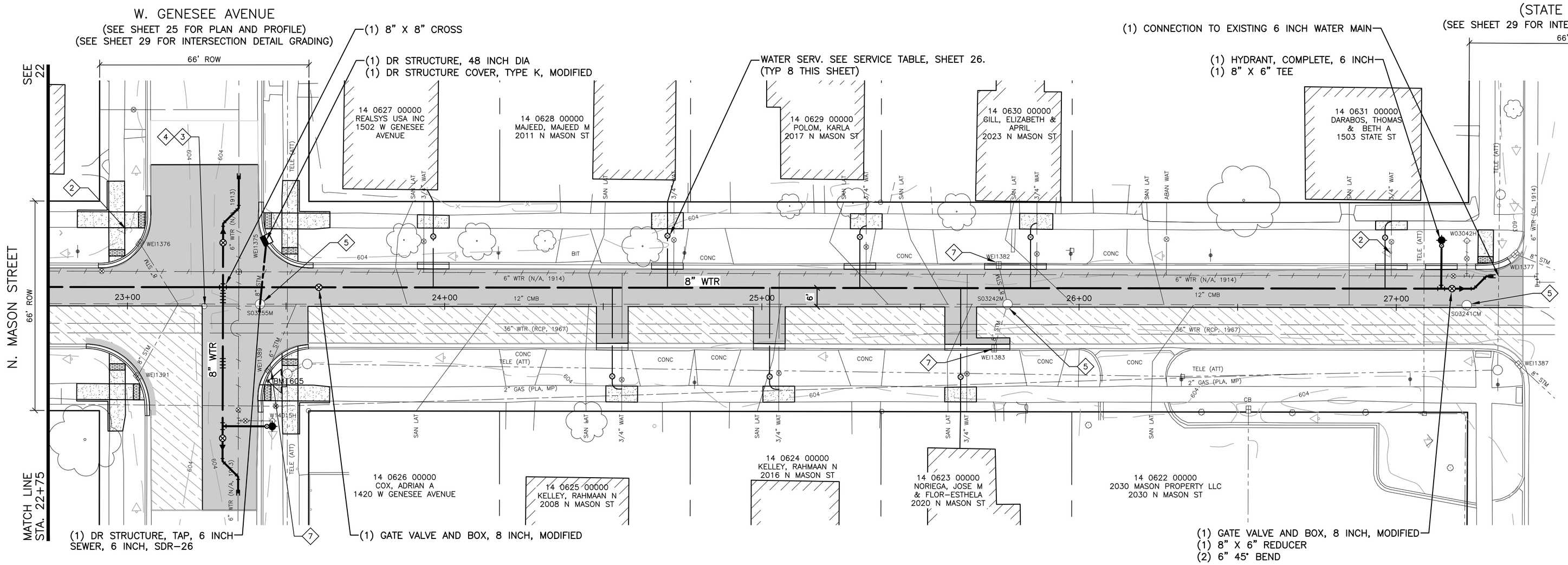
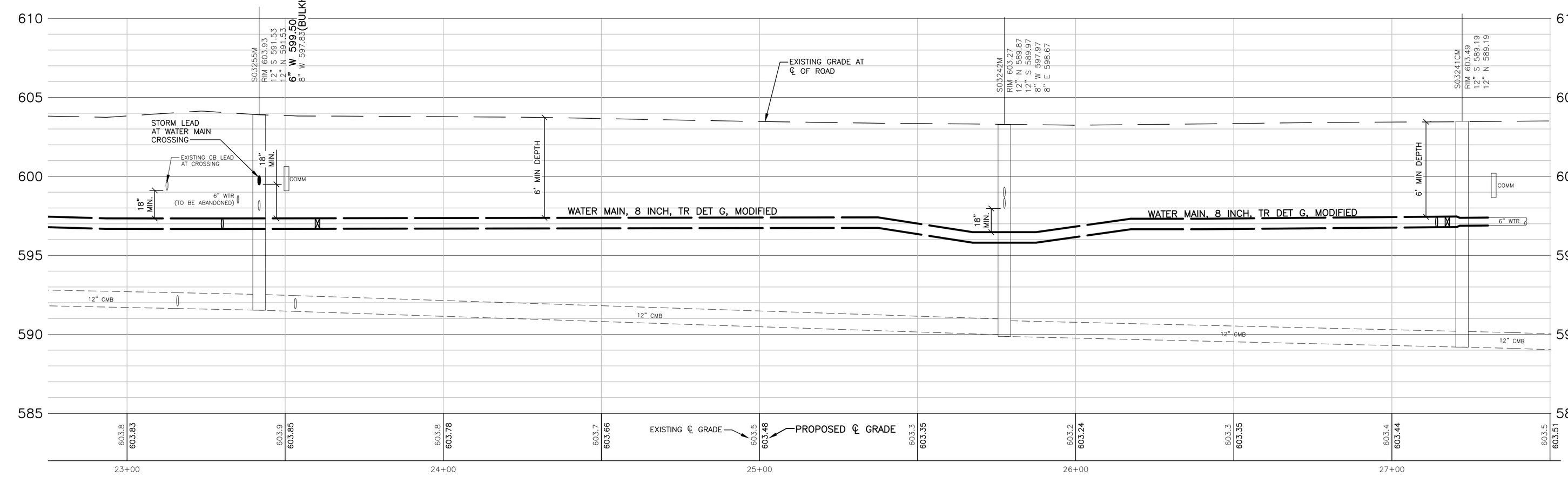
PLOT INFO: Z:\2025\2501567\CAD\CD\2501567_WAT&RECON_MASON.DWG LAYOUT: 22 DATE: 3/26/2026 TIME: 11:38:02 PM USER: MHITCH





N. MASON STREET - STA. 22+75 TO POE

WATER MAIN AND RECONSTRUCTION

NORTH

SCALE: 1" = 20'
0 10 20 40
VERT SCALE: 1" = 4'

BENCH MARKS

BENCH MARK 605 ELEVATION: 603.87
COTTON SPINDLE IN WEST SIDE OF UTILITY/LIGHT POLE AT NORTHEAST CORNER OF INTERSECTION OF NORTH MASON STREET & GENESEE AVENUE

BENCH MARK 606 ELEVATION: 603.57
MAG NAIL IN TOP OF CONCRETE BASE OF STRAIN POLE AT NORTHEAST CORNER OF INTERSECTION OF NORTH MASON STREET & STATE AVENUE

RECONSTRUCTION LEGEND

- PAVEMENT, HMA (FULL DEPTH)
- PAVEMENT, HMA (TOP COURSE)
- CONC PAVT, NONREINF, 7 INCH, MODIFIED
  DRIVEWAY, NONREINF CONC, 6 INCH, MODIFIED
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WATER MAIN GENERAL NOTES

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KEY NOTES

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Saginaw, Michigan

Dead End Elimination/Looping and
N. Mason Street Water Main Replacement

REVISIONS

4/2/2026	BIDS AND CONSTRUCTION

Drawn By	MHITCH/LKEENER
Designer	MHITCH/LKEENER
Reviewer	JKRAMER
Manager	HBOWERS

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PROJECT NO.
2501567

SHEET NO.
23

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PLOT INFO: Z:\2025\2501567\CAD\CD2501567_WAT&RECON_MASON.DWG LAYOUT: 23 DATE: 3/26/2026 TIME: 11:39:07 PM USER: MHITCH

WATER MAIN GENERAL NOTES

1. MAINTAIN AT LEAST 18" VERTICAL SEPARATION BETWEEN WATER MAIN AND SEWERS AT ALL EXISTING AND PROPOSED CROSSINGS PER WATER MAIN LOWERING DETAIL, SHEET 3.
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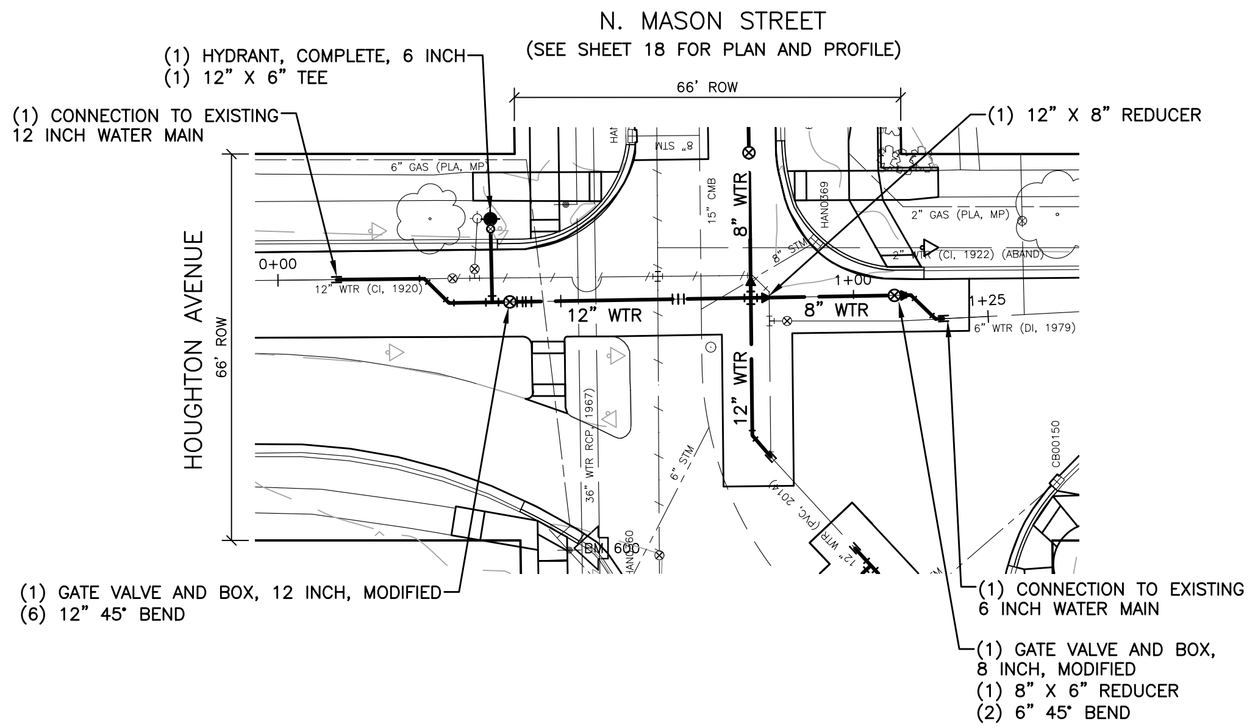
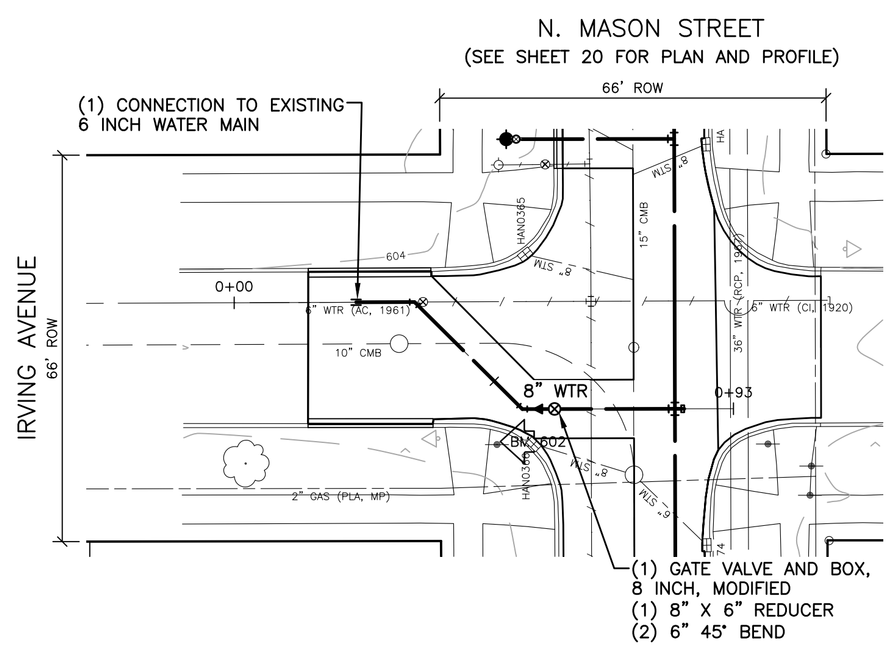
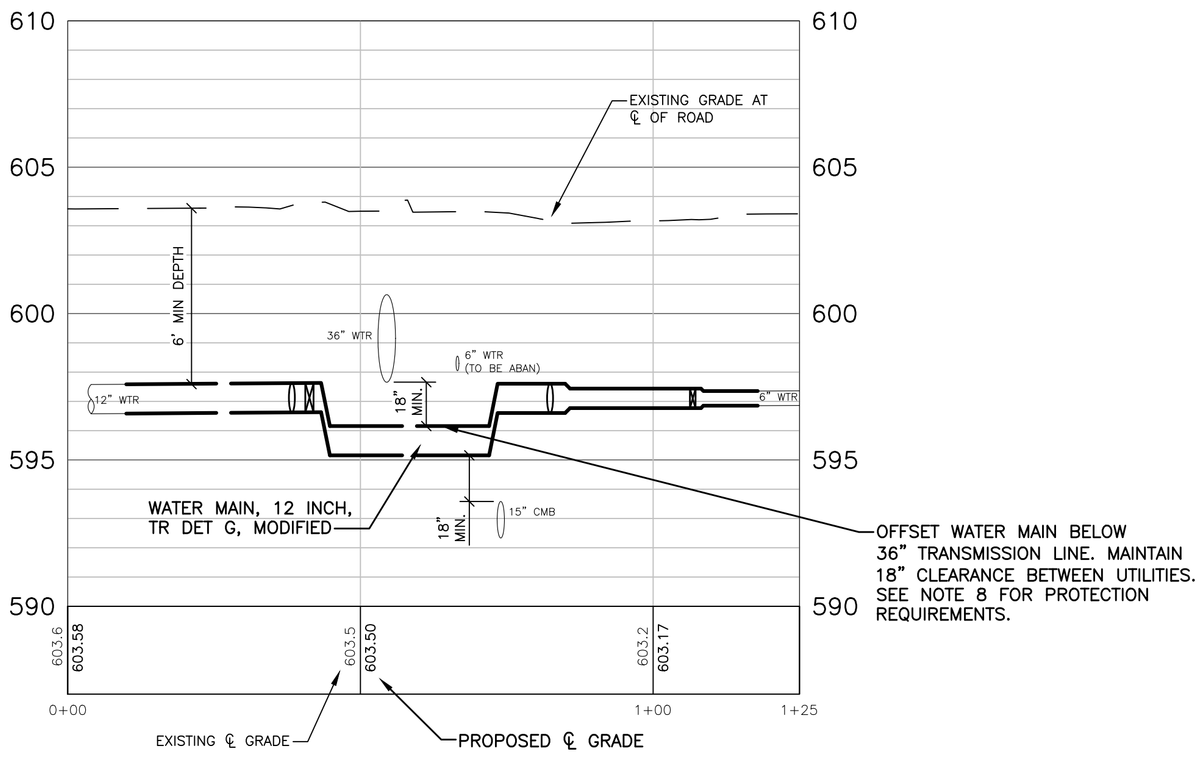
8. PROTECT THE 36-INCH TRANSMISSION WATER MAIN DURING ALL UTILITY CROSSING OPERATIONS. WHEN CROSSING BENEATH THE TRANSMISSION MAIN, EXCAVATE USING CONTROLLED METHODS AND PROVIDE TEMPORARY SUPPORT AS NECESSARY TO PREVENT ANY SETTLEMENT OR MOVEMENT OF THE PIPE. INSTALL BRACING OR SUPPORT SYSTEM IF A TRANSMISSION MAIN JOINT IS UNCOVERED OR IF GREATER THAN 5 FEET OF TRANSMISSION MAIN IS EXPOSED BELOW THE SPRING LINE OF THE PIPE. NOTIFY THE ENGINEER IMMEDIATELY IF ADDITIONAL EXCAVATION IS REQUIRED OR IF UNFORESEEN FIELD CONDITIONS ARE ENCOUNTERED.
9. SEE WATER SERVICE TABLE SHEET 26 FOR LIST OF EXISTING WATER SERVICE DATA.

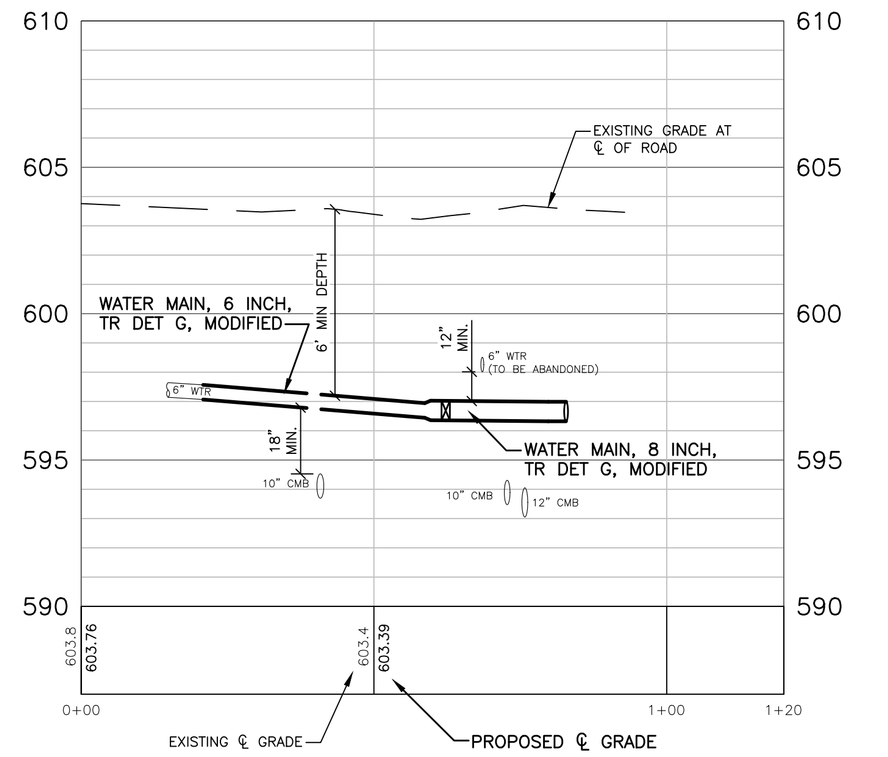






HOUGHTON AVENUE
WATER MAIN PROFILE
SCALE: 1" = 20'
VERT SCALE: 1" = 4'

NORTH



IRVING AVENUE
WATER MAIN PROFILE
SCALE: 1" = 20'
VERT SCALE: 1" = 4'

NORTH

PLOT INFO: Z:\2025\2501567\CAD\CD\2501567_WAT-PROFS_MASON.DWG LAYOUT: 24 DATE: 3/26/2026 TIME: 11:41:12 PM USER: MHITCH

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Saginaw, Michigan

Dead End Elimination/Looping and
N. Mason Street Water Main Replacement

REVISIONS

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Reviewer	JKRAMER
Manager	HBOWERS

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SHEET NO.
24

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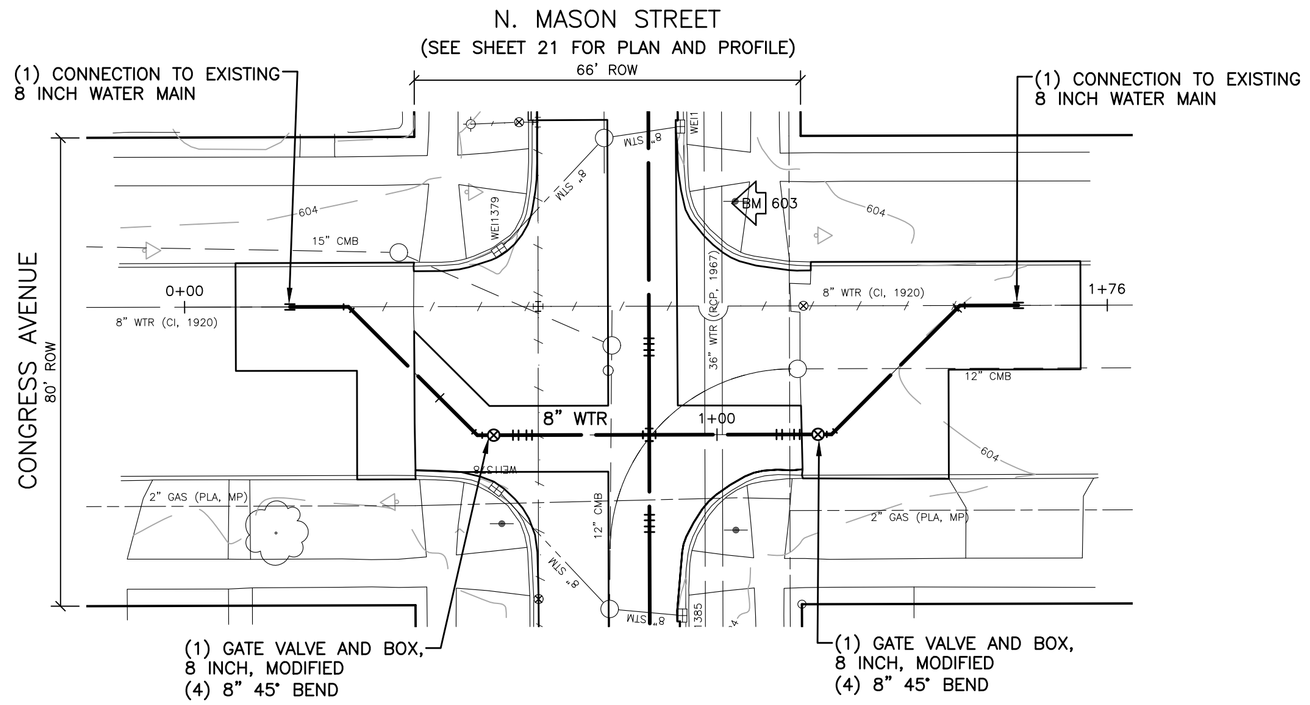
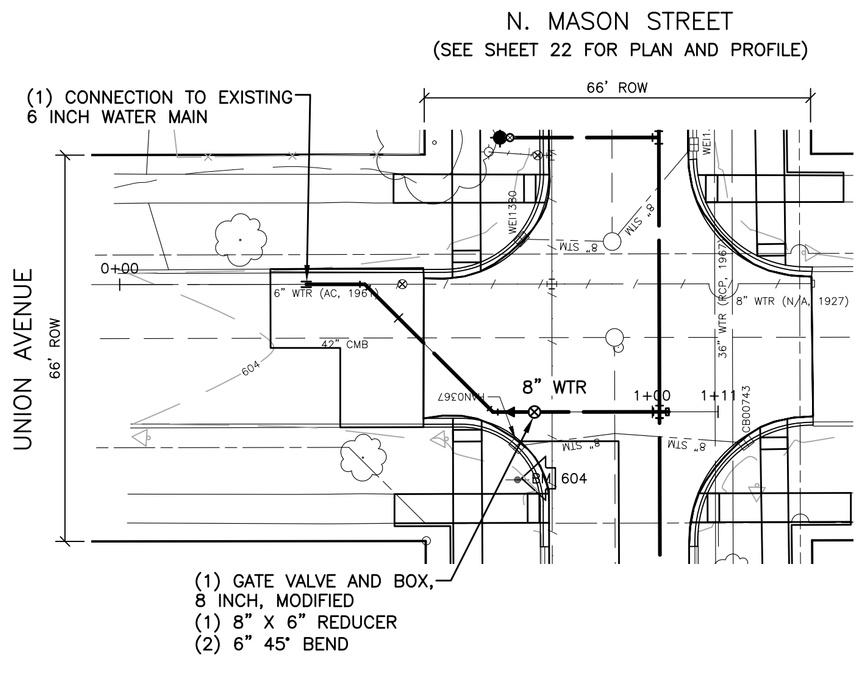
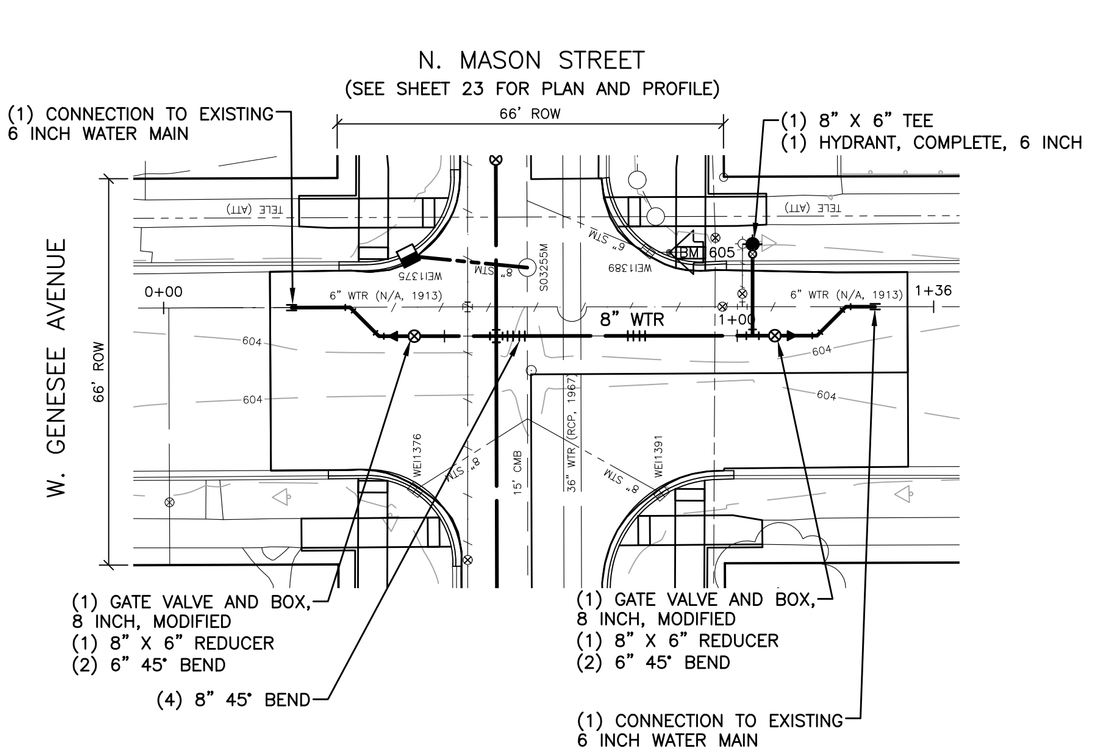
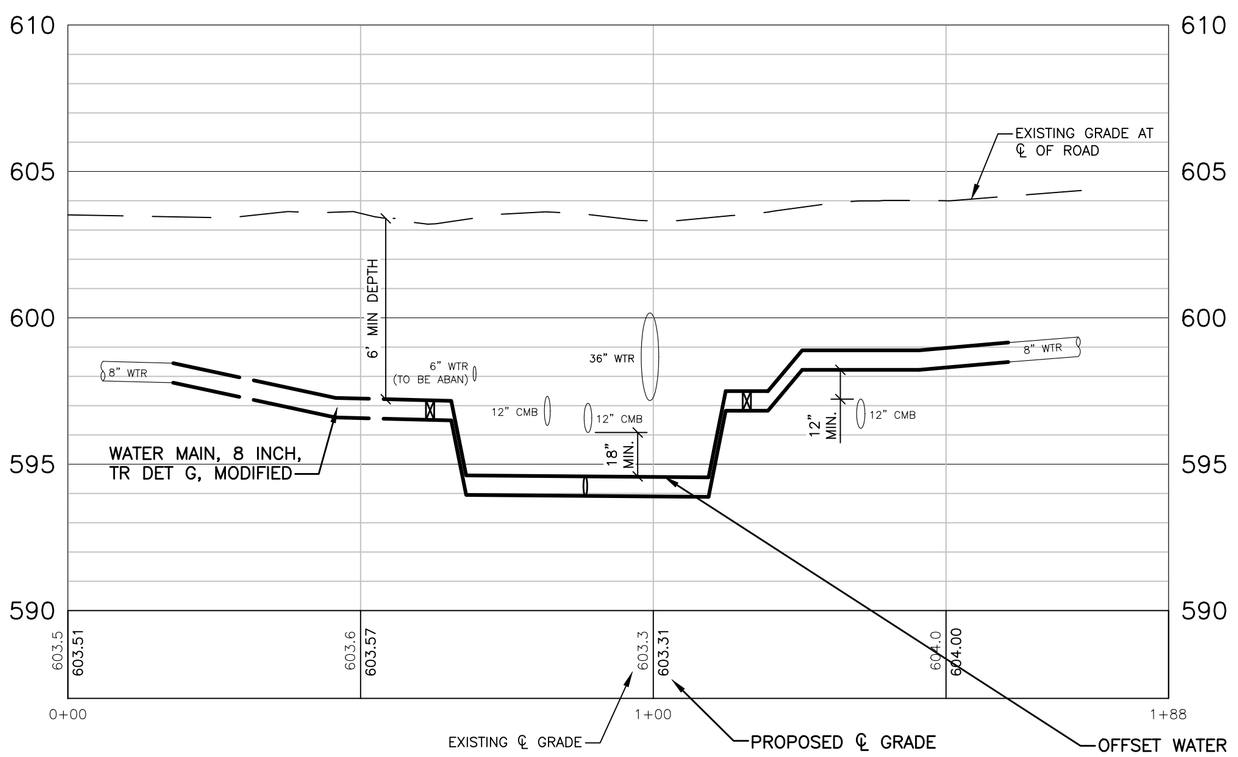
WATER MAIN GENERAL NOTES

1. MAINTAIN AT LEAST 18" VERTICAL SEPARATION BETWEEN WATER MAIN AND SEWERS AT ALL EXISTING AND PROPOSED CROSSINGS PER WATER MAIN LOWERING DETAIL, SHEET 3.
2. VERIFY LATERAL DEPTHS PRIOR TO WATER MAIN PLACEMENT. MAINTAIN AT LEAST 6" OF VERTICAL SEPARATION AT ALL LATERAL CROSSINGS.
3. IF UTILITY TO BE ABANDONED IS LARGER THAN 8", UTILITY TO BE ABANDONED WITH FLOWABLE FILL. IF UTILITY IS 8" OR SMALLER, UTILITY TO BE ABANDONED BY PLUGGING ANY EXPOSED ENDS WITH NON-SHRINK GROUT.
4. VERIFY THE LOCATION OF ALL EXISTING WATER SERVICES PRIOR TO CUTTING PAVEMENT FOR NEW SERVICE. NOTIFY ENGINEER OF ANY ADJUSTMENTS.
5. DEFLECT NEW WATER MAIN UNDER EXISTING WATER MAIN IF FOUND TO BE IN CONFLICT, UNLESS DIRECTED OTHERWISE BY ENGINEER. ADDITIONAL FITTINGS TO BE INCLUDED IN THE COST OF THE PROPOSED WATER MAIN.
6. MAINTAIN ADEQUATE RESTRAINT LENGTH AND THRUST BLOCKING AT ALL FITTINGS, INCLUDING CONNECTIONS TO EXISTING WATER MAIN.
7. TRENCH WATER MAIN IN ACCORDANCE WITH MDOT STANDARD PLAN R-83, DETAIL F FOR WATER MAINS NOT UNDER ROADBED AND DETAIL G FOR WATER MAINS UNDER ROADBED OR WITHIN INFLUENCE OF ROADBED.
8. PROTECT THE 36-INCH TRANSMISSION WATER MAIN DURING ALL UTILITY CROSSING OPERATIONS. WHEN CROSSING BENEATH THE TRANSMISSION MAIN, EXCAVATE USING CONTROLLED METHODS AND PROVIDE TEMPORARY SUPPORT AS NECESSARY TO PREVENT ANY SETTLEMENT OR MOVEMENT OF THE PIPE. INSTALL BRACING OR SUPPORT SYSTEM IF A TRANSMISSION MAIN JOINT IS UNCOVERED OR IF GREATER THAN 5 FEET OF TRANSMISSION MAIN IS EXPOSED BELOW THE SPRING LINE OF THE PIPE. NOTIFY THE ENGINEER IMMEDIATELY IF ADDITIONAL EXCAVATION IS REQUIRED OR IF UNFORESEEN FIELD CONDITIONS ARE ENCOUNTERED.
9. SEE WATER SERVICE TABLE SHEET 26 FOR LIST OF EXISTING WATER SERVICE DATA.

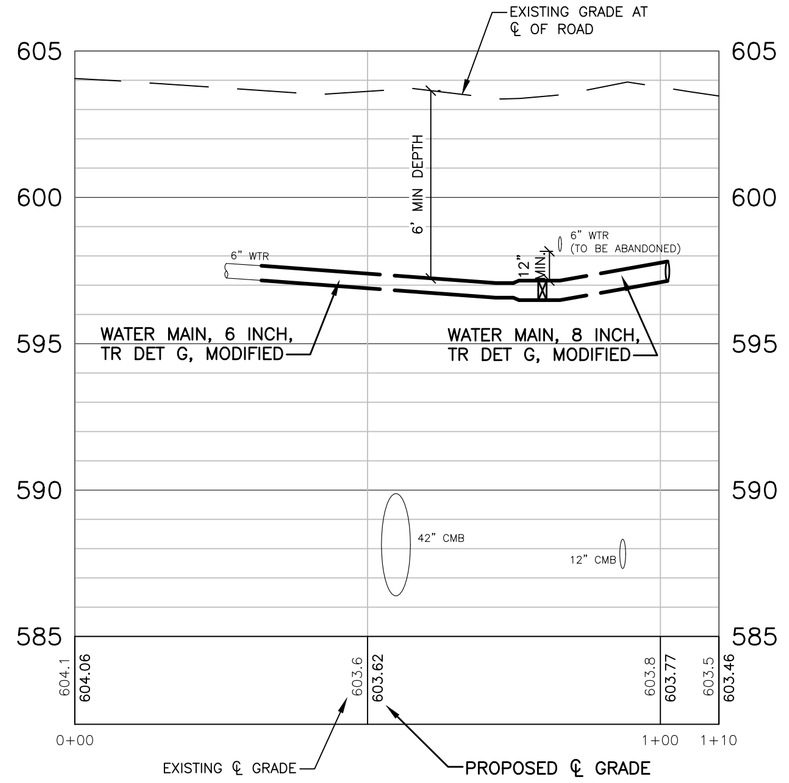








CONGRESS AVENUE
WATER MAIN PROFILE
SCALE: 1" = 20'
VERT SCALE: 1" = 4'
NORTH



UNION AVENUE
WATER MAIN PROFILE
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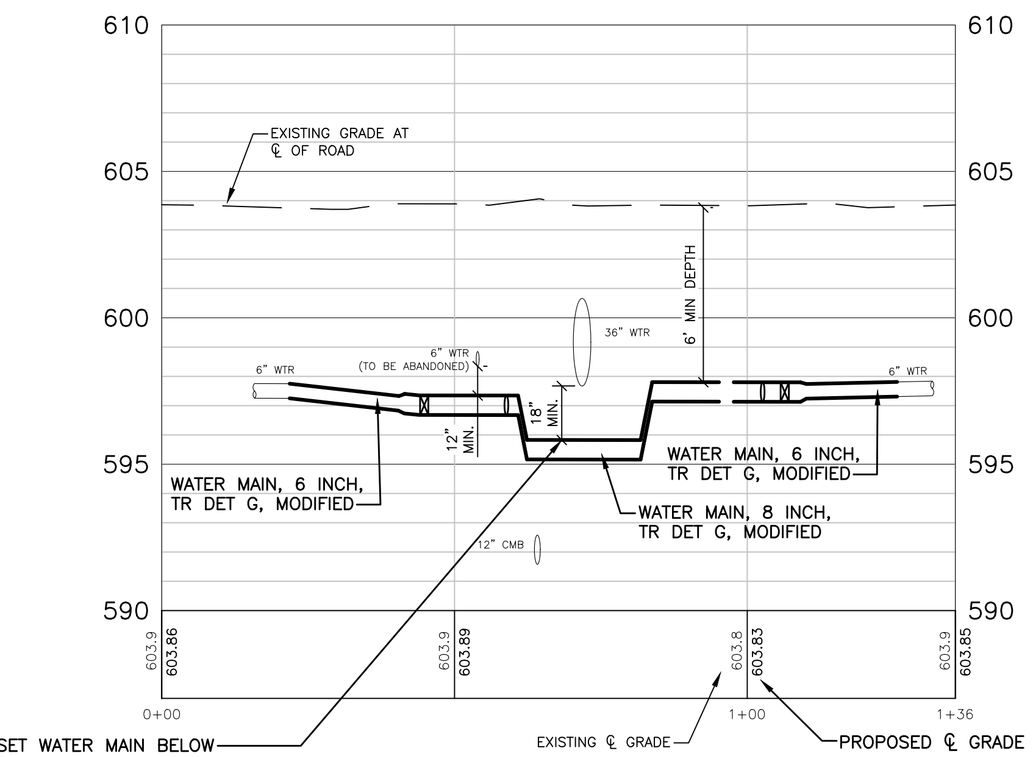
VERT SCALE: 1" = 4'
NORTH



W. GENESEE AVENUE
WATER MAIN PROFILE
SCALE: 1" = 20'
VERT SCALE: 1" = 4'
NORTH

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Saginaw, Michigan

Dead End Elimination/Looping and
N. Mason Street Water Main Replacement

REVISIONS

4/2/2026	BIDS AND CONSTRUCTION

Drawn By	MHITCH/LKEENER
Designer	MHITCH/LKEENER
Reviewer	JKRAMER
Manager	HBOWERS

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2501567

SHEET NO.
25

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WATER SERVICE DATA TABLE

SHEET NO.	ADDRESS	EXISTING CITY MATERIAL	EXISTING PRIVATE MATERIAL	EXISTING SERVICE SIZE	SERVICE REPLACEMENT TYPE IN ROW	SERVICE REPLACEMENT TYPE ON PRIVATE PROPERTY
16	818 LARCH ST	COPPER	COPPER	3/4"	WATER SERV, MODIFIED	
17	819 FOREST ST	COPPER	COPPER	3/4"	WATER SERV, MODIFIED	
17	815 FOREST ST	COPPER	COPPER	3/4"	WATER SERV, MODIFIED	
17	816 FOREST ST	COPPER	COPPER	3/4"	WATER SERV, LONG, MODIFIED	
18	1503 N MASON ST	COPPER	GALVANIZED	3/4"	WATER SERV, LONG, MODIFIED	WATER SERV, PRIVATE
18	1507 N MASON ST	COPPER	COPPER	3/4"	WATER SERV, LONG, MODIFIED	
18	1515 N MASON ST	COPPER	COPPER	3/4"	WATER SERV, LONG, MODIFIED	
18	1518 N MASON ST	COPPER	COPPER	3/4"	WATER SERV, MODIFIED	
18	1519 N MASON ST	LEAD	GALVANIZED	3/4"	WATER SERV, LONG, MODIFIED	WATER SERV, PRIVATE
18	1523 N MASON ST	LEAD	GALVANIZED	3/4"	WATER SERV, LONG, MODIFIED	WATER SERV, PRIVATE
18	1524 N MASON ST	COPPER	COPPER	3/4"	WATER SERV, MODIFIED	
18	1525 N MASON ST	LEAD	COPPER	3/4"	WATER SERV, LONG, MODIFIED	
19	1529 N MASON ST	COPPER	COPPER	3/4"	WATER SERV, LONG, MODIFIED	
19	1533 N MASON ST	COPPER	COPPER	3/4"	WATER SERV, LONG, MODIFIED	
19	1423 COOPER AVE	N/A	N/A	N/A	WATER SERV, STUB	
19	1422 COOPER AVE	COPPER	COPPER	3/4"	WATER SERV, MODIFIED	
19	1617 N MASON ST	COPPER	COPPER	1 1/2"	WATER SERV, LONG, MODIFIED	
19	1627 N MASON ST	COPPER	COPPER	3/4"	WATER SERV, LONG, MODIFIED	
19	1631 N MASON ST	COPPER	COPPER	3/4"	WATER SERV, LONG, MODIFIED	
20	1705 N MASON ST	COPPER	GALVANIZED	3/4"	WATER SERV, LONG, MODIFIED	WATER SERV, PRIVATE
20	1711 N MASON ST	COPPER	COPPER	3/4"	WATER SERV, LONG, MODIFIED	
20	1715 N MASON ST	COPPER	COPPER	3/4"	WATER SERV, LONG, MODIFIED	
20	1719 N MASON ST	COPPER	COPPER	3/4"	WATER SERV, LONG, MODIFIED	
20	1727 N MASON ST	LEAD	GALVANIZED	3/4"	WATER SERV, LONG, MODIFIED	WATER SERV, PRIVATE
21	1734 N MASON ST	COPPER	COPPER	3/4"	WATER SERV, MODIFIED	
21	1503 CONGRESS AVE	LEAD	COPPER	3/4"	WATER SERV, LONG, MODIFIED	
21	1802 N MASON ST	COPPER	COPPER	3/4"	WATER SERV, MODIFIED	
21	1502 CONGRESS AVE	LEAD	COPPER	3/4"	WATER SERV, LONG, MODIFIED	
21	1806 N MASON ST	LEAD	COPPER	3/4"	WATER SERV, MODIFIED	
21	1815 N MASON ST	LEAD	GALVANIZED	3/4"	WATER SERV, LONG, MODIFIED	WATER SERV, PRIVATE
21	1814 N MASON ST	LEAD	GALVANIZED	3/4"	WATER SERV, MODIFIED	WATER SERV, PRIVATE
21	1821 N MASON ST	COPPER	COPPER	3/4"	WATER SERV, LONG, MODIFIED	
21	1822 N MASON ST	COPPER	COPPER	3/4"	WATER SERV, MODIFIED	
21	1825 N MASON ST	COPPER	COPPER	3/4"	WATER SERV, LONG, MODIFIED	
22	1421 UNION AVE	COPPER	COPPER	3/4"	WATER SERV, MODIFIED	
22	1420 UNION AVE	COPPER	COPPER	3/4"	WATER SERV, MODIFIED	
22	1905 N MASON ST	LEAD	COPPER	3/4"	WATER SERV, LONG, MODIFIED	
22	1907 N MASON ST	LEAD	UNKNOWN	3/4"	WATER SERV, LONG, MODIFIED	WATER SERV, PRIVATE
22	1910 N MASON ST	LEAD	GALVANIZED	3/4"	WATER SERV, MODIFIED	WATER SERV, PRIVATE
22	1911 N MASON ST	COPPER	UNKNOWN	3/4"	WATER SERV, LONG, MODIFIED	WATER SERV, PRIVATE
22	1915 N MASON ST	COPPER	COPPER	3/4"	WATER SERV, LONG, MODIFIED	
22	1914 N MASON ST	LEAD	UNKNOWN	3/4"	WATER SERV, MODIFIED	WATER SERV, PRIVATE
22	1922 N MASON ST	LEAD	COPPER	3/4"	WATER SERV, MODIFIED	
22	1921 N MASON ST	LEAD	COPPER	3/4"	WATER SERV, LONG, MODIFIED	
22	1926 N MASON ST	LEAD	GALVANIZED	3/4"	WATER SERV, MODIFIED	WATER SERV, PRIVATE
23	1502 W GENESEE AVE	LEAD	UNKNOWN	3/4"	WATER SERV, MODIFIED	WATER SERV, PRIVATE
23	2008 N MASON ST	COPPER	COPPER	3/4"	WATER SERV, LONG, MODIFIED	
23	2011 N MASON ST	LEAD	GALVANIZED	3/4"	WATER SERV, MODIFIED	WATER SERV, PRIVATE
23	2016 N MASON ST	COPPER	COPPER	3/4"	WATER SERV, LONG, MODIFIED	
23	2017 N MASON ST	LEAD	COPPER	3/4"	WATER SERV, MODIFIED	
23	2020 N MASON ST	LEAD	GALVANIZED	3/4"	WATER SERV, LONG, MODIFIED	WATER SERV, PRIVATE
23	2023 N MASON ST	COPPER	COPPER	3/4"	WATER SERV, MODIFIED	
23	1503 STATE ST	LEAD	COPPER	3/4"	WATER SERV, MODIFIED	

PLOT INFO: Z:\2025\2501567\CAD\CD\2501567_WATER SERVICE TABLE.DWG LAYOUT: 26 DATE: 3/26/2026 TIME: 11:42:52 PM USER: MHITCH

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Dead End Elimination/Looping and
N. Mason Street Water Main Replacement

REVISIONS

4/2/2026	BIDS AND CONSTRUCTION

Drawn By	MHITCH/LKEENER
Designer	MHITCH/LKEENER
Reviewer	JKRAMER
Manager	HBOWERS

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PROJECT NO.
2501567

SHEET NO.
26

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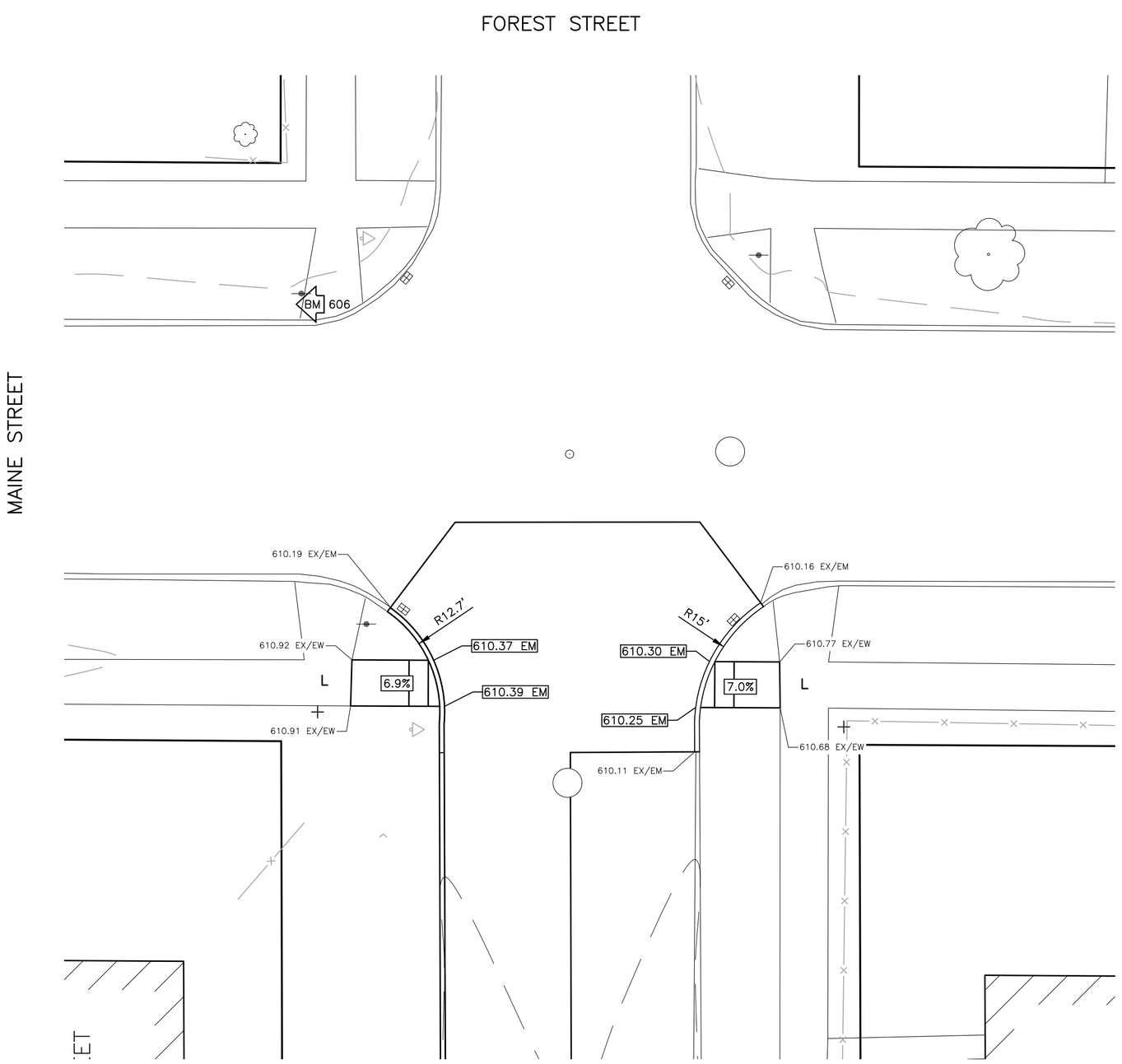
SYMBOL LEGEND

969.19 EX	EXISTING SPOT ELEVATION
X.X%	TARGET RAMP SLOPE. CONTRACTOR TO FIELD VERIFY.
724.50 XX	PROPOSED SPOT ELEVATION
EM	EDGE OF METAL
EW	EDGE OF WALK
FF	FINISH FLOOR
GP	GUTTER PAN
GR	GRADE ELEVATION
HP	HIGH POINT
LP	LOW POINT
RIM	RIM ELEVATION
SP	SPRING POINT
TC	TOP OF CURB
TP	TOP OF PAVEMENT
L	LANDING (2% MAX. SLOPE ALL DIRECTIONS)



FOREST STREET
DETAIL GRADES
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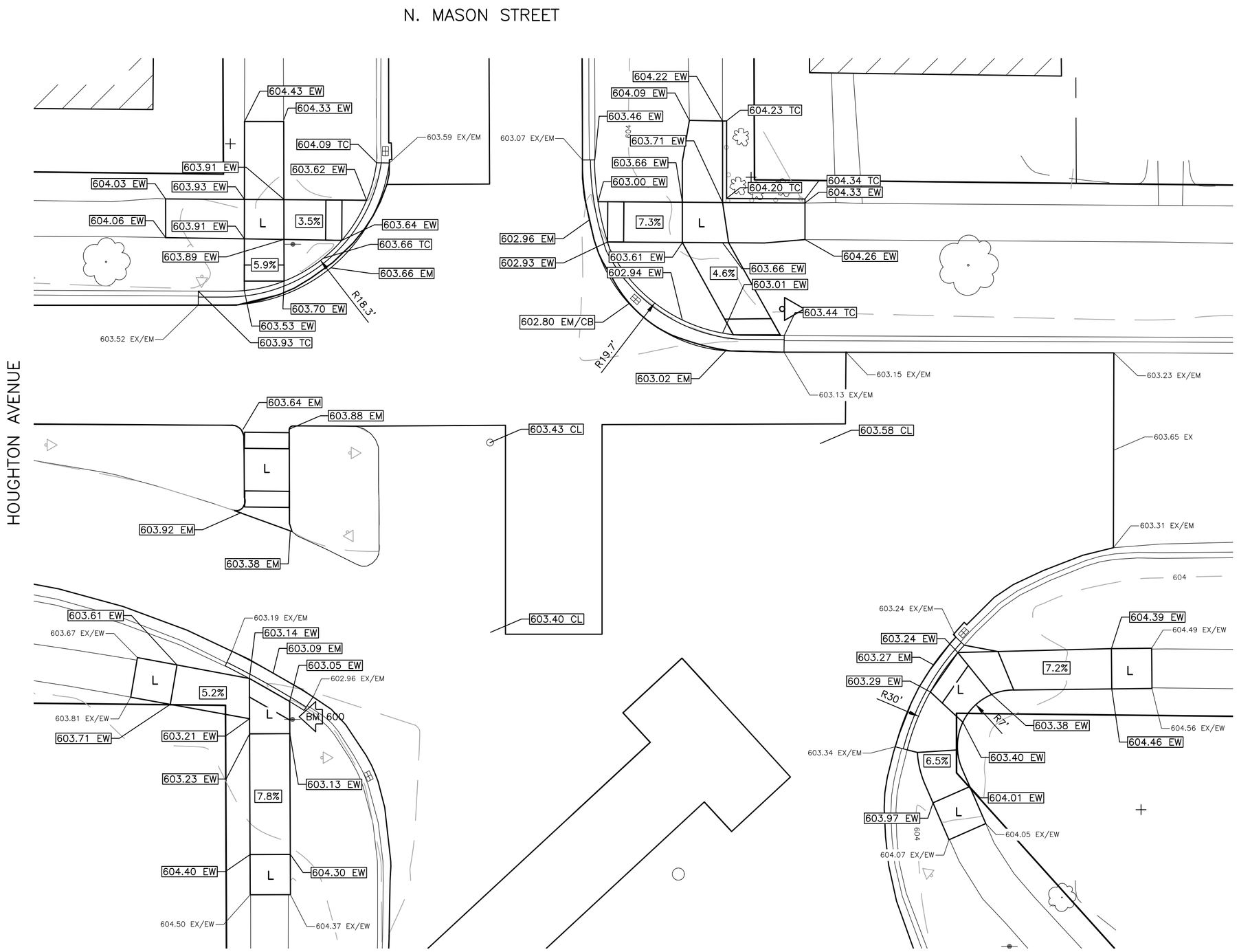
0 5 10 20



HOUGHTON AVENUE
DETAIL GRADES
SCALE: 1" = 10'
0 5 10 20

City of Saginaw
Saginaw, Michigan

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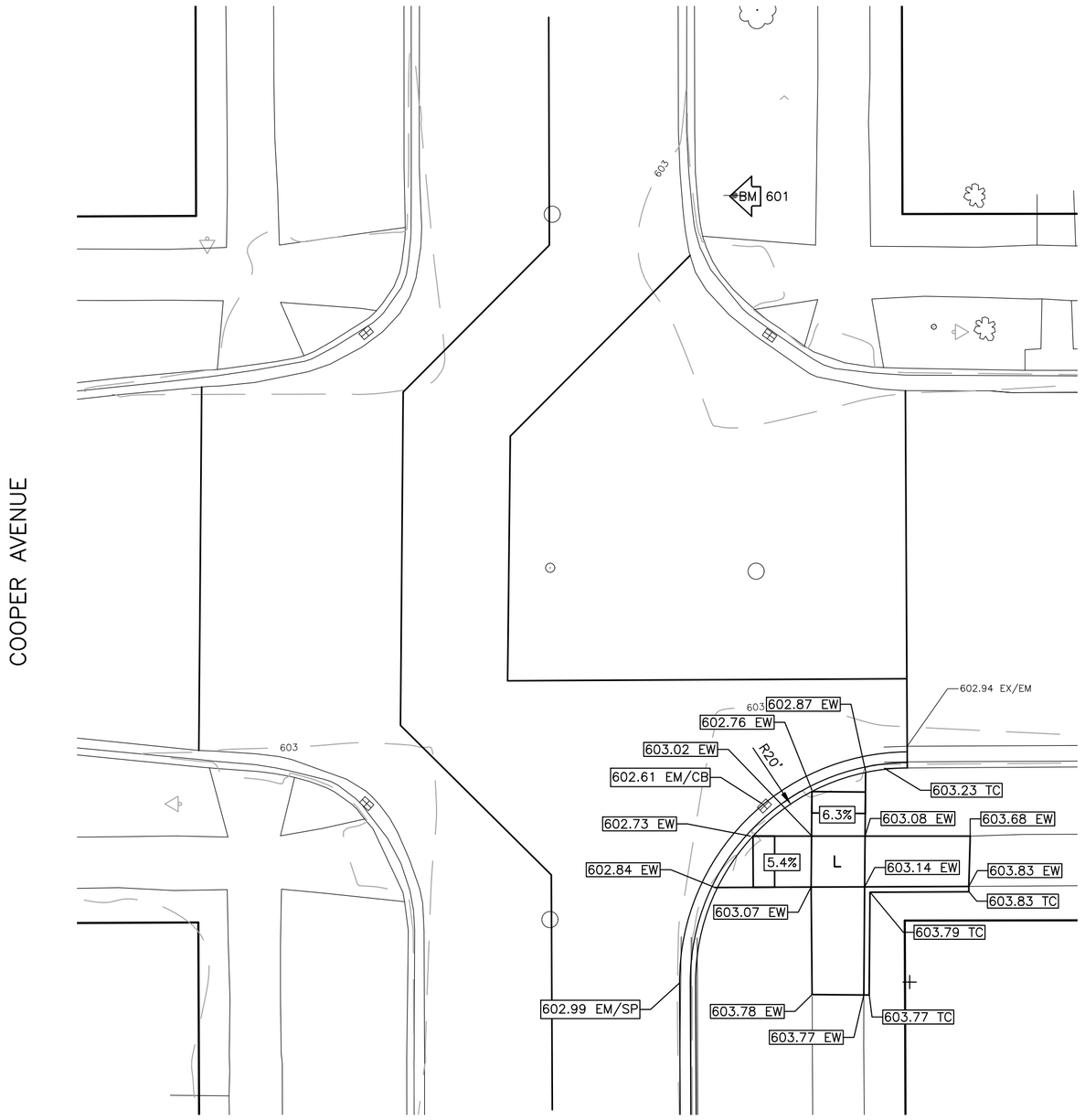
SYMBOL LEGEND

969.19 EX	EXISTING SPOT ELEVATION
X.X%	TARGET RAMP SLOPE. CONTRACTOR TO FIELD VERIFY.
724.50 XX	PROPOSED SPOT ELEVATION
EM	EDGE OF METAL
EW	EDGE OF WALK
FF	FINISH FLOOR
GP	GUTTER PAN
GR	GRADE ELEVATION
HP	HIGH POINT
LP	LOW POINT
RIM	RIM ELEVATION
SP	SPRING POINT
TC	TOP OF CURB
TP	TOP OF PAVEMENT
L	LANDING (2% MAX. SLOPE ALL DIRECTIONS)

N. MASON STREET

COOPER AVENUE



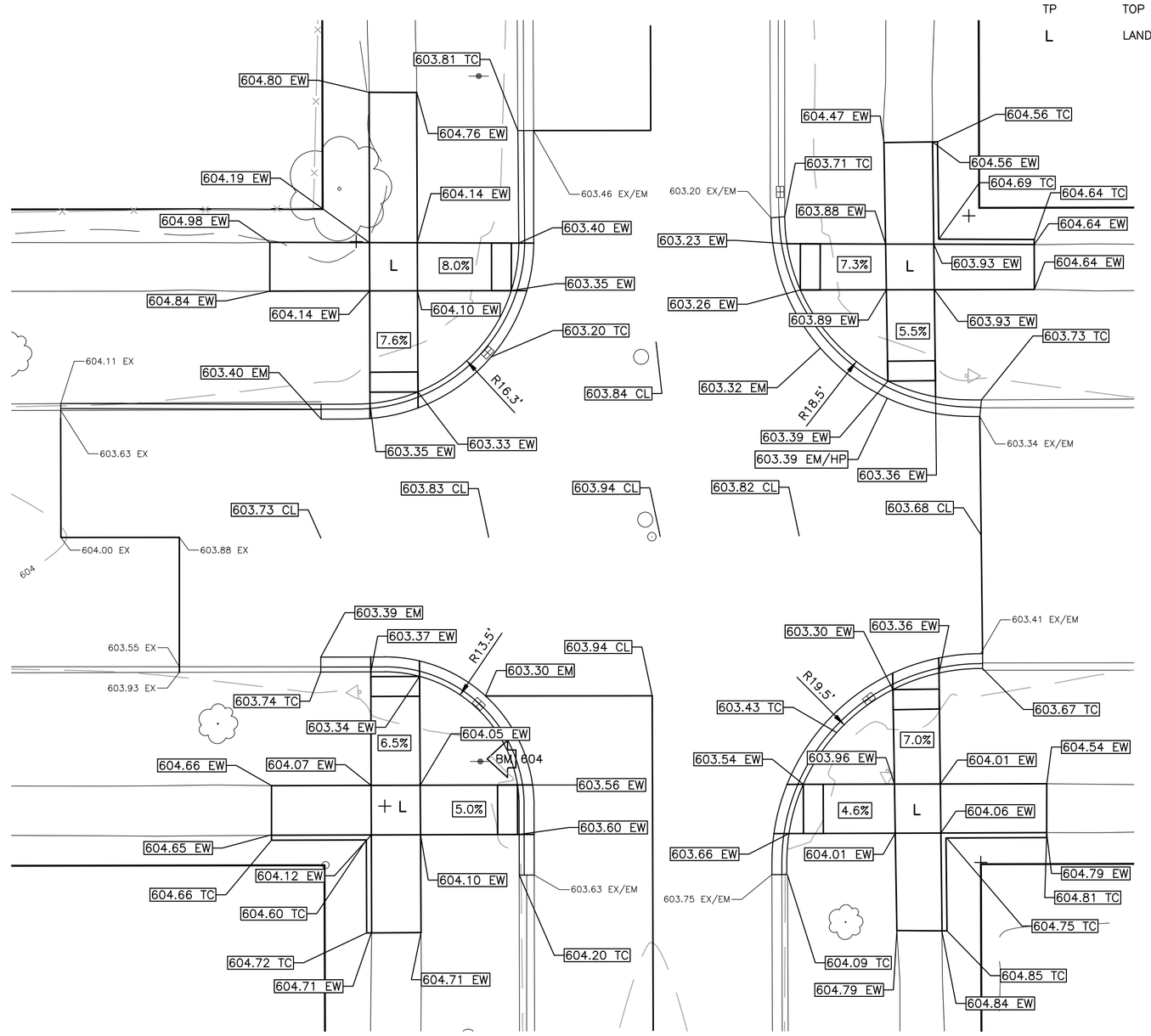
COOPER AVENUE
DETAIL GRADES
SCALE: 1" = 10'

0 5 10 20

NORTH

N. MASON STREET

UNION AVENUE



UNION AVENUE
DETAIL GRADES
SCALE: 1" = 10'

0 5 10 20

NORTH

City of Saginaw
Saginaw, Michigan

Dead End Elimination/Looping and
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SYMBOL LEGEND

969.19 EX	EXISTING SPOT ELEVATION
X.X%	TARGET RAMP SLOPE. CONTRACTOR TO FIELD VERIFY.
724.50 XX	PROPOSED SPOT ELEVATION
EM	EDGE OF METAL
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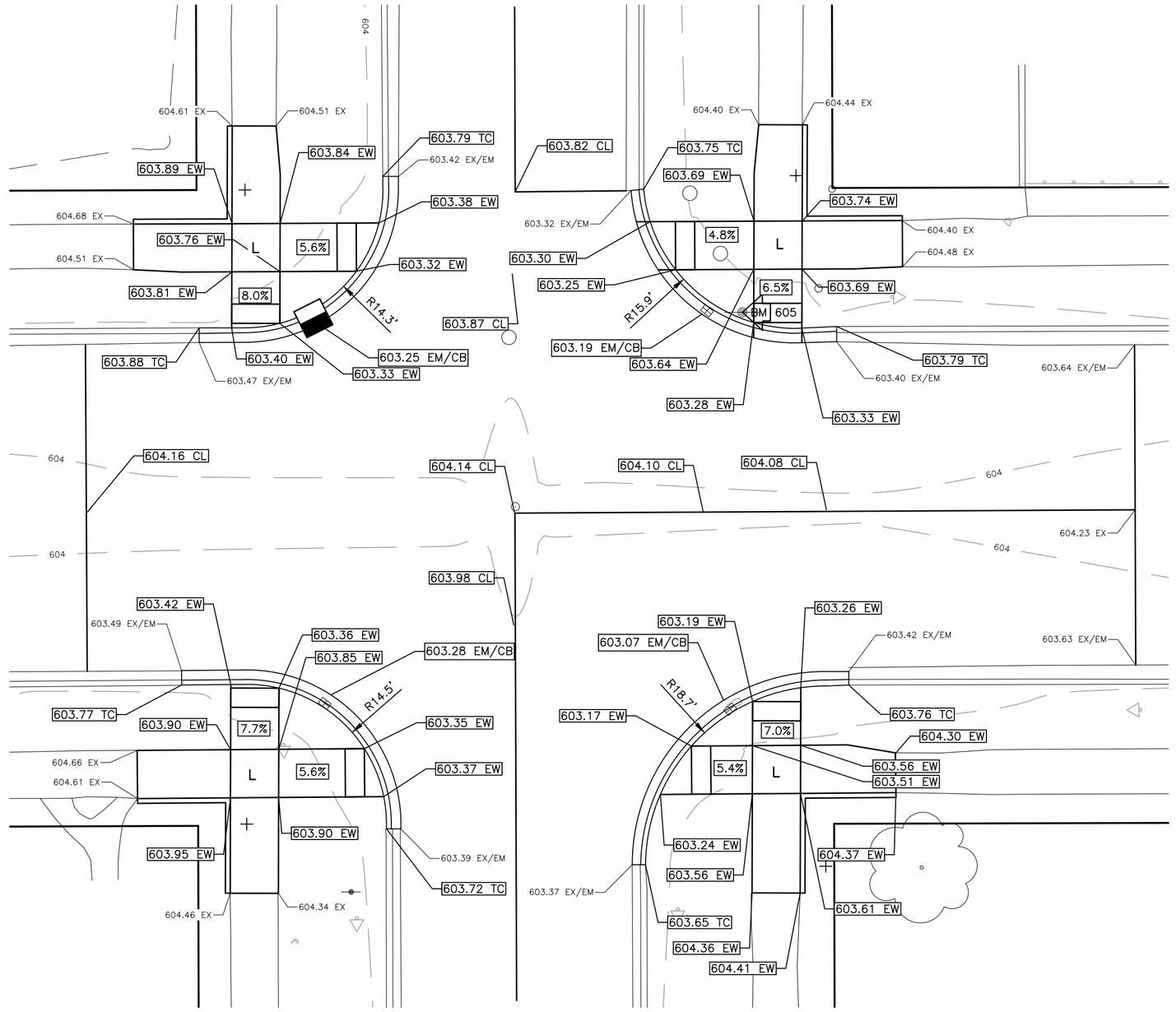
GR	GRADE ELEVATION
HP	HIGH POINT
LP	LOW POINT
RIM	RIM ELEVATION
SP	SPRING POINT
TC	TOP OF CURB
TP	TOP OF PAVEMENT
L	LANDING (2% MAX. SLOPE ALL DIRECTIONS)

N. MASON STREET

W. GENESEE AVENUE



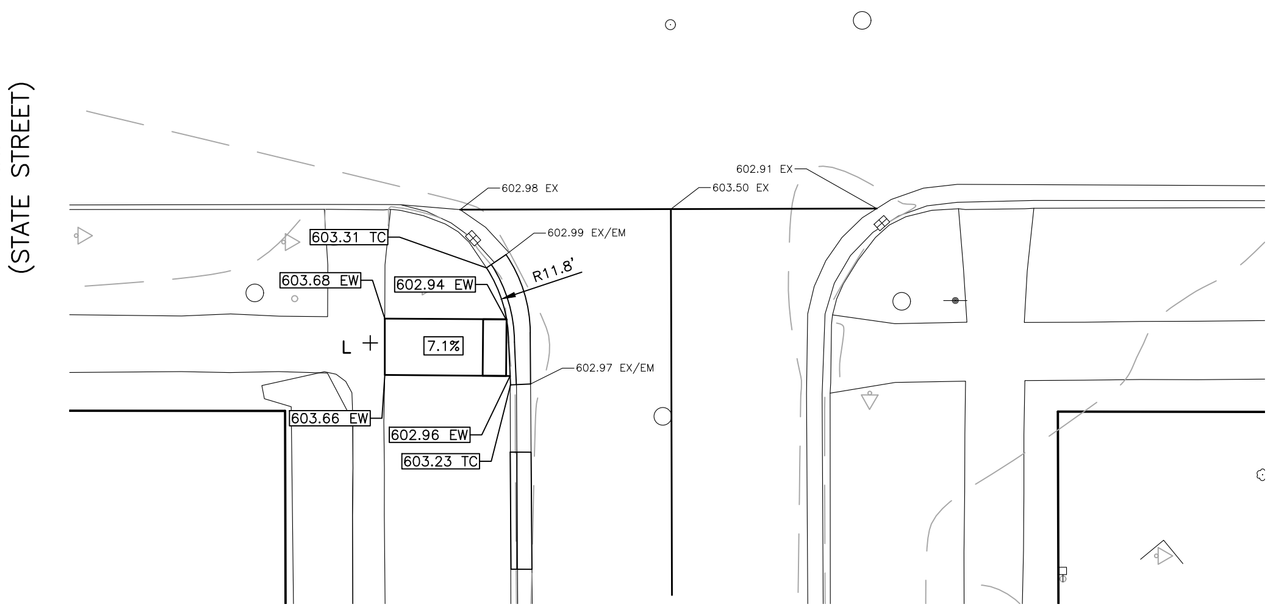
NORTH

W. GENESEE AVENUE
DETAIL GRADES
SCALE: 1" = 10'

0 5 10 20

N. MASON STREET

M-58
(STATE STREET)



NORTH

M-58
DETAIL GRADES
SCALE: 1" = 10'

0 5 10 20

City of Saginaw
Saginaw, Michigan

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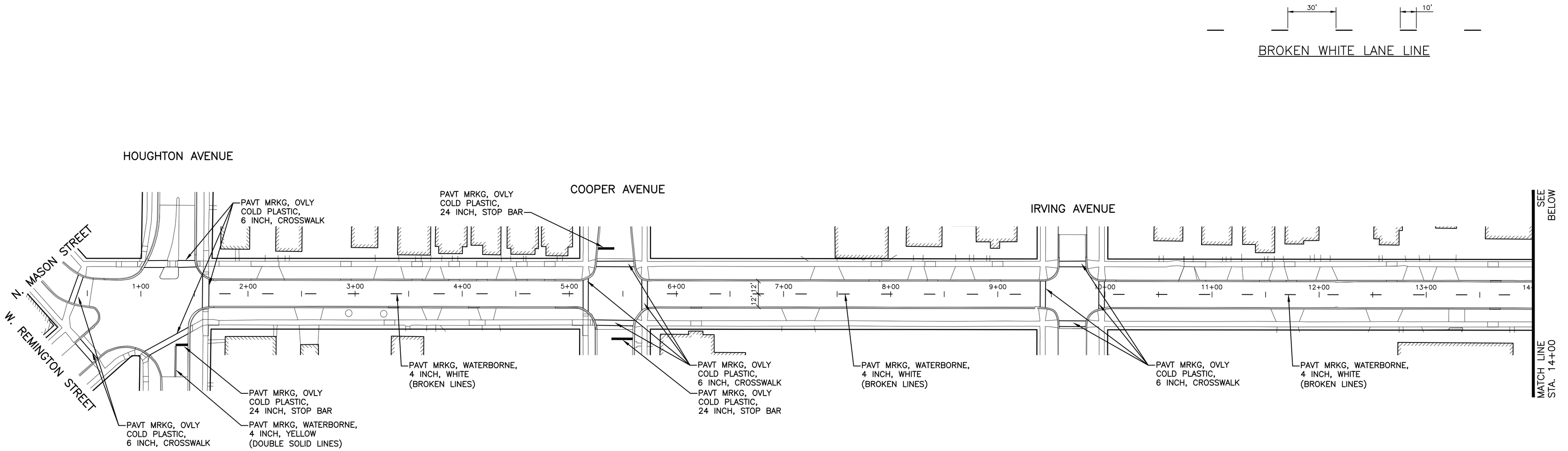

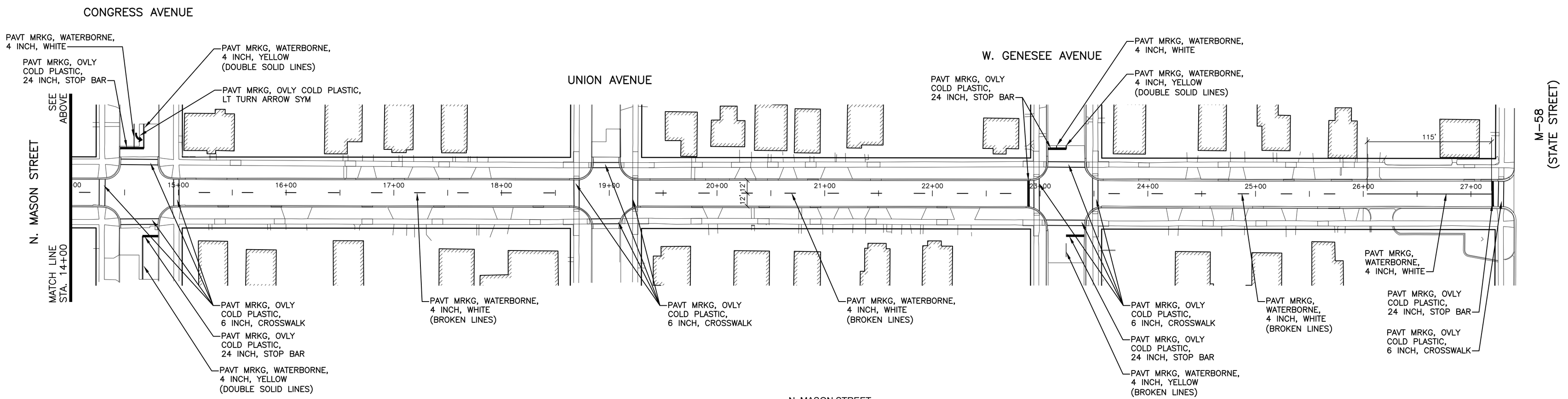

NORTH

N. MASON STREET
PAVEMENT MARKING
SCALE: 1" = 50'
0 25 50 100

PLOT INFO: Z:\2025\2501567\CAD\CD\2501567_PAVT MRKG.DWG LAYOUT: 29 DATE: 3/26/2026 TIME: 11:44:18 PM USER: HBOWERS

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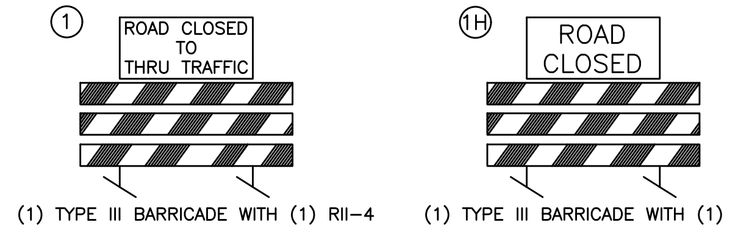
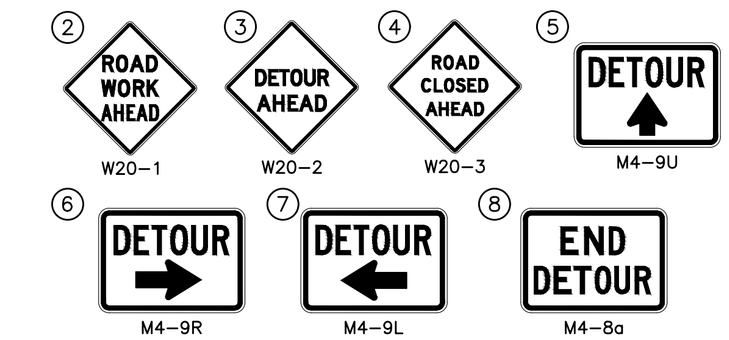
MAP CREATED WITH: OPENSTREETMAP, OPENSTREETMAP.ORG

NORTH

SUPERIOR STREET
MAINTENANCE OF TRAFFIC
NO SCALE

SIGN LEGEND





SUPERIOR STREET
(A) SF-2

DETOUR SYMBOL LEGEND

- DETOUR TRAFFIC FLOW ARROW
- DETOUR ROUTE
- CLOSURE LIMITS
- SIGN
- TYPE III BARRICADE

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Engineers | Architects | Scientists | Constructors

City of Saginaw
Saginaw, Michigan

Dead End Elimination/Looping and
N. Mason Street Water Main Replacement

REVISIONS

4/2/2026	BIDS AND CONSTRUCTION

Drawn By	MHITCH/LKEENER
Designer	MHITCH/LKEENER
Reviewer	JKRAMER
Manager	HBOWERS

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PROJECT NO.
2501567

SHEET NO.
31

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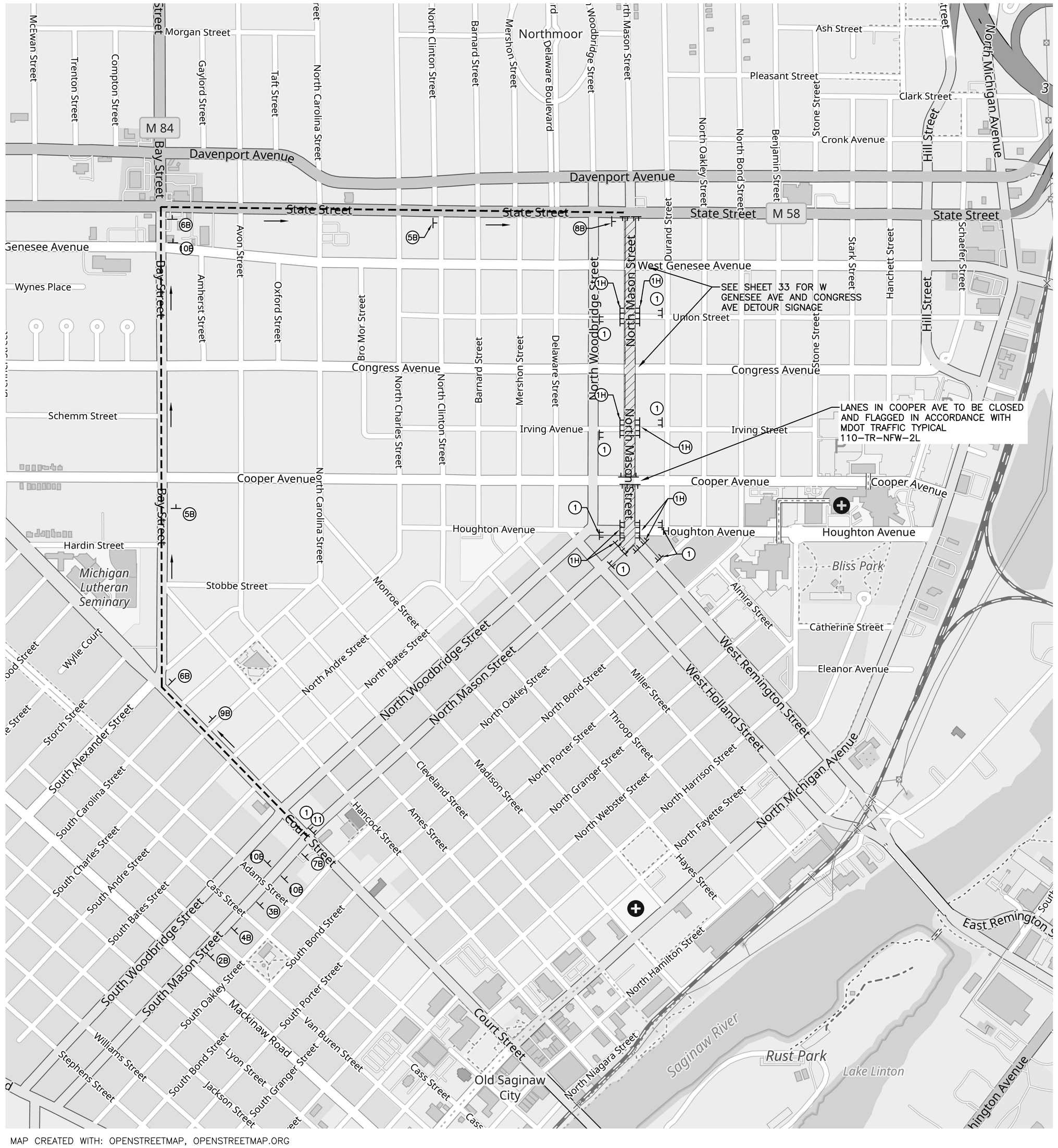

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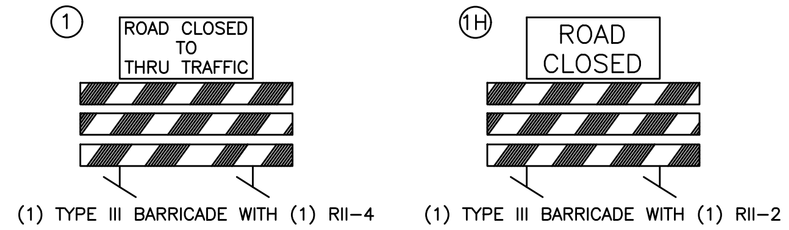
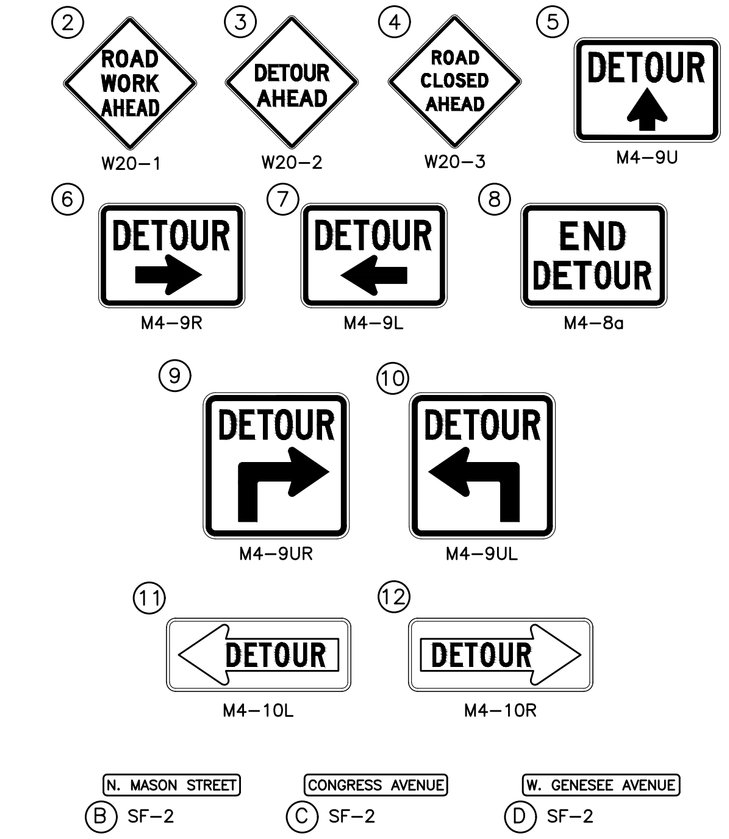
NORTH

N. MASON STREET
MAINTENANCE OF TRAFFIC
NO SCALE

SIGN LEGEND





DETOUR SYMBOL LEGEND

- DETOUR TRAFFIC FLOW ARROW
- DETOUR ROUTE
- CLOSURE LIMITS
- SIGN
- TYPE III BARRICADE

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City of Saginaw
Saginaw, Michigan

Dead End Elimination/Looping and
N. Mason Street Water Main Replacement

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Manager	HBOWERS

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PROJECT NO.
2501567

SHEET NO.
32

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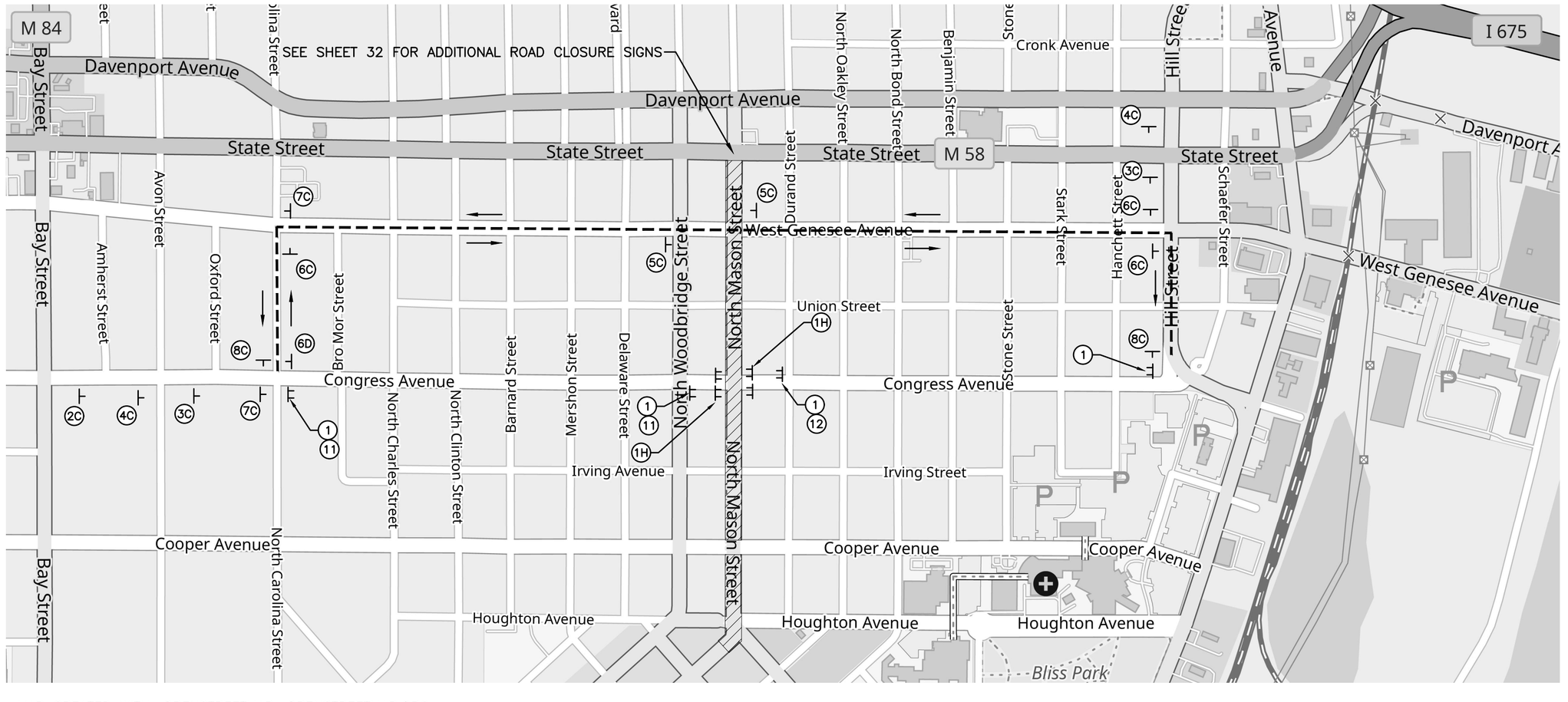
W GENESEE AVE
MAINTENANCE OF TRAFFIC
NO SCALE

NORTH



MAP CREATED WITH: OPENSTREETMAP, OPENSTREETMAP.ORG

CONGRESS AVE
MAINTENANCE OF TRAFFIC
NO SCALE

NORTH

SIGN LEGEND

(1) TYPE III BARRICADE WITH (1) RII–4

(1) TYPE III BARRICADE WITH (1) RII–2

W20–1 W20–2 W20–3 M4–9U

M4–9R M4–9L M4–8a

M4–9UR M4–9UL

M4–10L M4–10R R4–8b

B SF–2 C SF–2 D SF–2

DETOUR SYMBOL LEGEND

- DETOUR TRAFFIC FLOW ARROW
- DETOUR ROUTE
- CLOSURE LIMITS
- SIGN
- TYPE III BARRICADE

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City of Saginaw
Saginaw, Michigan

Dead End Elimination/Looping and
N. Mason Street Water Main Replacement

REVISIONS

4/2/2026	BIDS AND CONSTRUCTION

Drawn By	MHITCH/LKEENER
Designer	MHITCH/LKEENER
Reviewer	JKRAMER
Manager	HBOWERS

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PROJECT NO.
2501567

SHEET NO.
33

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Council Communication

Item Number: 20.

Date: May 18, 2026

From: Timothy Morales, City Manager

Subject: LMI Ferric Pump P2124-26

Prepared By: Theodore (Ted) Bomba, Superintendent of Water Treatment

Manager's Recommendation:

Approve the purchase with Holzberg Communications Inc. for $2,728 for an LMI Ferric Pump for the Water and Wastewater Treatment Services Department, Water Treatment Division.

Justification:

The Water Treatment Plant has 2 ferric feed pumps to move ferric chloride into raw water. This pump is to replenish stock in case of in-service pump failure. On May 5, 2026 the following qualified bids were received:

Vendor	Total Bid
Holzberg Communications, Inc. Totowa, NJ	$2,728.00
Detroit Pump Warren, MI	$2,824.00
USA BlueBook Waukegan, IL	$2,884.80

This vendor meets all requirements of §14.33, "Vendors," of "Purchasing, Contracting, and Selling Procedure," of Chapter 14, "Finance and Purchasing," of Title I, "Administrative Code," of the Saginaw Code of Ordinances, O-204.

Funds are budgeted in the Water Operations and Maintenance Fund, Treatment and Pumping Division, Capital Outlay Less Than $5,000.00 Account No. 591-542.01-971.000.

Council Action:

Motion to approve the recommendation of the City Manager.

Attachments:

None

Council Communication

Item Number: 21.

Date: May 18, 2026

From: Timothy Morales, City Manager

Subject: Blanket Purchase Orders for FY2027

Prepared By: Brian Vandemark, Instrumentation and Controls Administrator

Manager's Recommendation:

Approve the blanket purchase orders for the specified vendors for a total amount of $52,000 for various network and server parts and supplies that are needed to operate and maintain the Water and Wastewater Treatment Services Department, Instrumentation and Process Controls Division for FY2027, pending budget approval.

Justification:

Time and experience have shown that certain vendors reliably provide the lowest price on certain parts, supplies, and services. These include SCADA and network supplies and systems, computer supplies, tower and antenna parts and repairs, and supplies and services only available from a sole source. Quotes will continue to be solicited for items purchased to ensure the lowest possible price is obtained. Issuing individual purchase orders is costly and administratively time-consuming; therefore, we are requesting authorization to issue blanket purchase orders as follows:

Vendor	Amount	GL Account #
CDW-G	$5,000.00	590-539.02-971.000 (50%) 591-539.01-971.000 (50%)
Dell Technologies	$15,000.00	590-539.02-971.000 (50%) 591.539.01-971.000 (50%)
Great Lakes Tower & Antenna	$20,000.00	590-539.02-801.000 (50%) 591-539.01-801.000 (50%)
Kendall Electric	$12,000.00	590-539.02-742.000 (50%) 591-539.01-742.000 (50%)

These vendors meet all requirements of §14.33, "Vendors," of "Purchasing, Contracting, and Selling Procedure," of Chapter 14, "Finance and Purchasing," of Title I, "Administrative Code," of the Saginaw Code of Ordinances, O-204.

Funds are budgeted in the Sewer Operations and Maintenance Fund, Instruments and

Process Controls Division's Professional Services Account No. 590-539.02-801.000 $10,000, Parts and Supplies Account No. 590-539.02-742.000 $6,000.00, Capital Outlay less than $5,000 Account No. 590-539.02-971.000 $10,000.00, pending budget approval.

Funds are also budgeted in the Water Operations and Maintenance Fund, Instrumentation and Process Controls Division's Professional Services Account No. 591-539.01-801.000 $10,000.00, Parts and Supplies Account No. 591-539.01-742.000 $6,000.00, Capital Outlay less than $5,000 Account No. 591-539.01-971.000 $10,000.00, pending budget approval.

Council Action:

Motion to approve the recommendation of the City Manager.

Attachments:

None

Council Communication

Item Number: 22.

Date: May 18, 2026

From: Timothy Morales, City Manager

Subject: Blanket Purchase Orders for FY2027

Prepared By: John Frollo, Superintendent of Wastewater Treatment

Manager's Recommendation:

Approve the blanket purchase orders for the specified vendors for a total amount of $153,000 for services needed for the Water and Wastewater Treatment Services Department, Wastewater Treatment and Pumping, and Remote Facilities Divisions, for FY2027, pending budget approval.

Justification:

Time and experience have shown that certain vendors reliably provide the lowest price for certain time sensitive services. Wastewater personnel will continue to solicit quotes for items purchased to ensure that we obtain the lowest possible price. Issuing individual purchase orders is costly and administratively time-consuming; therefore, we are requesting authorization to issue blanket purchase orders as follows:

Vendor	Amount	GL Account #
R B Satkowiaks City Sewer Cleaners Carrollton, MI	$15,000.00	590-542.02-801.000 (50%) 590-548.00-801.000 (50%)
Michigan CAT Saginaw, MI	$30,000.00	590-548.00-930.000 (100%)
William F Nelson Electri,c Inc. Saginaw, MI	$20,000.00	590-542.02-930.000 (50%) 590-548.00-930.000 (50%)
A C Klopf Inc. Saginaw, MI	$20,000.00	590-542.02-930.000 (50%) 590-548.00-930.000 (50%)
Dean Boiler Inc. Grand Rapids, MI	$3,000.00	590-542.02-801.000 (80%) 590-548.00-801.000 (20%)
Hach Company Loveland, CO	$15,000.00	590-542.02-801.000 (80%) 590-548.00-801.000 (20%)
Hesco Group, Inc.	$50,000.00	590-542.02-801.000 (50%)

Loveland, CO 590-548.00-801.000 (50%)

These vendors meet all requirements of §14.33, "Vendors," of "Purchasing, Contracting, and Selling Procedure," of Chapter 14, "Finance and Purchasing," of Title I, "Administrative Code," of the Saginaw Code of Ordinances, O-204.

Funds are budgeted in the Sewer Operations and Maintenance Fund, Treatment and Pumping Division's Professional Services Acct. No. 590-542.02-801.000 $46,900.00 and General Repairs Acct. No. 590-542.02-930.000 $20,000.00, pending budget approval

Funds are also budgeted in the Sewer Operations and Maintenance Fund, Remote Facilities Division's Parts, Professional Services Acct. No. 590-548.00-801.000 $36,100.00 and General Repairs Acct. No. 590-548.00-930.000 $50,000.00, pending budget approval.

Council Action:

Motion to approve the recommendation of the City Manager.

Attachments:

None

Council Communication

Item Number: 23.

Date: May 18, 2026

From: Timothy Morales, City Manager

Subject: WTP Sodium Hypochlorite & Lime Feed Improvements (C-1720)

Prepared By: Theodore (Ted) Bomba, Superintendent of Water Treatment

Manager's Recommendation:

Approve the contract with John E. Green Company, for $1,981,940 for the WTP Sodium Hypochlorite & Lime Feed Improvements project for the Water and Wastewater Treatment Services Department, Water Treatment Division.

Justification:

On March 24, 2026, the City received three qualified bids for the WTP Sodium Hypochlorite & Lime Feed Improvements (C-1720) project. The project includes replacing 4 hypochlorite storage tanks, hypochlorite supply piping, scales, 2 pumps and an unloading station. Additionally, 2 lime slaking machines are being replaced.

The following is a tabulation of the bids received:

Vendor	Cost
John E. Green Company Saginaw, MI	$1,981,940.00
Platinum Mechanical Flint, MI	$2,048,683.00
Sorensen Gross Company, LLC Flint, MI	$2,654,581.00

This vendor meets all requirements of §14.33, "Vendors," of "Purchasing, Contracting, and Selling Procedure," of Chapter 14, "Finance and Purchasing," of Title I, "Administrative Code," of the Saginaw Code of Ordinances, O-204.

Funds are budgeted in the Water Operations and Maintenance Fund, Water Refunding Bonds Division, Construction Projects Account No. 591-550.00-955.003.

I have approved the contract as to substance and the City Attorney as to form.

Council Action:

Motion to approve the recommendation of the City Manager.

Attachments:

1. C-1720 WTP Sodium Hypochlorite and Lime Feed Improvements

CITY OF SAGINAW
1315 S WASHINGTON AVE
SAGINAW MICHIGAN 48601

C-1720
WTP Sodium Hypochlorite and Lime Feed Improvements

BID OPENING TUESDAY, MARCH 24, 2026 @ 3:00 PM

Council Meeting May 18, 2026
John E. Green Company
$1,981,940.00

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CONTRACT

CITY OF SAGINAW, MICHIGAN

This Contract is entered into on this 27 day of April 2026, between John E. Green Company**,** of 778 Bridgeview South Saginaw, MI 48604 (hereinafter "Contractor"), and the City of Saginaw, 1315 S. Washington Avenue, Saginaw, Michigan 48601 (hereinafter "City"), for **WTP Sodium Hypochlorite and Lime Feed Improvements (C-1720).**

WHEREAS, Contractor, at a regular meeting of the Council of the City of Saginaw, held on April 27, 2026, was awarded the contract for furnishing the necessary labor, equipment, materials, and construction for the completion of **WTP Sodium Hypochlorite and Lime Feed Improvements, (C-1720).**

Contractor, in consideration of the Agreement herein made by the City, agrees with the City as follows:

Article 1. SUBJECT MATTER. Contractor shall furnish all the materials, except those specified to be furnished by the City, and perform all the work for **WTP Sodium Hypochlorite and Lime Feed Improvements, (C-1720),** as listed on the Table of Contents, and as shown on the drawings prepared by the Department of Public Services, Engineering Division, and described in the specifications, and in accordance with the general conditions, the general instructions to bidders, the notice inviting sealed proposals and the proposal, all of which are hereby made a part of this Contract by reference as though fully set forth herein. The Contractor acknowledges Contractor has received a copy of all such documents.

Article 2. COMMENCEMENT OF WORK. The Contractor shall start work as specified in the Progress Clause**,** or as directed by the City Engineer and the work shall be carried on with due diligence, at such points and at such times and seasons, and with such force and in such manner as to secure the completion in accordance with the Progress Clause, the time of beginning, rate of progress and the time of completion being essential conditions of this Contract.

Article 3. PAYMENT. It is hereby mutually agreed that the City shall pay, and the Contractor receive, the sum of **$1,981,940.00** same being the amount named in the Contractor's proposal or bid as full compensation for labor and materials required in executing all the work contemplated in this Contract, subject to additions and deductions, as provided in the specifications.

Article 4. ESTIMATES. The City hereby agrees to make payment under the restrictions and limitations herein contained, from time to time, on account of performance of this contract, by orders drawn upon the proper fund of the City, paying NINETY PERCENT (90%) thereof on the basis of estimates made by the Department of Public Services & Engineering semi-monthly as the work progresses, and approved by the City Engineer. Said estimates shall be made in writing and shall only include work done and material in place and shall not include completed work which, in the opinion of the City Engineer, is not advisable, for the protection of the City, at that time to

make payment on, and such estimates may be altogether withheld when, in the opinion of the City Engineer, work does not progress in accordance with the provisions of this Contract; and the making and furnishing of such estimates shall not be deemed or construed as an acceptance of any part of the work under this Contract. The City Engineer may authorize the reduction of the amount so withheld so that total payment equals NINETY-FIVE PERCENT (95%) of the estimate where the City Engineer shall find that the retention of FIVE PERCENT (5%) of the estimate is sufficient to protect the City, but the total amount so retained shall not in any event be reduced to less than FIVE PERCENT (5%) of the contract price above stated.

Article 5. RETENTION OF MONEYS. In addition to the TEN PERCENT (10%) of contract price above retained, to insure the completion of the work, the City reserves the right to retain at all times from the estimates, an amount sufficient to pay and discharge all debts incurred by Contractor, or subcontractor, for labor performed in the progress of the work, and for material purchased and used, and, at its discretion, to pay the same to the parties entitled thereto, and charge the same against the contract price.

Article 6. SEPARATE CONTRACTS. Where two or more separate proposals are grouped together herein, it is expressly agreed that each of said proposals shall constitute a separate contract and that all of the terms, conditions, and provisions of this Contract shall apply to each of said proposals to the same extent and in the same manner as though each of said proposals had been the subject of a separate contract.

Article 7. PUBLIC ACT 524 of 1980. Notwithstanding any provision herein to the contrary, this agreement is subject to 1980 PA 524, which statute is incorporated herein and made a part hereof by reference. Contractor hereby agrees that the City may, at its option, submit the following matters to dispute resolution by an agent agreed to or selected in accordance with the procedures set forth in the statute:

A. At any time during the term of the contract, to determine whether there has been a delay for reasons that were within the control of the Contractor, and the period of time that delay has been caused, continued, or aggravated by actions of the Contractor.
B. At any time after ninety-four percent (94%) of work under the Contract is in place, whether there has been an unacceptable delay by the Contractor in performance of the remaining six percent (6%) of work under the Contract. The agent shall consider the terms in the Contract and procedures normally followed in the industry and shall determine whether the delay was for failure to follow reasonable improvement practices in the industry for completion of the project.

The agent shall have all the rights, powers and duties specified in the statute.

Article 8. ACCEPTANCE AND FINAL PAYMENT. The final payment, including any retainage previously withheld, shall be payable on the approval and acceptance of the work by the City Engineer.

The payment of the final amount due under this Contract, and the adjustment and payment of all bills rendered for the work done in accordance with any alterations of same, shall release the City from any and all claims or liability on account of work performed or materials furnished under the Contract, or any alterations thereof.

The City of Saginaw has an income tax. All successful bidders will be subject to income tax withholdings and compliance is mandatory.

As part of the consideration for this Contract, the undersigned does hereby agree to have withheld from any payments due them, any amounts for taxes, fees or other charges due the City of Saginaw.

By their signatures below, the parties certify the persons signing on behalf of their respective party has the authority to do so. The parties hereto have executed this Contract the day and year first above written.

JOHN E. GREEN COMPANY

By: Michael J. Green Digitally signed by Michael J. Green

Name: Michael J. Green

Title: President & Chief Executive Officer

CITY OF SAGINAW

By:_____

Timothy Morales
City Manager

If this page is not signed and included with your bid, it will be disqualified. JOHN E. GREEN

CITY OF SAGINAW PURCHASING OFFICE
1315 S. WASHINGTON AVENUE
SAGINAW, MICHIGAN 48601

TO: PROSPECTIVE BIDDERS
SUBJECT: ADDENDUM Form B02 #1 C-1720 WTP Sodium Hypochlorite and Lime Feed Improvements

Information disclosed and/or questions raised since issuance of documents to bidders requires that a change be made in the subject bid as shown on this form:
CHANGES:

No. 1) **Copy of Non- Mandatory Pre-Bid Attendance sign in sheet attached**
No. 2) **Meeting Minutes attached: Revised Specifications & Questions Answered for Items No.2 through Item No. 11.**

NOTE: SIGN ADDENDUM AND SUBMIT SAME WITH BID.

I Jason Essex **certify that I have read this ADDENDUM and that the bid, as submitted, reflects the changes described in this addendum.**

Bidder shall sign Addendum and submit it with bid.

John E. Green Company
(Company's Name)

778 Bridgeview South, Saginaw, Michigan 48604
(Address)

(Signature)

Vice President
(Title)

CITY OF SAGINAW, MICHIGAN
BID FORM

C-1720 WTP Sodium Hypochlorite and Lime Feed Improvements

To the City of Saginaw Date: March 24, 2026

In response to your notice, the undersigned, hereinafter called the Contractor, hereby declares that the Contractor has read the "General Instruction to Bidders", "Sealed Bid Instructions" and "General Information", has examined the plans, specifications and the location of the work described herein, has reviewed the proposed Contract and its general conditions, and, is thus fully informed to the nature of the work and the conditions relating to its performance and further understands that the quantities shown hereon are approximate only and are subject to either increase or decrease.

The Contractor hereby proposes to furnish all the necessary equipment and tools, do all the work, furnish all the materials, except as otherwise specified and to complete the work herein described all in accordance with the Contract and its plans and specifications, of which this proposal is a part, for the unit prices named in the following itemized bid.

Prior to and contingent upon award of a contract of $50,000.00 or more, the undersigned further agrees to furnish a surety company performance bond in the sum of not less than 100 percent (100%) of the total amount of the contract company to secure the faithful performance of the Contract and, when required, a surety company labor and material bond in the sum of not less than 100 percent (100%) of the total amount of the Contract for the protection of subcontractors, labor and material suppliers, according to the laws of the State of Michigan at that time in effect. Said signed Contract, surety company bonds, and insurance shall be furnished within ten (10) days from date of notification by the Engineering Division of acceptance of the proposal submitted. The Contract cannot be fully awarded by City Council without the return of these executed documents.

In compliance with the requirements of said notice, this proposal is accompanied by an **original** bid bond, bank money order, certified check, or cashier's check in the sum of five percent (5%) of total bid to guarantee that a contract will be entered into if the above proposal is accepted, and the contract awarded to the undersigned.

52.222-21 Prohibition of Segregated Facilities.

As prescribed in 22.810(a)(1), insert the following clause:

Prohibition of *Segregated Facilities* (Apr 2015)

(a) *Definitions*. As used in this clause

Gender identity has the meaning given by the Department of Labor's Office of Federal Contract Compliance Programs, and is found at http://www.dol.gov/ofccp/LGBT/LGBT_FAQs.html.

Segregated facilities, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, *sexual orientation*, *gender identity*, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.

Sexual orientation has the meaning given by the Department of Labor's Office of Federal Contract Compliance Programs, and is found at http://www.dol.gov/ofccp/LGBT/LGBT_FAQs.html.

(b) The Contractor agrees that it does not and will not maintain or provide for its employees any *segregated facilities* at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where *segregated facilities* are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Opportunity clause in this contract.

(c) The Contractor *shall* include this clause in every subcontract and *purchase order* that is subject to the Equal Opportunity clause of this contract.

(End of clause)

Parent topic: 52.222 [Reserved]

In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, other related data identified in the Bidding Documents, and the following Addenda, receipt of all which is hereby acknowledged:

Addendum Number	Addendum Date
1	03.17.2026

BASIS OF BID

Bidder will complete the Work in accordance with the Contract Documents for the following prices:

Base Bid One Million, Nine Hundred Eighty-One Thousand, Nine Hundred Forty Dollars ($ 1,981,940.00)
(use words) (figures)

1. All specific cash allowances are included in the price(s) set forth above and have been computed in accordance with paragraph 13.02 of the General Conditions.

Item	**Max** Allowance	**Mobilization**	Daily Rate ($/day)
Lump Sum for Cash Allowance 1, Special Inspections	$50,000	**Not Applicable**	**Not Applicable**
Lump Sum for Cash Allowance 2, Controls	$150,000	**Not Applicable**	**Not Applicable**

2. The total cost of all unit price items is to be included in the Base Bid price above. If the required quantities of the items listed below are increased or decreased by Change Order, the adjustment unit price set forth below shall apply for each such increased or decreased quantity. The adjustment price below shall be the same figure for quantity increase or quantity decrease:

Item	Unit	Quantity	Unit Cost	Total Cost
Day Tank Room Enclosure Panel Replacement	Sq.ft.	50		$ 11,383.00
Bulk Tank Room Enclosure Panel Replacement	Sq.ft	200		$ 26,784.00
Chemical Containment Curb Wall Replacement	Sq.ft.	70		$ 4,472.00
Hypochlorite Bulk Tank Fill Station	EA	1		$ 37,517.00
Hypochlorite Bulk Tank Room Chemical Resistant Coating of Floor and Containment Walls	Sq. ft.	670		$ 24,903.00
Sodium Hypochlorite Bulk Tanks	EA	2		$ 268,769.00
Sodium Hypochlorite Day Tanks	EA	2		$ 240,854.00
Sodium Hypochlorite Chemical Feed Pumps	EA	2		$ 148,165.00
Sodium Hypochlorite Temporary Feed System	EA	1		$ 6,014.00
Complete Lime Slaker and Feeder System	EA	2		$ 632,083.00
Demolition of Existing Lime Slakers and Concrete Pads	EA	1		$ 60,900.00
Demolition of Existing Hypochlorite Feed Equipment	EA	1		$ 90,680.00

In accordance with the provisions of "Public Act 524 of 1980".

I do hereby designate Toni Veal (name of representative) to submit a written request for progress payment during the duration of this contract.

The Contractor shall start work as specified in the Progress Clause, or as directed by the City Engineer. In no case, shall any work commence prior to receipt of formal Notice to Proceed from the City.

The undersigned bidder does hereby declare that the bidder has the legal status checked below:

_____ Individual

_____ Partnership

X Corporation

Incorporated under the laws of the State of Michigan

_____ Limited Liability Company

Formed under the laws of the State of Michigan

The undersigned does hereby agree to honor this bid until June 22, 2026

Michigan's Iran Economic Sanctions Act:
The signature below certifies your company is in compliance with the Michigan Iran Economic Sanctions Act as identified on page #39 of this document. Further information on this Act can be viewed at (http://www.state.gov/j/ct/list/c14151.htm and https://www.legislature.mi.gov/(S(qnwpjcm0uyo1f2fhz0w1mlyq))/mileg.aspx?page=GetObject&objectname=mcl-Act-517-of-2012)

(Signature)

Jason Essex
(Printed name)

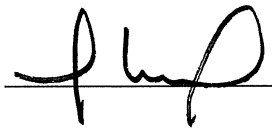
Vice President
(Title)

This sheet must be included, or the bid will be disqualified.

By submitting a response to this request for proposal, the Contractor agrees to the terms and conditions set forth herein. Any changes made to such terms and conditions by Contractor in its response may result, at the City's sole discretion, in the Contractor's disqualification.

The successful Contractor will conform to all Contract specifications and requirements which are attached and incorporated as part of this bid. The City reserves the right to accept or reject any and all bids, or parts thereof, and to waive any irregularities in the bid except those specifically mentioned in the sealed bid instructions. Additionally, (if applicable) we reserve the right to add or delete any items(s) and/or service from this bid to the best benefit of The City of Saginaw.

By signature, the Contractor acknowledges that the signer below has complete authority to execute the bid on behalf of the Contractor and that the bid is genuine and not collusive in any manner; and that no other bidders were improperly induced to refrain from bidding or induced to submit a sham bid; and that the Contractor agrees to have withheld from any payment due them, any amounts owed for taxes or other charges due the City of Saginaw; and that successful bidders are subject to mandatory City of Saginaw income tax withholdings.

Signed		Address	778 Bridgeview South
Name	Jason Essex	City, State, Zip	Saginaw, Michigan 48604
Title	Vice President	Telephone No:	989-798-4929
Company	John E. Green Company	Fax No.	989-752-0424
E-mail	jasonessex@johnegreen.com	Date:	March 24, 2026

Check List

Iran Sanctions sheet Signed and included	**Yes**	No
Bid Form Signed and included	**Yes**	No
2nd Copy of Bid form included	**Yes**	No

Applies ONLY if an addendum(s) has been issued for this project

Addendum(s) Cover Sheet

#1 – 1st page is signed and included	**Yes**	No
#2 – 1st page is signed and included	Yes	No
#3 – 1st page is signed and included	Yes	No

This sheet must be included, or the bid will be disqualified.

John E. Green Company
778 Bridgeview South
Saginaw, MI 48604
P: 989-752-5100 • F: 989-752-0424
johnegreen.com

CLARIFICATIONS

Date: March 24, 2026

To: City of Saginaw
Attn: Purchasing Office

From: Jake Shook

Project: City of Saginaw – Saginaw, MI
C-1720 WTP Sodium Hypochlorite and Lime Feed Improvements

Estimate No.: SG-26-0053

Clarifications:

1. Specification section 40 90 00 Instrumentation & Controls for Process Systems has an allowance of $150,000.00 carried in the base bid amount. JEG has received (2) proposals that exceed the allowance amount.

2. Unit pricing does not equal the base bid amount.

3. Allowance of $20,000.00 included in the base bid amount for Bulk Fill Station, there was not a specification section listed in the bidding documents.

If this page is not signed and included with your bid, it will be disqualified.

CITY OF SAGINAW PURCHASING OFFICE
1315 S. WASHINGTON AVENUE
SAGINAW, MICHIGAN 48601

TO: PROSPECTIVE BIDDERS
SUBJECT: ADDENDUM Form B02 #1 C-1720 WTP Sodium Hypochlorite and Lime Feed Improvements

Information disclosed and/or questions raised since issuance of documents to bidders requires that a change be made in the subject bid as shown on this form:
CHANGES:

No. 1) Copy of Non- Mandatory Pre-Bid Attendance sign in sheet attached
No. 2) Meeting Minutes attached: Revised Specifications & Questions Answered for Items No.2 through Item No. 11.

NOTE: SIGN ADDENDUM AND SUBMIT SAME WITH BID.

I _____ certify that I have read this ADDENDUM and that the bid, as submitted, reflects the changes described in this addendum.

_____
(Company's Name)

_____
(Address)

Bidder shall sign Addendum and submit it with bid.

_____
(Signature)

_____
(Title)

Attendance Sheet

fishbeck

MEETING: Pre-Bid Meeting

DATE: March 10, 2026 **TIME:** 10:00 a.m. **PROJECT NAME:** City of Saginaw WTP Hypochlorite and Slaker Improvements

LOCATION: 522 Ezra Rust Dr, Saginaw Mi 48601 **PROJECT NO.:** 2501185

NAME	COMPANY REPRESENTED	PHONE NO.	EMAIL
Brian VanZee	Fishbeck	517.896.9782	bVanZee@fishbeck.com
Vicente Vasquez	City of Saginaw	989-759-1412	VVasquez@Saginaw-MI.com
Michael Wright	Peterson and Matz Inc.	616-350-1671	michael.wright@petersonandmatz.com
Jason Rivette	Nelson Elec.	989-752-7184	Jason@WFNelson.com
Jake Shook	John E. Green	989-798-8107	jakeshook@johnegreen.com
Michaela Pauly	Perceptive Controls	269-214-4312	mpauly@perceptivecontrols.com
LARRY WEST	PCI	2692759358	LWEST@PERCEPTIVECONTROLS.COM
Adam Case	RCL Construction	517-256-7100	adam@rclconstruct.com
BOB HICKS	PLATINUM MECHANICAL	810 244-9571	BOBH@PLATINUMMECHANICAL INC.COM
FRANK JAEHNIG	HARRINGTON	313 268 9858	FJaehnig@harco.com
Amanda Kiel	City of Saginaw	9897591640	akiel@saginaw-mi.com
Michael Wagner	City of Saginaw	989 759 1640	mwagner@saginaw-mi.com
Keil Oswald	City		

NAME	COMPANY REPRESENTED	PHONE NO.	EMAIL
Jeremy Wilson	Johnson : Wood LLC	9894888390	jeremyw2johnsenwoodllc.com
Greg Bokhart	City of Saginaw	989 759 1614	gbokhart@saginaw-mi.com
Roland Abi Younes	Sorensen Gross	470-360-8711	rabiyounes@sgcompany.com
Ken Dey	City of Saginaw	989-306-2038	kdeye saginaw-mi.com
Ron Swan	TSP Services, Inc	734-838-0426	rswan@tspenvironmental.com
Ariana Wade	Fishbeck	989-996-1161	awade@fishbeck.com

C-1720 WTP Sod Hypo & Lime Feed Improv _Addendum #1
3/18/2026
3 of 36

City of Saginaw Water Plant
Lime Slaker and Sodium Hypochlorite
Feed System Improvements
Project Number 2501185

Addendum No. 1

Date: March 17, 2026

ADDENDUM
PAGE 1 OF 3

OWNER:	City of Saginaw 1315 South Washington Avenue Saginaw, MI 48601
ENGINEER:	Fishbeck 5913 Executive Drive, Suite 100 Lansing, Michigan 48911
DRAWING REVISION NO.:	A1
ISSUED HEREWITH:	
SPECIFICATION SECTIONS:	40 90 00, 43 41 16.17, 46 33 00, 46 36 43
SHEETS:	P003, P103, P105, P203, E203
OTHER:	Pre-bid meeting attendance sheet
BIDS DUE:	Tuesday, March 24, 2026, at 3:00 p.m., local time

This Addendum is issued to all Bid Set Holders, is a part of the Contract Documents, and modifies the previously issued Bidding Documents. Acknowledge receipt of this Addendum in the space provided on the Bid form; failure to do so may result in rejection of the Bid.

ITEM NO. 1:
Pre-bid meeting attendance sheet is attached.

ITEM NO. 2:
Section: 40 90 00 – Instrumentation and Control for Process Systems (reissued)
A. Chemical Day Tank Scale dimensions indicated in Section 2.3.E.10) c) is intended to be representative of apparent existing scale dimensions. The integrated tank and secondary containment has an overall footprint of 54 by 88 inches. Total length of tank within containment measures 62 inches with a straight sidewall height of 58 inches. Contractor may field verify and propose alternate design to safely support, measure, and record day tank weight.
B. Revised Section 2.4.B.1. to clarify material and installation requirements.

ITEM NO. 3:
Section: 43 41 16.17 – Fiberglass Reinforced Plastic Tanks (reissued)
A. Revised Section 2.4.A with additional information on tank configuration, dimensions, and nominal capacity.
B. Revised Section 2.4.B with additional information on tank configuration, dimensions, and nominal capacity.

ITEM NO. 4:
Section: 46 33 00 – Liquid Chemical Feed Equipment (reissued)
A. Revised Section 1.2.A with updated summary of work for chemical feed pumps.
B. Revised Section 1.3.A with updated chemical design performance requirements.
C. Revised Section 2.1.A with to modify chemical feed pump replacements and modifications.
D. Revised Section 2.1.B. with updated Manufacturer Basis of Design pump and pump construction details.
E. Added Section 2.1.C. with information on improvements for chemical feed pumps P-132 and P-133.
F. Revised Section 2.2.D with additional information on locations for replacement chemical injectors.
G. Added Section 2.2.E. on bulk chemical tank fill enclosure.

ITEM NO. 5:
Section: 46 36 43 – Lime Feeding and Slaking Equipment (reissued)
A. Revised Section 2.2.H for corrected lime slaker accessories.

ITEM NO. 6:
Sheet: P003 – GENERAL INSTRUMENTATION (reissued)
A. Updated chemical feed pump schedule.

City of Saginaw Water Plant
Lime Slaker and Sodium Hypochlorite
Feed System Improvements
Project Number 2501185

Addendum No. 1

Date: March 17, 2026

ADDENDUM
PAGE 2 OF 3

ITEM NO. 7:
Sheet: P103 – SODIUM HYPOCHLORITE FLOW SCHEMATIC (reissued)
A. Updated chemical feed flow schematic to identify improvements to P-132 and P-133.

ITEM NO. 8:
Sheet: P105 – SODIUM HYPOCHLORITE DAY TANKS FLOW SCHEMATIC AND P&ID (reissued)
A. Revised schematic and keynotes for additional information and identify improvements to P-132 and P-133.

ITEM NO. 9:
Sheet: P203 – GENERAL INSTRUMENTATION (reissued)
A. Revised drawings and keynotes for additional information on pump installation.

ITEM NO. 10:
Sheet: E203 – HYPOCHLORITE DAY TANK (reissued)
A. Replace Chemical Feed Processor Panel (CFPP) processor, ethernet cards and ethernet switch. Convert PLC programming for use with new processor.

ITEM NO. 11:
Questions Received from Potential Bidders:
A. Question: Confirmation was requested on the requirements of ASME RTP-1 and the tanks which are applicable.
Answer: The two day tanks are required to meet this standard and be stamped accordingly to match the construction and operational capabilities of the existing day tanks.

B. Question: Clarification on the day tank configuration was requested.
Answer: The chemical day tank configuration is intended to be a horizontal tank with dished ends and two (2) FRP saddles. Refer to Item No. 3.

C. Question: Clarification was requested on the number of chemical injection quills required to be provided.
Answer: No chemical injection quills are required for injection points HYPO-1, HYPO-2, HYPO-3, HYPO-4, HYPO-7, HYPO-8, and HYPO-9. Section 46 33 00 Liquid Chemical Feed Equipment is reissued. Refer to Item No. 4.

D. Question: Clarification was requested on whether the pressure gauges on the day tank chemical feed pumps were to be replaced or reused.
Answer: Pressure gauges on chemical feed pump discharge are intended to be replaced in-kind to match existing system operation.

E. Question: A request for the use of Griffco M Series Pressure Relief Valves and Back Pressure Valves was requested.
Answer: Griffco M Series Pressure Relief Valves and Back Pressure Valves are acceptable alternatives. Selected offerings shall meet all other requirements in the specifications.

F. Question: A request for the use of Griffco Chemical Corp Stops was requested.
Answer: Griffco Chemical Corp Stops are acceptable alternatives. Chemical injection corp stops and quills shall meet all other requirements in the specifications.

G. Question: Clarification was requested on the design requirements of the Bulk Fill Station Enclosure.
Answer: The existing Bulk Fill Station Enclosure is constructed with a modified polyethylene spill containment pallet with lower swinging doors and roll top door for access to the enclosure interior. This enclosure is intended to be replaced in kind to provide protection for sodium hypochlorite fill location and monitoring equipment contained within. Refer to Item No. 4.

H. Question: Clarification was requested on the level sensor installation requirements for the sodium hypochlorite bulk tanks.
Answer: Sodium hypochlorite bulk tank level sensor nozzle to be a 6-inch flanged connection extending above the top surface of the tank. Flange face dimension and bolting patterns correspond to ANSI B16.5 for 150-pound steel flanges. Exact nozzle height to be coordinated with tank supplier.

City of Saginaw Water Plant
Lime Slaker and Sodium Hypochlorite
Feed System Improvements
Project Number 2501185

Addendum No. 1

Date: March 17, 2026

ADDENDUM
PAGE 3 OF 3

I. Question: Clarification was requested on the temporary spill protection requirements during use of the temporary bulk tanks.
Answer: Temporary spill protection to be provided for use of temporary chemical storage tanks as noted in the drawings and specifications. Exact locations and extents to be coordinated with owner and engineer to protect surrounding environment.

J. Question: Clarification was requested on where to include estimates of mechanical, electrical, and any additional trades within the bid form for items not explicitly identified in the form.
Answer: This project is intended to be a lump sum project. The breakouts identified in the bid form are intended to be representative of key elements of the job that should be considered and included in the bid. It is intended the contractor should provide a cost inclusive of all trades necessary to complete each item in the bid form.

K. Question: Clarification was requested on containment or uplift.
Answer: Secondary containment for the bulk tank is provided by the concrete containment curb shown in the drawings. The day tanks have integral secondary containment as shown in the drawings.

L. Question: A question was raised on the relative location of the day tanks and the bulk tanks.
Answer: The day tanks are located at a higher elevation relative to the top of the bulk tank.

M. Question: Belding Tanks was requested as an approved bulk and day tank manufacturer.
Answer: Belding Tanks will be accepted as a tank manufacturer provided if tank design satisfies owner and specification requirements.

END OF ADDENDUM

SECTION 40 90 00 – INSTRUMENTATION AND CONTROL FOR PROCESS SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes, but is not necessarily limited to, the furnishing and installation of the water plant process control and instrumentation system comprised of the major items listed below, as indicated on the Drawings, as specified herein, and as necessary for the proper and complete performance of the Work:
   1. Control panels and communication panels.
   2. Field instruments.
   3. Spare parts.

1.3 GENERAL REQUIREMENTS

A. System Overview:
   1. Two bulk tanks and two day tanks for the sodium hypochlorite storage system will be replaced at the plant.
   2. Design is based on reusing the Owner's existing main control panel (MCP) and much of the field wiring and conduit connected to the existing MCP and Sodium Hypochlorite Control Panels (DT1-CP and DT2-CP). All existing signals (analog, discrete, etc.) to/from plant equipment to remain shall be disconnected from existing devices in the MCP and connected to new PLC equipment. All front of panel devices shall be disconnected and removed. All display functionality of removed devices shall be indicated on control system interface screens. All devices in the MCP that are rendered obsolete by the new system shall be disconnected and removed.
   3. The existing bulk sodium hypochlorite fill control panel (UNLOADING-CP) will be reused to monitor the sodium hypochlorite bulk chemical storage tanks throughout the filling process.
   4. Contractor shall conduct field investigations as required to determine existing conditions, existing programming, all wiring details, additional I/O requirements, signal ranges, units and calibration requirements.
   5. Two new lime slakers, feeders, grit removal systems, water supply control panels, and dust removal systems will be installed to replace existing equipment.

B. Provide all components and labor necessary, as indicated on Drawings, to achieve functional intent as described in this Section. Some components (i.e., power supplies, terminal strips, etc.) may not be specifically itemized.

C. Provide components which are compatible with process equipment.

D. Functionally similar components shall be products of a single Manufacturer.

E. Installation of new systems and equipment shall be sequenced and coordinated to minimize disruptions to Owner's normal operations.

1.4 SUBMITTALS

A. Itemized Listings:
   1. Description of deviations from the requirements of this Section.
   2. Re-submittals shall contain response(s) to each comment made by Engineer. Re-submittals that do not contain response(s) will be returned and will be subject to re-review compensation.

B. Shop Drawings:
   1. General: Shop Drawing submittal material shall be project specific.
   2. For all systems with control panels, to include:
      a. Control panel layout drawing(s).
      b. Control panel conduit entrance locations and limitations.
      c. Control panel elevation drawing(s).
      d. Control panel wiring diagrams:
         1) Shall clearly differentiate between internal and field wiring.
         2) Shall indicate loop wiring numbers for all devices.
         3) Analog loop diagrams shall indicate instrument range in engineering units.
      e. Ambient temperature range design considerations, design assumptions and specifications.
      f. Where modifications are required to existing control panels, existing control panel wiring shall be field verified and existing wiring shall be depicted in Shop Drawings to the extent required to fully indicate the extent of the modifications and to indicate the integration of the existing and new equipment. Where existing control panel drawings exist, they shall be “scanned in” to create an electronic version of the drawing. The electronic version of the existing panel drawing shall be used to indicate panel modifications for submittal and as-built purposes. Coordinate with Owner for DT1-CP, DT2-CP, Lime Slaker Control Panels (North and South), UNLOADING-CP and MAIN-CP drawings.

C. Operation and Maintenance Manuals:
   1. General:
      a. Table of contents.
      b. Subdivided (tabbed) into separate sections that cover separate equipment or grouping of equipment.
      c. Each site shall be uniquely tabbed. Manuals for each site shall be repeated as required so that remote site material can be separated and stand alone.
      d. Provide 1 electronic copy (CD-ROM) per hard copy, of the overall O&M Manual that includes information for all sites. Owner shall be permitted to make copies of CD-ROM without restriction.

1.5 QUALITY ASSURANCE

A. Fabrication and Installation Personnel Qualifications:
   1. Trained and experienced in fabrication and installation of materials and equipment.
   2. Knowledgeable of the design and reviewed Shop Drawings.

B. Manufacturer’s Services:
   1. Submit Manufacturer’s sworn statement that equipment furnished complies with this Specification and Manufacturer’s engineer’s written approval of installation.
   2. Provide Manufacturer’s field service as specified herein.

C. All materials, installation and testing shall be in accordance with ISA Standards and Recommended Practice.

D. Contractor shall conduct field investigations as required to verify existing conditions, I/O, programming, wiring requirements, instrument ranges/calibration and signal types.

1.6 DELIVERY, STORAGE AND HANDLING

A. Deliver all materials in original, unbroken, brand marked containers or wrapping as applicable.

B. Handle and store materials in a manner which will prevent deterioration or damage, contamination with foreign matter, damage by weather or elements, and in accordance with Manufacturer’s directions.

C. Store materials indoors in a controlled environment with low moisture content. Do not store outdoors.

D. Reject damaged, deteriorated or contaminated materials and immediately remove from Site. Replace rejected materials with new materials at no additional cost to Owner.

1.7 FUNCTIONAL INTENT

A. General:
1. All systems shall be controlled in accordance with the following description, as indicated on the Drawings and herein specified.
2. Contractor shall provide all devices, controls, panels, wiring and miscellaneous items required to achieve the specified functional intent whether specifically itemized on the Drawings or not.
3. Contractor shall inspect existing conditions to determine exact materials and work required to interface new control system components with existing equipment.
4. Coordinate with applicable related trades to incorporate equipment specific parameters in programming as necessary to meet specified performance.
5. Coordinate calibration and tuning of all equipment (including pumps, valves and existing equipment being incorporated into the control system), control components, programming and control loops to provide a complete system and achieve specified system performance.

B. Basic Functionality:
1. The functional intent is provided as an aid to the Contractor to describe the minimum functionality and interoperability of components required for the system to operate properly. Contractor is to provide programming as described herein and as required, whether specifically itemized herein or not, to provide a fully functioning system.
2. Existing Lime Slaker, DT1, DT2, and pump controller programming shall be updated as required to incorporate new signals as indicated on the Drawings. Contractor shall obtain programming from existing PLC and edit as required.
3. Provide alarm horn with “silence/acknowledge” and “test” pushbuttons, and “disable” selector switch mounted inside control panel.

C. Sodium Hypochlorite:
1. Liquid sodium hypochlorite (15% solution) will be received by bulk truck delivery, typically to bulk storage tank BST-1 or BST-2. Liquid level in the tanks (BST-1 and BST-2) shall be continuously measured (LE-101, LE-102) and locally indicated (LIT-101, LIT-102) by new level sensing equipment at the UNLOADING-CP and sent to SCADA. A high-level signal (LSH-101, LSH-102) shall be hardwired to UNLOADING-CP for alarm lights (YL-101, YL-102)
2. Transfer of liquid sodium hypochlorite from bulk tanks (BST-1 or BST-2) will be completed by two existing transfer pumps (P-101, P-102). Existing transfer pumps and controllers to be reused. Transfer pumps include communication signals to Day Tank Fill Panels (DT1-CP, DT2-CP) in the day tank room.
3. New pressure switches (PSH-111, PSH-112) will be installed on the discharge piping from each transfer pump. High pressure switch signals will connect to transfer pump controllers (P-101, and P-102), Day Tank Fill Panels (DT1-CP and DT2-CP) and to the SCADA system.
4. A flat switch (LSH-103) will communicate overflow to SCADA and will be locally communicated with an annunciator (LAH-103).
5. Low (TSL-142) and high (TSH-141) temperature switches will be used to communicate climate control failures in the bulk storage room.
6. Each day tank (DT-1, DT-2) is provided with a level switch (LSH-113, LSH-114) to communicate high tank level to DT1-CP and DT2-CP.
7. Spill containment of each of the day tanks are measured (LSH-115 and LSH-116) and communicated to SCADA. Each level switch is indicated locally in the day tank rooms with annunciators (YL-115, YL-116)
8. Low (TSL-143) and high (TSH-144) temperature switches will be used to communicate climate control failures in the bulk storage room.
9. Day tank levels are measured through (WE-121, WE-122) and locally indicated (WIT-121, WIT-122) and communicated to SCADA.
10. Hypochlorite solution may be fed to various points in the process by 4 metering pumps P-131, P-132, P-133, P-134. Pumps are factory-equipped with dc variable speed motors and controls. In LOCAL mode, each pump may be manually started, stopped and speed-controlled from factory mounted pump controls. In REMOTE mode, each pump shall receive a start/stop control signal (CS-131, CS-132, CS-133, CS-134) and 4-20 mAdc speed control signal (SC-131, SC-132, SC-133, SC-134) from SCADA system.
11. Scaling and spanning of output 4-20 mA pump speed control signal with respect to summed Plant flow signal shall be fully adjustable by operator from SCADA computer.

12. Actual pump speed signals (ST-131, ST-132, ST-133, ST-134) shall be sent to SCADA from metering pumps for indication and logging.
13. There shall also be SCADA inputs from each metering pump for Remote Status (HS-131, HS-132, HS-133, HS-134) for indication; Running Status (ML-131, ML-132, ML-133, ML-134) for indication and run time totalization; Tubing Leak (YS-131, YS-132, YS-133, YS-134) for alarm; and Pump Fault (YA-131, YA-132, YS-133, YA-134) for alarm.
14. New pressure switches (PSH-131, PSH-132, PSH-133, PSH-134) will be installed on the discharge piping from each feed pump. High pressure switch signals will connect to feed pump controllers and the SCADA system.

D. Lime Slakers
1. Lime day bins are equipped with vibrators each with a HAND-OFF-AUTO switch (HS-903, HS-913) connected to the North and South Lime Slaker control panel. On HAND the corresponding lime vibrator will run continuously. On AUTO the controlled will start and stop the appropriate lime vibrator based on a programmed timer. Vibrator run status will be displayed on the North and South Lime Slaker Control Panels by YL-903 and YL-913
2. Each lime feeder and slaker will have an HOA switch (HS-901 HS-911 and HS-902, HS-912). Lime feeder run status will be indicated by YL-902 and YL-912 on the North and South Lime Slaker Control Panels and will be sent to SCADA for indication accumulation and logging. Slaker run status will be indicated on the North and South Lime Slaker Control Panels by YL-901 and YL-902 and sent to SCADA for indication accumulation and logging.
3. Water inlet to each slaker is controlled through solenoid valves controlled through local HAND-OFF-AUTO switches (HS-906, HS-916). On HAND/OFF the corresponding solenoid will open/close regardless of lime controller indication. Position signal control (ZC-906 and ZC-916) and indication (ZT-906, ZT-916) of the batching solenoid valve is provided for each control panel. Open (ZSO-906, ZSO-916) and close (ZSC-906, ZSC-916) are communicated to the North and South Lime Slaker Control Panels.
4. Water inlet to each grit removal system is controlled through solenoid valves controlled through local HAND-OFF-AUTO switches (HS-907, HS-917). On HAND/OFF the corresponding solenoid will open/close regardless of lime controller indication. Position signal control (ZC-907 and ZC-917) and indication (ZT-907, ZT-917) of the grit removal water supply valve is provided for each control panel. Open (ZSO-907, ZSO-917) and close (ZSC-907, ZSC-917) are communicated to the North and South Lime Slaker Control Panels.
5. Flow rate in each lime slaker is measured and indicated by flow meters (FE/FIT-905, FE/FIT-915) and flow sent to the SCADA system for indication, totalization, and logging.
6. An adjustable pressure switch (PSL-905, PSL-915) is provided in the common water supply lime and low pressure water is indicated at the panel (PAL-905, PAL-915) and signaled to the SCADA system. The control stops the operation of the feed and slaker and closes the open water solenoid valve and initiates a SCADA alarm upon low water pressure.
7. Mixer (M-904, M-914) in the slaker is controlled by the North and South Lime Control Panels. Mixer run status will be signaled to the SCADA system for indication and logging.

E. Additional Programming:
1. Provide programming, in addition to that described above, as required to provide a fully functioning system.
2. Provide field modification of SCADA programming as required where system is found, through testing or Owner operation to require the following:
   a. Additional functionality.
   b. Modification of functionality.

1.8 GUARANTEE AND WARRANTY

A. Process control and instrumentation system Supplier shall guarantee new work for a period of 1 year. This guarantee shall cover all parts, labor, troubleshooting, telephone consulting, travel, and equipment recalibration.

B. The 1-year guarantee period shall begin at Substantial Completion.

PART 2 - PRODUCTS

2.1 GENERAL

A. Acceptable Manufacturers for major system components are specified herein.

B. Not all components are specified. It is the system Supplier's responsibility to furnish and install components necessary to achieve the functional intent and to meet or exceed the governing local, state or national standards and/or codes.

C. Coordination of all field mounted instrumentation device installation shall be system Supplier's responsibility:
   1. Mounting of each device shall be designed with consideration to:
      a. Manufacturer's installation recommendations.
      b. Ease of removal for maintenance.
      c. Safety.
   2. Provide all mounting hardware required.
   3. All mounting hardware shall be:
      a. Interior: 316 SST.
      b. Exterior: Galvanized Steel.

D. Pre-Approved Acceptable System Suppliers:
   1. Perceptive Controls.
   2. Commerce Controls.
   3. No substitutions.

E. System Supplier's Qualifications and Services:
   1. Staffed with factory-trained and certified technicians fully capable of providing instructions and routine and emergency maintenance services on all components.
   2. Supplier shall have at least 5 years experience in programming and installation of systems similar in performance to that specified herein and shall be prepared to show evidence of such history.
   3. Before Substantial Completion, demonstrate to the satisfaction of Engineer the ability of the system to meet performance requirements in accordance with these Specifications.
   4. Provide as much on-site time as necessary to coordinate start-up. Once start-up has commenced, Supplier shall be on call for emergency situations and respond in a timely manner.

2.2 CONTROL PANELS AND COMMUNICATION PANELS

A. General:
   1. Install all wiring in a workmanlike manner. Group, bundle, label, support, and route horizontally and vertically to provide a neat and organized appearance.
   2. All field 4-20mAdc signals shall be powered from panels, unless indicated otherwise on the Drawings.
   3. All wiring shall be sized, labeled and color coded. All panel wiring shall be type MTW unless indicated otherwise on the Drawings.
   4. When required, shunt resistors shall be 250 Ohm ± 0.01%.
   5. Provide labeled terminal strips for all wiring entering and leaving panels.
   6. Provide Sub-plate Identification Tags:
      a. Tags shall be made from engraved plastic, white with 3/8-inch minimum black letters, for all internal enclosure components.
      b. Punched or drilled for mechanical fasteners.
      c. Stainless steel machine screw fasteners.
   7. Coordinate and provide all necessary mounting hardware.
   8. Conduit shall not enter into panels from top. Side, rear and bottom entry permitted only. Cast metal, O-ring type sealing conduit hubs shall be used on NEMA rated enclosures.
   9. Corrosion Inhibitor Emitter: Provide an industrial corrosion inhibitor emitter to protect internal components of control panel from corrosion for panels located outdoor or in NEMA 4/4X areas. Corrosion inhibitor shall protect for up to one year and shall be replaceable. Provide one spare for each provided.
   10. Contractor shall provide all mounting hardware, shelves, support brackets, patch panels, etc., as required to install equipment.

B. Modification to Existing Control Panels: Provide all field modification, wiring changes, and wiring additions as indicated on Drawings or as required to achieve function as described in this section.

C. Control Panels:
1. Furnish control panel(s) of the design and type as indicated on the Drawings and in these Specifications. Contractor is responsible for verifying panel size requirements.
2. Control panels shall contain all components listed in Paragraph 1.7 - Functional Intent, specified herein, and as indicated on the Drawings, plus any additional items (24-volt power supplies, panduit, terminal strips, etc.) necessary for completion of the Work.
3. Control panels shall be assembled by a UL listed fabrication facility. Panels shall be UL approved and meet the requirements of NEC and UL508/698. Available fault current is 10,000 amps. Each panel shall have a serialized UL label.
4. New control panels shall have a “Power On” white pilot light on the door of the control panel.

D. Enclosures:
1. General:
   a. Size Enclosures:
      1) To adequately space necessary components in accordance with NEC.
   b. Data pocket.
   c. NEMA rated for environment.
   d. Coordinate and provide necessary mounting hardware. Locate top of wall mounted enclosures approximately 60 inches above floor.
   e. UL listed.
   f. White painted steel back panel, unless indicated otherwise on the Drawings.
   g. Provide all necessary interior supports to ensure panel structural integrity and prevent "oil canning" of side walls.
2. Non-metallic Enclosure:
   a. General:
      1) Material: Grey, fiberglass-reinforced polyester, UL 746C listed, UV weathering resistant fire retardant.
      2) Front hinged access door.
      3) Stainless steel hardware.
      4) Polyurethane, seamless gasket.
      5) Molded in panel, metal mounting bosses for sub-plate mounting.
      6) Padlockable.
   b. Wall Mounted:
      1) Integral mounting feet.
      2) Hinges: Fiberglass.
      3) Manufacturer:
         a) Hoffman, GQRLP.
         b) Stahlin Non-Metallic Enclosures, N Series.
         c) Or Equal.

E. Panel Devices:
1. General:
   a. Pilot lights, selector switches and push buttons shall be from same Manufacturer. NEMA ratings shall match that of control panel.
   b. Indicators and totalizers shall be from same Manufacturer.
2. Pilot Lights:
   a. Heavy duty, oil tight, LED-type, 30.5 mm with full voltage, push-to-test feature, nameplate and replaceable color lens and replaceable light unit.
   b. Lens Colors:
      1) Opened or Motor Running: Green.
      2) Closed or Motor Stopped: Red.
      3) Alarm or Remote: Amber.
   c. Spare Parts:
      1) 2 LEDs of each color.
      2) 2 of each color lens.

d. Manufacturer:
   1) Allen-Bradley, 800T/H.
   2) Square D, Type K/SK.
   3) Eaton\Cutler-Hammer 10250T, E34.

3. Selector Switches and Push Buttons:
   a. Heavy duty, oil tight, 30 mm, with nameplate.
   b. Selector Switches: Maintained position, unless specified/indicated otherwise.
   c. Push Buttons: Momentary.
   d. Manufacturer:
      1) Allen-Bradley, 800T/H.
      2) Square D, Type K/SK.
      3) Eaton\Cutler-Hammer 10250T, E34.
4. Control Relays:
   a. Heavy duty, 15 amp minimum, 3-pole double throw (minimum).
   b. Pin or blade terminals.
   c. DIN mount sockets IP20, finger safe.
   d. Indicating light and check button.
   e. UL listed.
   f. Provide hold down clips for all relays.
   g. Provide 2 spare of each type provided, per panel. Installed in panel, un-wired.
   h. Provide interposing relay for all solenoids and motor loads.
   i. Manufacturer:
      1) Allen-Bradley.
      2) Square D.
      3) Magnecraft.
      4) Potter & Brumfield.
5. DIN Rail Mounted Miniature Circuit Breakers and Supplementary Protection:
   a. Rated for 250 VAC, 50/60 Hz, 65 Vdc.
   b. Rated cross section for wire sizes #22 to #10 AWG.
   c. Operating life of 6,000 cycles at rated current.
   d. UL listed.
   e. Short-Circuit Current Rating: 10 kA at 125 VAC (minimum).
   f. Provide bus bar where more than 4 circuit breakers are provided in the same panel. Cap unused connectors.
   g. Provide supplementary protection for each solenoid or motor load.
   h. Finger safe terminals.
   i. Amperage ratings of 0.2A to 15.0A, system Supplier shall calculate required ratings, unless otherwise noted.
   j. Manufacturer:
      1) Allen-Bradley.
      2) Square D/Merlin-Gerin.
      3) Moeller Electric.
6. Terminal Blocks:
   a. General: 6mm (nominal), screw type, single tier terminal blocks.
   b. Mounting: Standard TS 35 DIN rail.
   c. Wire Range: 22-2 AWG.
   d. Removable/replaceable marking system (labels).
   e. Manufacturer:
      1) Wieland, WKI series.
      2) Phoenix Contact, UT series.
      3) Weidmuller.
   f. Spare Parts: 25% spare terminal blocks, mounted and unwired.
7. Digital LED Indicator:
   a. 4-digit, 7-character, 0.5-inch character 1/8 DIN, digital display.
   b. Display: Red/Green LED.
   c. Accuracy: 0.05% of span.
   d. Input:
      1) 4-20mAdc.
      2) Dual input where indicated.
   e. Power: 120Vac.

f. Environmental: NEMA 4X front.
g. Manufacturer:
1) Red Lion..
2) No exceptions.

8. Alarm Buzzer:
a. Manufacturers:
1) Mallory Sonalert,
2) Werma;
3) Or equal.

9. Alarm Beacon:
a. General: Weatherproof, rotating alarm indicating light.
b. Input Power: 120VAC, 60Hz.
c. Output: 40 Watt lamp.
d. Construction:
1) Die cast with gray corrosion resistant epoxy finish.
2) Amber polycarbonate dome.
e. Manufacturer: Edwards Signaling Products, 52 Series; or equal.
f. Accessories:
1) Mounting brackets as required.
2) Protective lens guard.
3) Spare lamp.

F. Site Specific Requirements (Major Components):
1. General: The following is provided as an aid to the Contractor. It is the Contractor's responsibility to verify information contained below for completeness and to provide equipment that is indicated elsewhere in Drawings and Specifications, but not listed below.
2. CP-FILL:
a. General:
1) NEMA 4/4X fiberglass.
2) Wall mounted and suitable for outdoor installation.
b. Major Components:
1) Alarm horn.
2) Alarm beacon.
3) Digital level indicators

2.3 PROCESS INSTRUMENTS

A. Existing process instruments are to be disconnected and reinstalled. Systems supplier shall recalibrate instruments as required and adjust existing PLC programming for signals from instruments as required.

2.4 FIELD INSTRUMENTS

A. General:
1. Schedules are provided as an aid to Contractor. It is Contractor's responsibility to verify information contained in the schedules for completeness and to provide equipment that is indicated elsewhere in Drawings and Specifications, but not listed in schedules.
2. Provide instruments rated for environment.
3. Field verify Manufacturer's cable lengths prior to Shop Drawing submittal.
4. Existing instruments that are relocated or modified shall be recalibrated.
5. Existing instruments with unknown scaling or ranges shall be recalibrated.
6. Existing instruments that do not agree with new instrumentation shall be recalibrated.
7. Existing instruments that are used in conjunction with new control systems shall be recalibrated.
8. Tagging: Equip all instruments with a permanently attached, stamped or engraved identification tag. The tags shall include the device name, Engineer's tag identification, and manufacturer's tag identification if different from Engineer's.
9. Finish: Finish on the instruments and accessories shall provide protection against corrosion by the elements in the environment in which they are to be installed.

10. Temperature Rating: Instruments shall be suitable for the temperature in which they are to be exposed. Therefore, instruments located outdoors or in unheated spaces shall be suitable for -20 degrees F to 120 degrees F. Instruments exposed to direct sunlight (without sunshield) shall be suitable for temperatures up to 140 degrees F.
11. Provide configuration software and cables or hand held device(s) for any instrument which cannot be fully programmed via keypad/interface which is integral to device.

B. Continuous Level Measurement:
1. Non-Contact Radar:
a. General: Non-contact radar transmitter/receiver to determine level by measuring time-of-flight of a radar pulse from the radar transmitter to the product surface and back.
b. False Target Rejection shall ignore obstructions including, but not limited to, tank walls.
c. Micro-processor based transmitter.
d. Display: ~~Integral LCD.~~Remote Display.
e. Material:
1) All wetted materials shall be compatible with sodium hypochlorite.
~~1) 316 Stainless steel process connection and mounting nut.~~
2) Epoxy covered, explosion proof, aluminum housing.
3) Polypropylene dielectric rod antenna.
~~4) 316 Stainless steel antennae horn and nozzle extension.~~
f. Accuracy: ±0.4 inches.
g. Repeatability: 0.05% full scale.
h. Output: 4-20mAdc.
i. Power: 24Vdc loop powered.
j. Suitable for mounting via 6-inch ANSI pipe flange or as required, coordinate with application.
k. Provide 316 stainless steel mounting hardware as required.
l. Schedule: See Instrument Range Schedule following Part 3.
1) LE/LIT-101
2) LE/LIT-102
m. Manufacturer:
1) Magnetrol.
2) Endress + Hauser.
3) Ohmart/Vega.
4) Rosemount.
n. Accessories:
1) Programming/diagnostic software, software license and programming cable.
2) Intrinsically safe barrier, where required by manufacturer for hazardous locations.

C. Discrete Level Switch:
1. Float Type Switch (Mercury Free):
a. Mechanical acting.
b. Molded corrosion resistant, polypropylene or PVC body suitable for fluid application.
c. Float switches shall have 3.5-inch actuation/de-actuation level.
d. Output Contact: SPDT, 7/3.5 A, 120/230 VAC.
e. Cable shall be PVC type STO with No. 18 AWG (minimum) conductors:
1) Jacket for cable shall be factory molded to the float.
2) Minimum cable length of 20 feet.
f. Hazardous Location: Level switch and switch circuit shall be intrinsically safe and suitable for switch mounting in a Class 1, Division 1, Group C and D hazardous location.
g. Schedule:
1) LSH-103
2) LSH-113
3) LSH-114
4) LSH-115
5) LSH-116
h. Manufacturer: Anchor Scientific “Eco-Float”; or equal.
i. Accessories:
1) Corrosion resistant hardware and mounting accessories.
2) See installation detail(s) for additional requirements.

D. Discrete Pressure Measurement:
   1. Pressure Switch Without Display :
      a. Range: To match process. 0-100 unless noted otherwise.
      b. Process Connection: 1/2-inch NPTF, 316 stainless steel.
      c. Sensor: To match process. 316 stainless steel diaphragm unless noted otherwise or as required for process fluid compatibility.
      d. Enclosure: NEMA 4X with 1/2-inch or 3/4-inch conduit entry.
      e. Switch Rating: 10 A at 125 VAC SPDT.
      f. Setpoint: User adjustable.
      g. Deadband: User adjustable.
      h. Schedule:
         1) PSH-111
         2) PSH-112
         3) PSH-131
         4) PSH-132
         5) PSH-133
         6) PSH-134
      i. Manufacturer:
         1) United Electric Controls.
         2) Ashcroft.
         3) Mercoid.

E. Continuous Weight Measurement:
   1. Chemical Day Tank Scale:
      a. Scale:
         1) Provide complete system including platform, transmitter and indicator.
         2) Steel Frame Construction: Polyester coated.
         3) 1/2-inch PVC top plate, with stainless steel hardware.
         4) Accuracy: 0.5% of full scale.
         5) Stainless steel leveling feet and load cell with adjustable tank restraints in base.
         6) Local electronic indicator in NEMA 4X enclosure.
         7) Provide a 4-20 mA output signal proportional to tank contents weight.
         8) Provide tare adjustment.
         9) Manufacturer: Force Flow or equal.
         10) Schedule:
            a) Sodium Hypochlorite
            b) Model: Force Flow Solo 5000 Chemical Day Tank Scale
            c) Scale Platform: 72 inches x 60 inches.
            d) Capacity: 0 - 3500 pounds liquid weight (5000 pounds total).
      b. Transmitter:
         1) 1 for each flow tube.
         2) Wall mounted.
         3) Net Weight Indication: 4-1/2 digit, 0.5-inch high, LCD.
         4) Output:
            a) 4-20 mAdc,
            b) 2 SPDT 4A rated relays.
         5) Power: 120-Vac, 60HZ.
         6) Tare Adjustment: Sealed 10-turn knob.
         7) Enclosure: NEMA 4X.
         8) Provide required lengths of Manufacturer’s cable for remote mounting.
      c. Schedule: See Instrument Range Schedule.
         1) WE/WIT-121
         2) WE/WIT-122

PART 3 - EXECUTION

3.1 INSTALLATION COORDINATION

A. Install process control equipment and instrumentation in conformance with:
   1. Shop Drawings reviewed by Engineer.
   2. Manufacturer's recommendation.

B. Electrical:
   1. Run all 4-20 mAdc process control wiring in separate conduit from power and control wiring.
   2. Communication cabling shall be in separate conduits from power control and analog signal wiring.

C. Mount Control Panels:
   1. Securely with framing and fasteners capable of handling additional future loads.
   2. In a way that does not restrict access to internal components.

3.2 FIELD QUALITY CONTROL

A. System Supplier's Field Service:
   1. Arrange and pay for process control and instrumentation system Supplier's engineer to:
      a. Provide field services indicated below:
         1) Assist with start-up and conduct performance demonstration.
         2) Demonstrate operation and maintenance to the system operators.
         3) Review operations and maintenance manual with system operators.
      b. Minimum Onsite Time:
         1) 8 hours to oversee installation.
         2) 2 hours to inspect and certify installation.
         3) 2 hours to assist with start-up and conduct performance demonstration.
         4) 1 hours to demonstrate operation and maintenance, and1 hours to review operations and maintenance manual.
         5) Additional time as necessary for installation, start-up and training.
   2. Schedule field services as soon as practical and at times approved by Engineer.
   3. Promptly make all changes and additions required by system Supplier's engineer and as necessary for proper operation of the system.
   4. System Supplier's engineer shall submit written approval of installation.

B. Field Performance Demonstration:
   1. Pre-Requisite: Complete installation and test all functionality prior to calling for witnessed field demonstration by Engineer.
   2. Equipment:
      a. Demonstrate proper operation.
      b. Demonstrate that system performs control functions as specified and indicated on the Drawings.
   3. Instruments:
      a. Demonstrate proper calibration and maximum accuracy.
      b. Demonstrate that system performs monitoring functions as specified and indicated on the Drawings.
   4. System: Demonstrate proper operation in failure modes.
   5. Demonstration shall be repeated as required by Engineer until satisfactory results are obtained.

END OF SECTION 40 90 00

SECTION 43 41 16.17 – FIBERGLASS REINFORCED PLASTIC TANKS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the furnishing and installation of fiberglass reinforced plastic (FRP) tanks.

1.3 REFERENCES

A. Except as herein specified or as indicated on the Drawings, the work of this Section shall comply with the following:
   1. ANSI: B16.5 - Pipe Flanges and Flanged Fittings.
   2. ASTM Standards:
      a. A167 - Stainless and Heat Resisting Chromium Nickel Steel Plate, Sheet, and Strip.
      b. D3299 - Filament-Wound Glass-Fiber-Reinforced Thermoset Resin Chemical-Resistant Tanks.
      c. D4097 - Contact-Molded Glass-Fiber-Reinforced Thermoset Resin Chemical-Resistant Tanks.
   3. ASME Standards:
      a. RTP-1-2011 Reinforced Plastic Corrosion-Resistant Equipment
   4. Federal Standards:
      a. 21 CFR 177 - U.S. Food, Drug, and Cosmetic Act.
      b. 29 CFR 1910 - OSHA Standards and Compliance Guidelines.

1.4 SUBMITTALS

A. Shop Drawings: For tanks, covers and fittings.
   1. Dimensions.
   2. Details of fabrication.
   3. Fitting sizes, types and locations.
   4. Resin Manufacturer's corrosion resistance guide.
   5. Materials of construction, including resin systems and reinforcement materials.

B. Summary of design calculations including RTP-1 design where applicable.

C. Operation and Maintenance Manuals: For tanks, covers, and fittings.
   1. Installation instructions.
   2. Inspection procedures.
   3. Instructions for long term care.
   4. Repair procedures.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Tanks shall be the product of:
   1. Plas-Tanks Industries, Inc.
   2. Or Engineer Approved Equal

B. All fiberglass reinforced plastic tanks shall be the product of one Manufacturer and match the design of the existing tanks.

2.2 GENERAL

A. Furnish appurtenances as indicated on the Drawings:
   1. Flanges shall be drilled to ANSI B16.5, 150 pound pattern.
   2. Plate gusseted type flange reinforcement.
   3. Flanged nozzles: Hand lay-up construction with pipe stub molded integrally with the pipe flange. Compression molded and cemented-on flanges are prohibited.
   4. Manways:
      a. Top: Vapor tight, bolted and gasketed coverplate.
      b. Side: Pressure tight gasketed and bolted coverplate.
      c. Provide a glass-in-place sign meeting the requirements of 29 CFR Part 1910.145:
         1) Sign Shall Read: "DANGER - CONFINED SPACE - ENTER BY PERMIT ONLY".
         2) Supplier: Lab Safety Supply, Inc.; Argus; or equal.
   5. Gaskets: Full face, 50 to 70 durometer.
   6. Tank floor of large tanks shall be sloped with foam core to fully drain to bottom outlet fitting as noted.
   7. Tank liquid level shall be visible through tank wall with adequate lighting exterior to tank. Provide visibility strip if required to see liquid level.

B. Tank diameter and height shall be as indicated on the Drawings.

C. Coordinate location, diameter and length of flanged connection for level sensors with level sensor Supplier.

D. Tanks designed for internal pressure greater than 14 inches of water column shall be designed in accordance with the appropriate design criteria in ASME RTP-1 – Reinforced Thermoset Plastic Corrosion Resistant Equipment. This applies to Day Tanks DT-1 and DT-2.

E. Product Marking:
   1. In accordance with the appropriate ASTM Specification.
   2. In compliance with the ASTM/ASME designation of the tank.
   3. Design specific gravity of stored liquid.
   4. Permanent glass-in-place plaque.

F. Service Conditions:
   1. Temperature: Less than 100 degrees F.
   2. Location: Indoor.

2.3 MATERIALS

A. Tanks: Tanks shall be filament-wound glass fiber reinforced type in accordance with ASTM D3299.

B. Resin:
   1. Compatible with stored material.
   2. Pigments, dyes, or colorants shall not be used except as specified herein.
   3. Comply with NSF/ANSI Standard 61.

C. Fasteners and tie-down lugs:
   1. Sodium Hypochlorite Tanks: Type 316 stainless steel.
   2. All Others: ASTM A167 stainless steel, Type 316.

D. Elastomers: Chemically resistant to stored material. Viton or fluoropolymer.

E. Synthetic Veil: When recommended by resin Manufacturer for specified chemical environment.

F. Sodium Hypochlorite Tanks:
   1. Resins:
      a. Dow Chemical Company, Derakane 411.
      b. Ashland Chemical Company, Hetron 922.
   2. Catalyst: Benzoyl peroxide-dimethyl aniline (BPO/DMA).

3. Inner Corrosion Barrier:
   a. 200 mil minimum thickness.
   b. Catalyst: Benzoyl peroxide-dimethyl aniline (BPO/DMA).
   c. Synthetic Surface Veil: 2-ply Nexus.

2.4 EQUIPMENT

A. Sodium Hypochlorite Bulk Tanks (BST-1, BST-2):
1. Chemical: 15% sodium hypochlorite.
2. Classification:
   a. Grade 1 – Single vinyl ester resin throughout. BPO/DMA catalyst cure.
   b. Type I: Designed for pressure no greater or lower than atmospheric.
3. Tank shall be designed to hold liquid with a specific gravity of not less than 1.5.
4. Provide hold-down lugs designed for the following conditions:
   a. To prevent an empty tank from floating when fluid (S.G. equal to 1.2) outside the tank rises to a level of 3'-0".
5. Tank Bottom: ~~Sloped, 1/4 inch per 1 foot towards full drain side drain flange~~Flat.
6. Drain: Side drain flange as indicated on Drawings.
7. Synthetic Surface Veil: 2-ply.
8. Nominal Capacity: 5,290 gallons.
9. Tank Dimensions:
   a. Inside Diameter: 10’-0".
   b. Straight Shell Height: 9’-0".

B. Sodium Hypochlorite Day Tanks (DT-1, DT-2):
1. Chemical: 15% sodium hypochlorite.
2. Designed for 9’-0” of specific gravity = 1.5 liquid column internal pressure measured at top of tank. ASME RTP-1 design.
3. Tank shall be designed for a specific gravity of not less than 1.5.
4. Provide hold-down lugs designed for the following conditions: To prevent an empty tank from floating when fluid (S.G. equal to 1.2) outside the tank rises to a level of 3'-0".
5. Provide bolted, gasketed cover which has been pressure tested for tightness.
6. ~~Tank Bottom: Sloped, 1/4 inch per 1 foot towards side drain flange.~~Horizontal Tank installation with dished ends and FRP saddles to be filled with concrete.
~~7. Drain: Side drain flange as indicated on Drawings.~~
~~8.~~7. Synthetic Surface Veil: 2-ply.
8. Nominal Capacity: 386 gallons.
9. Tank Dimensions:
   a. Inside Diameter: 3'-6".
   b. Straight Shell Length: 4'-10".
   c. Total Tank Length: 6’-2”.
10. Containment Basin:
   a. Length: 7’-4”.
   b. Width: 4’-6”.
   ~~9.~~c. Height: 2’-0”.

2.5 FABRICATION

A. Post Cure:
1. Required for tanks containing sodium hypochlorite (BST-1, BST-2, DT-1, and DT-2) and when recommended by resin Manufacturer for specified chemical environment to increase service life.
2. Maintain tank at a temperature between 180 to 200 degrees F for no less than 4 hours, then wash with mild detergent, and rinse with steam cleaner.

B. Exterior Layer: Smooth resin rich with no exposed fibers or sharp projections. Tank to be painted Safety Yellow and match existing.

C. All cut edges exposed to the chemical environment shall be coated with resin and veil.

D. All fittings and nozzles installed in the tank shall be of the same material as the tank.

E. Metering pump shelf and secondary containment integral to tank.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install tanks according to the submittals reviewed by Engineer, the Manufacturer's recommendations, and the Handling and Installation sections in ASTM D3299 or D4097.

B. Piping and appurtenances attached to tank shall be independently supported.

C. Vertical Tank Mounting:
   1. Place the tank on a cushion consisting of:
      a. One layer of 30 pound roofing felt equal to the tank diameter plus 2 inches placed on the tank support base.
      b. A second layer of felt equal to 1/2 of the tank diameter and placed on top of the first layer.
      c. A third layer of felt equal to 1/4 of the tank diameter and placed on top of the second layer.
      d. Place each layer flat without wrinkles.
      e. Seams of parallel strips of felt shall not overlap.
      f. Neatly trim all exposed felt after tanks are anchored.
   2. Install on scale platform or tank pad with continuous support of the entire tank bottom. No portion of the tank bottom, including bottom knuckle, shall extend beyond the edge of the scale platform or tank pad.

D. Testing:
   1. Fill tanks with clean water after all pipe connections and check for leaks in tank and piping.
   2. Drain and allow to dry completely before chemical filling.

E. Anchoring:
   1. Anchor tanks to floor with 3/4-inch minimum diameter stainless steel anchors drilled completely through pad and into floor slab at least 5 inches.
   2. Anchor rods shall be set in breakable 2-component epoxy capsules, Parabond by Emhart; or equal.

3.2 CLEANING

A. Clean materials installed under this Section according to Division 01 Section “Cleaning and Waste Management.”

END OF SECTION 43 41 16.17

SECTION 46 33 00 – LIQUID CHEMICAL FEED EQUIPMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the furnishing and installation of the major items listed below:
1. Chemical metering pumps.
a. Pumps P-131 and P-134 are to be replaced.
~~2.~~b. Pumps P-132 and P-133 are to have the head and tubing size replaced to increase pump capacity.
~~3.~~2. Automatic feed rate control equipment.
~~4.~~3. Day tank scales.

1.3 DESIGN AND PERFORMANCE REQUIREMENTS

A. Chemical Service:
1. Sodium Hypochlorite Metering Pumps: (P-131~~.~~, P-134)
a. Type: Peristaltic.
b. Pumped Material: 15% sodium hypochlorite at ambient temperatures.
c. Feed Rate Range: 0.25 to ~~154~~ 79.36 gph.
d. Rated minimum discharge pressure: ~~50~~ 58 psig.
e. Manual and Automatic feed rate control.
2. Sodium Hypochlorite Metering Pumps (P-132, P-133)
a. Type: Peristaltic.
b. Pumped Material: 15% sodium hypochlorite at ambient temperatures.
c. Feed Rate Range: 0.25 to 52.3 gph.
d. Rated minimum discharge pressure: 30 psig.
e. Manual and Automatic feed rate control.

1.4 SUBMITTALS

A. Shop Drawings: For all equipment provided.
1. Name of Manufacturer.
2. Model.
3. Dimensions.
4. Details of construction and installation.
5. Materials for all wetted parts and appurtenances.
6. Documentation of chemical compatibility.
7. Performance curves for pumps.
8. Flow diagrams.
9. Wiring diagrams.

B. Operation and Maintenance Manuals:
1. Equipment function, normal operating characteristics and limiting conditions.
2. Assembly, installation, alignment, adjustment and checking instructions.
3. Operating instructions for start-up, routine and normal operating, regulation and control, and shutdown and emergency conditions.
4. Lubrication and maintenance instructions.
5. Guide to "troubleshooting".
6. Parts lists and predicted life of parts subject to wear.
7. Outline, cross-sections, assembly drawings, engineering data and wiring diagrams.
8. Test data and performance curves.

1.5 QUALITY ASSURANCE

A. Fabrication and Installation Personnel Qualifications:
1. Trained and experienced in the fabrication and installation of the materials and equipment.
2. Knowledgeable of the design and the reviewed Shop Drawings.

B. Regulatory Requirements: Occupational Safety and Health Act of 1970: Equipment installations shall comply with Act and regulations.

C. Manufacturer's Services: Provide Manufacturer's field service.

PART 2 - PRODUCTS

2.1 CHEMICAL METERING PUMPS

A. General:
1. Fabricated of materials compatible with the chemical solution which the pumps are designated to feed.
2. Complete with check valves, pressure relief valves, back-pressure valves, anti siphon valve, calibration columns, and appurtenances as indicated on the Drawings or as required for a complete installation.
3. Pumps of a specific type shall be the product of one Manufacturer.
4. Reciprocating pumps shall be capable of turndown of 100:1 stroking frequency and 10:1 stroke length.
5. P-131 and P-134 are existing Watson Marlow 520 pumps with REM heads. Pumps are to be replaced. Salvaged pumps to be returned to owner.
~~5.~~6. P-132 and P-133 are existing Watson Marlow 520 pumps with REM heads. Existing pumpheads to be replaced with new REL pumpheads to increase pump capacity to 52.3 gph. Existing pumps to be reused.

B. Peristaltic Type Pumps (P-131 and P-134):
1. Manufacturers:
a. Watson-Marlow Qdos HFlo ReNu SBES 300 Pump Head (Basis of Design);
~~a.~~b. Or Engineer approved equal.~~Watson-Marlow 630;~~
~~b. Blue and White ProSeries M5.~~
2. Construction and details:
a. 110 Volt AC Grounded Cord and Plug, water resistant.
b. Conduit connections for control wiring.
c. Backlit LCD display with keypad controls.
d. Enclosed pumphead with non-contact optical sensor leak detection device.
~~d.~~e. For operator safety, pumphead shall be serviceable as a single replaceable component. Pumps that require an operator to open the pumphead for tube replacement, cleaning, or rebuilding or that require tools for maintenance are unacceptable. ~~Enclosed pumphead with non-contact optical sensor leak detection device.~~
~~e.~~f. Wetted material shall be compatible with pumped liquid.
~~f.~~g. Provide all special tools required for pump operation and maintenance.
~~g.~~h. 24V DC input/output status relay contacts.
3. Performance Requirements:
a. ±1% of full scale metering accuracy.
b. No flow-through pump in either direction under rated pressure.
c. No check valves required.
d. Three-year warranty.
e. Self-priming.
4. Peristaltic Pump (P-131 and P-134) Model Data:
a. Maximum Flow Rate (gph) – 154 gph
b. Discharge Pressure Rating (psi) – 50 psi
c. Pumped Material: 15% sodium hypochlorite at ambient temperatures.
d. Manual and Automatic feed rate control.
5. Peristaltic Pump Control:
a. Control speed and run/stop status of motor in manual and automatic operating modes.
b. Automatic Mode: Accept external 4-20 mA analog signal and run/stop signal. Lockout signals from manual mode.

c. Manual Mode: Provide local adjustable speed control and motor run/stop capability. Lockout signals from automatic mode.
d. Mode Selection: Local hand-off-auto; or equivalent.
e. Indication: Indicate percent of full speed based on motor tachometer.

C. Peristaltic Type Pumps (P-132 and P-133):
1. Manufacturers:
a. Watson-Marlow 520 REL pumphead;
b. Or Engineer approved equal..
2. Construction and details:
a. Enclosed pumphead with non-contact optical sensor leak detection device.
b. Wetted material shall be compatible with pumped liquid.
c. Provide all special tools required for pump operation and maintenance.
3. New Pumphead General Performance Requirements:
a. ±1% of full scale metering accuracy.
b. No flow-through pump in either direction under rated pressure.
c. No check valves required.
d. Self-priming.
4. Peristaltic Pump (P-132 and P-133) Model Data:
a. Maximum Flow Rate (gph) – 52.3 gph
b. Discharge Pressure Rating (psi) – 30 psi
c. Pumped Material: 15% sodium hypochlorite at ambient temperatures.
d. Manual and Automatic feed rate control.

2.2 APPURTENANCES

A. General:
1. Fabricated of materials compatible with the chemical solution pumped.
2. Supplied as indicated on the Drawings or as applicable to the pumping system components.

B. Pump Discharge Valves:
1. Supplied by pump Manufacturer.
2. Required valves for solenoid driven diaphragm pumps:
a. Multifunction Pump Discharge Valves:
1) Provides back pressure/anti siphon, pressure relief, priming aid vent.
2) Fabricated of materials compatible with chemical pumped.
3. Required valves for motor driven peristaltic pumps:
a. Supplied by chemical feed pump manufacturer.
b. Pressure Relief Valves (one for each peristaltic pump):
1) PVC body, spring loaded valve.
2) Factory set at pump manufacturer's recommended pressure, but field adjustable 5 to 125 psi.
3) 1/2-inch NPT pipe size.
4) Materials compatible with pumped liquids.
5) Manufacturer: Plastomatic RVD; or Engineer approved equal.
c. Back Pressure/Anti-Siphon Valves:
1) PVC body, spring loaded valve.
2) Factory set at manufacturer's recommended pressure, but field adjustable 5 to 125 psi.
3) 1/2-inch NPT pipe size.
4) PTFE diaphragm with secondary support diaphragm.
5) Materials compatible with pumped liquids.
6) Manufacturer: Plastomatic RVDT; or Engineer approved equal.

C. PVC Injection Check Valves (for retractable quill hypochlorite and fluoride chemical injection points):
1. Union Nut Diaphragm Style.
2. 1.0 to 1.5 psi cracking pressure.
3. 3/4-inch pipe size.
4. FKM or Viton elastomer diaphragm.
5. Plastomatic CKM075V-PV; or Engineer approved equal.

D. Chemical Diffuser Injectors:
   1. Provide for ~~each~~ injection point HYPO-5 and HYPO-6.
   2. Re~~c~~tractable.
   3. Quill: CPVC.
   4. Corporation Stop: Bronze.
   5. Complete with corporation cock, check valve, and safety chain.
   6. Manufacturers: Pulsafeeder J61135-C-LF, LMI 49287; or Engineer approved equal.

E. Bulk Fill Station Enclosure:
   1. Hard top spill containment enclosure.
   2. Enclosure Access:
      a. Lower Swing out Double Doors.
      b. Upper Rolltop Door.
   3. Spill Capacity: Minimum 55 Gallons.
   4. Enclosure to occupy existing 6'-0" x 4'-10" concrete pad.
   5. Materials: 100% polyethylene with UV inhibitors.
   ~~7.~~6. Complete enclosure to be modified to match existing installation and maintain operation.

2.3 SPARE PARTS

A. General:
   1. Supplied by Manufacturer of installed equipment.
   2. Deliver to Owner prior to start-up.

B. Pump Equipment:
   1. Peristaltic Pumps with replaceable tube elements: Provide 4 spare tube elements for each pump, each complete with end connections ready for installation.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install chemical feeding equipment according to the submittals reviewed by Engineer and the Manufacturer's recommendations.

B. Mounting:
   1. Peristaltic Type Pumps:
      a. Mount on integrated day tank shelves (see Drawings).
      b. Provide a loop in the suction and discharge tubing at the connections to the pump.
      c. Use pump manufacturers recommended connectors when transferring between pump suction and discharge and tubing.

C. Provide independent support of all piping, including at pump and tank connections.

D. Install back pressure anti-siphon valves at injection points.

E. Test all pumps and piping with clear water before loading chemicals. Remove all test water and dry before loading chemicals.

F. Calibrate all pumps with respect to input and output signals and furnish report to Engineer relating 4-20 mA signals to pump flow rates and speed (rpm and percent) for each pump after chemicals are loaded into tanks. Comply with OSHA safety regulations.

G. Perform a field demonstration test (running and stopped) of peristaltic pumps against the rated pressures (100 psi set with the discharge pressure relief valves) to verify that pumps will deliver and not allow backflow as specified.

3.2 FIELD QUALITY CONTROL

A. Manufacturer's field services: Arrange and pay for Manufacturer's engineer to provide the services indicated below for a minimum onsite time of 2 days. Schedule the following as soon as is practical after installation, and at times approved by Engineer and Owner:
   1. Manufacturer's engineer: Check work, assist in start-up, demonstrate operation and maintenance to Owner's personnel, and review operation and maintenance manual with Owner's personnel.

B. Promptly make changes and additions required by Manufacturer's engineer.

C. Submit Manufacturer's engineer's written approval of installation.

3.3 CLEANING

A. Clean materials installed under this Section in accordance with Division 01.

END OF SECTION 46 33 00

SECTION 46 36 43 – LIME FEEDING AND SLAKING EQUIPMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the furnishing and installation of lime feeding and slaking equipment.

1.3 DESIGN AND PERFORMANCE REQUIREMENTS

A. Design: Provide 2 paste type lime feeding and slaking systems, each complete with lime inlet shutoff valve, lime feeder, lime slaker, automatic grit remover, control panel, dust and vapor arrestor and supply water piping and accessories and alarms.

B. Performance Criteria:
1. Each slaker shall use a controlled paste-slaking technique with a 2:1 water to lime ratio by weight.
2. Each feeding and slaking system shall have a maximum capacity of 1,000 lbs/hr of quicklime and be adjustable over a 20:1 range.
3. Lime feeders and slakers shall be accurate within 2% of the set feed rate.

1.4 SUBMITTALS

A. Shop Drawings: For lime feeding and slaking equipment.
1. Dimensions.
2. Details of construction and installation.
3. Wiring diagrams.
4. Name of Manufacturer.
5. Model.

B. Operation and Maintenance Manuals: For lime feeding and slaking equipment.
1. Equipment function, normal operating characteristics and limiting conditions.
2. Assembly, installation, alignment, adjustment and checking instructions.
3. Operating instructions for start-up, routine and normal operating, regulation and control, and shutdown and emergency conditions.
4. Lubrication and maintenance instructions.
5. Guide to "troubleshooting".
6. Parts lists and predicted life of parts subject to wear.
7. Outline, cross-sections, assembly drawings, engineering data and wiring diagrams.
8. Test data and performance curves.

1.5 QUALITY ASSURANCE

A. Fabrication and Installation Personnel Qualifications:
1. Trained and experienced in the fabrication and installation of the materials and equipment.
2. Have a minimum of 5 years of experience in design, fabrication and testing of paste lime slaking equipment of the size, materials and scope herein, and shall show evidence of at least ten identical design installations in satisfactory operation for at least 5 years.
3. Knowledgeable of the design and the reviewed Shop Drawings.
4. Supply units containing all necessary appurtenances and components for a complete and operating system conforming to this specification.
5. The entire system shall be pre-assembled, piped, wired, and factory tested prior to shipment to facilitate installation and start-up at the jobsite.

6. System footprint as shown on the drawings shall not be exceeded.
7. The complete system must be assembled and tested by the manufacturer at its facility and be a standard and regularly marketed product of that manufacturer. The manufacturer must have a physical plant, technical and design staff, and fabricating personnel to complete the work specified.
8. The owner reserves the right to be present at the manufacturer's facility for visual inspection of equipment to be supplied and to witness factory functional testing.

B. Manufacturer's Services:
1. Sworn statement that the equipment furnished complies with this Specification.
2. Field service.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. General: All lime feeding and slaking equipment shall be provided by one manufacturer.

B. Manufacturers: Paste type lime slaking system shall be used as manufactured and supplied by Integrity Municipal Systems LLC (IMS), Poway, CA, (858) 486-1620 (Series A-758).

2.2 EQUIPMENT

A. Screw Type Volumetric Lime Feeder:
1. The slaking system will include a screw type volumetric feeder to control the feed rate of pebble lime into the slaker.
2. In order to facilitate on-site assembly of the slaking system and assure proper fit and function of all system components the feeder shall be supplied by the same manufacturer as the slaker.
3. Each unit shall be Model 32-300SP screw-type volumetric feeder having a capacity of 8 cubic feet per hour or 500 pounds per hour of pebble lime, and complete with a 2-inch lime feed screw; VFD speed control with 1/2 horsepower 230/460 volt, 3 phase, 60Hz, TEFC AC motor; and right-angle drive gearbox. The feeder shall be constructed of 304 stainless steel.
4. A VFD shall be provided factory mounted and wired to current NEC requirements, within the system control panel. Power supply to the VFD will be 240 VAC/ 3 phase/ 60Hz from the slaker control panel.

B. Lime Slaker and Appurtenances:
1. Paste type. Other types are not acceptable.
2. Capacity of 1,000 pounds per hour of AWWA 202 grade pebble lime.
3. Trough constructed of 304 stainless steel.
4. Ability to achieve a self-sustaining slaking temperature of 170º F or above without requiring the use of a heat exchanger, heated water or any external heat source.
5. Automatically control the slaking water flow rate to provide a 2:1 water-to-lime ratio by weight and compensate for vapor loss, changes in lime reactivity, and feed rate.
6. Complete with two counter-rotating, pug mill type paddle mixers. Mixers shall have a maximum rotational speed not to exceed 40 rpm. The use of high-speed mixers and replaceable wear plates is unacceptable.
7. The slaking chamber shall be designed to complete the slaking reaction in 5 minutes or less.
8. Slaker shall have up to a 20:1 operating range
9. Mechanical torque operated water control valve to maintain a 2:1 water-to-lime ratio and a five-minute retention time in the slaking compartment. No other type of valve is acceptable.
10. Integral dust and vapor arrestor
11. Water pressure reducing valve
12. Supply water strainer and pressure gauge
13. Supply water low pressure switch
14. 1/2 HP, 230V, 3 ph, 60Hz mixer motor
15. Paste cut-off jet spray nozzles and slurry mixing rakes in the dilution chamber
16. Normally opened bypass solenoid valve to flush slaking compartment on system shutdown
17. Slaker outlet and overflow connections

18. All feeder parts which contact the lime shall be stainless steel, Buna N, or Hypalon.
19. Feeder shall be complete with a transmitting switch for actuating the throughput totalizer and alarm contacts to activate the alarm lights on the control panel.

C. Grit Remover:
1. The grit remover shall be a flight-scraper conveyor-type grit remover with the ability to remove virtually all grit down to 10 mesh in size and a portion of finer grit down to 40 mesh. Grit particles are separated from the lime slurry based on their specific gravity. Lime slurry concentrations up to 18% are achievable. No other type of grit remover is acceptable.
2. The conveyor type grit remover will be complete with:
   a. 304 stainless steel housing construction
   b. 1/4 horsepower, 230 volt, 3 phase, 60Hz TEFC gear motor
   c. Individually replaceable flight scrapers
   d. Water control valve and flowmeter to regulate the grit-wash water flow.

D. Water Piping and Instrumentation:
1. The water supply piping shall be mounted on a stainless steel panel providing a single water source point and shall consist of the following components:
   a. Supply water strainer
   b. Control valves
   c. Pressure reducing valve
   d. Slaking water pressure gauge and switch
   e. Slaking water bypass solenoid valve
   f. Slaking water bypass manual valve
   g. Grit-wash water flowmeter
   h. Automatic batching solenoid valve
   i. The water piping shall be Copper.
2. The water piping shall be Copper.

E. Control Panel and Alarms:
1. The lime slaker electrical control panel shall provide electrical control for the entire system.
2. The control panel enclosure shall be rated NEMA 4X and shall be made of 304SS. The panel shall be remote-mounted next to the slaker system by the contractor. A junction box shall be provided mounted on the slaker system and be factory pre-wired to system components.
3. The panel shall be based on PLC logic and shall include an Allen-Bradley CompactLogix with a color 10” Allen-Bradley Panelview Plus Operator Interface Terminal (OIT) graphical display (touch screen) to provide system automation and operator monitoring of the lime slaker system.
4. The operator interface shall provide access to the following:
   a. Pebble lime feed-rate control
   b. Pebble lime feed rate display
   c. Manual and automatic operation of the lime feeder
   d. On/Off/Auto/Manual/Fault indication of the lime feeder status
   e. Manual and automatic operation of the paddle-shaft mixer motor
   f. On/Off/Auto/Manual/Fault indication of the paddle-shaft mixer motor status
   g. Manual and automatic operation of the grit remover
   h. On/Off/Auto/Manual/Fault indication of the grit remover status
   i. Manual and automatic operation of the autobatch valve
   j. On/Off/Auto/Manual indication of the autobatch valve
   k. Manual and automatic operation of the bypass valve
   l. On/Off/Auto/Manual indication of the bypass valve
   m. Alarm Indication with audible alarm for the following:
      1) Paddle shaft mixer fault
      2) Lime feeder fault
      3) Grit remover fault
      4) Control Power off
      5) Inlet water low pressure
      6) Paddle Shaft Rotation Fault
5. A single source of power shall be required (230V, 3 Ph, 60Hz) for the control panel.
6. Control panel shall be provided with terminal strip for easy wiring connections for input and output.

7. The panel shall provide for the following types of operation and control:
   a. Manual speed control of the feeder via data entry on the OIT.
   b. Automatic control of feeder rate via a 4-20 mA input signal based on flow or process conditions.
      1) Automatic batching.
      2) Automatic system shutdown.
      3) Programmable flush cycle after each shutdown

F. Lime Slaker Dust Arrestor Venturi Fan
1. The lime slaker manufacturer shall provide a draft inducer-type vent fan to be installed in the lime slaker dust arrestor discharge vent.
2. The vent fan shall be attached to a Type 304 stainless steel eductor tube so that all moving parts are external to the air flow stream in the duct.
3. The vent fan shall be capable of maintaining a negative pressure on the lime slaker dust arrestor system.
4. The draft inducer-type, duct vent fan shall be manufactured by Quickdraft of Canton, Ohio or an approved equal.
5. The fan shall be capable of venting a minimum of 100 cfm.
6. The fan blower motor shall be a 3/4 HP, 230 volt, 3-phase, 3,450 rpm.
7. The vent fan shall be mounted in the field by the contractor in the vent piping coming off the lime slaker dust arrestor system.
8. Controls for the vent fan shall be provided by the Owner.

G. Day Bin Hopper Hand Wheel Operated Knife Gate Valve
1. A knife gate valve shall be provided to isolate the day bin hopper discharge from the slaker feeder.
2. The knife gate valve shall be 8” diameter with a cast iron body, 304 stainless-steel wetted parts, and shall be manually operated with a hand wheel arrangement.

H. Accessories: Provide ~~rotary~~ knife gate inlet valve, and inlet and outlet flexible connections compatible with lime storage, and lime feeding and slaking equipment.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install equipment in conformance with:
1. Shop Drawings reviewed by Engineer.
2. The Manufacturer's recommendations.

B. It is the contractor’s responsibility to provide:
1. Piping for water, vent from vapor and dust arrestor, overflow/drain and lime slurry discharge lines to/from lime slaker.
2. Wiring to/from system control panel for power, control and alarm interfaces, junction box, plant SCADA, etc.
3. Anchor bolts, suitable equipment supports and other incidentals as necessary to complete the installation.

C. Paint materials and equipment in accordance with Division 09 Section “Painting.”

3.2 FIELD QUALITY CONTROL

A. Manufacturer's Field Service: Arrange and pay for Manufacturer's engineer to provide the services indicated below for a minimum onsite time of 2 days. Schedule the following as soon as practicable after installation and at times approved by Engineer and Owner.
1. Manufacturer's Engineer: Check work, assist in start-up, demonstrate operation and maintenance to Owner’s personnel and review operation and maintenance manual with Owner’s personnel.

B. Promptly make all changes and additions required by Manufacturer's engineer.

3.3 CLEANING

A. Prior to acceptance of the Work of this Section, thoroughly clean all installed materials, equipment, and related areas in accordance with Division 01 Section “Cleaning and Waste Management.”

END OF SECTION 46 36 43

DEVICE TYPE DEFINITIONS

LETTER	FIRST LETTER: PROCESS OR INITIATING VARIABLE	FIRST LETTER: MODIFIER	SUCCEEDING LETTERS: READOUT OR PASSIVE FUNCTION	SUCCEEDING LETTERS: OUTPUT FUNCTION	SUCCEEDING LETTERS: MODIFIER
A	ANALYSIS		ALARM		
B	BURNER FLAME, COMBUSTION		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
C	CONDUCTIVITY			CONTROL (WITH FEEDBACK)	CLOSE OR CLOSED
D	DENSITY OR SPECIFIC GRAVITY	DIFFERENTIAL			DEVIATION
E	VOLTAGE		SENSOR, PRIMARY ELEMENT		
F	FLOW, FLOW RATE	RATIO			
G	GAUGE		GLASS, GAUGE, VIEW		
H	HAND/MANUAL				HIGH
I	CURRENT		INDICATE		
J	POWER		SCAN		
K	TIME, SCHEDULE	RATE OF CHANGE		CONTROL STATION (NO FEEDBACK)	
L	LEVEL		LIGHT (PILOT)		LOW
M	MOTION OR MOTOR	MOMENTARY			MIDDLE, INTERMEDIATE
N	TORQUE		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
O	USER'S CHOICE		ORIFICE, RESTRICTION		OPEN OR OPENED
P	PRESSURE OR VACUUM		POINT (TEST CONNECTION)		
Q	QUANTITY	INTEGRATE, TOTALIZE	INTEGRATE, TOTALIZE		
R	RADIOACTIVITY		RECORD OR PRINT		RUN
S	SPEED OR FREQUENCY	SAFETY		SWITCH	STOP
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	
V	VISCOSITY OR VIBRATION			VALVE	
W	WEIGHT OR FORCE		WELL PROBE		
X	UNCLASSIFIED	X-AXIS	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED
Y	EVENT, STATE	Y-AXIS		RELAY OR COMPUTE	
Z	POSITION	Z-AXIS		DRIVER, ACTUATOR, CONTROL	

GENERAL SYMBOLS

- X / Y — FIELD/LOCAL DEVICE
- X / Y — CONTROL PANEL DEVICE FACE-MOUNTED
- X / Y — CONTROL PANEL DEVICE INTERIOR-MOUNTED
- X / Y — MCC DEVICE FACE-MOUNTED
- X / Y — MCC DEVICE INTERIOR-MOUNTED
- I — LOGICAL INTERLOCK

LINE SYMBOLS

- PROCESS CONTROL LINE
- DISCRETE SIGNAL
- ANALOG SIGNAL
- FIBER OPTIC CABLE
- UNSHIELDED TWISTED PAIR CABLE
- WIRELESS ETHERNET
- PNEUMATIC PIPING/SIGNAL
- HYDRAULIC PIPING/SIGNAL

I/O SYMBOLS

- DISCRETE PLC INPUT
- ANALOG PLC INPUT
- DISCRETE PLC OUTPUT
- ANALOG PLC OUTPUT
- X / Y — CONTROL PANEL INPUT/OUTPUT INTERIOR-MOUNTED

INSTRUMENTATION TAG NUMBERS

- X / Y — LOCAL DEVICE
  X = DEVICE TYPE
  Y = LOOP NUMBER
- X / Y — PANEL MOUNTED DEVICE
  X = DEVICE TYPE
  Y = LOOP NUMBER

ABBREVIATIONS

AIT	ANALYZER INDICATING TRANSMITTER
AE	ANALYZER SENSOR
AV/SV	VALVE CONTROL
CP	CONTROL PANEL
CS	CONTROL SWITCH
ESPB	EMERGENCY STOP PUSH BUTTON
FE	FLOW ELEMENT
FI	FLOW INDICATOR
FIT	FLOW INDICATING TRANSMITTER
FIQ	FLOW INDICATING TOTALIZER
FR	FLOW RECORDER
FS	FLOW SWITCH
FT	FLOW TRANSMITTER
HOA	HAND/OFF/AUTO
HS	HAND SWITCH
JA	POWER ALARM
JIT	POWER TRANSMITTER
JY	POWER EVENT (FAIL)
KS	TIME DELAY
LAH	LEVEL ALARM HIGH
LAHH	LEVEL ALARM HIGH HIGH
LAL	LEVEL ALARM LOW
LALL	LEVEL ALARM LOW LOW
LE	LEVEL ELEMENT
LI	LEVEL INDICATOR
LS	LEVEL SWITCH
LSL	LEVEL SWITCH LOW
LSLL	LEVEL SWITCH LOW LOW
LSH	LEVEL SWITCH HIGH
LSHH	LEVEL SWITCH HIGH HIGH
LT	LEVEL TRANSMITTER
LIC	LEVEL INDICATING CONTROLLER
LIT	LEVEL INDICATING TRANSMITTER
MCC	MOTOR CONTROL CENTER
MCP	MAIN CONTROL PANEL
ML	MOTION LIGHT
PAH	PRESSURE ALARM HIGH
PAL	PRESSURE ALARM LOW
PE	PRESSURE ELEMENT
PI	PRESSURE INDICATOR
PIT	PRESSURE INDICATING TRANSMITTER
PS	PRESSURE SWITCH
PSH	PRESSURE SWITCH HIGH
PSL	PRESSURE SWITCH LOW
PT	PRESSURE TRANSMITTER
SC	SPEED CONTROL OR CONTROLLER
ST	SPEED TRANSMITTER
SV	SOLENOID VALVE
TS (H/L)	TEMPERATURE SWITCH (HIGH/LOW) (HH=HIGH HIGH) (LL=LOW LOW)
TT	TEMPERATURE TRANSMITTER
VFD	VARIABLE FREQUENCY DRIVE
WE	WEIGHT ELEMENT
WIT	WEIGHT INDICATING TRANSMITTER
WT	WEIGHT TRANSMISSION SIGNAL
XL/ML	EVENT OR STATUS (I.E. RUNNING)
YA/QA	EVENT ALARM (I.E. FAULT)
YS	EVENT SWITCH
ZC	POSITION CONTROL
ZCC	CLOSE POSITION CONTROL
ZCO	OPEN POSITION CONTROL
ZS	POSITION SWITCH
ZSA	EMERGENCY CLOSE CONTROL (ALARM)
ZSC	CLOSED POSITION (LIMIT) SWITCH
ZSM	INTERMEDIATE POSITION (LIMIT) SWITCH (I.E. 95% CLOSED)
ZSO	OPENED POSITION (LIMIT) SWITCH
ZT	POSITION TRANSMITTER (STATUS)

GENERAL SHEET NOTES

1. THIS IS A STANDARD LEGEND SHEET. THEREFORE, NOT ALL OF THE INFORMATION SHOWN MAY BE USED ON THIS PROJECT.
2. CONTACT ENGINEER FOR DEFINITIONS, SYMBOLS, AND ABBREVIATIONS USED BUT NOT SHOWN ON THIS DRAWING.

PUMP SCHEDULE

TAG	SIZE INLET	SIZE OUTLET	SERVICE	BASIS OF DESIGN MODEL	GPH	TDH (ft)	MOTOR HP	MOTOR VOLT	RPM	NOTES
P-131			SODIUM HYPOCHLORITE	WATSON MARLOW Qdos HFLO	79.36		-	120	190	RENU 300 SEBS PUMP HEAD. (BASIS OF DESIGN)
P-132			SODIUM HYPOCHLORITE	WATSON MARLOW 530	52.3		-	120	220	REINSTALL SALVAGED CHEMICAL FEED PUMP. PROVIDE AND INSTALL NEW HIGHER CAPACITY PUMPHEAD AND TUBING.
P-133			SODIUM HYPOCHLORITE	WATSON MARLOW 530	52.3		-	120	220	REINSTALL SALVAGED CHEMICAL FEED PUMP. PROVIDE AND INSTALL NEW HIGHER CAPACITY PUMPHEAD AND TUBING.
P-134			SODIUM HYPOCHLORITE	WATSON MARLOW Qdos HFLO	79.36		-	120	190	RENU 300 SEBS PUMP HEAD. (BASIS OF DESIGN)

NOTE: ALL CHEMICAL FEED PUMPS TO BE HARDWIRED.

A1

City of Saginaw
Saginaw County, Michigan

Lime Slaker and Sodium Hypochlorite Feed System Improvements

fishbeck
Engineers | Architects | Scientists | Constructors

REVISIONS

3/17/2026	A1	ADDENDUM NO. 1

2/27/2026 BIDS AND CONSTRUCTION

Drawn By	JKING
Designer	JKING
Reviewer	
Manager	BVANZEE

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PROJECT NO.
2501185

SHEET NO.
P003

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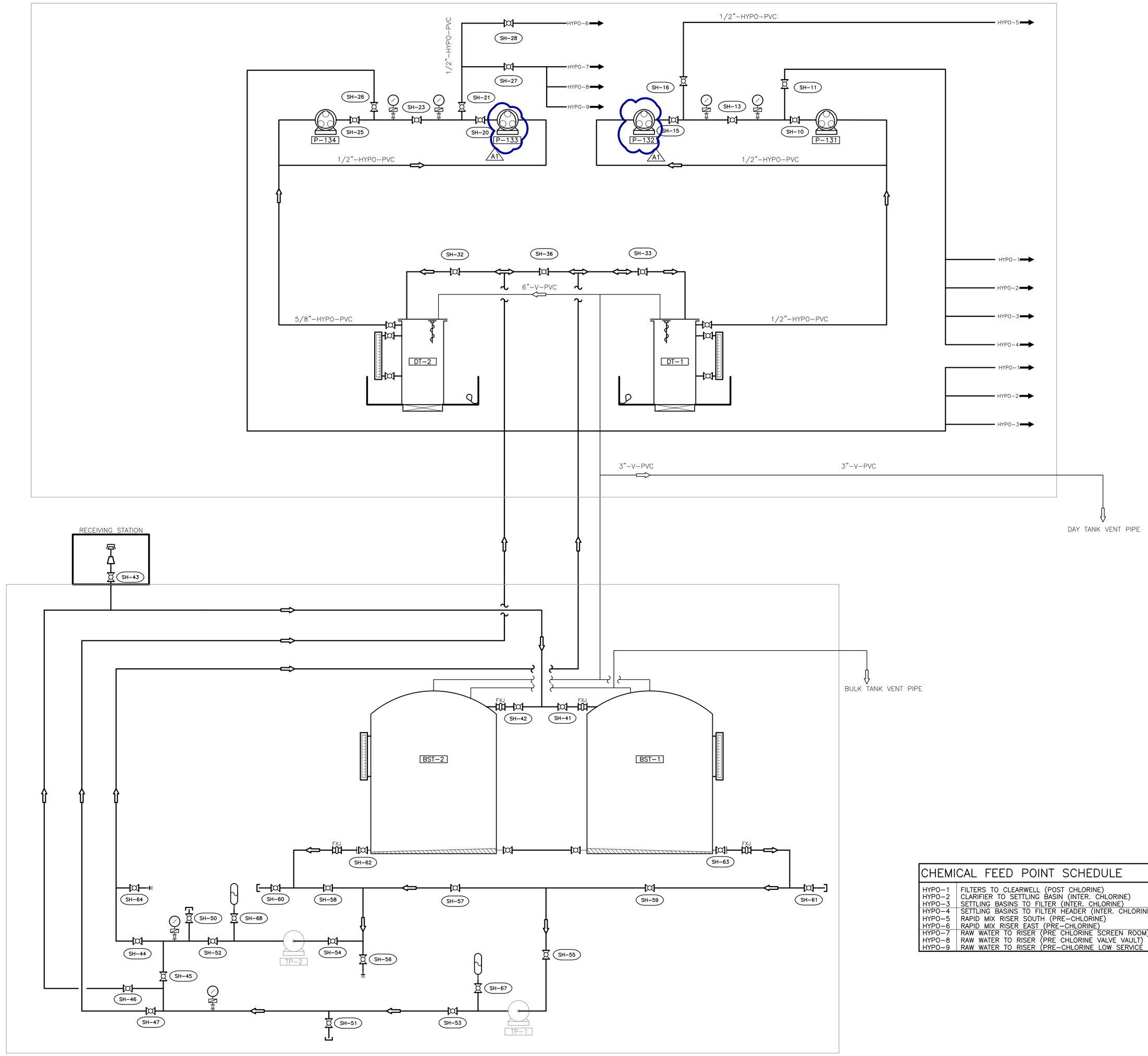

SODIUM HYPOCHLORITE
FLOW SCHEMATIC
NO SCALE

CHEMICAL FEED POINT SCHEDULE	
HYPO-1	FILTERS TO CLEARWELL (POST CHLORINE)
HYPO-2	CLARIFIER TO SETTLING BASIN (INTER. CHLORINE)
HYPO-3	SETTLING BASINS TO FILTER (INTER. CHLORINE)
HYPO-4	SETTLING BASINS TO FILTER HEADER (INTER. CHLORINE)
HYPO-5	RAPID MIX RISER SOUTH (PRE-CHLORINE)
HYPO-6	RAPID MIX RISER EAST (PRE-CHLORINE)
HYPO-7	RAW WATER TO RISER (PRE CHLORINE SCREEN ROOM)
HYPO-8	RAW WATER TO RISER (PRE CHLORINE VALVE VAULT)
HYPO-9	RAW WATER TO RISER (PRE-CHLORINE LOW SERVICE HEADER)

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Engineers | Architects | Scientists | Constructors

City of Saginaw
Saginaw County, Michigan

Lime Slaker and Sodium Hypochlorite Feed System Improvements

REVISIONS

3/17/2026	A1	ADDENDUM NO. 1

2/27/2026	BIDS AND CONSTRUCTION

Drawn By	AWALCOTT
Designer	BSIEFKER
Reviewer	
Manager	BVANZEE

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PROJECT NO.
2501185

SHEET NO.
P103

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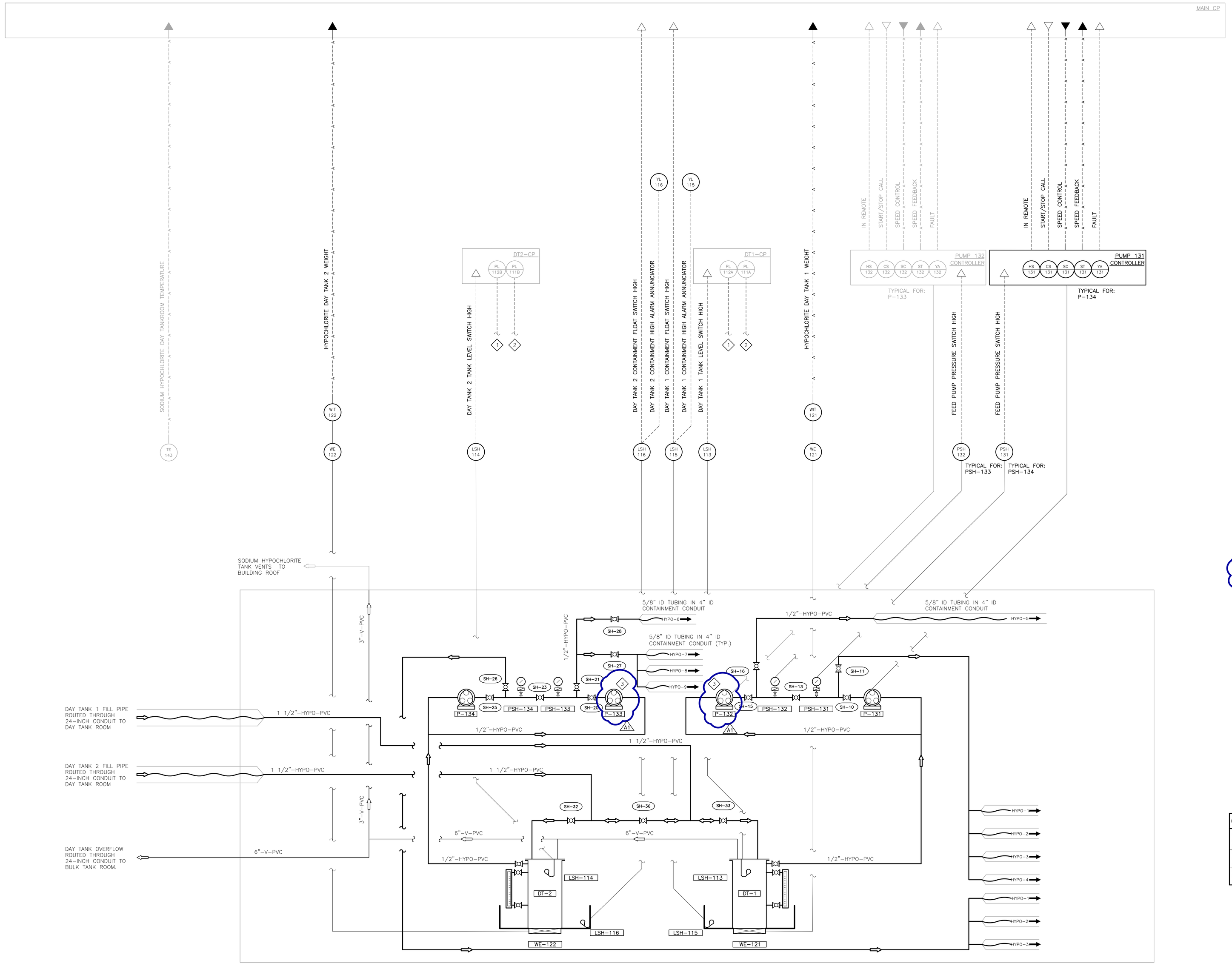
PLOT INFO: Z:\2025\2501185\CAD\CIVIL\ME SLAKERS\P101250118S.DWG LAYOUT: P103 DATE: 3/17/2026 TIME: 10:44:10 AM USER: BSIEFKER



SODIUM HYPOCHLORITE DAY TANKS
FLOW SCHEMATIC AND P&ID
NO SCALE

KEY NOTES

1. FROM TP-2 HIGH PRESSURE PSH-112. SEE P104.
2. FROM TP-1 HIGH PRESSURE PSH-111. SEE P104.
3. P-132 AND P-133 ARE EXISTING WATSON MARLOW 520 PUMPS WITH REM HEADS. EXISTING PUMPHEADS TO BE REPLACED WITH NEW REL PUMPHEADS TO INCREASE PUMP CAPACITY TO 52.3 GPH. EXISTING PUMPS TO BE REUSED. A1

CHEMICAL FEED POINT SCHEDULE

HYPO-1	FILTERS TO CLEARWELL (POST CHLORINE)
HYPO-2	CLARIFIER TO SETTLING BASIN (INTER. CHLORINE)
HYPO-3	SETTLING BASINS TO FILTER (INTER. CHLORINE)
HYPO-4	SETTLING BASINS TO FILTER HEADER (INTER. CHLORINE)
HYPO-5	RAPID MIX RISER SOUTH (PRE-CHLORINE)
HYPO-6	RAPID MIX RISER EAST (PRE-CHLORINE)
HYPO-7	RAW WATER TO RISER (PRE CHLORINE SCREEN ROOM)
HYPO-8	RAW WATER TO RISER (PRE CHLORINE VALVE VAULT)
HYPO-9	RAW WATER TO RISER (PRE-CHLORINE LOW SERVICE HEADER)

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City of Saginaw
Saginaw County, Michigan

Lime Slaker and Sodium Hypochlorite Feed System Improvements

REVISIONS

3/17/2026	A1	ADDENDUM NO. 1

2/27/2026	BIDS AND CONSTRUCTION

Drawn By	AWALCOTT
Designer	BSIEFKER
Reviewer	
Manager	BVANZEE

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PROJECT NO.
2501185

SHEET NO.
P105

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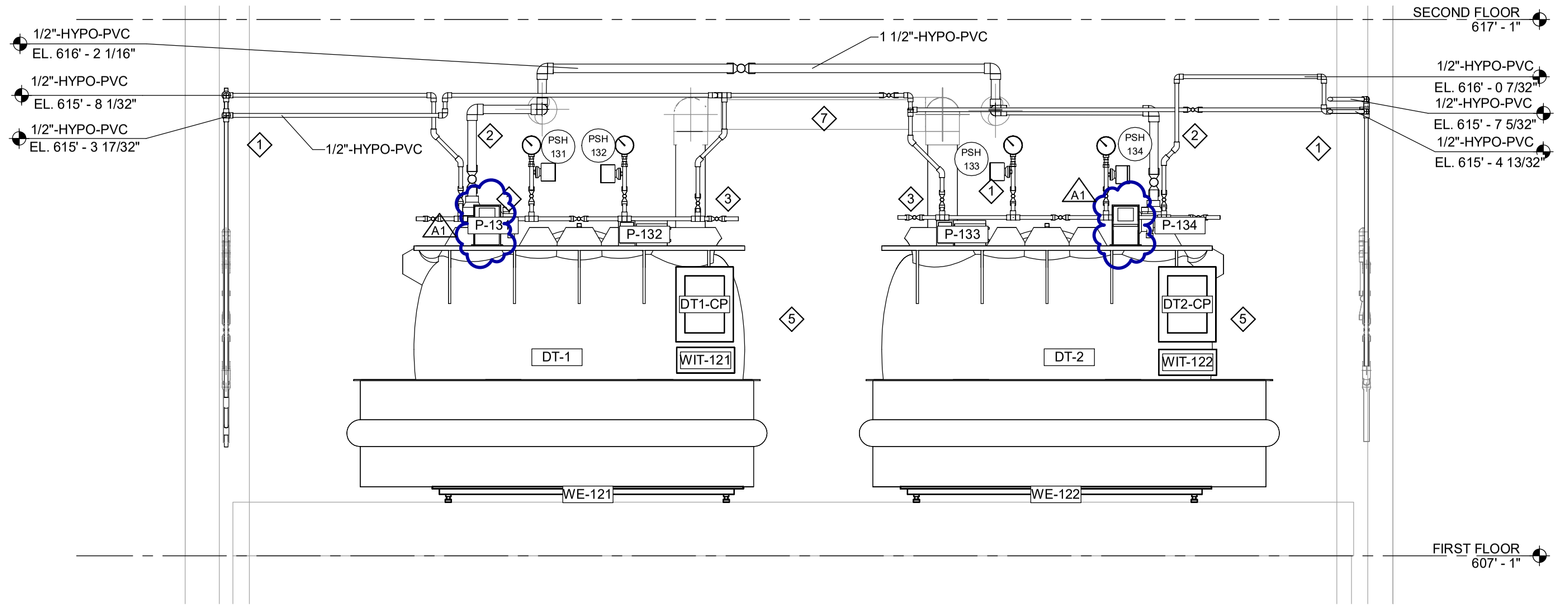
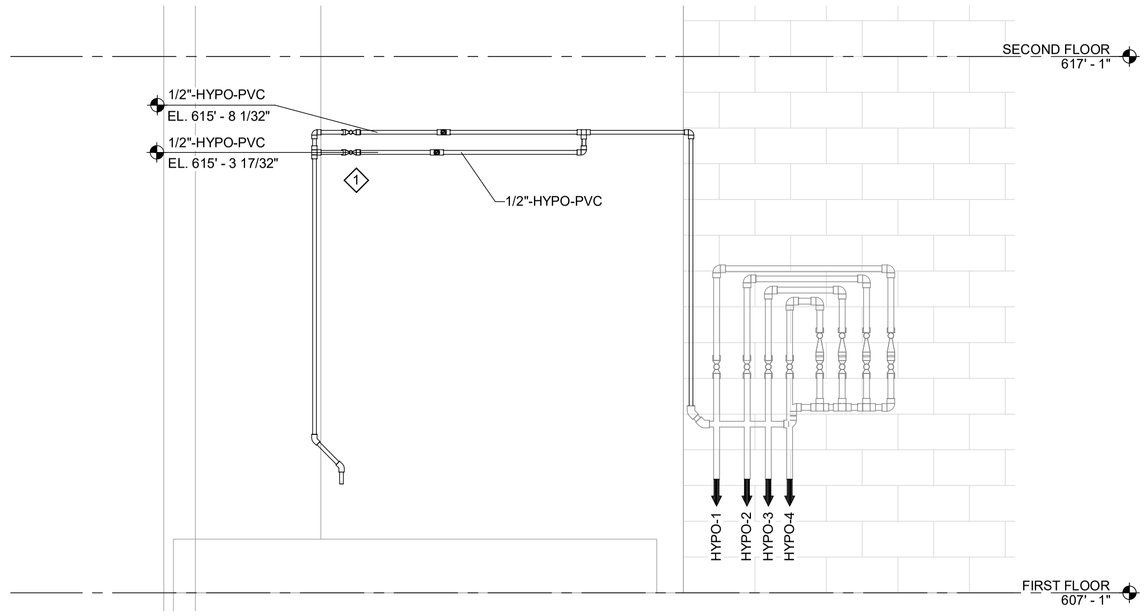
PLOT INFO: Z:\2025\2501185\CAD\CI\LIME SLAKERS\P101250185.DWG LAYOUT: P105 DATE: 3/17/2026 TIME: 10:44:11 AM USER: BSIEFKER



SODIUM HYPOCHLORITE DAY TANKS

3 SECTION

SCALE: 1/2" = 1'-0"



SODIUM HYPOCHLORITE DAY TANKS

2 SECTION

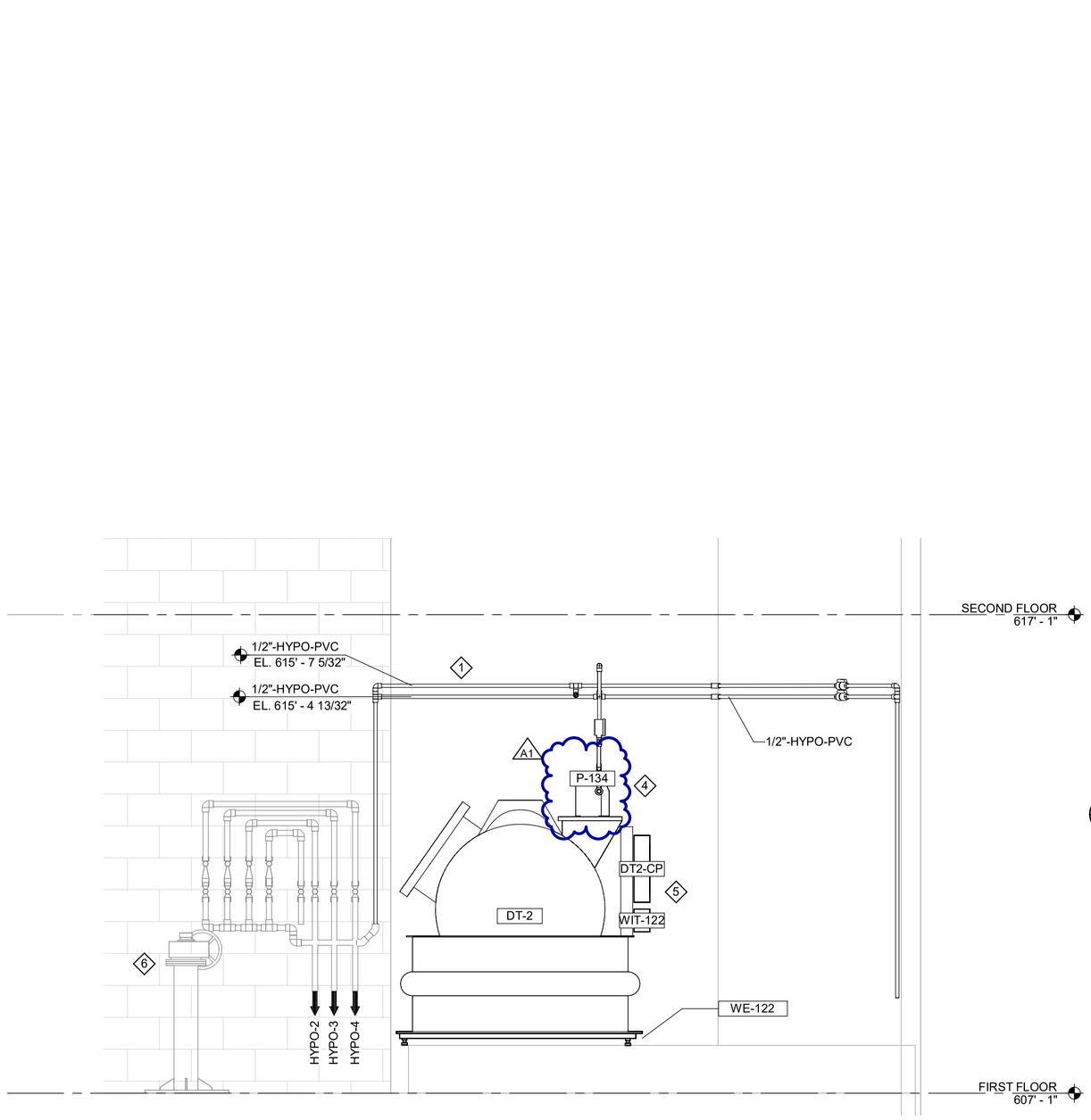
SCALE: 1/2" = 1'-0"

NOTES

1. CHEMICAL FEED PIPE ROUTING ON SHEET SHOWN TO INDICATE APPURTENANCES AND DIAMETERS. PIPE ROUTING MAY DEVIATE FROM SHOWN ROUTING WHERE APPROPRIATE AND WITH COORDINATION WITH OWNER.
2. CONTRACTOR TO FIELD VERIFY ALL EXISTING PIPING ELEVATIONS AND MATCH REPLACEMENT ELEVATIONS.
3. CHEMICAL FEED OPERATIONS SHALL BE MAINTAINED AT ALL EXISTING CHEMICAL FEED INJECTION LOCATIONS AT ALL TIMES DURING CONSTRUCTION. PROVIDE TEMPORARY INTERCONNECTION FROM DT-1 AND DT-2 DURING CONSTRUCTION TO MAINTAIN FEED TO SCREEN ROOM.
4. RECOAT WALLS AND CLOSURE PANEL INTERIORS AND OTHER SURFACES AS NECESSARY IN ACCORDANCE WITH SECTION 09 91 00 PAINTING.

KEY NOTES

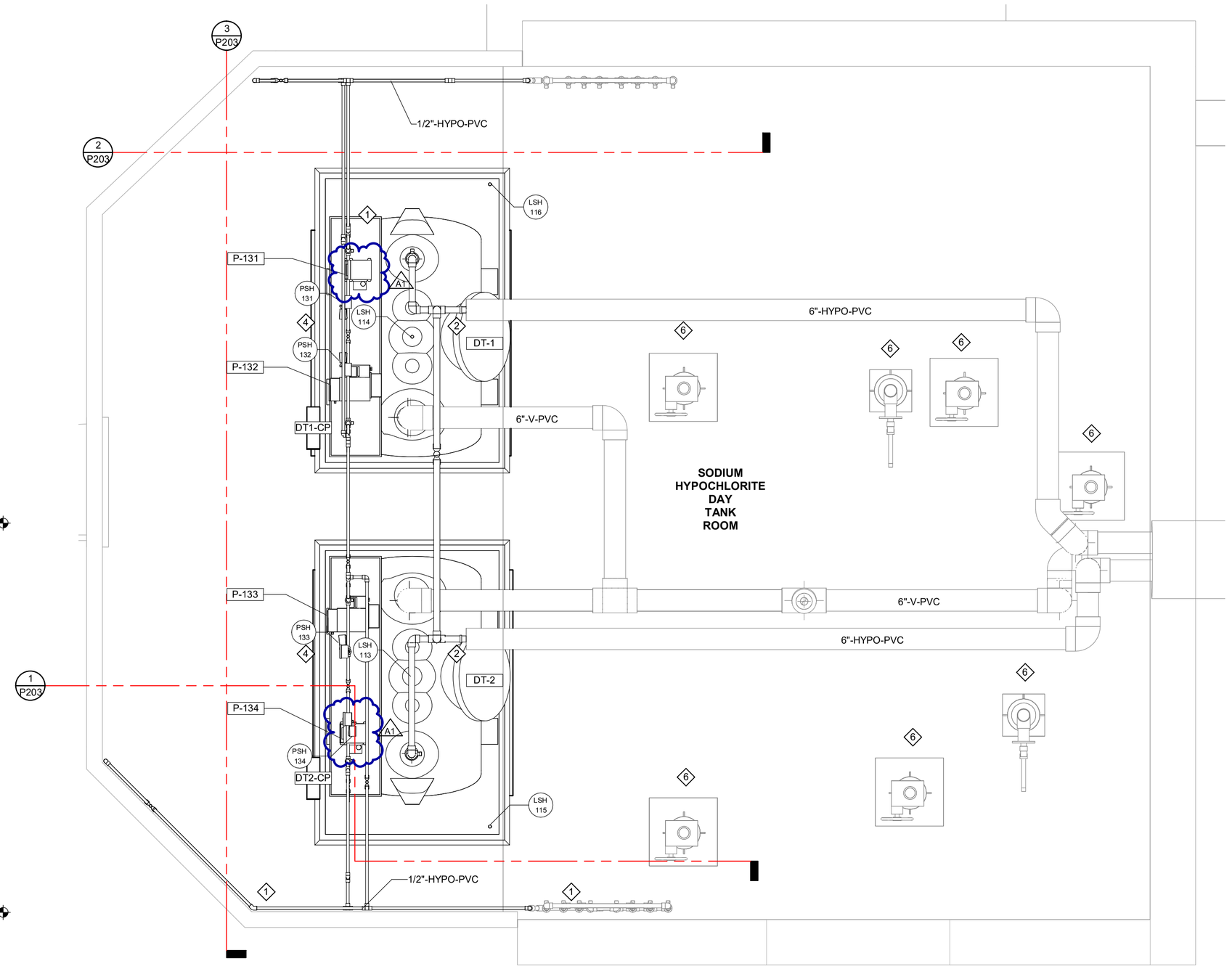
1	INSTALL NEW 1/2-INCH SODIUM HYPOCHLORITE DISCHARGE PIPING FROM CHEMICAL FEED PUMPS TO EXISTING CHEMICAL FEED PIPING AND CONDUIT.
2	INSTALL NEW 1.5-INCH I.D. SODIUM HYPOCHLORITE DAY TANK FILL PIPING THORUGH EXISTING CONDUIT AND FEED PIPING TO NEW DAY TANKS.
3	INSTALL NEW 6-INCH VENT AND DAY TANK OVERFLOW AND RECONNECT TO EXISTING.
4	REINSTALL 2 EXISTING PUMPS WITH REPLACED PUMPHEADS AND 2 NEW SODIUM HYPOCHLORITE CHEMICAL FEED PUMPS ON THE PUMP SHELVES INTEGRAL TO DAY TANKS. RETURN REMAINING 2 SALVAGED PUMPS TO OWNER.
5	MOUNT CONTROL PANEL AND SCALE TRANSMITTER TO METAL STRUT CHANNEL.
6	REINSTALL VALVE OPERATORS REMOVED TO FACILITATE DAY TANK OR CHEMICAL FEED PIPING INSTALLATION. COORDINATE REMOVAL AND ISOLATION REQUIREMENTS WITH OWNER.
7	INSTALL NEW 1/2-INCH HYPOCHLORITE METERING PUMP HEADER INTERCONNECTION PIPING.



SODIUM HYPOCHLORITE DAY TANKS

1 SECTION

SCALE: 1/2" = 1'-0"



SODIUM HYPOCHLORITE DAY TANKS

PIPING PLAN

SCALE: 1/2" = 1'-0"

NORTH

fishbeck

Engineers | Architects | Scientists | Constructors

City of Saginaw
Saginaw County, Michigan

Lime Slaker and Sodium Hypochlorite Feed System Improvements

REVISIONS

3/17/2026	A1	ADDENDUM NO. 1

2/27/2026 BIDS AND CONSTRUCTION

Drawn By	BSIEFKER
Designer	BSIEFKER
Reviewer	
Manager	BVANZEE

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PROJECT NO.
2501185

SHEET NO.
P203

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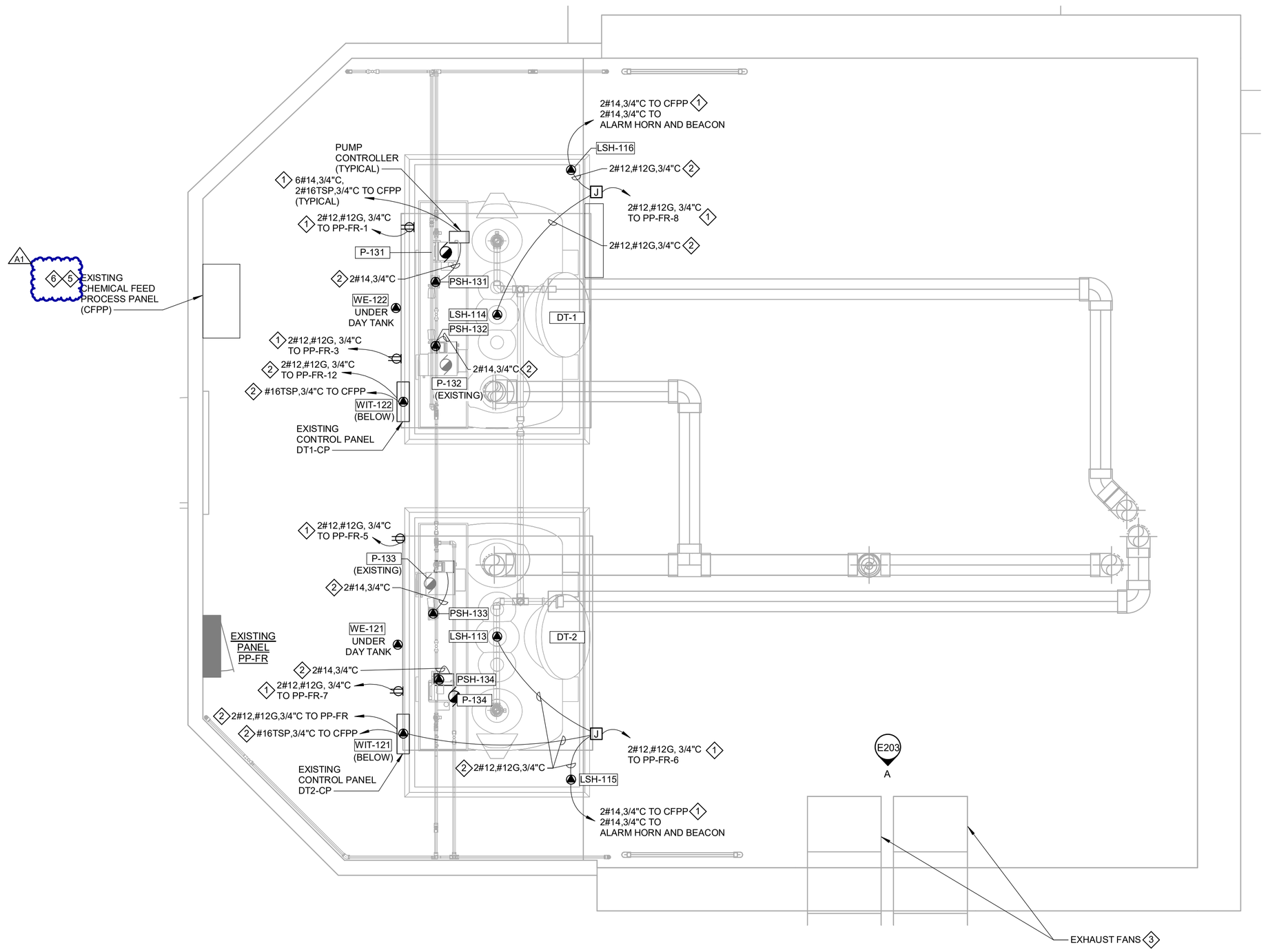

SODIUM HYPOCHLORITE DAY TANKS

POWER AND SYSTEMS PLAN

SCALE: 1/2" = 1'-0"

NORTH

NOTES

1. ALL CONTROL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
2. CONTROL PANEL MODIFICATIONS SHALL BE PERFORMED BY UL LISTED PANEL SHOP PERSONNEL TO UL STANDARDS.
3. EXISTING ITEMS ARE GENERALLY DEPICTED IN LIGHT LINE WEIGHT. NEW ITEMS ARE GENERALLY DEPICTED IN DARK LINE WEIGHT. UNLESS NOTED OTHERWISE. IN CASES OF DISCREPANCIES OR WHERE NEW/EXISTING IS UNCLEAR, PROVIDE NEW.

KEY NOTES

1 REUSE EXISTING CONDUIT AND CONDUCTORS. EXTEND EXISTING CONDUIT AND CONDUCTORS AS REQUIRED.

2 PROVIDE NEW CONDUIT AND CONDUCTORS.

3 REUSE EXHAUST FAN POWER AND CONTROLS USING EXISTING CONDUIT AND CONDUCTORS. EXTEND EXISTING CONDUIT AND CONDUCTORS AS REQUIRED.

4 REMOVE AND REINSTALL CONDUIT, CONDUCTORS, AND SWITCHES. EXTEND CONDUIT AND CONDUCTORS AS REQUIRED.

A1 5 FOR THE CHEMICAL FEED PROCESSOR PANEL (CFPP) PROVIDE THE FOLLOWING:
(1) ALLEN BRADLEY CONTROLLOGIX 5580 CONTROLLER CATALOG NO. 1756-L81E
(2) ALLEN BRADLEY CLX HI-CAP ENET/IP MODULE-TP CATALOG NO. 1756-EN2T
(1) ALLEN BRADLEY STRATIX 5700 ETHERNET SWITCH CATALOG NO. 1756-BMS 10CGA

6 CONVERT EXISTING PLC PROGRAMMING FOR USE WITH NEW PROCESSOR. UPDATE PLC PROGRAMMING AS REQUIRED.

SODIUM HYPOCHLORITE FEED ROOM

A INTERIOR PHOTO

SCALE: 12" = 1'-0"

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City of Saginaw
Saginaw County, Michigan

Lime Slaker and Sodium Hypochlorite
Feed System Improvements

REVISIONS

3/17/2026	A1	ADDENDUM NO. 1

2/27/2026 BIDS AND CONSTRUCTION

Drawn By	CMACE
Designer	TDWYER
Reviewer	JACONDIE
Manager	BVANZEE

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PROJECT NO.
2501185

SHEET NO.
E203

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AIA® Document A312™ – 2010

Performance Bond

Bond No.014266950

CONTRACTOR:
(Name, legal status and address)
John E. Green Company

220 Victor Avenue
Highland Park, MI 48203-3116

SURETY:
(Name, legal status and principal place of business)
Liberty Mutual Insurance Company
175 Berkeley Street
Boston, MA 02116

OWNER:
(Name, legal status and address)
City of Saginaw

1315 S. Washington Avenue
Saginaw, MI 48601

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

AIA Document A312–2010 combines two separate bonds, a Performance Bond and a Payment Bond, into one form. This is not a single combined Performance and Payment Bond.

CONSTRUCTION CONTRACT
Date: 27 April 2026

Amount: One Million Nine Hundred Eighty-one Thousand Nine Hundred Forty And No/100Dollars ($1,981,940.00)

Description: C-1720 WTP Sodium Hypochlorite and Lime Feed Improvements
(Name and location)

BOND
Date: 04 May 2026
(Not earlier than Construction Contract Date)

Amount: One Million Nine Hundred Eighty-one Thousand Nine Hundred Forty And No/100Dollars ($1,981,940.00)

Modifications to this Bond: ☒ None ☐ See Section 16

CONTRACTOR AS PRINCIPAL		SURETY	
Company:	*(Corporate Seal)*	Company:	*(Corporate Seal)*
John E. Green Company		Liberty Mutual Insurance Company	
Signature:		Signature:	
Name and Title:	Michael J. Green, President and CEO	Name and Title:	Holly Nichols, Attorney-in-Fact

(Any additional signatures appear on the last page of this Performance Bond.)

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:
Guy Hurley, LLC
989 E. South Boulevard, Suite 200
Rochester Hills, MI 48307

OWNER'S REPRESENTATIVE:
(Architect, Engineer or other party:)

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

§ 2 If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Section 3.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after

.1 the Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Section 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

.2 the Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

.3 the Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

§ 4 Failure on the part of the Owner to comply with the notice requirement in Section 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

§ 5 When the Owner has satisfied the conditions of Section 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

§ 5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

§ 5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

§ 5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Section 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

§ 5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

§ 6 If the Surety does not proceed as provided in Section 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Section 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

§ 7 If the Surety elects to act under Section 5.1, 5.2 or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication, for

.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

.2 additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Section 5; and

.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

§ 8 If the Surety elects to act under Section 5.1, 5.3 or 5.4, the Surety's liability is limited to the amount of this Bond.

§ 9 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors and assigns.

§ 10 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 11 Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 12 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

§ 13 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 14 Definitions

§ 14.1 Balance of the Contract Price. The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

§ 14.2 Construction Contract. The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

§ 14.3 Contractor Default. Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

§ 14.4 Owner Default. Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 14.5 Contract Documents. All the documents that comprise the agreement between the Owner and Contractor.

§ 15 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 16 Modifications to this bond are as follows:

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL		SURETY	
Company:	*(Corporate Seal)*	Company:	*(Corporate Seal)*
Signature:		Signature:	
Name and Title:		Name and Title:	
Address		Address	

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

AIA® Document A312™ – 2010

Payment Bond

Bond No.014266950

CONTRACTOR:
(Name, legal status and address)
John E. Green Company

220 Victor Avenue
Highland Park, MI 48203-3116

OWNER:
(Name, legal status and address)
City of Saginaw
1315 S. Washington Avenue
Saginaw, MI 48601

SURETY:
(Name, legal status and principal place of business)
Liberty Mutual Insurance Company
175 Berkeley Street
Boston, MA 02116

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

AIA Document A312–2010 combines two separate bonds, a Performance Bond and a Payment Bond, into one form. This is not a single combined Performance and Payment Bond.

CONSTRUCTION CONTRACT
Date: 27 April 2026

Amount: One Million Nine Hundred Eighty-one Thousand Nine Hundred Forty And No/100Dollars ($1,981,940.00)

Description: C-1720 WTP Sodium Hypochlorite and Lime Feed Improvements
(Name and location)

BOND
Date: 04 May 2026
(Not earlier than Construction Contract Date)

Amount: One Million Nine Hundred Eighty-one Thousand Nine Hundred Forty And No/100Dollars ($1,981,940.00)

Modifications to this Bond: ☐ None ☒ See Section 18

CONTRACTOR AS PRINCIPAL
Company: *(Corporate Seal)*
John E. Green Company

Signature: _____
Name and Title: Michael J. Green, President and CEO

SURETY
Company: *(Corporate Seal)*
Liberty Mutual Insurance Company

Signature: _____
Name and Title: Holly Nichols
Attorney-in-Fact

(Any additional signatures appear on the last page of this Payment Bond.)

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:
Guy Hurley, LLC
989 E. South Boulevard, Suite 200
Rochester Hills, MI 48307
() -

OWNER'S REPRESENTATIVE:
(Architect, Engineer or other party:)

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

§ 2 If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Section 13) of claims, demands, liens or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety.

§ 4 When the Owner has satisfied the conditions in Section 3, the Surety shall promptly and at the Surety's expense defend, indemnify and hold harmless the Owner against a duly tendered claim, demand, lien or suit.

§ 5 The Surety's obligations to a Claimant under this Bond shall arise after the following:

§ 5.1 Claimants, who do not have a direct contract with the Contractor,

.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and

.2 have sent a Claim to the Surety (at the address described in Section 13).

§ 5.2 Claimants, who are employed by or have a direct contract with the Contractor, have sent a Claim to the Surety (at the address described in Section 13).

§ 6 If a notice of non-payment required by Section 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Section 5.1.1.

§ 7 When a Claimant has satisfied the conditions of Sections 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

§ 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

§ 7.2 Pay or arrange for payment of any undisputed amounts.

§ 7.3 The Surety's failure to discharge its obligations under Section 7.1 or Section 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Section 7.1 or Section 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

§ 8 The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Section 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

§ 9 Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

§ 10 The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to, or give notice on behalf of, Claimants or otherwise have any obligations to Claimants under this Bond.

§ 11 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 12 No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Section 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 13 Notice and Claims to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

§ 14 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 15 Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

§ 16 Definitions

§ 16.1 Claim. A written statement by the Claimant including at a minimum:

.1 the name of the Claimant;
.2 the name of the person for whom the labor was done, or materials or equipment furnished;
.3 a copy of the agreement or purchase order pursuant to which labor, materials or equipment was furnished for use in the performance of the Construction Contract;
.4 a brief description of the labor, materials or equipment furnished;
.5 the date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
.6 the total amount earned by the Claimant for labor, materials or equipment furnished as of the date of the Claim;
.7 the total amount of previous payments received by the Claimant; and
.8 the total amount due and unpaid to the Claimant for labor, materials or equipment furnished as of the date of the Claim.

§ 16.2 Claimant. An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

§ 16.3 Construction Contract. The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

POWER OF ATTORNEY

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

Certificate No: **8213450-013068**

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Nicholas Ashburn; Robert D. Heuer; Paul H. Hurley; Michael D. Lechner; Mark Madden; Richard McGregor; Holly Nichols; Jason Rogers

all of the city of Rochester state of MI each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 25th day of March, 2025.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

By: _____
Nathan J. Zangerle, Assistant Secretary

State of PENNSYLVANIA
County of MONTGOMERY ss

On this 25th day of March, 2025 before me personally appeared Nathan J. Zangerle, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at Plymouth Meeting, Pennsylvania, on the day and year first above written.

Commonwealth of Pennsylvania - Notary Seal
Teresa Pastella, Notary Public
Montgomery County
My commission expires March 28, 2029
Commission number 1126044
Member, Pennsylvania Association of Notaries

By: _____
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV – OFFICERS: Section 12. Power of Attorney.
Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII – Execution of Contracts: Section 5. Surety Bonds and Undertakings.
Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation – The President of the Company, acting pursuant to the Bylaws of the Company, authorizes Nathan J. Zangerle, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 4th day of May, 2026.

By: _____
Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

For bond and/or Power of Attorney (POA) verification inquiries, please call 610-832-8240 or email HOSUR@libertymutual.com.

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 05/08/2026

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
MARSH USA LLC.
One Towne Square, Suite 1100
Southfield, MI 48076
Attn: detroit.certrequest@marsh.com

CN101544923--CasPr-26-27

CONTACT NAME: Marsh | U.S. Operations & Technology
PHONE (A/C, No, Ext): 866-966-4664 **FAX (A/C, No):**
E-MAIL ADDRESS: Detroit.CertRequest@Marsh.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Zurich American Insurance Company	16535
INSURER B : American Guarantee and Liability Insurance Company	26247
INSURER C : Indian Harbor Insurance Company	36940
INSURER D : Midwest Employers Casualty Company	23612
INSURER E :	
INSURER F :	

INSURED
John E. Green Company
220 Victor Avenue
Highland Park, MI 48203

COVERAGES **CERTIFICATE NUMBER:** CHI-011158345-00 **REVISION NUMBER:** 0

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X **COMMERCIAL GENERAL LIABILITY** [ ] CLAIMS-MADE [X] OCCUR X Includes Contractual Liability GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [X] PRO-JECT [ ] LOC [ ] OTHER:	X	X	GLO 6142425 02	02/01/2026	02/01/2027	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG 	$ 2,000,000 $ 100,000 $ 5,000 $ 2,000,000 $ 4,000,000 $ 4,000,000 $
A	**AUTOMOBILE LIABILITY** X ANY AUTO [ ] OWNED AUTOS ONLY [ ] SCHEDULED AUTOS X HIRED AUTOS ONLY [X] NON-OWNED AUTOS ONLY	X	X	BAP 6142424-02	02/01/2026	02/01/2027	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) 	$ 2,000,000 $ $ $ $
B	X **UMBRELLA LIAB** [X] OCCUR **EXCESS LIAB** [ ] CLAIMS-MADE [ ] DED [ ] RETENTION $	X	X	AUC 0904786-02	02/01/2026	02/01/2027	EACH OCCURRENCE AGGREGATE 	$ 10,000,000 $ 10,000,000 $
A	**WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** Y / N ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? [N] **(Mandatory in NH)** If yes, describe under DESCRIPTION OF OPERATIONS below	N / A	X	WC 6142426 02	02/01/2026	02/01/2027	X PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 1,000,000 $ 1,000,000 $ 1,000,000
C	Professional/Pollution Liab			CEO744659309	02/01/2026	02/01/2027	Limit (SIR: $100,000)	10,000,000
D	XS MI Employer's Liability			EWC009283	02/01/2025	02/01/2027	Limit	1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
226-0066 | C-1720 | Saginaw WTP Sodium Hypochlorite & Lime Feed Improvements | The City of Saginaw, its officers, employees, agents, or representatives are included as additional insured on the General Liability (ongoing & completed operations), Automobile Liability and Umbrella Liability on a primary and non-contributory basis as required by written contract. Waiver of Subrogation applies to General Liability, Automobile Liability, Umbrella Liability and Workers Compensation required by contract. Thirty (30) days written notice will be provided given any changes.

CERTIFICATE HOLDER

City of Saginaw
1315 S. Washington Avenue
Saginaw, MI 48601

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE of Marsh USA LLC

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USDOT Number: 362254 Date Received: _____

Please note, the expiration date as stated on this form relates to the process for renewing the Information Collection Request for this form with the Office of Management and Budget. This requirement to collect information as requested on this form does not expire. For questions, please contact the Office of Registration and Safety Information, Registration, Licensing, and Insurance Division.

A Federal Agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2126-0008. Public reporting for this collection of information is estimated to be approximately 2 minutes per response, including the time for reviewing instructions, gathering the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, Federal Motor Carrier Safety Administration, MC-RRA, Washington, D.C. 20590.

United States Department of Transportation
Federal Motor Carrier Safety Administration

Endorsement for Motor Carrier Policies of Insurance for Public Liability under Sections 29 and 30 of the Motor Carrier Act of 1980

FORM MCS-90

Issued to JOHN E GREEN COMPANY *(Motor Carrier name)* **of** MI *(Motor Carrier state or province)*

Dated at SCHAUMBURG, IL **on this** 01 **day of** FEBRUARY , 2026

Amending Policy Number: BAP 6142424-02 **Effective Date:** 02/01/2026

Name of Insurance Company: ZURICH AMERICAN INSURANCE COMPANY

Susan B. Kendzora

Countersigned by: _____
(authorized company representative)

The policy to which this endorsement is attached provides primary or excess insurance, as indicated for the limits shown *(check only one)*:

☒ *This insurance is primary and the company shall not be liable for amounts in excess of* $2,000,000 *for each accident.*

☐ *This insurance is excess and the company shall not be liable for amounts in excess of* _____ *for each accident in excess of the underlying limit of* _____ *for each accident.*

Whenever required by the Federal Motor Carrier Safety Administration (FMCSA), the company agrees to furnish the FMCSA a duplicate of said policy and all its endorsements. The company also agrees, upon telephone request by an authorized representative of the FMCSA, to verify that the policy is in force as of a particular date. The telephone number to call is: 800-382-2150.

Cancellation of this endorsement may be effected by the company or the insured by giving (1) thirty-five (35) days notice in writing to the other party (said 35 days notice to commence from the date the notice is mailed, proof of mailing shall be sufficient proof of notice), and (2) if the insured is subject to the FMCSA's registration requirements under 49 U.S.C. 13901, by providing thirty (30) days notice to the FMCSA (said 30 days notice to commence from the date the notice is received by the FMCSA at its office in Washington, DC).

Filings must be transmitted online via the Internet at http://www.fmcsa.dot.gov/urs.

(continued on next page)

DEFINITIONS AS USED IN THIS ENDORSEMENT

Accident includes continuous or repeated exposure to conditions or which results in bodily injury, property damage, or environmental damage which the insured neither expected nor intended.

Motor Vehicle means a land vehicle, machine, truck, tractor, trailer, or semitrailer propelled or drawn by mechanical power and used on a highway for transporting property, or any combination thereof.

Bodily Injury means injury to the body, sickness, or disease to any person, including death resulting from any of these.

Property Damage means damage to or loss of use of tangible property.

Environmental Restoration means restitution for the loss, damage, or destruction of natural resources arising out of the accidental discharge, dispersal, release or escape into or upon the land, atmosphere, watercourse, or body of water, of any commodity transported by a motor carrier. This shall include the cost of removal and the cost of necessary measures taken to minimize or mitigate damage to human health, the natural environment, fish, shellfish, and wildlife.

Public Liability means liability for bodily injury, property damage, and environmental restoration.

The insurance policy to which this endorsement is attached provides automobile liability insurance and is amended to assure compliance by the insured, within the limits stated herein, as a motor carrier of property, with Sections 29 and 30 of the Motor Carrier Act of 1980 and the rules and regulations of the Federal Motor Carrier Safety Administration (FMCSA).

In consideration of the premium stated in the policy to which this endorsement is attached, the insurer (the company) agrees to pay, within the limits of liability described herein, any final judgment recovered against the insured for public liability resulting from negligence in the operation, maintenance or use of motor vehicles subject to the financial responsibility requirements of Sections 29 and 30 of the Motor Carrier Act of 1980 regardless of whether or not each motor vehicle is specifically described in the policy and whether or not such negligence occurs on any route or in any territory authorized to be served by the insured or elsewhere. Such insurance as is afforded, for public liability, does not apply to injury to or death of the insured's employees while engaged in the course of their employment, or property transported by the insured, designated as cargo. It is understood and agreed that no condition, provision, stipulation, or limitation contained in the policy, this endorsement, or any other endorsement thereon, or violation thereof, shall relieve the company from liability or from the payment of any final judgment, within the limits of liability herein described, irrespective of the financial condition, insolvency or bankruptcy of the insured. However, all terms, conditions, and limitations in the policy to which the endorsement is attached shall remain in full force and effect as binding between the insured and the company. The insured agrees to reimburse the company for any payment made by the company on account of any accident, claim, or suit involving a breach of the terms of the policy, and for any payment that the company would not have been obligated to make under the provisions of the policy except for the agreement contained in this endorsement.

It is further understood and agreed that, upon failure of the company to pay any final judgment recovered against the insured as provided herein, the judgment creditor may maintain an action in any court of competent jurisdiction against the company to compel such payment.

The limits of the company's liability for the amounts prescribed in this endorsement apply separately to each accident and any payment under the policy because of anyone accident shall not operate to reduce the liability of the company for the payment of final judgments resulting from any other accident.

(continued on next page)

SCHEDULE OF LIMITS — PUBLIC LIABILITY

Type of carriage	Commodity transported	January 1, 1985
(1) For-hire (in interstate or foreign commerce, with a gross vehicle weight rating of 10,000 or more pounds).	Property (nonhazardous)	$750,000
(2) For-hire and Private (in interstate, foreign, or intrastate commerce, with a gross vehicle weight rating of 10,001 or more pounds).	Hazardous substances, as defined in 49 CFR 171.8, transported in cargo tanks, portable tanks, or hopper-type vehicles with capacities in excess of 3,500 water gallons; or in bulk Division 1.1, 1.2, and 1.3 materials, Division 2.3, Hazard Zone A, or Division 6.1, Packing Group I, Hazard Zone A material; in bulk Division 2.1 or 2.2; or highway route controlled quantities of a Class 7 material, as defined in 49 CFR 173.403.	$5,000,000
(3) For-hire and Private (in interstate or foreign commerce, in any quantity; or in intrastate commerce, in bulk only; with a gross vehicle weight rating of 10,001 or more pounds).	Oil listed in 49 CFR 172.101; hazardous waste, hazardous materials, and hazardous substances defined in 49 CFR 171.8 and listed in 49 CFR 172.101, but not mentioned in (2) above or (4) below.	$1,000,000
(4) For-hire and Private (In interstate or foreign commerce, with a gross vehicle weight rating of less than 10,001 pounds).	Any quantity of Division 1.1, 1.2, or 1.3 material; any quantity of a Division 2.3, Hazard Zone A, or Division 6.1, Packing Group I, Hazard Zone A material; or highway route controlled quantities of a Class 7 material as defined in 49 CFR 173.403.	$5,000,000

*The schedule of limits shown does not provide coverage. The limits shown in the schedule are for information purposes only.

Coverage Extension Endorsement

ZURICH

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer No.	Add'l. Prem	Return Prem.
BAP6142424 02	2/1/2026	2/1/2027	2/1/2026	23013000		

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies insurance provided under the:

Business Auto Coverage Form
Motor Carrier Coverage Form

A. Amended Who Is An Insured

1. The following is added to the **Who Is An Insured** Provision in **Section II – Covered Autos Liability Coverage**:

   The following are also "insureds":

   a. Any "employee" of yours is an "insured" while using a covered "auto" you don't own, hire or borrow for acts performed within the scope of employment by you. Any "employee" of yours is also an "insured" while operating an "auto" hired or rented under a contract or agreement in an "employee's" name, with your permission, while performing duties related to the conduct of your business.

   b. Anyone volunteering services to you is an "insured" while using a covered "auto" you don't own, hire or borrow to transport your clients or other persons in activities necessary to your business.

   c. Anyone else who furnishes an "auto" referenced in Paragraphs **A.1.a.** and **A.1.b.** in this endorsement.

   d. Where and to the extent permitted by law, any person(s) or organization(s) where required by written contract or written agreement with you executed prior to any "accident", including those person(s) or organization(s) directing your work pursuant to such written contract or written agreement with you, provided the "accident" arises out of operations governed by such contract or agreement and only up to the limits required in the written contract or written agreement, or the Limits of Insurance shown in the Declarations, whichever is less.

2. The following is added to the **Other Insurance** Condition in the Business Auto Coverage Form and the **Other Insurance – Primary and Excess Insurance Provisions Condition** in the Motor Carrier Coverage Form**:**

   Coverage for any person(s) or organization(s), where required by written contract or written agreement with you executed prior to any "accident", will apply on a primary and non-contributory basis and any insurance maintained by the additional "insured" will apply on an excess basis. However, in no event will this coverage extend beyond the terms and conditions of the Coverage Form.

B. Amendment – Supplementary Payments

Paragraphs **a.(2)** and **a.(4)** of the **Coverage Extensions** Provision in **Section II – Covered Autos Liability Coverage** are replaced by the following:

(2) Up to $5,000 for the cost of bail bonds (including bonds for related traffic law violations) required because of an "accident" we cover. We do not have to furnish these bonds.

(4) All reasonable expenses incurred by the "insured" at our request, including actual loss of earnings up to $500 a day because of time off from work.

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C. Fellow Employee Coverage

The **Fellow Employee** Exclusion contained in **Section II – Covered Autos Liability Coverage** does not apply.

D. Driver Safety Program Liability and Physical Damage Coverage

1. The following is added to the **Racing** Exclusion in **Section II – Covered Autos Liability Coverage**:

This exclusion does not apply to covered "autos" participating in a driver safety program event, such as, but not limited to, auto or truck rodeos and other auto or truck agility demonstrations.

2. The following is added to Paragraph **2.** in the **Exclusions** of **Section III – Physical Damage Coverage** of the Business Auto Coverage Form and Paragraph **2.b.** in the **Exclusions** of **Section IV – Physical Damage Coverage** of the Motor Carrier Coverage Form:

This exclusion does not apply to covered "autos" participating in a driver safety program event, such as, but not limited to, auto or truck rodeos and other auto or truck agility demonstrations.

E. Lease or Loan Gap Coverage

The following is added to the **Coverage** Provision of the **Physical Damage Coverage** Section:

Lease Or Loan Gap Coverage

In the event of a total "loss" to a covered "auto", we will pay any unpaid amount due on the lease or loan for a covered "auto", less:

a. Any amount paid under the **Physical Damage Coverage** Section of the Coverage Form; and

b. Any:

(1) Overdue lease or loan payments at the time of the "loss";

(2) Financial penalties imposed under a lease for excessive use, abnormal wear and tear or high mileage;

(3) Security deposits not returned by the lessor;

(4) Costs for extended warranties, credit life insurance, health, accident or disability insurance purchased with the loan or lease; and

(5) Carry-over balances from previous leases or loans.

F. Towing and Labor

Paragraph **A.2.** of the **Physical Damage Coverage** Section is replaced by the following:

We will pay up to $75 for towing and labor costs incurred each time a covered "auto" of the private passenger type is disabled. However, the labor must be performed at the place of disablement.

G. Extended Glass Coverage

The following is added to Paragraph **A.3.a.** of the **Physical Damage Coverage** Section:

If glass must be replaced, the deductible shown in the Declarations will apply. However, if glass can be repaired and is actually repaired rather than replaced, the deductible will be waived. You have the option of having the glass repaired rather than replaced.

H. Hired Auto Physical Damage – Increased Loss of Use Expenses

The **Coverage Extension** for **Loss Of Use Expenses** in the **Physical Damage Coverage** Section is replaced by the following:

Loss Of Use Expenses

For Hired Auto Physical Damage, we will pay expenses for which an "insured" becomes legally responsible to pay for loss of use of a vehicle rented or hired without a driver under a written rental contract or written rental agreement. We will pay for loss of use expenses if caused by:

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(1) Other than collision only if the Declarations indicate that Comprehensive Coverage is provided for any covered "auto";

(2) Specified Causes Of Loss only if the Declarations indicate that Specified Causes Of Loss Coverage is provided for any covered "auto"; or

(3) Collision only if the Declarations indicate that Collision Coverage is provided for any covered "auto".

However, the most we will pay for any expenses for loss of use is $100 per day, to a maximum of $3000.

I. Personal Effects Coverage

The following is added to the **Coverage** Provision of the **Physical Damage Coverage** Section:

Personal Effects Coverage

a. We will pay up to $750 for "loss" to personal effects which are:

(1) Personal property owned by an "insured"; and

(2) In or on a covered "auto".

b. Subject to Paragraph **a.** above, the amount to be paid for "loss" to personal effects will be based on the lesser of:

(1) The reasonable cost to replace; or

(2) The actual cash value.

c. The coverage provided in Paragraphs **a.** and **b.** above, only applies in the event of a total theft of a covered "auto". No deductible applies to this coverage. However, we will not pay for "loss" to personal effects of any of the following:

(1) Accounts, bills, currency, deeds, evidence of debt, money, notes, securities, or commercial paper or other documents of value.

(2) Bullion, gold, silver, platinum, or other precious alloys or metals; furs or fur garments; jewelry, watches, precious or semi-precious stones.

(3) Paintings, statuary and other works of art.

(4) Contraband or property in the course of illegal transportation or trade.

(5) Tapes, records, discs or other similar devices used with audio, visual or data electronic equipment.

Any coverage provided by this Provision is excess over any other insurance coverage available for the same "loss".

J. Tapes, Records and Discs Coverage

1. The Exclusion in Paragraph **B.4.a.** of **Section III – Physical Damage Coverage** in the Business Auto Coverage Form and the Exclusion in Paragraph **B.2.c.** of **Section IV – Physical Damage Coverage** in the Motor Carrier Coverage Form does not apply.

2. The following is added to Paragraph **1.a. Comprehensive Coverage** under the **Coverage** Provision of the **Physical Damage Coverage** Section:

We will pay for "loss" to tapes, records, discs or other similar devices used with audio, visual or data electronic equipment. We will pay only if the tapes, records, discs or other similar audio, visual or data electronic devices:

(a) Are the property of an "insured"; and

(b) Are in a covered "auto" at the time of "loss".

The most we will pay for such "loss" to tapes, records, discs or other similar devices is $500. The **Physical Damage Coverage Deductible** Provision does not apply to such "loss".

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K. Airbag Coverage

The Exclusion in Paragraph **B.3.a.** of **Section III – Physical Damage Coverage** in the Business Auto Coverage Form and the Exclusion in Paragraph **B.4.a.** of **Section IV – Physical Damage Coverage** in the Motor Carrier Coverage Form does not apply to the accidental discharge of an airbag.

L. Two or More Deductibles

The following is added to the **Deductible** Provision of the **Physical Damage Coverage** Section:

If an accident is covered both by this policy or Coverage Form and by another policy or Coverage Form issued to you by us, the following applies for each covered "auto" on a per vehicle basis:

1. If the deductible on this policy or Coverage Form is the smaller (or smallest) deductible, it will be waived; or

2. If the deductible on this policy or Coverage Form is not the smaller (or smallest) deductible, it will be reduced by the amount of the smaller (or smallest) deductible.

M. Physical Damage – Comprehensive Coverage – Deductible

The following is added to the **Deductible** Provision of the **Physical Damage Coverage** Section:

Regardless of the number of covered "autos" damaged or stolen, the maximum deductible that will be applied to Comprehensive Coverage for all "loss" from any one cause is $5,000 or the deductible shown in the Declarations, whichever is greater.

N. Temporary Substitute Autos – Physical Damage

1. The following is added to **Section I – Covered Autos**:

Temporary Substitute Autos – Physical Damage

If Physical Damage Coverage is provided by this Coverage Form on your owned covered "autos", the following types of vehicles are also covered "autos" for Physical Damage Coverage:

Any "auto" you do not own when used with the permission of its owner as a temporary substitute for a covered "auto" you do own but is out of service because of its:

1. Breakdown;

2. Repair;

3. Servicing;

4. "Loss"; or

5. Destruction.

2. The following is added to the Paragraph **A. Coverage** Provision of the **Physical Damage Coverage** Section:

Temporary Substitute Autos – Physical Damage

We will pay the owner for "loss" to the temporary substitute "auto" unless the "loss" results from fraudulent acts or omissions on your part. If we make any payment to the owner, we will obtain the owner's rights against any other party.

The deductible for the temporary substitute "auto" will be the same as the deductible for the covered "auto" it replaces.

O. Amended Duties In The Event Of Accident, Claim, Suit Or Loss

Paragraph **a.** of the **Duties In The Event Of Accident, Claim, Suit Or Loss** Condition is replaced by the following:

a. In the event of "accident", claim, "suit" or "loss", you must give us or our authorized representative prompt notice of the "accident", claim, "suit" or "loss". However, these duties only apply when the "accident", claim, "suit" or "loss" is known to you (if you are an individual), a partner (if you are a partnership), a member (if you are a limited liability company) or an executive officer or insurance manager (if you are a corporation). The failure of any

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agent, servant or employee of the "insured" to notify us of any "accident", claim, "suit" or "loss" shall not invalidate the insurance afforded by this policy.

Include, as soon as practicable:

(1) How, when and where the "accident" or "loss" occurred and if a claim is made or "suit" is brought, written notice of the claim or "suit" including, but not limited to, the date and details of such claim or "suit";

(2) The "insured's" name and address; and

(3) To the extent possible, the names and addresses of any injured persons and witnesses.

If you report an "accident", claim, "suit" or "loss" to another insurer when you should have reported to us, your failure to report to us will not be seen as a violation of these amended duties provided you give us notice as soon as practicable after the fact of the delay becomes known to you.

P. Waiver of Transfer Of Rights Of Recovery Against Others To Us

The following is added to the **Transfer Of Rights Of Recovery Against Others To Us** Condition:

This Condition does not apply to the extent required of you by a written contract, executed prior to any "accident" or "loss", provided that the "accident" or "loss" arises out of operations contemplated by such contract. This waiver only applies to the person or organization designated in the contract.

Q. Employee Hired Autos – Physical Damage

Paragraph **b.** of the **Other Insurance** Condition in the Business Auto Coverage Form and Paragraph **f.** of the **Other Insurance – Primary and Excess Insurance Provisions** Condition in the Motor Carrier Coverage Form are replaced by the following:

For Hired Auto Physical Damage Coverage, the following are deemed to be covered "autos" you own:

(1) Any covered "auto" you lease, hire, rent or borrow; and

(2) Any covered "auto" hired or rented under a written contract or written agreement entered into by an "employee" or elected or appointed official with your permission while being operated within the course and scope of that "employee's" employment by you or that elected or appointed official's duties as respect their obligations to you.

However, any "auto" that is leased, hired, rented or borrowed with a driver is not a covered "auto".

R. Unintentional Failure to Disclose Hazards

The following is added to the **Concealment, Misrepresentation Or Fraud** Condition:

However, we will not deny coverage under this Coverage Form if you unintentionally:

(1) Fail to disclose any hazards existing at the inception date of this Coverage Form; or

(2) Make an error, omission, improper description of "autos" or other misstatement of information.

You must notify us as soon as possible after the discovery of any hazards or any other information that was not provided to us prior to the acceptance of this policy.

S. Hired Auto – World Wide Coverage

Paragraph **7a.(5)** of the **Policy Period, Coverage Territory** Condition is replaced by the following:

(5) Anywhere in the world if a covered "auto" is leased, hired, rented or borrowed for a period of 60 days or less,

T. Bodily Injury Redefined

The definition of "bodily injury" in the **Definitions** Section is replaced by the following:

"Bodily injury" means bodily injury, sickness or disease, sustained by a person including death or mental anguish, resulting from any of these at any time. Mental anguish means any type of mental or emotional illness or disease.

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U. Expected Or Intended Injury

The **Expected Or Intended Injury** Exclusion in Paragraph **B. Exclusions** under **Section II – Covered Auto Liability Coverage** is replaced by the following:

Expected Or Intended Injury

"Bodily injury" or "property damage" expected or intended from the standpoint of the "insured". This exclusion does not apply to "bodily injury" or "property damage" resulting from the use of reasonable force to protect persons or property.

V. Physical Damage – Additional Temporary Transportation Expense Coverage

Paragraph **A.4.a.** of **Section III – Physical Damage Coverage** is replaced by the following:

4. Coverage Extensions

a. Transportation Expenses

We will pay up to $50 per day to a maximum of $1,000 for temporary transportation expense incurred by you because of the total theft of a covered "auto" of the private passenger type. We will pay only for those covered "autos" for which you carry either Comprehensive or Specified Causes of Loss Coverage. We will pay for temporary transportation expenses incurred during the period beginning 48 hours after the theft and ending, regardless of the policy's expiration, when the covered "auto" is returned to use or we pay for its "loss".

W. Replacement of a Private Passenger Auto with a Hybrid or Alternative Fuel Source Auto

The following is added to Paragraph **A. Coverage** of the **Physical Damage Coverage** Section:

In the event of a total "loss" to a covered "auto" of the private passenger type that is replaced with a hybrid "auto" or "auto" powered by an alternative fuel source of the private passenger type, we will pay an additional 10% of the cost of the replacement "auto", excluding tax, title, license, other fees and any aftermarket vehicle upgrades, up to a maximum of $2500. The covered "auto" must be replaced by a hybrid "auto" or an "auto" powered by an alternative fuel source within 60 calendar days of the payment of the "loss" and evidenced by a bill of sale or new vehicle lease agreement.

To qualify as a hybrid "auto", the "auto" must be powered by a conventional gasoline engine and another source of propulsion power. The other source of propulsion power must be electric, hydrogen, propane, solar or natural gas, either compressed or liquefied. To qualify as an "auto" powered by an alternative fuel source, the "auto" must be powered by a source of propulsion power other than a conventional gasoline engine. An "auto" solely propelled by biofuel, gasoline or diesel fuel or any blend thereof is not an "auto" powered by an alternative fuel source.

X. Return of Stolen Automobile

The following is added to the **Coverage Extension** Provision of the **Physical Damage Coverage** Section:

If a covered “auto” is stolen and recovered, we will pay the cost of transport to return the “auto” to you. We will pay only for those covered “autos" for which you carry either Comprehensive or Specified Causes of Loss Coverage.

All other terms, conditions, provisions and exclusions of this policy remain the same.

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Blanket Notification to Others of Cancellation or Non-Renewal

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.	
Policy No. BAP 6142424-02	Effective Date: 02/01/2026

This endorsement modifies insurance provided under the:

Commercial Automobile Coverage Part

SCHEDULE	
The total number of days for mailing or delivering with respect to Paragraph **B.1.** of this endorsement is amended to indicate the following number of days:	*
The total number of days for mailing or delivering with respect to Paragraph **B.2.** of this endorsement is amended to indicate the following number of days:	**
* If a number is not shown here, 10 days continues to apply. ** If a number is not shown here, 30 days continues to apply.	

A. If we cancel or non-renew this Coverage Part by written notice to the first Named Insured, we will mail or deliver notification that such Coverage Part has been cancelled or non-renewed to each person or organization shown in a list provided to us by the first Named Insured if you are required by written contract or written agreement to provide such notification. However, such notification will not be mailed or delivered if a conditional notice of renewal has been sent to the first Named Insured. Such list:

1. Must be provided to us prior to cancellation or non-renewal;

2. Must contain the names and addresses of only the persons or organizations requiring notification that such Coverage Part has been cancelled or non-renewed; and

3. Must be in an electronic format that is acceptable to us.

B. Our notification as described in Paragraph **A.** of this endorsement will be based on the most recent list in our records as of the date the notice of cancellation or non-renewal is mailed or delivered to the first Named Insured. We will mail or deliver such notification to each person or organization shown in the list:

1. Within 10 days of the effective date of the notice of cancellation, if we cancel for non-payment of premium; or

2. At least 30 days prior to the effective date of:

a. Cancellation, if cancelled for any reason other than nonpayment of premium; or

b. Non-renewal, but not including conditional notice of renewal,

unless a greater number of days is shown in the Schedule of this endorsement for the mailing or delivering of such notification with respect to Paragraph **B.1.** or Paragraph **B.2.** above.

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C. Our mailing or delivery of notification described in Paragraphs **A.** and **B.** of this endorsement is intended as a courtesy only. Our failure to provide such mailing or delivery will not:

1. Extend the Coverage Part cancellation or non-renewal date;

2. Negate the cancellation or non-renewal; or

3. Provide any additional insurance that would not have been provided in the absence of this endorsement.

D. We are not responsible for the accuracy, integrity, timeliness and validity of information contained in the list provided to us as described in Paragraphs **A.** and **B.** of this endorsement.

All other terms, conditions, provisions and exclusions of this policy remain the same.

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – ENGINEERS, ARCHITECTS OR SURVEYORS NOT ENGAGED BY THE NAMED INSURED

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Engineers, Architects Or Surveyors Not Engaged By The Named Insured:
Any architect, engineer or surveyor that you agree in a written contract to include as an additional insured on this Coverage Part, provided that such written contract was signed by you before, and is in effect when, the “bodily injury” or “property damage” occurs or the “personal injury” or “advertising injury” offense is committed.
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

A. **Section II – Who Is An Insured** is amended to include as an additional insured the architects, engineers or surveyors shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations performed by you or on your behalf.

Such architects, engineers or surveyors, while not engaged by you, are contractually required to be added as an additional insured to your policy.

However, the insurance afforded to such additional insured:

1. Only applies to the extent permitted by law; and
2. Will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusion applies:

This insurance does not apply to "bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering of or the failure to render any professional services, including:

1. The preparing, approving, or failing to prepare or approve, maps, drawings, opinions, reports, surveys, change orders, designs or specifications; or
2. Supervisory, inspection or engineering services.

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage", or the offense which caused the "personal and advertising injury", involved the rendering of or the failure to render any professional services.

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C. With respect to the insurance afforded to these additional insureds, the following is added to **Section III – Limits Of Insurance:**

The most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the contract or agreement; or

2. Available under the applicable Limits of Insurance shown in the Declarations;

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

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Additional Insured – Automatic – Owners, Lessees Or Contractors

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.	
Policy No. GLO 6142425 02	Effective Date: 02/01/2026

This endorsement modifies insurance provided under the:

Commercial General Liability Coverage Part

A. Section **II – Who Is An Insured** is amended to include as an additional insured any person or organization whom you are required to add as an additional insured under a written contract or written agreement executed by you, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" and subject to the following:

1. If such written contract or written agreement specifically requires that you provide that the person or organization be named as an additional insured under one or both of the following endorsements:

a. The Insurance Services Office (ISO) ISO CG 20 10 (10/01 edition); or

b. The ISO CG 20 37 (10/01 edition),

such person or organization is then an additional insured with respect to such endorsement(s), but only to the extent that "bodily injury", "property damage" or "personal and advertising injury" arises out of:

(1) Your ongoing operations, with respect to Paragraph **1.a.** above; or

(2) "Your work", with respect to Paragraph **1.b.** above,

which is the subject of the written contract or written agreement.

However, solely with respect to this Paragraph **1.**, insurance afforded to such additional insured:

(a) Only applies if the "bodily injury", "property damage" or "personal and advertising injury" offense occurs during the policy period and subsequent to your execution of the written contract or written agreement; and

(b) Does not apply to "bodily injury" or "property damage" caused by "your work" and included within the "products-completed operations hazard" unless the written contract or written agreement specifically requires that you provide such coverage to such additional insured.

2. If such written contract or written agreement specifically requires that you provide that the person or organization be named as an additional insured under one or both of the following endorsements:

a. The Insurance Services Office (ISO) ISO CG 20 10 (07/04 edition); or

b. The ISO CG 20 37 (07/04 edition),

such person or organization is then an additional insured with respect to such endorsement(s), but only to the extent that "bodily injury", "property damage" or "personal and advertising injury" is caused, in whole or in part, by:

(1) Your acts or omissions; or

(2) The acts or omissions of those acting on your behalf,

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in the performance of:

(a) Your ongoing operations, with respect to Paragraph **2.a.** above; or

(b) "Your work" and included in the "products-completed operations hazard", with respect to Paragraph **2.b.** above,

which is the subject of the written contract or written agreement.

However, solely with respect to this Paragraph **2.**, insurance afforded to such additional insured:

(i) Only applies if the "bodily injury", "property damage" or "personal and advertising injury" offense occurs during the policy period and subsequent to your execution of the written contract or written agreement; and

(ii) Does not apply to "bodily injury" or "property damage" caused by "your work" and included within the "products-completed operations hazard" unless the written contract or written agreement specifically requires that you provide such coverage to such additional insured.

3. If neither Paragraph **1.** nor Paragraph **2.** above apply and such written contract or written agreement requires that you provide that the person or organization be named as an additional insured:

a. Under the ISO CG 20 10 (04/13 edition, any subsequent edition or if no edition date is specified); or

b. With respect to ongoing operations (if no form is specified),

such person or organization is then an additional insured only to the extent that "bodily injury", "property damage" or "personal and advertising injury" is caused, in whole or in part by:

(1) Your acts or omissions; or

(2) The acts or omissions of those acting on your behalf,

in the performance of your ongoing operations, which is the subject of the written contract or written agreement.

However, solely with respect to this Paragraph **3.**, insurance afforded to such additional insured:

(a) Only applies to the extent permitted by law;

(b) Will not be broader than that which you are required by the written contract or written agreement to provide for such additional insured; and

(c) Only applies if the "bodily injury", "property damage" or "personal and advertising injury" offense occurs during the policy period and subsequent to your execution of the written contract or written agreement.

4. If neither Paragraph **1.** nor Paragraph **2.** above apply and such written contract or written agreement requires that you provide that the person or organization be named as an additional insured:

a. Under the ISO CG 20 37 (04/13 edition, any subsequent edition or if no edition date is specified); or

b. With respect to the "products-completed operations hazard" (if no form is specified),

such person or organization is then an additional insured only to the extent that "bodily injury" or "property damage" is caused, in whole or in part by "your work" and included in the "products-completed operations hazard", which is the subject of the written contract or written agreement.

However, solely with respect to this Paragraph **4.**, insurance afforded to such additional insured:

(1) Only applies to the extent permitted by law;

(2) Will not be broader than that which you are required by the written contract or written agreement to provide for such additional insured;

(3) Only applies if the "bodily injury" or "property damage" occurs during the policy period and subsequent to your execution of the written contract or written agreement; and

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(4) Does not apply to "bodily injury" or "property damage" caused by "your work" and included within the "products-completed operations hazard" unless the written contract or written agreement specifically requires that you provide such coverage to such additional insured.

B. Solely with respect to the insurance afforded to any additional insured referenced in Section **A.** of this endorsement, the following additional exclusion applies:

This insurance does not apply to "bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering of, or failure to render, any professional architectural, engineering or surveying services including:

1. The preparing, approving or failing to prepare or approve maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or

2. Supervisory, inspection, architectural or engineering activities.

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage", or the offense which caused the "personal and advertising injury", involved the rendering of or the failure to render any professional architectural, engineering or surveying services.

C. Solely with respect to the coverage provided by this endorsement, the following is added to Paragraph **2. Duties In The Event Of Occurrence, Offense, Claim Or Suit** of Section **IV – Commercial General Liability Conditions**:

The additional insured must see to it that:

(1) We are notified as soon as practicable of an "occurrence" or offense that may result in a claim;

(2) We receive written notice of a claim or "suit" as soon as practicable; and

(3) A request for defense and indemnity of the claim or "suit" will promptly be brought against any policy issued by another insurer under which the additional insured may be an insured in any capacity. This provision does not apply to insurance on which the additional insured is a Named Insured if the written contract or written agreement requires that this coverage be primary and non-contributory.

D. Solely with respect to the coverage provided by this endorsement:

1. The following is added to the **Other Insurance** Condition of Section **IV – Commercial General Liability Conditions**:

Primary and Noncontributory insurance

This insurance is primary to and will not seek contribution from any other insurance available to an additional insured provided that:

a. The additional insured is a Named Insured under such other insurance; and

b. You are required by written contract or written agreement that this insurance be primary and not seek contribution from any other insurance available to the additional insured.

2. The following paragraph is added to Paragraph **4.b.** of the **Other Insurance** Condition under Section **IV – Commercial General Liability Conditions**:

This insurance is excess over:

Any of the other insurance, whether primary, excess, contingent or on any other basis, available to an additional insured, in which the additional insured on our policy is also covered as an additional insured on another policy providing coverage for the same "occurrence", offense, claim or "suit". This provision does not apply to any policy in which the additional insured is a Named Insured on such other policy and where our policy is required by a written contract or written agreement to provide coverage to the additional insured on a primary and non-contributory basis.

E. This endorsement does not apply to an additional insured which has been added to this Coverage Part by an endorsement showing the additional insured in a Schedule of additional insureds, and which endorsement applies specifically to that identified additional insured.

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F. Solely with respect to the insurance afforded to an additional insured under Paragraph **A.3.** or Paragraph **A.4.** of this endorsement, the following is added to Section **III – Limits Of Insurance**:

Additional Insured – Automatic – Owners, Lessees Or Contractors Limit

The most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the written contract or written agreement referenced in Section **A.** of this endorsement; or

2. Available under the applicable Limits of Insurance shown in the Declarations,

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

All other terms, conditions, provisions and exclusions of this policy remain the same.

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

CONTRACTUAL LIABILITY - RAILROADS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Scheduled Railroad:	Designated Job Site:
ALL CONTRACTS FOR WORK DONE FOR RAILROAD, AS REQUIRED BY WRITTEN CONTRACT.	

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

With respect to operations performed for, or affecting, a Scheduled Railroad at a Designated Job Site, the definition of "insured contract" in the Definitions section is replaced by the following:

9. "Insured Contract" means:

a. A contract for a lease of premises. However, that portion of the contract for a lease of premises that indemnifies any person or organization for damage by fire to premises while rented to you or temporarily occupied by you with permission of the owner is not an "insured contract";

b. A sidetrack agreement;

c. Any easement or license agreement;

d. An obligation, as required by ordinance, to indemnify a municipality, except in connection with work for a municipality;

e. An elevator maintenance agreement;

f. That part of any other contract or agreement pertaining to your business (including an indemnification of a municipality in connection with work performed for a municipality) under which you assume the tort liability of another party to pay for "bodily injury" or "property damage" to a third person or organization. Tort liability means a liability that would be imposed by law in the absence of any contract or agreement.

Paragraph **f.** does not include that part of any contract or agreement:

(1) That indemnifies an architect, engineer or surveyor for injury or damage arising out of:

(a) Preparing, approving or failing to prepare or approve maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or

(b) Giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage;

(2) Under which the insured, if an architect, engineer or surveyor, assumes liability for an injury or damage arising out of the insured's rendering or failure to render professional services, including those listed in Paragraph **(1)** above and supervisory, inspection, architectural or engineering activities.

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Blanket Notification to Others of Cancellation or Non-Renewal

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.	
Policy No. GLO 6142425 02	**Effective Date:** 02/01/2026

This endorsement applies to insurance provided under the:

Commercial General Liability Coverage Part

A. If we cancel or non-renew this Coverage Part by written notice to the first Named Insured, we will mail or deliver notification that such Coverage Part has been cancelled or non-renewed to each person or organization shown in a list provided to us by the first Named Insured if you are required by written contact or written agreement to provide such notification. Such list:

1. Must be provided to us prior to cancellation or non-renewal;
2. Must contain the names and addresses of only the persons or organizations requiring notification that such Coverage Part has been cancelled or non-renewed; and
3. Must be in an electronic format that is acceptable to us.

B. Our notification as described in Paragraph **A.** of this endorsement will be based on the most recent list in our records as of the date the notice of cancellation or non-renewal is mailed or delivered to the first Named Insured. We will mail or deliver such notification to each person or organization shown in the list:

1. Within 10 days of the effective date of the notice of cancellation, if we cancel for non-payment of premium; or
2. At least 30 days prior to the effective date of:
   a. Cancellation, if cancelled for any reason other than nonpayment of premium; or
   b. Non-renewal, but not including conditional notice of renewal,

unless a greater number of days is shown in the Schedule of this endorsement for the mailing or delivering of such notification with respect to Paragraph **B.1.** or Paragraph **B.2.** above.

C. Our mailing or delivery of notification described in Paragraphs **A.** and **B.** of this endorsement is intended as a courtesy only. Our failure to provide such mailing or delivery will not:

1. Extend the Coverage Part cancellation or non-renewal date;
2. Negate the cancellation or non-renewal; or
3. Provide any additional insurance that would not have been provided in the absence of this endorsement.

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D. We are not responsible for the accuracy, integrity, timeliness and validity of information contained in the list provided to us as described in Paragraphs **A.** and **B.** of this endorsement.

SCHEDULE	
The total number of days for mailing or delivering with respect to Paragraph **B.1.** of this endorsement is amended to indicate the following number of days:	*
The total number of days for mailing or delivering with respect to Paragraph **B.2.** of this endorsement is amended to indicate the following number of days:	**
* If a number is not shown here, 10 days continues to apply. ** If a number is not shown here, 30 days continues to apply.	

All other terms and conditions of this policy remain unchanged.

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Waiver Of Subrogation (Blanket) Endorsement

ZURICH

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer	Add'l. Prem	Return Prem.
GLO 6142425 02	02/01/2026	02/01/2027	02/01/2026	23013000	$	$

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies insurance provided under the:

Commercial General Liability Coverage Part

The following is added to the **Transfer Of Rights Of Recovery Against Others To Us Condition**:

If you are required by a written contract or agreement, which is executed before a loss, to waive your rights of recovery from others, we agree to waive our rights of recovery. This waiver of rights shall not be construed to be a waiver with respect to any other operations in which the insured has no contractual interest.

ENDORSEMENT #009

This endorsement, effective 12:01 a.m., February 1, 2026, forms a part of

Policy No. CEO744659309 issued to JOHN E. GREEN COMPANY

by Indian Harbor Insurance Company.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

CANCELLATION NOTIFICATION TO OTHERS

This endorsement modifies insurance provided under the following:

PA/CE Plus: Professional Activities/Complete Execution + Pollution

PROFESSIONAL & POLLUTION LIABILITY FOR CONSTRUCTION CONTRACTORS AND CONSTRUCTION SUPPORT SERVICES PROVIDERS

In consideration of the premium charged, it is hereby understood and agreed that in the event coverage is cancelled for any statutorily permitted reason, other than non-payment of premium, advance written notice will be mailed or delivered to person(s) or entity(ies) according to the notification schedule shown below:

Name of Person(s) or Entity(ies)	Mailing Address	Number of Days Advanced Notice of Cancellation
All entities as required per schedule on file with broker to be provided at time of cancellation.		Per requirement (no less than thirty (30) days

Any failure of the Company to so notify the person(s) or entity(ies) listed above will in no way serve as, or be deemed, a violation or breach of the Company's duties or obligations under this policy or otherwise.

All other terms, conditions and exclusions of this policy remain unchanged.

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Declarations and Representations **G.** By acceptance of this policy, you agree that the statements and information contained in the Application and other supplemental materials submitted to us are: (a) true and correct; (b) such statements and information are material to our underwriting of this policy; and (c) that this policy has been issued by us in reliance upon the truth and correctness of such statements and information.

Design Professional's Insurance **H.** The **Insured** shall require that each **Design Professional** under written contract to it evidence professional liability insurance.

Headings **I.** The descriptions in the headings of this policy are solely for convenience and form no part of the terms and conditions of this policy.

Inspection and Audit **J.** We will be permitted, but not obligated, to examine, audit, monitor and inspect on a continuing basis any of the **Insured's** books, records, services, properties and activities at any time, as far as they relate to the subject matter of this policy.

Neither our right to examine, audit, monitor and make inspections, or the actual undertaking thereof, or any report thereon, neither constitutes an undertaking to determine or warrant that property or operations are safe, healthful or conform to acceptable engineering practice or are in compliance with any law, rule or regulation. Any inspections will be coordinated through your broker or agent.

We may modify, amend or delete any of the terms and conditions of this policy including the right to charge additional premium and the right to cancel, rescind or void this policy, if our examination, audit, monitoring or inspection reveals any material risk, hazard or condition that was not previously disclosed by any **Insured** in the Application or supplemental materials, or which deviates from the information disclosed in the Application or supplemental materials.

Limitation of Liability **K.** Under Protective Loss Coverage, the **Insured** shall not accept any limitation of liability from a **Design Professional** other than to insurance proceeds, without our express written consent.

Other Insurance **L.** Where other valid and collectible insurance is available to the **Insured**, in addition to **Design Professional's Insurance**, our obligations to the **Insured** are as follows:

1. This insurance is excess over any other valid and collectible insurance, whether such other insurance is stated to be primary, contributory, excess, contingent or otherwise.
2. This insurance is excess over any other valid and collectible insurance available to the **Insured** under a project specific insurance policy, contractor-controlled insurance program, owner-controlled insurance program, consolidated (wrap-up) insurance program or any other similar insurance or program, whether such other insurance or program is stated to be primary, contributory, excess, contingent or otherwise.
3. This insurance is excess over any other valid and collectible **Design Professional's Insurance** whether such other insurance is stated to be primary, contributory, excess, contingent or otherwise.

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4. Under Section 1: What We Cover: D. Pollution Loss Coverage only, when the **Named Insured** is required by contract, agreement, or permit to include any person or entity as an additional insured, such coverage shall be provided on a primary and non-contributory basis.

Severability **M.** Except with respect to the Limits of Liability and the Self-Insured Retention Amount, and any rights or duties specifically assigned in this policy to you, this insurance applies: (a) as if each **Named Insured** were the only **Named Insured**; and (b) separately to each **Insured** against or by whom a **Claim** is made.

Misrepresentation, concealment, breach of condition or violation of any duty under this policy by one **Insured** shall not prejudice the interest or coverage of another **Insured** under this policy.

Sole Agent **N.** You will act on behalf of all **Insured(s)** for the payment or return of premium, receipt and acceptance of any endorsement issued to form a part of this policy, giving and receiving notice of cancellation or non-renewal and the exercise of the rights provided in Section 6: Extended Reporting Period, B. Optional Extended Reporting Period.

Subrogation **O.** In the event of any payment under this policy, we will be subrogated to all of the **Insured's** rights of recovery against any person or organization and the **Insured** will execute and deliver instruments and papers and do whatever else is necessary to secure such rights. The **Insured** will do nothing at any time to prejudice our subrogation rights.

However, we waive our right(s) of recovery against any person or organization included in the definition of an **Insured** or against the **Insured's Clients**, if prior to a **Professional Liability Claim**, a waiver of subrogation was so required and accepted under a specific contractual undertaking by the **Insured.**

Under Section 1: What We Cover: D. Pollution Loss Coverage, we waive our right(s) of recovery against any person or organization included in the definition of an **Insured** or against the **Insured's Clients** if prior to the **Pollution Claim**, a waiver of subrogation was required and accepted under a specific contractual undertaking by the **Insured**.

Territory **P.** Coverage granted under this policy will apply anywhere in the world, to the extent permitted by law.

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ENDORSEMENT #003

This endorsement, effective 12:01 a.m., February 1, 2026, forms a part of

Policy No. CEO744659309 issued to JOHN E. GREEN COMPANY

by Indian Harbor Insurance Company.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED

This endorsement modifies insurance provided under the following:

PA/CE Plus: Professional Activities/Complete Execution + Pollution

PROFESSIONAL & POLLUTION LIABILITY FOR CONSTRUCTION CONTRACTORS AND CONSTRUCTION SUPPORT SERVICES PROVIDERS

In consideration of the premium charged, it is hereby understood and agreed that the following are additional insured(s), but only with respect to **Claim(s)** arising out of **Professional Activities and Duties** and/or **Contracting Activities** performed by or on behalf of the **Named Insured**:

Schedule
Fishbeck and Owner, Match-E-Be-Nash-She-Wish Band of Pottawatomi Indians a/k/a Gun Lake Tribe, 2872 Mission Drive, Shelbyville, MI 49344, Match-E-Be-She-Wish Band of Pottawatomi Indians, Match-E-Be-Nash-She-Wish Band of Pottawatomi Indians' Utility Authority, Match-E-Be-Nash-She-Wish Band of Pottawatomi Indians (hereinafter Tribe or Tribal) Department of Land Use, Planning and Development, Tribal Department of Administration, Tribal Environmental Department, Tribal Department of Public Works, Tribal Emergency Management and Safety Department, Tribal Legal Department, Tribal Department of Public Safety, and Tribal Finance Department solely with respect to coverage **D.1. Job Site**, **D.2. Transportation**, and **D.3. Non Owned Disposal Site**

All other terms, conditions and exclusions of this policy remain unchanged.

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ENDORSEMENT #019

This endorsement, effective 12:01a.m., February 1, 2026 , forms a part of

Policy No. CEO744659309 issued to JOHN E. GREEN COMPANY

by Indian Harbor Insurance Company.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED - COVERAGE D.1. JOB SITE

This endorsement modifies insurance provided under the following:

PA/CE Plus: Professional Activities/Complete Execution + Pollution

PROFESSIONAL & POLLUTION LIABILITY FOR CONSTRUCTION CONTRACTORS AND CONSTRUCTION SUPPORT SERVICES PROVIDERS

In consideration of the premium charged, it is hereby understood and agreed that solely with respect to coverage D.1. Job Site the entities in the table below are additional insured(s), but only if you are required to include said entities as an additional Insured in a written contract in effect during the Policy Period and signed by you prior to the first commencement of the Pollution Condition and only with respect to Claim(s) arising out of Contracting Activities performed by or on behalf of the Named Insured:

Schedule
Gilbane Building Company 123 N. Upper Wacker Drive 26th Floor Chicago, IL 60606 AT&T Services, Inc. 308 S. Akard RM 1610 Dallas, TX 75202 Exp U. S. Services, Inc. 205 N. Michigan Ave. Chicago, IL 60605

All other terms and conditions of this policy remain unchanged.

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Contracting Activity(ies) **E.** means any general construction activity performed by or on behalf of the **Named Insured**.

Design Professional **F.** means any person or entity that is legally qualified, certified or licensed to perform services which are covered by **Design Professional's Insurance**, including subcontractors and subconsultants at any tier.

Design Professional's Insurance **G.** means all architects and engineers, or contractors professional liability insurance policies which insure a **Design Professional**.

Design Professional Services **H.** means services that any **Design Professional**:

1. agreed to perform pursuant to a written contract with the **Insured**;
2. which are included within the **Professional Activities and Duties** that the **Insured** agreed to perform in a written contract; and
3. which are covered by **Design Professional's Insurance**.

Emergency Remediation Expense **I.** means direct costs and expenses that we deem necessary to mitigate on an emergency basis the immediate effects of a **Pollution Condition** at a **Job Site** resulting from the rendering or failure to render **Contracting Activities**.

Environmental Damage **J.** means physical damage in or upon land, the atmosphere, watercourse, body of water or groundwater, caused by a **Pollution Condition** and resulting in **Remediation Expense.**

Insured **K.** means each of the following:

1. the **Named Insured;**
2. your current or former directors, partners, principals, members, executive officers, stockholders, or trustees, but solely within the course and scope of their duties as such;
3. your current or former employees including leased personnel under your supervision, but solely within the course and scope of their employment or lease agreement;
4. your heirs, executors, administrators, assigns or legal representatives in the event of death, incapacity or bankruptcy, but only with respect to the liability of the **Named Insured** otherwise insured herein;
5. any **Predecessor In Interest;**
6. any entity that is newly formed or acquired by you during the **Policy Period** where you have greater than fifty percent (50%) ownership, control, or beneficial interest, provided however that:
   a. coverage shall be provided only for **Professional Loss** arising out of **Professional Activities and Duties** and/or **Pollution Loss** arising from **Contracting Activity** performed on or after the date of formation or acquisition, subject to the **Retroactive Date**; and

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b. this coverage shall expire at the end of the **Policy Period** or within ninety (90) days of such formation or acquisition of the entity, whichever is earlier, unless you submit written notice to us providing detailed information concerning the newly formed or acquired entity, confirmed by us by endorsement, and provided that you pay any applicable additional premium requested by us;

7. Any **Insured** with regard to its participation in a legal entity including a limited liability company or joint venture, but only to the extent of the **Insured's** legal liability for its rendering of **Professional Activities and Duties** and/or **Contracting Activities** under the respective legal entity or joint venture;
8. With regard to Section 1: What We Cover D.1., the **Client**, but only:
   a. if the you are required to include the **Client** as an additional **Insured** in a written contract in effect during the **Policy Period** and signed by the you prior to the first commencement of the **Pollution Condition**; and
   b. with respect to the **Client's** vicarious liability resulting from your **Contracting Activity**.
9. With regard to Section 1: What We Cover D.1., all persons or organizations, other than a **Client**, as required by a written contract executed by the **Named Insured**, but only for:
   a. a **Pollution Condition** caused by your **Contracting Activity**; and
   b. the vicarious liability of the person or organization that results from the performance of your **Contracting Activity**

   provided that such written contract is signed by the **Named Insured** prior to the commencement of the **Pollution Condition**.

Insured Contract **L.** means that part of any written contract or written agreement under which you assume the Tort Liability of another party to pay compensatory damages for **Bodily Injury** or **Property Damage**, to a third person or organization, provided that such written contract or written agreement is signed by you prior to the **Bodily Injury** or **Property Damage**. Tort Liability means a liability that would be imposed by law in the absence of any contract or agreement.

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Commercial Umbrella Liability Policy

ZURICH®

There are provisions in this policy that restrict coverage. Read the entire policy carefully to determine your rights, duties and what is and is not covered.

Throughout this policy the words "you" and "your" refer to the **Named Insured** shown in the Declarations, and any other person or organization qualifying as a **named insured** under this policy. The words "we", "us" and "our" refer to the company providing this insurance.

The word **insured** means any person or organization qualifying as such in **SECTION V. DEFINITIONS** of this policy.

Words and phrases that are printed in bold-face type are defined in this policy. These definitions are found in **SECTION V. DEFINITIONS** of this policy or in the specific policy provision where they appear.

In consideration of the payment of the premium and in reliance upon the statements in the Declarations and in accordance with the provisions of this policy we agree with you to provide coverage as follows:

Insuring Agreements

SECTION I. COVERAGE

A. Coverage A - Excess Follow Form Liability Insurance

Under **Coverage A**, we will pay on behalf of the **insured** those damages covered by this insurance in excess of the total applicable limits of **underlying insurance**. With respect to **Coverage A**, this policy includes:

1. The terms and conditions of **underlying insurance** to the extent such terms and conditions are not inconsistent or do not conflict with the terms and conditions referred to in Paragraph **2.** below; and
2. The terms and conditions that apply to **Coverage A** of this policy.

Notwithstanding anything to the contrary contained above, if **underlying insurance** does not apply to damages, for reasons other than exhaustion of applicable Limits of Insurance by payment of **loss**, then **Coverage A** does not apply to such damages. Also, **Coverage A** does not apply to any form of **casualty business crisis expense** insurance even if such insurance is afforded under **underlying insurance** or would have been afforded except for the exhaustion of the Limits of Insurance of **underlying insurance**.

B. Coverage B - Umbrella Liability Insurance

Under **Coverage B**, we will pay on behalf of the **insured** those damages the **insured** becomes legally obligated to pay by reason of liability:

1. Imposed by law because of **bodily injury, property damage**, or **personal and advertising injury**; or
2. Assumed under an **insured contract** because of **bodily injury** or **property damage**;

covered by this insurance but only if the injury, damage or offense arises out of your business, takes place during the policy period of this policy and is caused by an **occurrence** happening anywhere. We will pay such damages in excess of the **Retained Limit** specified in Item **5.** of the Declarations or the amount payable by **other insurance**, whichever is greater.

Coverage B does not apply to any **loss**, claim or **suit** for which insurance is afforded under **underlying insurance** or would have been afforded except for the exhaustion of the Limits of Insurance of **underlying insurance**.

The amount we will pay for **loss** under **Coverage A** or **Coverage B** is limited as described in **SECTION II. LIMITS OF INSURANCE**.

We have no obligation under **Coverage A** and/or **Coverage B** with respect to any settlement made without our consent.

The insurance afforded under **Coverage A** and **Coverage B** applies to **bodily injury** or **property damage** only if prior to the policy period, no **designated insured** knew that the **bodily injury** or **property damage** had occurred, in whole or in part. If such a **designated insured** knew, prior to the policy period, that the **bodily injury** or **property damage** occurred, then any continuation, change or resumption of such **bodily injury** or **property damage** during or after the policy period will be deemed to have been known prior to the policy period.

Blanket Notification to Others of Cancellation or Nonrenewal

ZURICH®

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer	Add'l Prem.	Return Prem.
AUC 0904786-02	02/01/2026	02/01/2027	02/01/2026	23013000	----------	----------

Named Insured and Mailing Address:
JOHN E GREEN COMPANY
220 VICTOR ST
HIGHLAND PARK, MI 48203-3116

Producer:
MARSH USA INC.
125 OTTAWA AVE NW STE 400
GRAND RAPIDS, MI 49503-2873

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

The following is added to Paragraph **A.** of **SECTION VI. CONDITIONS:**

Blanket Notification to Others of Cancellation or Nonrenewal

a. If we cancel or non-renew this policy by written notice to the first **Named Insured**, we will mail or deliver notification that such policy has been cancelled or non-renewed to each person or organization shown in a list provided to us by the first **Named Insured** if you are required by written contract or written agreement to provide such notification. However, such notification will not be mailed or delivered if a conditional notice of renewal has been sent to the first **Named Insured**. Such list:

(1) Must be provided to us prior to cancellation or non-renewal;

(2) Must contain the names and addresses of only the persons or organizations requiring notification that such policy has been cancelled or non-renewed; and

(3) Must be in an electronic format that is acceptable to us.

b. Our notification as described in Paragraph **a.** above will be based on the most recent list in our records as of the date the notice of cancellation or non-renewal is mailed or delivered to the first **Named Insured**. We will mail or deliver such notification to each person or organization shown in the list:

(1) Within seven days of the effective date of the notice of cancellation, if we cancel for non-payment of premium; or

(2) At least 30 days prior to the effective date of:

(a) Cancellation, if cancelled for any reason other than nonpayment of premium; or

(b) Non-renewal, but not including conditional notice of renewal.

c. Our mailing or delivery of notification described in Paragraphs **a.** and **b.** above is intended as a courtesy only. Our failure to provide such mailing or delivery will not:

(1) Extend the policy cancellation or non-renewal date;

(2) Negate the cancellation or non-renewal; or

(3) Provide any additional insurance that would not have been provided in the absence of this endorsement.

d. We are not responsible for the accuracy, integrity, timeliness and validity of information contained in the list provided to us as described in Paragraphs **a.** and **b.** above.

ALL OTHER TERMS AND CONDITIONS OF THE POLICY SHALL APPLY AND REMAIN UNCHANGED.

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(Ed. 4-84)

ALTERNATE EMPLOYER ENDORSEMENT

This endorsement applies only with respect to bodily injury to your employees while in the course of special or temporary employment by the alternate employer in the state named in the Schedule. Part One (Workers Compensation Insurance) and Part Two (Employers Liability Insurance) will apply as though the alternate employer is insured.

Under Part One (Workers Compensation Insurance) we will reimburse the alternate employer for the benefits required by the workers compensation law if we are not permitted to pay the benefits directly to the persons entitled to them.

The insurance afforded by this endorsement is not intended to satisfy the alternate employer's duty to secure its obligations under the workers compensation law. We will not file evidence of this insurance on behalf of the alternate employer with any government agency.

We will not ask any other insurer of the alternate employer to share with us a loss covered by this endorsement.

Premium will be charged for your employees while in the course of special or temporary employment by the alternate employer.

The policy may be canceled according to its terms without sending notice to the alternate employer.

Part Four (Your Duties If Injury Occurs) applies to you and the alternate employer. The alternate employer will recognize our right to defend under Parts One and Two and our right to inspect under Part Six.

Schedule

Alternate Employer	Address	State of Special or Temporary Employment
"ANY PERSON OR ORGANIZATION TO WHOM OR TO WHICH YOU ARE REQUIRED TO ADD AS AN ALTERNATE EMPLOYER IN A WRITTEN CONTRACT OR WRITTEN AGREEMENT EXECUTED PRIOR TO LOSS, EXCEPT WHERE SUCH CONTRACT OR AGREEMENT IS PROHIBITED BY LAW."		"ANY STATE LISTED IN ITEM 3.A. OF THE INFORMATION PAGE."

This endorsement changes the policy to which it is attached and is effective on the date issued unless otherwise stated.
(The information below is required only when this endorsement is issued subsequent to preparation of the policy.)

Endorsement Effective 02/01/2026 Policy No. **WC 6142426-02** Endorsement No.

Insured **JOHN E GREEN COMPANY** Premium $ **INCL.**

Insurance Company ZURICH AMERICAN INSURANCE COMPANY

Countersigned By _____

WC 00 03 01
(Ed. 4-84)

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Midwest Employers Casualty Company
A BERKLEY COMPANY®

Endorsement

Endorsement Effective: 02/01/2026
Policy No.: EWC009283
Named Insured: John E. Green Company

Waiver of Subrogation by Written Contract Surcharge Endorsement

In the event that you have waived your right to subrogation against a third party under the terms of a written contract entered into by you prior to the date of injury to your Employee for whom you have paid Loss, we will also waive any right of subrogation we have against that third party, but only with respect to said Loss, and only if our waiver is required by the written contract.

All other parts of Section K. Recovery, of Part Four – Claims of this Policy remain in effect and are unchanged by this endorsement.

In consideration for coverage provided under this endorsement, a $0 surcharge will apply.

Countersigned

MIDWEST EMPLOYERS CASUALTY COMPANY

Philip S. Welt

Authorized Representative

Secretary

President

This endorsement forms part of the Policy to which attached, effective on the inception date of the Policy unless otherwise stated herein. All other terms and conditions of the Policy remain unchanged.

ISI-265 (8-13)

BLANKET NOTIFICATION TO OTHERS OF CANCELLATION OR NONRENEWAL ENDORSEMENT

This endorsement adds the following to Part Six of the policy.

PART SIX
CONDITIONS

Blanket Notification to Others of Cancellation or Nonrenewal

1. If we cancel or non-renew this policy by written notice to you, we will mail or deliver notification that such policy has been cancelled or non-renewed to each person or organization shown in a list provided to us by you if you are required by written contract or written agreement to provide such notification. However, such notification will not be mailed or delivered if a conditional notice of renewal has been sent to you. Such list:
   a. Must be provided to us prior to cancellation or non-renewal;
   b. Must contain the names and addresses of only the persons or organizations requiring notification that such policy has been cancelled or non-renewed; and
   c. Must be in an electronic format that is acceptable to us.
2. Our notification as described in Paragraph 1. above will be based on the most recent list in our records as of the date the notice of cancellation or non-renewal is mailed or delivered to you. We will mail or deliver such notification to each person or organization shown in the list:
   a. Within seven days of the effective date of the notice of cancellation, if we cancel for non-payment of premium; or
   b. At least 60 days prior to the effective date of:
      (1) Cancellation, if cancelled for any reason other than nonpayment of premium; or
      (2) Non-renewal, but not including conditional notice of renewal.
3. Our mailing or delivery of notification described in Paragraphs 1. and 2. above is intended as a courtesy only. Our failure to provide such mailing or delivery will not:
   a. Extend the policy cancellation or non-renewal date;
   b. Negate the cancellation or non-renewal; or
   c. Provide any additional insurance that would not have been provided in the absence of this endorsement.
4. We are not responsible for the accuracy, integrity, timeliness and validity of information contained in the list provided to us as described in Paragraphs 1. and 2. above.

All other terms and conditions of this policy remain unchanged.

This endorsement changes the policy to which it is attached and is effective on the date issued unless otherwise stated.
(The information below is required only when this endorsement is issued subsequent to preparation of the policy.)

Endorsement Effective 02/01/2026 **Policy No.** WC 6142426-02 **Endorsement No.**
Insured John E. Green Company **Premium $**

Insurance Company Zurich American Insurance Company

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WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. (This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.)

This agreement shall not operate directly or indirectly to benefit anyone not named in the Schedule.

Schedule

ALL PERSONS AND/OR ORGANIZATIONS THAT ARE REQUIRED BY WRITTEN CONTRACT OR AGREEMENT WITH THE INSURED, EXECUTED PRIOR TO THE ACCIDENT OR LOSS, THAT WAIVER OF SUBROGATION BE PROVIDED UNDER THIS POLICY FOR WORK PERFORMED BY YOU FOR THAT PERSON AND/OR ORGANIZATION

This endorsement changes the policy to which it is attached and is effective on the date issued unless otherwise stated.

(The information below is required only when this endorsement is issued subsequent to preparation of the policy.)

Endorsement 02/01/2026 Effective Policy No. WC 6142426-02 Endorsement No.

Insured John E. Green Company Premium $

Insurance Company Zurich American Insurance Company Countersigned by _____

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CITY OF SAGINAW
1315 S WASHINGTON AVE
SAGINAW MICHIGAN 48601

C-1720
WTP SODIUM HYPOCHLORITE AND LIME FEED IMPROVEMENTS

BID OPENING
TUESDAY, MARCH 24, 2026
3:00 PM

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C-1720
WTP SODIUM HYPOCHLORITE AND LIME FEED IMPROVEMENTS

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City of Saginaw, Michigan
Purchasing Division
(989) 759-1430

SEALED BID INSTRUCTIONS

SEALED BIDS MUST BE SUBMITTED ACCORDING TO THE FOLLOWING INSTRUCTIONS OR YOUR BID WILL BE DISQUALIFIED

1. Bids must be submitted on printed forms furnished by the City Purchasing Office. Voluntary alternates may be attached to bid form, if necessary.

2. Bids must be in ink or typewritten.

3. Bids must contain bidder's complete name, address, and telephone number.

4. Bids must be signed in ink and dated.

5. Bids must include delivery or completion time.

6. If an addendum is issued by the City, it must be signed, dated, and returned with bid.

7. An **original** bid bond, bank money order, certified check, or cashier's check in the amount of five percent (5%) of the total amount bid must be submitted with any bid in excess of $100,000. The AIA Document A310 – 2010 bid bond is the preferred format. If the agreement is for multiple years, each year should be combined to get your total cost. **Facsimiles or copies of bid bond will not be accepted, and bid will be disqualified if submitted.**

8. All erasures or corrections to pricing information must be initialed in ink.

9. If this is a Davis-Bacon Prevailing Wage Project, it will include a wage decision and Division 2. The City of Saginaw does not have a Prevailing Wage ordinance.

10. In case of a discrepancy between a unit price and its extension, the unit price will be considered correct, and the bid will be recalculated to determine the amount bid. All addition errors will be corrected, and the total bid will be adjusted to reflect the corrections.

11. All bids must be in the City Purchasing Office, 1315 S. Washington Ave. Saginaw, MI 48601 by the date and time specified on bid forms. The Purchasing Office is located at Saginaw City Hall in room #105.

12. Each bidder's envelope, FED EX box/letter, UPS box/letter, or any other method of sealed delivery must have the bid number or contract number on the outside of the container. **UNMARKED BIDS WILL BE DISQUALIFIED.**

13. EACH BID MUST BE ENCLOSED IN A SEPARATE SEALED ENVELOPE WITH **SEALED BID AND THE BID NUMBER** MARKED ON THE FRONT. A COPY OF THE ORIGINAL BID MUST ALSO BE INCLUDED IN THE BID.

RIGHT OF CITY TO ACCEPT OR REJECT BIDS

THE CITY RESERVES THE RIGHT TO ACCEPT OR REJECT ANY AND ALL BIDS, OR PARTS THEREOF, AND TO WAIVE ANY IRREGULARITIES WHICH DO NOT MATERIALLY AFFECT THE BID DOCUMENT OR OTHERWISE CONFLICT WITH STATUTE OR ORDINANCE. ANY REJECTION OF BIDS SHALL BE MADE ONLY IF THERE IS A SOUND DOCUMENTED REASON FOR SAME.

REV 9-2021

GENERAL INFORMATION

MAIL OR DELIVER ALL SEALED BIDS TO THE FOLLOWING ADDRESS BY THE DATE AND TIME SPECIFIED ON BID FORM

CITY OF SAGINAW PURCHASING OFFICE – ROOM #105
1315 S. WASHINGTON AVENUE, SAGINAW, MICHIGAN 48601

SEALED BID DOCUMENTS

EFFECTIVE IMMEDIATELY: All interested bidders may obtain bid document forms, proposal instructions, general specifications, and bid results from the City of Saginaw website **(www.saginaw-mi.com).**

NO CONTRACT SHALL BE VALID UNLESS APPROVED BY CITY COUNCIL

Pursuant to the Charter of the City of Saginaw, written contracts involving the Expenditure of $2,000 or more shall require the approval of City Council. No City Employee has the authority to bind the City to such a contract.

ALTERATION OF BID BY BIDDER

After bids have been opened, the bidder will not be allowed to withdraw, modify or correct any bid. Substitutions and alternates: If a document is issued with the language "No Substitutions, then none will be considered. If a document does not include this language the respective bidder can include a substitution and/or alternate of which the Cit reserves the right to determine equivalent.

EVIDENCE OF BIDDER'S QUALIFICATIONS

Bidders may be required to give some satisfactory evidence that they have been regularly engaged in the business or are reasonably familiar therewith, and that they are fully prepared with the necessary capital, materials, and machinery to complete the work or to furnish the material contracted for the satisfaction of the city.

FAMILIARITY OF BIDDER WITH CONTRACT REQUIREMENTS

Bidders are warned that they must inform themselves of the character and amount of work, labor, or material to be furnished under the contract.

CONTRACT ASSIGNMENTS OR TRANSFERS PROHIBITED

The assignment or transfer of a contract or of interest in the contract are prohibited unless approved by the proper City department and City Council.

CITY INCOME TAX COMPLIANCE

Bidders are hereby notified that the City of Saginaw has an income tax. All successful bidders will be subject to income tax withholding and compliance is mandatory. Per section 14 of the City of Saginaw uniform income tax ordinance, the tax percentage is 1.5% on income earned from the City. The tax shall apply on the taxable net profits of a corporation doing business within the City, being levied on such part of the taxable net profits as is earned by the corporation as a result of work done, services rendered and other business activities conducted with the City as determined in accordance with this ordinance.

WITHHOLDING FROM PAYMENTS

As part of the consideration for any bid/contract, all bidders agree to have withheld from any payment due them, any amounts for taxes, fees, or other charges due the City of Saginaw.

CONTRACT COMPLIANCE ORDINANCE

The City of Saginaw has a Contract Compliance Ordinance, which requires bidders to submit documentation furnished by the City indicating compliance with the Ordinance. Contract compliance forms must be sent to the City Purchasing Office; 1315 S. Washington Avenue; Saginaw, Michigan 48601. Forms may be obtained by calling (989) 759-1430.

BID FORMS

A copy of the original bid form is to be enclosed in the bid envelope (original plus a complete copy). "All or None" means bidders are required to submit pricing for all years and/or all items requested. Any proposal received that does not meet this requirement will be disqualified. If said bid is not listed as "All or None" the City reserves the right to split said bid to our best benefit. If you receive a bid copy from our website and have never conducted business with us you can also complete a copy of the "Vender Compliance From" are return it to us or contact our Purchasing Office so you can be formally added to the respective bidder list for that good or service. (989) 759-1430.

BID RESULTS

A bid tabulation sheet showing the initial results will be posted on our website within 48 hours of the bid opening date. Once the respective department reviews the bids, they will make a recommendation on who our City Council should award the bid to. At that time, the recommendation will also be posted on the tabulation sheet as a secondary notice.

INSTRUCTIONS AS PART OF CONTRACT

These instructions are to be construed with and made part of the contract or purchase order.

GENERAL INSTRUCTION TO BIDDERS

1. INTENT

It is the intent of the City, unless otherwise specified, that work on any contract awarded under the advertisement, to be started no later than Thirty (30) calendar days after award of the contract or the date specified in the contract documents, and that the work shall be carried on with due diligence, at such points and at such times and seasons, and with such force and in such manner as to secure its completion on or before the completion date as specified in the advertisement or as determined by the proposal or construction schedule, submitted by the Contractor.

2. INTERPRETATIONS OR ADDENDA

No oral interpretation will be made to any bidder *as* to the meaning of the contract documents or any part thereof. Every request for such an interpretation shall be made in writing to the City Engineer. Any inquiry received seven (7) or more days prior to the date fixed for the opening of bids will be given consideration. Every interpretation made to a bidder will be in the form of an addendum to the contract documents and when issued will be on file in the office of the City Purchasing Officer and the office of the City Engineer. In addition, it shall be *the* bidder's responsibility to make inquiry as to the addenda issued. All such addenda shall become part of the contract documents and all bidders shall be bound by such addenda, whether or not received by the bidder.

3. INSPECTION OF SITE

Each bidder should visit the site of the proposed work and fully acquaint themselves with the existing conditions there relating to the work and should inform themselves as to the facilities involved, the difficulties and the restrictions attending the performance of the contract. The bidder shall thoroughly examine and familiarize themselves with the drawings, specifications, and all other contract documents. The Contractor by the execution of the contract shall in no way be relieved of any obligation under it due to their failure to receive or examine any form or legal instrument or to visit the site and acquaint themselves with the conditions there existing. The City of Saginaw will be justified in rejecting any claim based on facts regarding which he should have been on notice *as* a result thereof.

4. BIDS ON MORE THAN ONE CONTRACT

Any bidder may **submit** a proposal on any single contract, or on any number of contracts, or on all the contracts included in the advertisement. Bidders are cautioned to give full consideration to other commitments which might effect the starting date, schedule of progress, or completion date for any contracts awarded hereunder.

5. DEFINITIONS

The term "City Engineer" shall mean the Director of Public Service, or the City Engineer of the City of Saginaw.

The term "Department of Engineering" shall mean the Department of Public Services and Engineering of the City of Saginaw.

6. CORRECTIONS

All erasures or corrections to pricing information must be initialed in ink.

7. COLLUSIVE AGREEMENT (SEE PROPOSAL)

Each bidder submitting a bid to the City of Saginaw for any portion of the work contemplated by the documents on which bidding is based shall by signing the proposal form sheet agree that the bid is genuine and not sham or collusive or made in the interests or on behalf of any person not therein named. That the bidder has not directly or indirectly induced or solicited any bidder to put in a sham bid or any other person or corporation to refrain from bidding, and that the bidder has not in any manner sought by collusion to secure himself an advantage over other bidders.

8. STATEMENT OF BIDDER'S QUALIFICATIONS

Each bidder shall, upon request of the City of Saginaw, submit a statement of the bidder's qualifications, their construction experience, and their organization and equipment available for the work contemplated, and when specifically requested by the City of Saginaw, a detailed financial statement. The City of Saginaw shall have the right to take such steps as it deems necessary to determine the ability of the bidder to perform their obligations under the contract, and the bidder shall furnish the City of Saginaw all such information and data for this purpose as it may request. The right is reserved to reject any bid where an investigation of the available evidence or information does not satisfy the City of Saginaw that the bidder is qualified to carry out properly the terms of the contract.

9. ALTERNATIVE BIDS

No alternative bids will be considered unless specifically requested.

10. BIDS

a. Bidders are warned that they must inform themselves of the character and amount of work, labor, or material to be furnished under the contract. All bids must be submitted on forms supplied by the City of Saginaw and shall be subject to all requirements of the contract documents, including the drawings and these INSTRUCTIONS TO BIDDERS. All bids must be regular in every respect and no interlineations, excisions or special conditions shall be made or included in the Bid Form by the bidder. After bids have been opened, permission will not, in any case, be given for the withdrawal, modification or correction of any bid.

b. Bid documents, which are mailed shall include the bid, the bid guaranty (when required), the non-collusion affidavit, and the statement of bidder's qualification (if requested) and shall be enclosed in envelopes (outer and inner) both of which shall be sealed and clearly labeled "Sealed

Bid", (outer envelope properly addressed to "City of Saginaw Purchasing Office, 1315 S. Washington Avenue, Saginaw, Michigan 48601") project name and number, name of bidder, and date and time of bid opening, in order to guard against premature opening of the bid. All proposals must be either filled out in ink or typewritten; typewritten is preferred. Bids to include a copy along with the original.

c. The City of Saginaw may consider as irregular any bid on which there is an alteration of the bid form hereto attached and at its option may reject the same.

d. If the contract is awarded, it will be awarded by the City of Saginaw to a responsible bidder on the basis of the bid most favorable to the City of Saginaw. The contract will require the completion of work according to the contract documents. Transfer of contract or of interests in contract are prohibited unless approved by the proper City agency.

e. Each bidder shall include in his bid the following information:

I. Bidder Name
II. Address
III. City, State, Zip Code
IV. Telephone Number
V. E-mail
VI. Status

11. BID GUARANTY (When Applicable) (Effective February 16, 1984)

a. Bids of $100,000 or more must be accompanied by a bid guaranty which shall not be less than five percent (5%) of the total contract cost of construction including all overhead items. The bid bond shall be secured by a guaranty, or a surety company listed in the latest issue of U.S. Treasury Circular 570 and authorized to transact surety business in the State of Michigan. The amount of such bid bond shall be within the maximum amount specified for such company in said Circular 570. At the option of the bidder, the guaranty may be a certified check, cashier's check, bank money order or a bid bond in the amount specified. The AIA document A310 – 2010 bid bond is the preferred format. No bid will be considered unless it is accompanied by the required guaranty. The certified check, cashier's check, bank money order or a bid bond must be payable to the order of the City of Saginaw. The bid guaranty shall insure the execution of the agreement and the furnishing of the surety bond or bonds by the successful bidder, as required by the contract documents.

b. Revised bids submitted before the opening of bids, representing an increase in excess of two percent (2%) of the original bid, must have the bid guaranty adjusted accordingly, otherwise the bid will not be considered.

c. Certified checks or cashier's check, bid bonds, and bank money orders of unsuccessful bidders, will be returned as soon as practicable after award of a contract.

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12. UNIT PRICE BIDS

The unit price for each of the several items in the proposal of each bidder shall include its pro-rata share of overhead so that the sum of the products obtained by multiplying the quantity shown for each item by the unit price bid represents the total bid. In case of a discrepancy between a unit price and its extension, the unit price will be considered correct, and the bid will be recalculated to determine the amount bid. All addition errors will be corrected, and the total bid will be adjusted to reflect the corrections. Special attention of all bidders is called to this provision, should conditions make it necessary to revise the quantities. No limit will be fixed for such increased or decreased quantities nor extra compensation allowed, provided the net monetary value of all such additive and subtractive changes in quantities or such items or work shall not increase or decrease the original contract prices by more than twenty percent (20%) unless mutually agreed upon in writing by the City Engineer and Contractor, that extra work, that is work not covered in the drawings and specifications, shall not increase the original contract by more than twenty percent (20%).

13. PUBLIC ACT 524 OF 1980 (When Applicable)

Sec.2 (1) 1980 P.A. 524 states as follows:

The construction contract shall designate a person representing the Contractor who will submit written requests for progress payments, and a person representing the public agency to whom request for progress payments are to be submitted. The written requests for progress payments shall be submitted to the designated person in a manner and at such times as provided in the construction contract.

Therefore, the Contractor shall state on “Bid Proposal” the name of the person who will be submitting request for progress payment and the request shall be made to the City Engineer.

14. TIME FOR RECEIVING BIDS

Bids received prior to the time of opening will be securely kept unopened. The Purchasing officer will decide when the specified time has arrived. No bid received thereafter will be considered, except that when a bid arrives by mail after the time fixed for opening, but before the reading of other bids is completed, and it is shown to the satisfaction of the City of Saginaw that the non-arrival on time was due solely to delay in the mails for which the bidder was not responsible, then such bid will be received and considered.

15. OPENING OF BIDS

At the time and place fixed for the opening of bids, the City of Saginaw open and publicly read aloud every bid received within the time set for receiving bids, irrespective of any irregularities therein. Bidders and other persons properly interested may be present, in person or by representative.

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16. WITHDRAWAL OF BIDS

Bids may be withdrawn on written or telegraphic request dispatched by the bidder in time for delivery in the normal course of business prior to the time fixed for opening, provided that written confirmation or any telegraphic withdrawal over the signature of the bidder is placed in the mail and postmarked prior to the time set for bid opening. The bid guaranty of any bidder withdrawing his bid in accordance with the foregoing conditions will be returned promptly.

17. AWARD OF CONTRACTS: REJECTION OF BIDS

a. The contract will be awarded to the lowest responsible bidder complying with the conditions of the SEALED BID INFORMATION, provided such bid is reasonable and it is to the interest of the City of Saginaw to accept it. The City of Saginaw, however, reserves the right to accept or reject any and all bids or parts thereof, and to waive any irregularities in a bid except those specific any mentioned in the "Sealed Bid Instructions".

b. The City of Saginaw reserves the right to consider as unqualified to perform the contract, any bidder who does not habitually perform with his own forces, the major portions of the work involved.

c. On contracts of $50,000 or more, the bidder to whom the Purchasing Committee recommends for award will be required to provide bonds prior to award as outlined in Division 1, Section 121.

18. CONSTRUCTION SCHEDULE

In addition to the progress clause incorporated in the proposal, the successful bidder on any single contract, when so requested by the City Engineer, shall submit a schedule of the maximum number of calendar days required for the completion of the contract. The number of calendar days so stated, when approved by the City Engineer, shall be added to the starting date specified in Paragraph 1, and the date thus determined shall become the completion date of such contract unless otherwise specified in the contract.

The successful bidder on any two or more contracts, or the successful bidder on any single contract who also has uncompleted work on other City of Saginaw construction contracts previously awarded, shall prepare a Construction Schedule for submission to and approval by the City Engineer. When so requested by the City Engineer, the Construction Schedule shall be submitted immediately after the tabulation of bids in order that the information therein contained may be considered in the recommendation as to award of contracts. In any case, the Construction Schedule shall be submitted prior to the preparation of contract documents and not later than five (5) days after the tabulation of bids.

The Construction Schedule shall indicate the proposed sequence of operations, including any previously awarded City of Saginaw construction contracts not completed. The schedule shall show the total calendar days required for each contract and the date for starting and completion in each instance.

e

The schedule shall show whether or not the Contractor proposes to use more than one construction crew and, if requested, shall itemize the types and quantities of machinery and equipment available for the work.

19. SUBCONTRACTS

The Contractor's attention is directed to the requirements as outlined in Section 103, "SUBCONTRACTS", under Division 1, "General Conditions".

20. PRE-CONSTRUCTION MEETING

If so requested by the City Engineer, the Contractor shall make themselves available for a pre-construction meeting. The time and place of the meeting to be designated by the City Engineer.

21. PURCHASING ORDINANCE

The Purchasing Ordinance of the City of Saginaw, §14.30-14.45, applies to all contracts, sub-contractors, or purchase orders except where portions of the Ordinance may be preempted by law:

22. CONTRACT COMPLIANCE DOCUMENTATION

The following documents are to be filled out “Contract Compliance Agreement” and the “City of Saginaw Vendor Information” which are provided by the Purchasing Department.

23. MICHIGAN’S ELLIOTT-LARSEN CIVIL RIGHTS ACT, PUBLIC ACT 453 of 1976, as amended

All contracts in which the City of Saginaw is a party shall contain a covenant by the Contractor and any subcontractors not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment because of race, color, religion, national origin, age, sex, height, weight, sexual orientation, gender identity, marital status, or membership in another class of persons protected by law. Breach of this covenant may be regarded as a material breach of the contract.

24. MICHIGAN’S PERSONS WITH DISABILITIES CIVIL RIGHTS ACT, PUBLIC ACT 220 of 1976, as amended

All contractors and subcontractors shall be subject to and comply with the Michigan Persons with Disabilities Civil Rights Act which prohibits discriminatory practices, policies, and customs in the exercise of the civil rights of individuals with disabilities. A violation of the act may be regarded as a material breach of the contract.

25. AMERICANS WITH DISABILITIES ACT (ADA) of 1990, as amended

All contractors and subcontractors shall be subject to and comply with all the provisions of the Americans with Disabilities Act (ADA) of 1990. A violation of the Act may be regarded as a material breach of this contract.

26. CIVIL RIGHTS ACT OF 1964, as amended

All contractors and subcontractors shall be subject to and comply with all the provisions of the Civil Rights Act of 1964 which prohibits discrimination based on race, color, religion, sex, and national origin. A violation of the act may be regarded as a material breach of the contract.

27. GENETIC INFORMATION NONDISCRIMINATION ACT OF 2008 (GINA), as amended

All contractors and subcontractors shall be subject to and comply with all of provisions of the Genetic Information Nondiscrimination Act of 2008 which prohibits the use of genetic information in making employment decisions. A violation of the act may be regarded as a material breach of the contract.

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Division I
General Conditions

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101. Definitions

Wherever used in any of the Contract Documents, the following meanings shall be given to the terms herein defined:

a. The term “Contract” is defined as the Contract executed by the City of Saginaw and the Contractor, of which these General Conditions, Specifications and Divisions are incorporated into by reference.

b. The term “Contractor” is defined as the person(s), firm, partnership, company, sole proprietorship, or corporation entering into the Contract with the City of Saginaw to construct and install the improvements, or otherwise undertake the activities, embraced in this Contract.

c. The term “City Engineer” is defined as the City Engineer of the City of Saginaw acting personally or, in the absence of the City Engineer, through their designee.

d. The term “Engineer” is defined as the City engineer acting directly or indirectly through their authorized representatives acting within the limits of the respective authority delegated to them. Any determination, directions, or approval of such authorized representatives shall be subject to review by the City Engineer.

e. The term “Contract Documents” is defined as and shall include the following: Executed Agreement, Addenda (if any), Invitation for Bids, Instructions to Bidders, Signed Copy of Bid, Specifications, Divisions, Special Conditions, Technical Specifications and Drawings

f. The term “Technical Specifications” is defined as that part of the Contract Documents which describes, outlines, and stipulates the quality of the materials to be furnished; the quality of the workmanship required; and the methods to be used in carrying out the construction work to be performed under this Contract.

g. The term “Addendum” or “Addenda” is defined as any changes, revisions or clarifications of the Contract Documents which have been duly issued by the City of Saginaw to prospective Bidders prior to the time of receiving Bids.

102. Application of Conditions

These conditions and the clauses on the following pages, printed as well as written, shall apply to all branches of the work with equal force, whether the work is done under one entire Contract or under several separate Contracts.

Division I
General Conditions

103. Subcontracts

The Contractor shall, as soon as practicable after signing the Contracts, but in any event prior to the performance of any work by any subcontractor, notify the City in writing of the names of subcontractors proposed for the work, designating the portions of work to be performed by each. The Contractor is as fully responsible to the City for the acts and omissions of the Subcontractors and of persons either directly or indirectly employed by them as for the acts and omissions of persons directly employed by the Contractor.

Nothing contained in the Contract Documents shall create any contractual relationship between any subcontractor and the City.

104. Assignment of Contract

a. It is agreed that the Contractor shall not assign or transfer this Contract, or any part of the work embraced in it, except with the written consent of the City to do so.

b. It is further agreed that all parts of the work which may be performed by a subcontractor shall conform to the Plans and Specifications and be subject to all the provisions of this Agreement exactly as if performed by the Contractor and the Contractor's immediate employees. No subcontracting of the work shall in any way diminish or weaken the responsibility of the Contractor for all parts of the work or lessen the obligations and liabilities of the Contractor under this Agreement.

c. It is likewise agreed that the Contractor shall not assign, either legally or equitably, any of the monies payable to the Contractor under this Agreement, or the Contractor's claim thereto, except with the written consent of the City.

105. Responsibilities of Contractor

a. The Contractor shall be held to have examined the premises and line of work and shall take the whole responsibility of the work. Should any unforeseen difficulty or obstruction be encountered in the prosecution of the same, involving a greater expenditure of money than expected at the time of bidding, the Contractor shall proceed, nevertheless, with the work, and no allowance will be made therefore.

b. It shall not be incumbent upon the City to notify the Contractor when to begin, to cease or to resume work, nor in any way to manage the work so as to release the Contractor of responsibility, or of any consequence of neglect or carelessness by the Contractor or anu subordinates.

c. The Contractor shall devote time and management/superintendence to the fulfillment of this Contract and shall keep the same under the Contractor's control.

d. The Contractor shall assume and have sole charge and possession of all work included in this contract, until the termination thereof, unless otherwise specified in this contract, and shall be solely liable for all damages to persons or property occasioned in any way by the

Division I
General Conditions

Contractor's acts or omissions, or that of the Contractor's agents, employees, subcontractors, or any persons in and about the work embraced in this Contract.

e. Prior to the start of construction in the public right-of-way, it shall be the responsibility of the Contractor to notify the TRAFFIC ENGINEERING DIVISION of said work. In the case where complete street closure is necessary, it shall be the responsibility of the Contractor to notify the TRAFFIC ENGINEERING DIVISION, FIRE DEPARTMENT AND POLICE DEPARTMENT at least forty-eight (48) hours prior to the start of said work.

106. City Engineer's Power

All work and material furnished under this contract shall be furnished under the direction of and to the satisfaction and approval of the City Engineer. Should any dispute arise as to quality or fitness of the materials or workmanship, the decision shall rest strictly with the City Engineer and shall be based upon the requirements that all work done and materials furnished shall be performed in a good and workmanlike manner, conform to all Technical Specifications and Drawings and other requirements of the Contract in every respect, and what is useable and customary shall in no way enter into any consideration or decision whatsoever. The City Engineer shall have power to condemn all work and reject all material which, in his or her opinion, is not done or furnished in accordance with this Contract. However, this power and authority shall be confined to the direction or specification of what is to be done under this Contract and shall not extend to the actual execution of the work which shall be under the control of the Contractor, and for which the Contractor alone shall be responsible.

107. Contracts for Other Work

a. In case any additional work shall be required in connection with the work contemplated under this Contract, the City shall have the right to have such additional work done by any person other than the Contractor, and the Contractor shall in no way interfere with the work of such person(s), and shall suspend such part of the work herein specified, or will carry on the same in such manner as ordered by the City Engineer, so as to afford all reasonable facilities for doing such additional work, and the Contractor shall make no claims for damages or for privileges or rights by reason of the suspension and the doing of such additional work, except for such extension of time to perform this Contract as may be certified by the City Engineer.

b. The City reserves the right to lay or relay, construct or repair any water mains, gas mains, sewers, conduits and all other pipes and any connections thereto, or to grant permits to those having franchise rights from the City to install or reinstall, construct or repair such water mains, gas mains, sewers or conduits and other pipes and connections thereto at any time, and to do such other underground work in the street or streets, easements or vacated Right of Way, along the line of work as shall be necessary, or grant permits for same, at any time prior to the completion of the foundation for the paving material within the limits of this improvement, and to that end shall have the right to suspend the work on the said improvement, or any part thereof, and the Contractor shall not interfere with

or place any obstruction in the way of any person or persons who may be engaged in doing any of the work herein specified, and shall not be entitled to damages because of such work or any delay caused thereby.

108. Progress

In addition to the progress clause incorporated in the Contractor's proposal/response, the Contractor shall be required to submit, on demand of the City Engineer, an outline of the proposed order of work and to indicate the dates of completion of the major items of the work. This outline, when approved by the City Engineer, may be incorporated in, and become a part of the Contract.

109. Contractor's Employees

a. The Contractor shall employ suitable superintendents and forepersons, who, in the absence of the Contractor, shall be present while any work is being done under this Contract, and who shall follow, without delay, all orders and instructions of the City Engineer. Any notice given to a superintendent or foreperson relative to deviation from any of the requirements of this Contract shall be equivalent to a notice to the Contractor.

b. The superintendents, forepersons, employees, mechanics, and others employed by the Contractor shall be skilled in the assignment of work given them to do. Any employee of the Contractor who uses profane or abusive language to the Engineer or any Inspector, or otherwise impedes or embarrasses him in the performance of his duties, or who obstructs the progress of the work shall upon the request of the City Engineer be immediately removed from the project/worksite and not again employed at same without the consent of the City Engineer.

c. In doing any work contemplated by this Contract, eight (8) hours shall constitute a legal day's work by any laborer or worker employed by the Contractor.

d. Residents of the City of Saginaw shall be employed upon the work of this Contract as far as possible to do so.

110. Drawings

a. These Specifications and accompanying Drawings are intended to be cooperative, and what is called for by either shall be as binding as if called for by both. Should it appear that the work hereby intended to be done, or any of the materials or matters relative thereto, are not sufficiently detailed or explained on said Drawings or in said Specifications, or should any error, discrepancy or inconsistency appear between any of the Drawings and Specifications, or between any of the several Drawings, or should any doubt or misunderstanding arise as to the meaning of said Drawings or Specifications, the City Engineer shall furnish such additional drawings, detail or explanation, and he shall have power to interpret, correct, adjust and explain all errors, omissions, discrepancies, doubts and misunderstandings between such Drawings and Specifications, or between several Drawings, and the decision of the City Engineer therein shall be final and conclusive.

Explanations received from officers and employees other than the City Engineer will be considered of no avail in a case of dispute.

b. Preference shall be given to the figured dimensions on the Drawings rather than to scale measurements. Figures, unless witnessed by lines and points, are approximate only, and shall not be taken to regulate the dimensions of the structure of improvement. The figures, when so witnessed, are intended to show the exact dimension for the construction of the structure or improvement, but the Contractor, without extra charge, shall make such slight alterations as may be necessary to make adaptable parts fit to fixed parts, leaving all complete and in proper shape when done. It shall be the duty of the Contractor to verify all dimensions given on the Drawings, and to report any error or inconsistency to the City Engineer before commencing work.

111. Changes in the Work

a. No deviation from the Drawings and Specifications shall be made in the execution of the work without the written order and approval of the City Engineer, nor shall any work in the nature of additional work, or any work not contemplated by the Specifications or Drawings, be performed, except on written order of the City Engineer, and if any extra work be proceeded with or executed by the Contractor without previous order given in writing under the hand of the City Engineer as herein provided, no compensation for the same will be allowed. Extra work shall be defined as work not contemplated in the Contract, not covered in the Drawings and Specifications, and for which no unit prices have been stipulated.

b. Should it be deemed expedient by the City Engineer, at any time previous to commencing work, or while the work is in progress, to increase or diminish the dimensions, quantities of material or work, or alter the situation or levels, or vary from the form or dimensions of any part of said work, or vary in any other way the work herein contracted for, the City Engineer shall have full power to do so and to order and direct any such increase, diminution, alteration, or extra work to be made or performed, and without in any way deviating or affecting this Contract; and the Contractor hereby waives any claim to right to damages that the Contractor may be entitled to by reason of such changes. The Contractor shall, in pursuance of such order and directions received in writing from the City Engineer, execute the work thereby ordered and directed, and the difference in expense occasioned by such increase, diminution or alteration, shall be added to or deducted from the amount payable under this Contract.

c. The Contractor shall perform any extra work (work in connection with the Contract but not provided for herein as defined in subparagraph a. of his section) when and as ordered in writing by the City Engineer, either (a) at the price agreed upon before such work is commenced and named in the written order for such work, or (b) if the City Engineer so elects, for the reasonable cost of such work, as determined by the Contractor and approved by the City Engineer, plus a percentage of such cost, as set forth below. No extra work shall be paid for unless specifically ordered as such in writing by the City Engineer.

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The cost of extra work done under subparagraph b. of this section shall include the reasonable cost to the Contractor of materials used and equipment installed, common and skilled labor, and forepersons, and the fair rental for all machinery and equipment used on the extra work for the period of such use.

At the request of the Engineer, the Contractor shall furnish itemized statements of the cost of the extra work ordered as above and give the Engineer access to all records, accounts, bills and vouchers and correspondence relating thereto.

The fair rental of all machinery and equipment shall be based upon the most recent edition of the Michigan Department of Transportation Equipment Rental Rates (Schedule C), or a similar publication approved by the City Engineer. Rental for machinery and equipment shall be based upon an appropriate fraction of the approved monthly rate schedule. If said extra work requires the use of machinery or equipment not already on the site of the work, the cost of transportation, not exceeding a distance of 100 miles, of such machinery or equipment to and from the Job Site or Work Location shall be added to the fair monthly rental; provided, however, that this shall not apply to machinery or equipment already required to be furnished under the terms of the Contract.

The Contractor shall not include in the cost of extra work any cost or rental of small tools, buildings, or any portion of the time of the Contractor, the superintendent, or the office and engineering staff.

To the cost of extra work done by the Contractor’s own forces under (b) above (determined as stated above), the contractor shall add 15 percent to cover the overhead, use of capital, the premium on the bonds as assessed upon the amount of this extra work, and profit.

If extra work is done under subparagraph b. of this section, the Contractor and/or subcontractor shall keep daily records of such extra work. The daily record shall include the names of people employed; the nature of the work performed, and hours worked, materials and equipment incorporated, and machinery or equipment used, if any, in the execution of such extra work. This daily record, to constitute verification that the work was done, must be signed both by the Contractor’s authorized representative and by the Engineer. A separate set of daily records shall be submitted for each extra work order.

d. The City Engineer may order the Contractor to proceed with desired changes in work provided that the net value of all such changes does not increase or decrease the original total amount shown in the Contract by more than twenty percent (20%) unless mutually agreed upon in writing by the City Engineer and the Contractor and further, that "extra work" shall not increase the original Contract by more than twenty percent (20%) in accordance with the section entitled “Unit Price Bids” under “General Instructions to Bidders.”

112. Right of City to Take Over Contract

If the work to be done under this Contract shall be abandoned, or if the Contractor shall become insolvent or shall assign this Contract or subcontract the work hereunder without the written consent of the City Engineer, or if at any time the City Engineer shall be convinced

that the work is unnecessarily or unreasonably delayed, or that the Contractor is not making such progress in the execution of the work as to indicate its completion within the required time, or that the conditions or agreements of the Contract are being willfully violated or executed carelessly or in bad faith, the City Engineer shall provide the Contractor with a 24-hour notice, in writing, and, after the delivery thereof to the Contractor, the City Engineer shall then have the power and right to place additional laborers and equipment on said work and supply additional material, if necessary, and do such work as deemed advisable for the completion of this Contract, and may use any materials or implements belonging to the Contractor, or the City Engineer shall have the power and right to notify the Contractor to discontinue all work, or any part thereof, under this Contract, and upon such notifications, the Contractor shall discontinue said work, or such parts thereof, as the City Engineer may designate, and the City shall thereupon have the right and power to re-let this Contract, or any part thereof, or to employ, by contract or otherwise, and in such manner and at such prices as it may determine, any person or persons, and obtain any vehicles, applications, machinery, tools, another means of construction, and to procure all proper materials which it may deem necessary to work at and to be used to complete the work herein described; also the power to use such appliances, tools, and materials and means of construction of every description as may be found upon the line of work, both such as entered into the completed work and such as are necessarily used in and about the same in the course of construction, and to procure other proper materials for the completion of the same; and it shall charge the expense of all such labor, materials, vehicles, appliances, machinery, tools and other means of construction, and all expense of inspection and engineering and all other expenses, to said Contractor, and the Contractor shall be liable to the City for the amount of the whole cost of accomplishing the object contemplated by this Contract in excess, if any, of the amount herein agreed upon, together with such other elements of damage as may have been sustained by the City by reason of said Contractor's failure to complete and perform this Contract. In determining the liability of the Contractor hereunder, the City shall not be required to obtain the lowest figures for the work of completing the contract, but all sums actually paid for such completion shall be credited to the City, together with other elements of damage above mentioned, and the certificate of the City Engineer as to the amount of such liability shall be final and conclusive.

113. Extension of Time

a. An extension of time for completion of the work under the Contract may be granted by the City Engineer, subject to the conditions of this paragraph, but only upon the written application of the Contractor. In general, an extension of time will be granted by the City Engineer only if the delay is unavoidable and substantial, not the fault of the Contractor, and could not be reasonably anticipated or adequately guarded against. The Contractor will not be liable for liquidated damages during the period for which time of completion is extended by the City. The Contractor shall be entitled to a reasonable extension of time for unavoidable delay in completion caused solely by the following:

   I. Any act or omission of the City, its officer or employees;

   II. Any act of other public authorities;

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III. Causes not reasonably foreseeable by the parties at the time of the execution of this Contract and which are entirely beyond the control and without the fault or negligence of the Contractor, including, but not limited to, act of God, or the public enemy, war or other national emergency making performance temporarily impossible or illegal, acts or omissions of other contractors (but not the Contractors subcontractors), strikes and labor disputes not brought on by any act or omission of the Contractor, fires, floods, epidemics, quarantine restrictions, freight embargoes, weather of unusual severity such as cyclones or tornadoes, or excessively abnormal weather such as would interfere with the work.

b. The City Engineer will make a determination, based on the ascertained facts and the terms of this Contract, if an extension of time is justified, and, if so, will extend the time for completing the work for a period commensurate with the period of excusable delay. The determination made by the City Engineer shall be binding and conclusive on the Contractor.

114. Liquidated Damages

In the event of delay in the completion of the entire work beyond the period herein prescribed or beyond the period to which such time may be extended by the City, the City of Saginaw shall be paid the sum that is listed on the "Special Provision For Liquidated Damages." for each and every calendar day that the time consumed in said performance and completion extends beyond the final date herein specified, and this sum will be considered liquidated damages that the City will suffer by reason of said delay and default. As indicated in Article 6 of this Contract, this provision for liquidated damages applies separately to each proposal contained in the Contract.

115. Disputes

a. All disputes arising under this Contract or its interpretation, whether involving law or fact or both, or extra work, and all claims for alleged breach of contract shall within ten (10) days of commencement of the dispute, be presented by the Contractor to the City Engineer for decision. All papers pertaining to claims shall be filed in quadruplicate. Such notice need not detail the amount of the claim but shall state the facts surrounding the claim in sufficient detail to identify the claim, together with its character and scope. In the meantime, the Contractor shall proceed with the work as directed. Any claim not presented within the time limit specified within this subparagraph all be deemed to have been waived, except that if the claim is of a continuing character and notice of the claim is not given within ten (10) days of its commencement, the claim will be considered only for a period commencing ten (10) days prior to the receipt by the City Engineer of notice thereof.

b. The Contractor shall submit in detail the claim and the proof thereof. Each decision by the City Engineer will be in writing and will be mailed to the Contractor by both regular mail, email, and/or certified mail, return receipt requested.

c. If the Contractor does not agree with any decision of the City Engineer, the Contractor shall not allow the dispute to delay the work but shall notify the City Engineer promptly

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that the Contractor is proceeding with the work under protest and may then accept the manner in question from final release.

116. Service of Notice

Service of notice by the City upon the Contractor may be made by service upon the Contractor, the superintendent, foreman, agent or representative personally or by certified mail, return receipt requested, sent by the City Engineer to the Contractor, and the receipt of such notice by said Contractor, superintendent, foreman, agent or representative, shall constitute full and legal notice within the meaning of this Contract.

117. Qualifications of Contractor

The Contractor must be capable of performing the various items of work bid upon. The Contractor shall furnish on demand of the City Engineer a list of the Contractor's qualifications covering experience on similar work, a list of machinery, plants, and other equipment available for the proposed work, and such statements of any financial resources as may be deemed necessary.

118. Indemnity

The Contractor shall, at the Contractor's own expense, protect, defend, indemnify and hold harmless the City, and its officers, employees, agents, or representatives, from and against all claims, damages, liabilities, losses and expenses, including reasonable attorney's fees, resulting from the acts, omissions, or negligence of the Contractor, or any of the Contractor's officers, employees, agents, representatives, or subcontractors, in any way connected or otherwise related to their performance or nonperformance of this Contract.

119. Insurance

During the life of the Contract, the Contractor shall obtain and maintain the required insurance and bonds as shown on the "Notice to Bidders: Consultants – Bonds – Insurance". The Contractor shall neither be awarded this contract nor commence work under this contract until he has obtained all required documents and evidence of such has been reviewed and approved by the City of Saginaw. The insurance and bond requirements set forth herein are mandatory and not subject to negotiation.

120. Patents, Royalties, Trademarks, Etc.

All fees for claims and royalties for any patented inventions, materials, articles, methods, arrangements, or processes of manufacture that may be used on or in any way connected with the construction, erection or maintenance of this work, or any part thereof, embraced in this Contract, shall be included in the price stipulated and mentioned in the proposal to contract for said work. The City of Saginaw shall be the owner of any such work produced and paid for in connection with this Contract.

121. Performance Bonds and Payment Bonds

a. Prior to the award and within ten (10) days after the prescribed forms are presented for

signature, the successful bidder shall execute and deliver to the City of Saginaw an Agreement in the form included in the Contract Documents in such number of copies as the City of Saginaw may require.

b. Unless otherwise specified in the notice to bidders, the contractor shall furnish a performance and a payment bond. The bonds shall be required as provided by Act 213, Public Acts 1963, as amended. Performance bonds and payment bonds shall be in an amount not less than 100 percent (100%) of the total amount of the Contract, shall be executed by a corporate surety prior to award of Contract, and shall be subject to approval by the City Manager as to substance and by the City Attorney as to form. Irrespective of the provisions of Article 2 of this Contract, the Contractor shall not commence work hereunder until policies of the insurance required by Section 119 of General Conditions and the bonds required by this section shall have been furnished and approved by the City. Upon failure of the Contractor to furnish said insurance policies or bonds within ten (10) days prior to the award of the Contract by the Council, all of the Contractor's rights to the award of the Contract shall terminate unless the time for furnishing any of said instruments shall have been extended by the City Engineer; such extension shall be for good cause shown by the Contractor. Such termination shall not relieve the Contractor of his liability under his bid bond, and failure to provide the necessary surety bonds and insurance policies shall be treated as the failure of the Contractor to enter into the Contract pursuant to the Contractor's bid.

   Bid Bonds, Performance Bonds and Payment Bonds will be written with companies named in the Federal Register as published by the Department of the Treasury or acceptable to the City. Surety shall have a rating of no lower than an A- as rated by A.M. Best Key Rating Guide or acceptable to the City.

c. The failure of the successful bidder to execute this Contract and to supply the required bond or bonds within ten (10) days after the prescribed forms are presented for signature, or within such extended period as the City Engineer may grant, based upon reasons determined sufficient by the City Engineer as good cause shown by Contractor, shall constitute a default, and the City of Saginaw may either award the contract to the next best responsible bidder or re-advertise for bids, and may charge against the bidder the difference between the amount for which a contract for the work is subsequently executed, irrespective of whether the amount thus due exceeds the amount of the bid bond. If a more favorable bid is received by re-advertising the defaulting bidder shall have no claim against the City of Saginaw for a refund.

122. Facilities and Notices for Inspection

The City Engineer and duly authorized inspectors shall at all times have the right to enter the premises upon which said work is being done, or upon which material is manufactured, prepared or stored, for work under this Contract, and to inspect said work and materials, and to ascertain whether or not the construction is carried out in accordance with this Contract; and the Contractor shall render all necessary assistance and provide all reasonable facilities and give ample time for such inspection. When any work or material is being executed or prepared away from the line of work, the City Engineer shall be notified in reasonable time

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where such work is being executed and such material prepared and when it will be ready for inspection so that inspection may be made from time to time before delivery. Failure or neglect on the part of the City Engineer or any inspector to condemn any material at the time of its being supplied or furnished shall not be construed to imply an acceptance thereof.

The Contractor shall notify the Engineer sufficiently in advance of backfilling or concealing any facilities to permit proper inspection. If any facilities are concealed without approval or consent of the Engineer, the Contractor shall uncover for inspection and recover such facilities, at the Contractor's own expense, when so requested by the Engineer.

123. Materials and Workmanship

a. Unless otherwise specifically provided for in the Technical Specifications, all workmanship, equipment, materials, and articles incorporated in the work shall be new and the best grade of the respective kinds for the purpose. Where equipment, materials, articles, or workmanship are referred to in the Technical Specifications as “equal to” any particular standard, the City Engineer shall decide the question of equality.

b. The Contractor shall furnish to the City Engineer for approval the manufacturer's detailed specifications for all machinery, mechanical and other special equipment which the Contractor contemplates installing, together with full information as to type, performance characteristics, and all other pertinent information as required, and shall likewise submit for approval as required full information concerning all other materials or articles which the Contractor proposes to incorporate in the work (see paragraph 124: “Samples Certificates and Tests”, of Division 1, General Conditions).

c. Machinery, mechanical and other equipment, materials, or articles installed or used without such prior approval shall bear the risk of subsequent rejection.

d. Materials specified by reference to the number or symbol of a specific standard, such as an ASTM Standard, a Federal Specification or other similar standard, shall comply with requirements in the latest revision thereof and any amendment or supplement thereto in effect on the date of the Notice Inviting Sealed Proposals, except as limited to type, class, or grade, or modified in such reference. The standards referred to, except as modified in the Technical Specifications, shall have full force and effect as though printed therein.

e. When any material has been furnished by the City, the Contractor, or the Contractor’s authorized agent, shall sign a receipt therefore, stating that the material has been received in good condition; and, after receiving such material, the Contractor shall be responsible for the material and shall protect it from the weather and from all other causes which might damage the same, in order to keep the material in as good condition as when it was received. All material broken, damaged or stolen when in the care of the Contractor shall be charged against the Contractor and the value thereof deducted from any monies that may become due the Contractor. All materials furnished by the City shall be loaded and hauled from locations as directed by the City Engineer or Employee.

124. Samples, Certificates and Tests

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a. The Contractor shall submit all material and equipment samples, certificates, affidavits, etc., as called for in the Contract Documents or required by the Engineer. No such material or equipment shall be manufactured or delivered to the site except at the Contractor's own risk, until the Engineer has approved the required samples or certificates. Any delay in the work caused by late or improper submission of samples or certificates for approval shall not be considered just cause for an extension of the Contract time.

   Each sample submitted by the Contractor shall carry a label giving the name of the Contractor, the project for which it is intended, and the name of the producer. The accompanying certificates or letters from the Contractor shall state that the sample complies with Contract requirements, shall give the name and brand of the product, its place of origin, the name and address of the producer, and all specifications or other detailed information which will assist the Engineer in passing upon the acceptability of the sample promptly. Such certificate or letter shall also include the statement that all materials or equipment furnished for use in the project will comply with the samples and/or certified statements.

b. Approval of any materials shall be general only and shall not constitute a waiver of the City of Saginaw's right to demand full compliance with Contract requirements. After actual deliveries, the Engineer will have such check tests made, as deemed necessary in each instance, and may reject materials and equipment and accessories for cause, even though such materials and articles have been given general approval. If materials, equipment, or accessories, which fail to meet check tests, have been incorporated in the work, the Engineer will have the right to cause their removal and replacement by proper materials or to demand and secure such reparation by the Contractor as is equitable.

c. Except as otherwise specifically stated in the Contract, the costs of sampling and testing will be divided as follows:

   I. The Contractor shall furnish, without extra cost, all samples required for testing purposes; furnishing shall include packing and delivery charges, except for those samples taken on the project by the Engineer;

   II. The Contractor shall assume all costs of retesting materials which fail to meet Contract requirements;

   III. The Contractor shall assume all costs of testing materials offered in substitution for those found deficient; and

   IV. The City of Saginaw will pay all other expenses.

125. Permits and Codes

The Contractor shall keep fully informed of and shall at all times observe and comply with all existing or future Federal, State, or local laws or regulations, all requirements and provisions of the Charter of the City of Saginaw, and all municipal ordinances, prohibitions, rules, and regulations in any manner affecting the conduct of the work, and shall protect and indemnify

the City against any and all claims arising from or based on any violations of such laws, Charter, ordinances, prohibitions, rules, regulations, orders, or decrees and against all violations of same by the Contractor or the Contractor's officers, employees, agents, representatives, or subcontractors.

126. Care of Work

a. The Contractor shall be responsible for all damages to persons or property that occur as a result of the Contractor's fault or negligence, or the fault or negligence of the Contractor's officers, employees, agents, representatives or subcontractors, in connection with the execution of the work and shall be responsible for the proper care and protection of all work performed until completion and final acceptance, whether or not the same has been covered in whole or in part by payments made by the City of Saginaw.

b. In an emergency affecting the safety of life or property on or adjoining the site, the Contractor shall act, either at the Contractor's own discretion or as instructed by the City of Saginaw, to prevent such threatened loss or injury. Any compensation claimed by the Contractor on account of such emergency work will be determined by the City of Saginaw as provided in the section entitled "Changes in the Work", in Section 111, Division I, General Conditions. In no instance shall the Contractor be paid for such emergency work where the emergency work was necessitated by the acts or omissions of the Contractor, or its officers, employees, agents, representatives, or subcontractors.

c. The Contractor shall avoid damaging sidewalks, streets, curbs, pavements, utilities, structures, or any other property (except that which is to be replaced or removed) either on or adjacent to the site. The Contractor shall repair at the Contractor's own expense and in manner satisfactory to the City of Saginaw, any damage thereto caused by the Contractor's operations, or the operations of the Contractor's officers, employees, agents, representatives, or subcontractors.

d. All water and gas mains, all sewer and other pipes, and all conduits and other underground work of any nature, crossing or projecting into any trench or excavation and all appurtenances thereto, such as Cast Iron Valve Boxes, curb boxes, manhole casting, etc. shall be sufficiently and adequately shored and supported by timber and planking, as required per contract specifications, and protected by the Contractor from injury, and any damage or injury thereto shall be repaired by the Contractor at the Contractor's own expense to the satisfaction of the City Engineer.

e. The Contractor shall at all times keep excavated areas, trenches, and holes free of water during the progress of the work. All costs for the installation and operating of pumps and other necessary equipment to keep excavated areas, trenches, and holes free of water shall be borne by the Contractor.

127. Review by the City of Saginaw

The City of Saginaw, its authorized representatives and agents, shall, at all times, have access to and be permitted to observe and review all work, materials, equipment, payrolls, personnel records, employment conditions, and other relevant data and records pertaining to this

contract, provided, however, that all instructions and approvals with respect to the work will be given to the Contractor only by the City of Saginaw through its authorized representatives or agents.

128. Sanitary Facilities

The Contractor shall furnish, install, and maintain ample sanitary facilities for employees and sub-contractors. As the need arises, a sufficient number of enclosed temporary toilets shall be conveniently placed as required by federal, state or local law or regulation.

Drinking water shall be provided from an approved source, so piped or transported as to keep it safe and fresh and served from single service containers or satisfactory types of sanitary drinking stands or fountains. All such facilities and services shall be furnished in strict accordance with existing federal, state, or local law or regulation.

129. Water

Water for use on improvements may be procured from the nearest hydrant. Permission to open and use hydrants and water shall, however, first be obtained from the City of Saginaw or other proper jurisdiction, subject to rules and regulations of said jurisdiction; the Contractor shall furnish all necessary piping, hose and accessories and pay all water taxes, fees, and charges incidental to the opening and closing of hydrants and the use of water. Before the allowance of the final estimates, the Contractor shall present to the City Engineer a receipt from the authorizing jurisdiction's treasurer, showing that all water taxes and charges for the use of water under this Contract have been paid.

130. Stoppage of Work and Crossings

Upon any stoppage of work, all materials are to be piled up neatly so as not to impede travel upon the sidewalks or roadway, or the use of fire hydrants, and all rubbish and surplus material shall be removed immediately thereafter from the street or avenue by the Contractor. During rainy weather, the Contractor shall lay a temporary plank crosswalk across the street from sidewalk to sidewalk, such as will provide safe and dry footing for pedestrians. When so ordered by the City Engineer, the Contractor shall lay a temporary roadway or bridge sixteen (16) feet in width across the entire intersection or excavation or trench such as will provide a safe and satisfactory roadway for vehicular travel. All the aforesaid work shall be done without cost to the City other than the price paid for excavation.

131. Privileges of Contractor in the Street

a. The Contractor may occupy the whole width of the roadway between the sidewalks or the street lines. The Contractor shall not close more than three (3) blocks at one time without permission from the City Engineer. Each block of pavement or improvement shall be finished and opened to public travel as soon as practicable after the commencement of work thereon, but the use of any portion of the pavement or improvement by the public shall not be construed as an acceptance of the work, nor shall the Contractor be entitled to any damages thereby. No more than two consecutive street intersections shall be closed to public traffic at the same time, and each alternate intersection shall be opened for traffic,

unless otherwise ordered by the City Engineer.

b. All sidewalk approaches and the crossings at street intersections shall be kept open and always made safe and passable at all times by the Contractor for both pedestrian and vehicular travel, except at such times as the Engineer may direct otherwise.

c. The Contractor shall provide and maintain a safe and satisfactory roadway across all railway tracks at such places as required. Unless authority is otherwise given, the Contractor shall complete one side of the street before closing the other side, keeping the street open for travel and the fire department as much as possible.

132. Excavations Under Railroads

In excavating under or adjacent to any railroad tracks, the running of trains or cars must not be interrupted or interfered with, and the Contractor shall conduct this work so as not to cause injury to such tracks. The Contractor shall notify the railroad company owning said tracks to support and protect same and shall arrange with such company for any construction and for any expense incurred thereby, without cost to the City.

133. Barricades and Traffic Controls

All barricades and traffic controls for the work shall be in conformance with the 2011 Michigan Manual of Uniform Traffic Control Devices (hereafter referred to as the Manual). The Contractor shall barricade or fence the work as outlined in the Manual or as directed by the Engineer.

In addition to the requirements of the Manual, the Contractor shall maintain at all times a good and sufficient fence, railing or barrier around all exposed portions of said work in such a manner as to warn vehicular and pedestrian traffic of hazardous conditions. This shall apply to all construction projects either within street right-of-way or off-street right-of-way.

It shall also be the duty of the Contractor to place upon such barriers, fences, or railings, at evening twilight on each day, the required colored lights, and to keep them lighted during the night.

The Contractor shall put up and maintain barricades and traffic controls as required by the Manual for any stored materials the Contractor may have placed in the street.

Should the Contractor fail to properly barricade the work or stored material sites in the manner outlined above, the City may have the necessary barricading done, and all costs incurred for said barricading shall be charged to the Contractor.

All costs incurred for barricading or fencing shall be incidental to the work items in the Contract unless otherwise stated. In addition, all costs incurred by the City for placing barricading or fencing on the work site when the Contractor has failed to do so, or when the Contractor has failed to properly maintain those barricades or fencing the Contractor has placed, shall be charged to the Contractor, who shall promptly pay all charges. Should the Contractor fail to pay for the barricading placed by the City, the City may deduct the amount

owing from the final payment.

134. Grade Stakes

Grade or line stakes will be given by the City and must be protected and preserved and strictly followed, but the Contractor shall note any irregularities in such stakes and have the same checked before proceeding. The Tops of all stakes must be uncovered and kept exposed by the Contractor at any and all times so as to be accessible to the Engineer on demand.

135. Street Monuments

The Contractor shall not disturb any street monuments unless authorized to do so by the City Engineer.

136. Sunday and Night Work

No Sunday or night work shall be done except in case of emergency, and then only with the written consent of the Engineer. If, for any reason, it is necessary to do any work after twilight and permission is granted, the Contractor shall furnish suitable lighting without cost to the City other than the price paid for the work being done.

137. Test Borings, Test Holes, or Test Pits

All data on plans relative to test borings, test holes or test pits made by the City for the purpose of determining soil conditions in, alongside of, or in close proximity to the line of work, shall in no way be construed by the Contractor as a guarantee of soil conditions as will be encountered in the line of the work, but will be understood to be nothing more than data which the Contractor may or may not use in forecasting soil conditions.

138. Cleaning Up

Upon completion of the actual work of construction, the Contractor shall clean up and leave in a neat condition all the premises, which the Contractor has occupied during the construction period. Before the time for the final estimate, the Contractor shall remove from the premises all surplus excavation, debris, rubbish, and all unused materials, together with all tools and equipment. Should the Contractor fail to properly clean the premises within fourteen (14) days of completion of the work, the City of Saginaw, in its sole discretion, may exercise the right to clean same, and shall charge the costs of any such clean up against the final payment to the Contractor.

139. Correcting Work

Any unfaithful work or imperfect work or material that may be discovered before the final acceptance of the work shall be corrected and replaced immediately on the order of the City Engineer. In case any material is rejected, it shall be immediately removed from the line of work and not again brought thereon. In case the order for removal and replacing as specified above is not promptly complied with after written notice, the City Engineer shall be at liberty to remove and replace the same with proper materials, at the expense of the Contractor, and

the cost thereof shall be deducted from the amount due the Contractor. Any failure of the City to disapprove the work or material at the time of the inspection, or at the time of any semi-monthly or other estimate, shall not relieve the Contractor of any obligations. All work or material of whatever kind, which, during the progress of construction and before its final acceptance, may become damaged from any cause and shall be removed and replaced by the Contractor with good and satisfactory work or material; the Contractor shall bear the cost of such replacement where the replacement was necessitated by the act or omission of the Contractor or the Contractor's officers, employees, agents, representatives or subcontractors. Should it become necessary to retain any faulty or imperfect work or material which, if corrected or replaced would cause undue risk, injury or delay, a sum to be adjusted by the City Engineer, not exceeding the whole value of such work or material if the same were correct, shall be deducted from the Contract price.

140. Accident Prevention

a. The Contractor shall always exercise proper precaution at all times for the protection of persons and property and shall be responsible for all damages to persons and property, either on or off the site, which occur as a result of the Contractor's fault or negligence, or the fault or negligence of the Contractor's officers, employees, agents, representatives or subcontractors, in connection with the execution of the work. The safety provisions of applicable laws and building and construction codes shall be observed, and the Contractor shall take or cause to be taken such additional safety and health measures as the City of Saginaw may determine to be reasonably necessary. Machinery, equipment, and all hazards shall be guarded in accordance with the safety provisions of the "Manual of Accident Prevention in Construction" published by the Associated General Contractors of America, Inc., to the extent that such provisions are not in conflict with applicable local laws.

b. The Contractor shall maintain an accurate record of all cases of death, occupational disease, and injury requiring medical attention or causing loss of time from work, arising out of and in the course of employment or work under the Contract. The Contractor shall promptly furnish the City of Saginaw with reports concerning these matters.

c. The Contractor shall indemnify and save harmless the City of Saginaw from any claims from damages resulting from personal injury and/or death suffered or alleged to have been suffered by any person as a result of any work conducted under this Contract.

141. Requests for Supplementary Information

It shall be the responsibility of the Contractor o make timely requests of the City Engineer for any additional information not already in the Contractor's possession which should be furnished by the City of Saginaw under the terms of this Contract, and which will be required in the planning and execution of the work. Such requests may be submitted in writing from time to time as the need arises, but each shall be filed in ample time to permit appropriate action to be taken by all parties involved so as to avoid delay. The Contractor shall be fully responsible for any delay in the work or to others arising from the Contractor's failure to comply fully with the provisions of this section.

Division I
General Conditions

142. Warranty of Title

No material, supplies, or equipment for the work shall be purchased subject to any chattel mortgage or under a conditional sale or other agreement by which an interest therein or in any part thereof is retained by the seller or supplier. The Contractor shall warrant good title to all materials, supplies, and equipment installed or incorporated in the work and upon completion of all work, shall deliver the same together with all improvements and appurtenances constructed or placed thereon to the City of Saginaw free from any claims, liens, or charges. Neither the Contractor, nor any person, firm or corporation furnishing any material or labor for any work covered by this Contract, shall have any right to a lien upon any improvement of appurtenance thereon. Nothing contained in this paragraph, however, shall defeat or impair the right of persons furnishing materials or labor to recover under any bond given by the Contractor for their protection or any rights under any law permitting such persons to look to funds due the Contractor in the hands of the City of Saginaw. The provisions of this paragraph shall be inserted in all subcontracts and material contracts and notice of its provisions shall be given to all persons furnishing materials for the work when no formal contract is entered into for such materials.

143. Fair Employment Practices

a. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, national origin, age, sex, height, weight, sexual orientation, gender identity, marital status, or membership in another class of persons protected by federal, state, or local law. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, national origin, age, sex, height, weight, sexual orientation, gender identity, marital status, or membership in another class of persons protected by federal, state, or local law. Such action shall include but not be limited to the following: employment, upgrading, demotion, termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices describing the federal, state, or local law prohibiting job discrimination.

b. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age, national origin or inclusion in other class of persons protected by federal, state, or local law.

c. The Contractor will send to each labor union or representative of workers with which the Contractor has a collective bargaining agreement or other contract or understanding, a notice, to be provided, advising the labor union or worker's representative of the Contractor's commitments under this section.

d. The Contractor will furnish all information and reports required by the City of Saginaw, and will permit the City access to any books, records, and accounts for purposes of investigation to ascertain compliance with this section.

Division I
General Conditions

e. The Contractor shall comply with the provisions of the federal Civil Rights Act of 1964, as amended, Michigan's Elliott-Larsen Civil Rights Act, P.A. 453 of 1976, as amended, and any such other nondiscrimination law as may apply to Contractor and its activities hereunder.

f. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this Contract, this Contract may be immediately cancelled, terminated, or suspended by the City, in whole or in part, and the Contractor may be declared ineligible for further contracts.

g. The Contractor will include the provisions of paragraphs (a) through (f) in every subcontract, so that such provisions will be binding upon each such subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the City of Saginaw may direct as a means of enforcing such provisions, including sanctions for noncompliance.

144. Acceptance

No estimate given or payment made under the Contract, or the occupancy of the work herein required, either partial or entire by the City, shall be evidence of the performance of the Contract either in whole or in part, nor an acceptance of imperfect or faulty work or material.

145. Guarantee

The Contractor shall be responsible for and must make good any defects arising or discovered in the work or material required hereunder within one (1) year from the completion and final acceptance of such work and material, except for concrete sidewalks, new or repaired, and paving between the curb and sidewalk (driveway approaches), which shall be guaranteed for a period of five (5) years from the completion and final acceptance of such work and material. No payment, final or otherwise, shall be construed to relieve the Contractor from the obligation to make good any defect arising or discovered within such period, nor as a waiver of any specific obligation which the Contractor may assume as to the durability of the work. Nothing in this section, or elsewhere in this Contract, shall be construed as a waiver or diminishment of any statute of limitations or other time period in which the City is allowed to raise a claim against the Contractor relating to the work to be performed herein.

146. Michigan Sales & Use Tax

The Contractor shall include and be deemed to have included in the bid and contract price all Michigan Sales and Use Taxes currently imposed by legislative enactment and as administered by the Michigan Department of Treasury on the bid date.

If the Contractor is not required to pay or bear the burden, or obtain a refund or drawback, in whole or in part, of any Michigan Sales or Use Tax, interest or penalty thereon, which was required to be and was deemed to have been included in the bid and contract price, the contract price shall be reduced by the amount thereof, and the amount of such reduction whether as a refund or otherwise shall ensure solely to the benefit of the City of Saginaw.

147. Final Inspection

Division I
General Conditions

When the improvements embraced in this Contract are substantially completed, the Contractor shall notify the City Engineer in writing that the work will be ready for final inspection on a definite date, which shall be stated in the notice. The notice will be given at least ten (10) days prior to the date stated for final inspection and bear the signed concurrence of the representative of the City Engineer having charge of inspection. If the City Engineer determines that the status of the improvements is as represented, he or she will make the arrangements necessary to have final inspection commenced on the date stated in the notice, or as soon thereafter as is practicable.

NOTICE TO BIDDERS

Consultants - Insurance - Bonds

In case of a conflict between the City's documents and the documents provided by the consultant the City's shall prevail,

The City of Saginaw shall not be a party to any arbitration proceeding.

Provide Engineering with a copy of this endorsement with all other insurances and bonds.

REQUIRED/APPLICABLE INSURANCE – NO EXCEPTIONS

COMMERCIAL GENERAL LIABILITY (C.G.L.)

OWNER'S AND CONTRACTOR'S PROTECTIVE LIABILITY (O.C.P.)

UMBRELLA LIABILITY

AUTOMOBILE - WORKMAN'S COMPENSATION

REQUIRED BONDS – Over $50,000 - NO EXCEPTIONS

PAYMENT BOND – S-215-AIA-A312 (11/10), S-215-AIA-A312 (11/10) or current version is required, no substitutions allowed.

PERFORMANCE BOND - A-2100-AIA-A312 (11/10) or current version is required, no substitutions allowed.

MAINTENANCE BOND – IF REQUIRED (See Individual contract)

The City of Saginaw does not provide the required bond forms.

Additional information:

Upon failure of the Contractor to furnish said insurance policies or bonds within ten (10) days prior to the award of the Contract by the Council, all the Contractor's rights to the award of the Contract shall terminate unless the time for furnishing any of said instruments shall have been extended by the City Engineer; such extension shall only be for good cause shown by Contractor.

The Contractor must have all copies the Contract signed, insurances, bonds and all required documents returned and approved by City of Saginaw (Engineering, Attorney, and Insurance/Bond Reviews) prior to the contract going to Council for approval and award.

The Contractor will not be allowed to start work until all City of Saginaw signatures are obtained. Contract Books are **not always** signed at the City Council Meeting when the contract is approved.

INSURANCES REQUIRED

INDEMNITY

The Contractor shall, at the Contractor's own expense, protect, defend, indemnify and hold harmless the City, and its officers, employees, agents, or representatives, from and against all claims, damages, liabilities, losses and expenses, including reasonable attorney's fees, resulting from the acts, omissions, or negligence of the Contractor, or any of the Contractor's officers, employees, agents, representatives, or subcontractors, in any way connected or otherwise related to their performance or nonperformance of this Contract.

INSURANCE

a. During the life of the contract, the Contractor shall effect and maintain the following types of insurance:

Commercial General Liability (cgl)
Automobile
Workman's Compensation
Umbrella Liability
Owner's and Contractor's Protective Liability (ocp)
*Builder's Risk (when applicable)
*Pollution Coverage (when applicable)
*The City will specify when such coverage is applicable.

All insurers shall have at least an A- (excellent) rating by A.M. Best or acceptable to the City and be written on an occurrence basis.

Contractor agrees to name and require its subcontractors to name the City of Saginaw, its officers, employees, agents, or representatives, as additional insureds on Contractor's and its subcontractors' general liability and umbrella/excess insurance policies, with primary, non-contributory coverages, and including coverage for products-completed operations hazards and for ongoing work. The policy shall include a per project aggregate. The Additional Insured endorsement shall be as broad as ISO's (CG 20 10 11/85) or a combination of ISO's Scheduled Ongoing Operations (CG 20 10 10/01) and Scheduled Completed Operations (CG 20 37 10/01). All of Contractor's insurance policies shall contain terms waiving subrogation rights against the City of Saginaw its officers and employees. Proof of the waiver of subrogation for each insurance policy shall be by endorsement. The Contractor shall include this waiver of subrogation in contracts with its Subordinate Parties.

For General Liability and Umbrella Coverage
Contractor shall maintain, for a period of six years after completion of all Work on the project General Liability and Umbrella coverage.

The Contractor shall not commence work under this contract until he has obtained all required insurance and evidence of such insurance has been reviewed and approved by the City Engineer.

b. All certificates of insurance issued for this contract shall contain the following information in addition to stating the type of insurance and the amount of coverage.

I. The Contract number and description of work covered by the insurance.

II. The insurance must be in a form acceptable to the City and the deductible shall not exceed $5,000.00, unless otherwise approved by the City.

III. Thirty (30) days' notice in writing of any cancellation, termination or change of condition of the policy.

c. Certificates of Insurance must be presented prior to commencing any work under this contract, as well as upon request by the City during or after the Project; however, Contractor's failure to submit the required Certificate of Insurance, or failure to have the Certificates of Insurance identify the required coverage, does not excuse Contractor from procuring the required insurance. The Contractor shall be responsible for and pay any deductibles or self-insured retention amounts. The Contractor's insurance policies shall provide for 30 days written notice to the City for cancelation or any change in coverage. Not less than two weeks prior to the expiration, cancellation, or termination of any such policy, Contractor shall supply the City with new and replacement certificate(s) of insurance as proof of renewal of said original policy showing compliance with minimum insurance requirements below.

d. Commercial General Liability and Owner's and Contractor's Protective Liability. The Contractor shall procure and shall maintain during the life of this contract Commercial General Liability, and Owner's and Contractor's Protective Liability insurance with limits of liability not less than the amounts listed on the following page.

e. Automobile Insurance: The Contractor shall procure and maintain during the life of this contract Automobile Insurance with limits of liability not less than the amounts listed on the following page.

f. Workman's Compensation: The Contractor shall procure and maintain during the life of this contract Worker's Compensation Insurance, including Employers Liability Coverage, in accordance with all applicable statutes of the State of Michigan.

g. Umbrella and/or Excess Liability: The Contractor shall procure and maintain during the life of this contract Umbrella and/or Excess Liability with limits of liability not less than the amounts listed on the following page.

h. Builder's Risk: (when applicable). The Contractor shall procure and maintain during the life of this contract Builder's Risk Insurance equal to one hundred percent of the completed value of the structures.

i. Pollution Coverage: The Contractor or the Subcontractor who actually performs the work shall carry pollution insurance in the amount of $1,000,000.00 (or such other limit as may be determined in the sole discretion of the City Engineer) where the project involves Asbestos, Environmental or Lead abatement or such other work where the City specifies that pollution insurance is necessary.

INSURANCE LIMITS

General Liability Limits

$1,000,000	Each Occurrence
$1,000,000	Personal and Advertising Injury
$2,000,000	General Aggregate
$2,000,000	Products and Completed Operations Aggregate

Automobile

$1,000,000	Each Accident

Umbrella and/or Excess Liability

$5,000,000	Occurrence/Aggregate

Owner's and Contractor's Protective Liability

$1,000,000	Occurrence
$2,000,000	Aggregate

The following language applies as it pertains to limits:

Should the Contractor have an insurance policy with limits of liability or coverage greater than or in addition to those required by the contract, then those higher limits of liability and coverage in the Contractor's policy shall apply.

The Contractor is responsible for USHL coverage for workers compensation if required by law.

The umbrella/excess policy can be used to meet underlying requirements and must follow form.

NOTICE TO BIDDERS

IRAN ECONOMIC SANCTIONS ACT:

The act provides that Iran linked businesses are ineligible from submitting a bid on the City's requests for proposals. The Act further provides that the City shall require all bidders to certify that they are not Iran linked businesses.

Definition: Iran linked businesses are those linked to the Iranian energy sector. An Iran linked business is specifically defined as:

i. A person engaging in investment activities in the energy sector of Iran, including a person that provides oil or liquefied natural gas tankers or products used to construct or maintain pipelines used to transport oil or liquefied natural gas for the energy sector of Iran.

ii. A financial institution that extends credit to another person, if that person will use the credit to engage in investment activities in the energy sector of Iran.

The provisions of the Act are only in effect if a country is a state sponsor of terror. A state sponsor of terror is defined as any country determined by the United States secretary of state to have repeatedly provided support for acts of international terrorism. Iran is currently on the US SOS state sponsor of terrorism list (http://www.state.gov/j/ct/list/c14151.htm), along with Cuba, Sudan, and Syria.

NOTICE TO BIDDERS

§ 14.36 PREFERENCE FOR LOCAL BIDDERS.

(A) (1) If the lowest bidder is not a Saginaw-based bidder, as defined above, any Saginaw-based bidder with a bid within 5% of the lowest bid shall be deemed the lowest bidder if it agrees to reduce its bid to match the bid of the lowest bidder. Such a bidder will remain bound to all terms of their original bid.

(2) A lowered bid by a Saginaw-based business which is premised upon, in whole or in part, changes to or variances to the bid specifications, contract requirements, or scope of work, shall be considered non-responsive and will not be considered.

(B) If such a Saginaw-based business refuses to reduce its bid to match the lowest bid, then the next lowest responsive and responsible Saginaw-based business with a bid within 5% of the lowest bid shall be deemed the lowest bidder, if it agrees to reduce its bid to match the bid of the lowest bidder. Such a bidder will remain bound to all other terms of their original bid.

(C) If no responsive and responsible Saginaw-based businesses within 5% of the lowest bid agree to reduce their bids, then the contract shall be awarded to the person or business with the lowest, most responsive and responsible bid.

(D) In the event of a tie between two or more Saginaw-based businesses, where all other factors are equal, the award of the bid shall be by coin toss conducted by the Purchasing Officer or his or her designee.

(E) No contract awarded pursuant to this ordinance shall be sublet in any manner that permits 50% or more of the dollar value of the contract to be performed by a subcontractor or subcontractors who do not meet the definition of “Saginaw-based.”

(F) The section shall not waive or constrain, in any manner, the right and prerogative of the City to reject any and all bids or proposals from any Saginaw-based business which fails to meet the requirements of any other section of this ordinance, or to reject a bid which is in any way incomplete, irregular, not responsive or not responsible.

(G) Local preferences shall not be applied in cases of procurements funded, even in part, with federal dollars, unless such procurement is for architectural and engineering services. When contracting for architectural and engineering services, local preference may be a selection criterion provided its application leaves an appropriate number of qualified vendors, given the nature and size of the project, to complete the contract.

See Title 1: Administrative Code - Chapter 14: Finance and Purchasing

NOTICE INVITING SEALED BIDS

Bid/Contract Number – C-1720

C-1720 WTP Sodium Hypochlorite and Lime Feed Improvements

FOR THE DEPARTMENT OF PUBLIC SERVICES, ENGINEERING DIVISION, CITY OF SAGINAW, MICHIGAN. Sealed bids will be received by the City of Saginaw Purchasing Office, 1315 S. Washington Avenue, Saginaw, Michigan 48601, **until 3:00 p.m., Tuesday, March 24, 2026**, and then publicly opened for the DEPARTMENT OF PUBLIC SERVICES, ENGINEERING DIVISION – C-1720 WTP Sodium Hypochlorite and Lime Feed Improvements

Replacement of two bulk and two sodium hypochlorite chemical storage day tanks within the sodium bulk and day tank sodium hypochlorite chemical feed rooms. Replacement of all chemical feed piping from the bulk storage fill location, to the new bulk tanks, between the bulk tanks and the transfer pumps, between the transfer pumps and the day tanks, and between the day tanks and the chemical injection locations. Concrete curbing replacements and recoating, and enclosure panels and miscellaneous building electrical and mechanical equipment will require removal and replacement to accommodate additions of new hypochlorite feed equipment. Replacement of the two existing lime feed slakers above the rapid mix basin with two new auger paste-style lime slaker and feed systems. Furnish all labor, tools, equipment, and materials required to perform the work specified in the contract documents. The Non-Mandatory Pre-Bid Meeting will be held on Tuesday March 10, 2026 @ 10:00am at Saginaw Water Treatment Plant 522 Ezra Rust Dr, Saginaw, MI 48601.

Direct any questions to Brian VanZee, via email at bvanzee@Fishbeck.com, before 3:00p.m. on March 17, 2026.

To access downloadable contract documents, go to the City of Saginaw's website at https://www.saginaw-mi.com/Bids.aspx. There is **no charge** for these downloadable documents. For a hard copy of the contract documents, call the City Engineer's office at 989-759-1410. The office is in the lower level of the Public Works Service Center building, 1435 S. Washington Avenue, Saginaw, Michigan 48601. There is a **$125.00 non-refundable** charge for a hard copy of the contract book and drawings with an additional charge of **$25.00** to cover the mailing. Checks must be made payable to "Treasurer, City of Saginaw" and mailed to the City Engineer, 1315 South Washington Avenue, Saginaw, Michigan 48601.

All vendors are subject to the provisions of the City's Purchasing, Contracting, and Selling Procedure Ordinance, Title I, Chapter 14, §14.30-14.45, of the Saginaw Code of Ordinances. For disability accommodation, please call 989-759-1410.

As part of the consideration for this bid, the vendor doing business with the City of Saginaw agrees to have withheld from any payments due them, any amounts for taxes, fees, or other charges due the City of Saginaw.

The City of Saginaw has an income tax. All successful bidders will be subject to income tax withholdings; compliance is mandatory.

Contract amounts totaling $100,000 or more will require a certified check, cashier's check, or surety company bid bond in an amount of five percent **(5%)** of the total bid to be submitted with the bid as security for the acceptance and execution of the contract.

The successful bidder on a contract of $50,000.00 or more will be required to furnish surety company bonds as follows:
First - A bond in the sum of one hundred percent (100%) of the contract price running to the City of Saginaw to insure the construction and completion of the entire work according to the proposal and contract.
Second - A bond in the sum of one hundred percent (100%) of the contract price running to the City of Saginaw for the protection of the subcontractors and labor and material suppliers, according to the statute of the State of Michigan at that time in effect.

The City of Saginaw reserves the right to accept or reject any and all bids, or parts thereof, and to waive any irregularities in the bid except those specifically mentioned in the Sealed Bid Instructions. Bidders are required by the City's Purchasing, Contracting, and Selling Procedure Ordinance to submit documentation concerning their current work force and past employment practices and to subscribe to a statement furnished by the City indicating compliance with the Ordinance.

Kim Jaime, Purchasing Officer

CITY OF SAGINAW, MICHIGAN
BID FORM

C-1720 WTP Sodium Hypochlorite and Lime Feed Improvements

To the City of Saginaw Date:_____

In response to your notice, the undersigned, hereinafter called the Contractor, hereby declares that the Contractor has read the "General Instruction to Bidders", "Sealed Bid Instructions" and "General Information", has examined the plans, specifications and the location of the work described herein, has reviewed the proposed Contract and its general conditions, and, is thus fully informed to the nature of the work and the conditions relating to its performance and further understands that the quantities shown hereon are approximate only and are subject to either increase or decrease.

The Contractor hereby proposes to furnish all the necessary equipment and tools, do all the work, furnish all the materials, except as otherwise specified and to complete the work herein described all in accordance with the Contract and its plans and specifications, of which this proposal is a part, for the unit prices named in the following itemized bid.

Prior to and contingent upon award of a contract of $50,000.00 or more, the undersigned further agrees to furnish a surety company performance bond in the sum of not less than 100 percent (100%) of the total amount of the contract company to secure the faithful performance of the Contract and, when required, a surety company labor and material bond in the sum of not less than 100 percent (100%) of the total amount of the Contract for the protection of subcontractors, labor and material suppliers, according to the laws of the State of Michigan at that time in effect. Said signed Contract, surety company bonds, and insurance shall be furnished within ten (10) days from date of notification by the Engineering Division of acceptance of the proposal submitted. The Contract cannot be fully awarded by City Council without the return of these executed documents.

In compliance with the requirements of said notice, this proposal is accompanied by an **original** bid bond, bank money order, certified check, or cashier's check in the sum of five percent (5%) of total bid to guarantee that a contract will be entered into if the above proposal is accepted, and the contract awarded to the undersigned.

52.222-21 Prohibition of Segregated Facilities.

As prescribed in 22.810(a)(1), insert the following clause:

Prohibition of *Segregated Facilities* (Apr 2015)

(a) *Definitions*. As used in this clause

Gender identity has the meaning given by the Department of Labor's Office of Federal Contract Compliance Programs, and is found at http://www.dol.gov/ofccp/LGBT/LGBT_FAQs.html.

Segregated facilities, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, *sexual orientation*, *gender identity*, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.

Sexual orientation has the meaning given by the Department of Labor's Office of Federal Contract Compliance Programs, and is found at http://www.dol.gov/ofccp/LGBT/LGBT_FAQs.html.

(b) The Contractor agrees that it does not and will not maintain or provide for its employees any *segregated facilities* at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where *segregated facilities* are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Opportunity clause in this contract.

(c) The Contractor *shall* include this clause in every subcontract and *purchase order* that is subject to the Equal Opportunity clause of this contract.

(End of clause)

Parent topic: 52.222 [Reserved]

In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, other related data identified in the Bidding Documents, and the following Addenda, receipt of all which is hereby acknowledged:

Addendum Number	Addendum Date

BASIS OF BID

Bidder will complete the Work in accordance with the Contract Documents for the following prices:

Base Bid _____ ($_____)
(use words) (figures)

1. All specific cash allowances are included in the price(s) set forth above and have been computed in accordance with paragraph 13.02 of the General Conditions.

Item	**Max** Allowance	**Mobilization**	Daily Rate ($/day)
Lump Sum for Cash Allowance 1, Special Inspections	$50,000	**Not Applicable**	**Not Applicable**
Lump Sum for Cash Allowance 2, Controls	$150,000	**Not Applicable**	**Not Applicable**

2. The total cost of all unit price items is to be included in the Base Bid price above. If the required quantities of the items listed below are increased or decreased by Change Order, the adjustment unit price set forth below shall apply for each such increased or decreased quantity. The adjustment price below shall be the same figure for quantity increase or quantity decrease:

Item	Unit	Quantity	Unit Cost	Total Cost
Day Tank Room Enclosure Panel Replacement	Sq.ft.	50		
Bulk Tank Room Enclosure Panel Replacement	Sq.ft	200		
Chemical Containment Curb Wall Replacement	Sq.ft.	70		
Hypochlorite Bulk Tank Fill Station	EA	1		
Hypochlorite Bulk Tank Room Chemical Resistant Coating of Floor and Containment Walls	Sq. ft.	670		
Sodium Hypochlorite Bulk Tanks	EA	2		
Sodium Hypochlorite Day Tanks	EA	2		
Sodium Hypochlorite Chemical Feed Pumps	EA	2		
Sodium Hypochlorite Temporary Feed System	EA	1		
Complete Lime Slaker and Feeder System	EA	2		
Demolition of Existing Lime Slakers and Concrete Pads	EA	1		
Demolition of Existing Hypochlorite Feed Equipment	EA	1		

In accordance with the provisions of "Public Act 524 of 1980".

I do hereby designate _____ (name of representative) to submit a written request for progress payment during the duration of this contract.

The Contractor shall start work as specified in the Progress Clause, or as directed by the City Engineer. In no case, shall any work commence prior to receipt of formal Notice to Proceed from the City.

The undersigned bidder does hereby declare that the bidder has the legal status checked below:

_____ Individual

_____ Partnership

_____ Corporation

Incorporated under the laws of the State of _____

_____ Limited Liability Company

Formed under the laws of the State of _____

The undersigned does hereby agree to honor this bid until June 22, 2026

Michigan's Iran Economic Sanctions Act:
The signature below certifies your company is in compliance with the Michigan Iran Economic Sanctions Act as identified on page #39 of this document. Further information on this Act can be viewed at (http://www.state.gov/j/ct/list/c14151.htm and https://www.legislature.mi.gov/(S(qnwpjcm0uyo1f2fhz0w1mlyq))/mileg.aspx?page=GetObject&objectname=mcl-Act-517-of-2012)

_____
(Signature)

_____
(Printed name)

_____
(Title)

This sheet must be included, or the bid will be disqualified.

By submitting a response to this request for proposal, the Contractor agrees to the terms and conditions set forth herein. Any changes made to such terms and conditions by Contractor in its response may result, at the City's sole discretion, in the Contractor's disqualification.

The successful Contractor will conform to all Contract specifications and requirements which are attached and incorporated as part of this bid. The City reserves the right to accept or reject any and all bids, or parts thereof, and to waive any irregularities in the bid except those specifically mentioned in the sealed bid instructions. Additionally, (if applicable) we reserve the right to add or delete any items(s) and/or service from this bid to the best benefit of The City of Saginaw.

By signature, the Contractor acknowledges that the signer below has complete authority to execute the bid on behalf of the Contractor and that the bid is genuine and not collusive in any manner; and that no other bidders were improperly induced to refrain from bidding or induced to submit a sham bid; and that the Contractor agrees to have withheld from any payment due them, any amounts owed for taxes or other charges due the City of Saginaw; and that successful bidders are subject to mandatory City of Saginaw income tax withholdings.

Signed	_____	Address	_____
Name	_____	City, State, Zip	_____
Title	_____	Telephone No:	_____
Company	_____	Fax No.	_____
E-mail	_____	Date:	_____

Check List

Iran Sanctions sheet Signed and included	Yes	No
Bid Form Signed and included	Yes	No
2nd Copy of Bid form included	Yes	No

Applies ONLY if an addendum(s) has been issued for this project

Addendum(s) Cover Sheet		
#1 – 1st page is signed and included	Yes	No
#2 – 1st page is signed and included	Yes	No
#3 – 1st page is signed and included	Yes	No

This sheet must be included, or the bid will be disqualified.

CONTRACT

CITY OF SAGINAW, MICHIGAN

This Contract is entered into on this _ day of _____, 2026, between **(name of contractor),** of _____ (hereinafter "Contractor"), and the City of Saginaw, 1315 S. Washington Avenue, Saginaw, Michigan 48601 (hereinafter "City"), for **(WTP Sodium Hypochlorite and Lime Feed Improvements (C-1720).**

WHEREAS, Contractor, at a regular meeting of the Council of the City of Saginaw, held on April 13, 2026, was awarded the contract for furnishing the necessary labor, equipment, materials, and construction for the completion of **(WTP Sodium Hypochlorite and Lime Feed Improvements), (C-1720).**

Contractor, in consideration of the Agreement herein made by the City, agrees with the City as follows:

Article 1. SUBJECT MATTER. Contractor shall furnish all the materials, except those specified to be furnished by the City, and perform all the work for **(WTP Sodium Hypochlorite and Lime Feed Improvements), (C-1720),** as listed on the Table of Contents, and as shown on the drawings prepared by the Department of Public Services, Engineering Division, and described in the specifications, and in accordance with the general conditions, the general instructions to bidders, the notice inviting sealed proposals and the proposal, all of which are hereby made a part of this Contract by reference as though fully set forth herein. The Contractor acknowledges Contractor has received a copy of all such documents.

Article 2. COMMENCEMENT OF WORK. The Contractor shall start work as specified in the Progress Clause**,** or as directed by the City Engineer and the work shall be carried on with due diligence, at such points and at such times and seasons, and with such force and in such manner as to secure the completion in accordance with the Progress Clause, the time of beginning, rate of progress and the time of completion being essential conditions of this Contract.

Article 3. PAYMENT. It is hereby mutually agreed that the City shall pay, and the Contractor receive, the sum of **$Numerical amount,** same being the amount named in the Contractor's proposal or bid as full compensation for labor and materials required in executing all the work contemplated in this Contract, subject to additions and deductions, as provided in the specifications.

Article 4. ESTIMATES. The City hereby agrees to make payment under the restrictions and limitations herein contained, from time to time, on account of performance of this contract, by orders drawn upon the proper fund of the City, paying NINETY PERCENT (90%) thereof on the basis of estimates made by the Department of Public Services & Engineering semi-monthly as the work progresses, and approved by the City Engineer. Said estimates shall be made in writing and shall only include work done and material in place and shall not include completed work which, in the opinion of the City Engineer, is not advisable, for the protection of the City, at that time to

make payment on, and such estimates may be altogether withheld when, in the opinion of the City Engineer, work does not progress in accordance with the provisions of this Contract; and the making and furnishing of such estimates shall not be deemed or construed as an acceptance of any part of the work under this Contract. The City Engineer may authorize the reduction of the amount so withheld so that total payment equals NINETY-FIVE PERCENT (95%) of the estimate where the City Engineer shall find that the retention of FIVE PERCENT (5%) of the estimate is sufficient to protect the City, but the total amount so retained shall not in any event be reduced to less than FIVE PERCENT (5%) of the contract price above stated.

Article 5. RETENTION OF MONEYS. In addition to the TEN PERCENT (10%) of contract price above retained, to insure the completion of the work, the City reserves the right to retain at all times from the estimates, an amount sufficient to pay and discharge all debts incurred by Contractor, or subcontractor, for labor performed in the progress of the work, and for material purchased and used, and, at its discretion, to pay the same to the parties entitled thereto, and charge the same against the contract price.

Article 6. SEPARATE CONTRACTS. Where two or more separate proposals are grouped together herein, it is expressly agreed that each of said proposals shall constitute a separate contract and that all of the terms, conditions, and provisions of this Contract shall apply to each of said proposals to the same extent and in the same manner as though each of said proposals had been the subject of a separate contract.

Article 7. PUBLIC ACT 524 of 1980. Notwithstanding any provision herein to the contrary, this agreement is subject to 1980 PA 524, which statute is incorporated herein and made a part hereof by reference. Contractor hereby agrees that the City may, at its option, submit the following matters to dispute resolution by an agent agreed to or selected in accordance with the procedures set forth in the statute:

A. At any time during the term of the contract, to determine whether there has been a delay for reasons that were within the control of the Contractor, and the period of time that delay has been caused, continued, or aggravated by actions of the Contractor.
B. At any time after ninety-four percent (94%) of work under the Contract is in place, whether there has been an unacceptable delay by the Contractor in performance of the remaining six percent (6%) of work under the Contract. The agent shall consider the terms in the Contract and procedures normally followed in the industry and shall determine whether the delay was for failure to follow reasonable improvement practices in the industry for completion of the project.

The agent shall have all the rights, powers and duties specified in the statute.

Article 8. ACCEPTANCE AND FINAL PAYMENT. The final payment, including any retainage previously withheld, shall be payable on the approval and acceptance of the work by the City Engineer.

The payment of the final amount due under this Contract, and the adjustment and payment of all bills rendered for the work done in accordance with any alterations of same, shall release the City from any and all claims or liability on account of work performed or materials furnished under the Contract, or any alterations thereof.

The City of Saginaw has an income tax. All successful bidders will be subject to income tax withholdings and compliance is mandatory.

As part of the consideration for this Contract, the undersigned does hereby agree to have withheld from any payments due them, any amounts for taxes, fees or other charges due the City of Saginaw.

By their signatures below, the parties certify the persons signing on behalf of their respective party has the authority to do so. The parties hereto have executed this Contract the day and year first above written.

CONTRACTOR	**CITY OF SAGINAW**
	By:_____
	Timothy Morales
By:_____	**City Manager**
Name: _____	
Title: _____	

CITY OF SAGINAW

SCOPE OF WORK

COS: TJH MARCH 2026

WATER TREATMENT PLANT SODIUM HYPOCHLORITE AND LIME FEED IMPROVEMENTS:

A. The Work covered by the Contract Documents comprises construction of improvements to the sodium hypochlorite and lime slaker feed systems at the Saginaw water treatment plant (WTP), located at 522 Ezra Rust Drive, Saginaw MI 48601, for the City of Saginaw, Owner.

B. The Work includes the following major items:

1. Replace north and south lime slakers and feeders.
2. Provide temporary bulk sodium hypochlorite chemical storage tanks.
3. Replace sodium hypochlorite chemical day tanks DT-1 and DT-2.
4. Replace sodium hypochlorite chemical bulk tanks BST-1 and BST-2.
5. Replace sodium hypochlorite bulk tank fill station.
6. Replace sodium hypochlorite bulk tank fill piping between fill station and bulk tanks.
7. Replace sodium hypochlorite transfer pumps suction piping between bulk chemical tanks and existing hose pumps.
8. Replace sodium hypochlorite transfer pumps discharge piping between pumps and day tanks.
9. Replace sodium hypochlorite injection piping from chemical feed pumps to plant injection locations.
10. Replace in kind chemical measurement and monitoring equipment associated with the sodium hypochlorite feed system.
11. Replace wall closure panels on the bulk and day tank rooms to facilitate chemical tank replacements
12. Replace exhaust fans on day tank closure panel.
13. Replace louvers on bulk tank closure panel.
14. Replace concrete containment wall removed for removal and installation of new bulk hypochlorite chemical storage tanks.
15. Install chemical resistant coating on walls and floor within the secondary containment curbing of the bulk storage tank room.

CITY OF SAGINAW

PROGRESS CLAUSE

(TJH) 1 of 2 March 2026

Start work on or after April 14, 2026, or as directed by City Engineer. All work must be substantially completed on or before June 7, 2027, with final completion by July 12, 2027, as shown on the Notice to Proceed, in no case, shall any work commence prior to receipt of formal notice of award by the City.

Work is prohibited on City of Saginaw holidays and between the hours of 3 PM the day prior to the holiday and 7 AM the day after the holiday. Unauthorized work performed during prohibited time shall not be paid for.

2027	New Year's Day
2027	Martin Luther King Day
4/3/2026	Good Friday
5/25/2026	Memorial Day
7/4/2026	Independence Day
9/7/2026	Labor Day
11/11/2026	Veterans' Day
11/27/2026	Thanksgiving
12/24/2026	Christmas Eve
12/25/2026	Christmas Day
12/31/2026	New Year's Eve

Submit a complete, detailed, and signed MDOT Form 1130, Progress Clause. The Progress Schedule shall be submitted to the City of Saginaw five (5) days prior to the meeting.

The progress schedule submittal shall include, at a minimum, the controlling work items for the completion of the project and the planned dates or work days that these work items will be the controlling operations. All contract dates, including opened to traffic, the final project completion dates, and any other controlling dates must be included in the project schedule.

Failure by the Contractor to meet interim, final, and/or any stage completion dates will result in the assessment of liquidated damages in accordance with subsection 108.10 of the Standard Specifications for Construction, and the special provisions included in the proposal.

After award and prior to the start of work, the Contractor must attend a pre-construction meeting with the Engineer. The schedule for this meeting will be determined by the Engineer after submittal of MDOT Form 1130. The project Engineer will arrange the day, time, and place for the pre-construction meeting. The meeting will be conducted after project award and may be rescheduled if there are delays in the award of the project.

CITY OF SAGINAW

PROGRESS CLAUSE

(TJH) 2 of 2 March 2026

The named subcontractor(s) for designated and/or specialty items, as shown in the proposal, is recommended to be at the pre-construction meeting if such items materially affect the work schedule.

No unnecessary stoppages in work will be allowed once work has begun at the site.

Failure on the part of the contractor to carry out the provisions of the Progress Schedule, as established, may be considered sufficient cause to prevent bidding future projects until a satisfactory rate of progress is again established.

CITY OF SAGINAW

SPECIAL PROVISION

FOR

TECHNICAL SPECIFICATIONS

TJH **1 of 1** **MARCH 2026**

The technical specifications for this project shall be in accordance with the 2020 Standard Specifications for Construction of the Michigan Department of Transportation, hereinafter referred to as the "STANDARD SPECIFICATIONS", the latest MDOT standard road plans, and Traffic and Safety standard plans.

EJCDC technical specifications used for the contract.

The placement of permanent and temporary pavement markings, and temporary signing for work zones shall be in accordance with the Michigan Manual of Uniform Traffic Control Devices, 2011 Edition.

In case of discrepancy, figured dimensions shall govern over scaled dimensions and the parts of the contract will prevail over all other parts in the following order:

1. City, Fishbeck Technical & MDOT Special provisions
2. MDOT Supplemental specifications
3. Project plans and drawings
4. MDOT Standard plans
5. MDOT Standard specifications

NOTICE TO BIDDERS

UTILITY COORDINATION

COS: TJH 1 of 1 MARCH 2026

The contractor shall cooperate and coordinate construction activities with the owners of utilities as stated in Section 104.08 of the 2020 MDOT Standard Specifications for Construction. In addition, for the protection of underground utilities, the contractor shall follow the requirements in Section 107.12 of the 2020 MDOT Standard Specifications for Construction. Contractor delay claims, resulting from a utility, will be determined based upon Section 109.05.E of the 2020 MDOT Standards Specifications for Construction.

The following public utilities may have facilities located within the right-of-way:

UTILITY	OWNER	CONTACT PERSON
Gas/Electric	Consumers Energy Co. 2400 Weiss Street Saginaw, MI 48602	Sam Oliveri (gas) (517) 915-8819 Sam.Oliveri@cmsenergy.com Virgie Downs (electric) Cell:(989)245-6241 (989)791-5938 Virgie.Downs@cmsenergy.com Alan Lindquist (transmission) (517)788-0534
Telephone	AT&T 309 S. Washington Ave. Saginaw, MI 48607	Mike McLane C:(810) 938-3143 O:(810) 768-0109 mm6798@att.com
Sewer & Water	City of Saginaw 1701 S. Jefferson Ave. Saginaw, MI 48601	Tony Folino (989) 759-1611 tfolino@saginaw-mi.com
Traffic Signals, Signs, Street lights	City of Saginaw 1435 S. Washington Ave. Saginaw, MI 48601	Joe Nugent (989) 737-5583 jnugent@saginaw-mi.com
Cable/ Television	Charter Communications 1480 S. Valley Center Drive Bay City, MI 48706	Mark Kelly (989) 667-0611 mark.kelly@charter.com

For protection of underground utilities, the Contractor shall dial (800) 482-7171 or 811, a minimum of 3 working days prior to excavating. Members will thus be routinely notified. This does not relieve the Contractor of the responsibility of notifying utility owners who may not be a part of the 'Miss Dig' alert system.

CITY OF SAGINAW

SPECIAL PROVISION

FOR

LIQUIDATED DAMAGES

COS:TJH **1 OF 1** **JULY 2025**

GENERAL REQUIREMENT

All work shall be accomplished in accordance with section 108 of the Michigan Department of Transportation 2020 Standard Specifications for Construction and as modified herein.

DESCRIPTION

Liquidated Damages per calendar day will be assessed at 100% of the amount indicated below:

SCHEDULE OF LIQUIDATED DAMAGES	
ORIGINAL CONTRACT AMOUNT	**LIQUIDATED DAMAGES (per calendar day)**
$ 0 to $ 100,000	$500
$ 100,000 to $ 500,000	$800
$ 500,000 to $ 1,000,000	$1000
$ 1,000,000 to $ 5,000,000	$1500
$5,000,000 to $15,000,000	$2000
Over $15,000,000	$4000

ASSESSMENT OF LIQUIDATED DAMAGES

Sums assessed as Liquidated Damages shall not be considered penalties, but as damages due the City from the contractor for failure to complete the work within the specified time.

SECTION 01 12 16 – WORK SEQUENCE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:
   1. Construction sequencing.
   2. Temporary facilities for maintaining efficiency and treatment objectives of water treatment facilities.

1.3 SEQUENCING AND SCHEDULING

A. General:
   1. Contractor shall be solely responsible for all construction sequencing and scheduling required by the Contract Documents.
   2. Coordinate timing of all work with Owner.
   3. Coordinate timing and sequencing of lime and sodium hypochlorite chemical feed to maintain operational disinfection and pH adjustment requirements for the duration of the Work.
   4. This sequence is offered as a suggestion to Contractor and to emphasize critical tasks of the Work. It is not a complete list of all work to be completed.

B. Sequence Submittal:
   1. The sequence indicated in this Section is offered as a suggestion to Contractor.
   2. Submit a proposed sequence with appropriate times of starting and completion of tasks to Engineer for review.

C. Alternative Sequences: Contractor may propose alternative sequences to that indicated in item 1.3 of this Section in an attempt to reduce the disruption of the operation of the existing facility or to streamline the tasks of the Work.

D. Construction Sequence:
   1. The Substantial Completion of the following systems will be required prior to any significant Site demolition:
      a. Temporary sodium hypochlorite bulk chemical feed tanks and piping.
   2. Following the Substantial Completion of the task indicated above, the following units may be removed from service, disassembled or demolished:
      a. Sodium hypochlorite bulk storage tanks and pump suction piping

E. Existing Systems Description:
   1. Lime Feed System:
      a. Lime is pneumatically conveyed to two bulk storage lime silos.
      b. From the two bulk lime storage silos lime is conveyed pneumatically or with a bucket system to two day bins.
      c. Lime is fed via gravity through two existing lime Slakers. Each lime slaker has a capacity of 1,000 lb/hour.
      d. Lime feed rates are normally in the range of 30-40 lb/hour.
      e. A lime vibrator helps to reducing caking of lime into the lime feed.
      f. The existing lime feeders use a belt drive conveyer system to dose lime into the slaker.
      g. Plant water and the lime is mixed exothermically to create a lime paste solution which is fed via gravity into the rapid mix basin.
      h. Grit from the lime slaking process is conveyed to a grit drum and disposed of by water plant operations staff.

2. Sodium Hypochlorite
   a. Bulk sodium hypochlorite is pumped from chemical supplier at the hypochlorite fill station. The hypochlorite fill station includes digital readouts to monitor bulk chemical storage tank levels and provide spill containment.
   b. Sodium hypochlorite is stored in two fiberglass reinforced plastic bulk storage tanks (BST-1 and BST-2). Chemical volumes of the bulk storage tanks are continuously measured by level transmitters.
   c. Two hose pumps (P-111 and P-112) pull suction from the bulk storage tanks and discharge to two FRP day chemical storage tanks (DT-1 and DT-2) in an adjacent building on the WTP site. Chemical volumes and daily chemical usage is measured through two scales located beneath the day tanks.
   d. Four peristaltic chemical feed pumps (P-131, P-132, P-133, P-134) take suction from the day tanks and discharge to nine possible chemical injection locations throughout the WTP.

F. Downtime Limitations:
   1. Lime chemical feed may not be interrupted to the water supply may not be interrupted to ensure the City can maintain corrosion control chemical feed targets for pH control. Only one lime slaker and feed system may be out of service at a time. Coordinate shutdown of each slaker and day bin with the Owner prior to removal of a slaker.
   2. Sodium hypochlorite chemical feed may not be interrupted at key process locations to ensure the City can maintain compliance with the Surface Water Treatment Rules and meet all treatment performance requirements. A temporary bulk storage and chemical feed system must be established prior to removal of any bulk tanks. Only one day tank may be out of service at a time. Chemical feed to the rapid mix riser or raw water must be maintained continuously. Coordinate shutdowns with Owner prior to removal of each feed tubing section from peristaltic feed pumps to existing chemical injection locations.
   3. Two sodium hypochlorite bulk chemical storage tanks shall be kept in operation during the WTPs summer demand periods. Contractor to coordinate summer demand periods with Owner. The City may permit operation of the hypochlorite feed system on a single feed system from installation to a passed water hold test for a maximum of 14 days across both tanks.

G. Suggested General Work Sequence:

   1. Lime

Task No.	By	Task Description
1.	Contractor	Mobilize.
2.	Contractor	Remove North Lime feed system from service.
3.	Contractor	Install and start-up of North Lime feeder system. Connect system to SCADA and coordinate start up with the City.
4.	Contractor	Remove South Lime feed system from service.
5.	Contractor	Install and start-up of South Lime feeder system. Connect system to SCADA and coordinate start up with the City.
6.	Contractor	Punch list and cleanup.

2. Sodium Hypochlorite

Task No.	By	Task Description
1.	Contractor	Mobilize.
2.	Contractor	Install temporary bulk sodium hypochlorite chemical feed tanks. Provide spill protection for tanks in temporary location to prevent damage to concrete. Replace existing bulk sodium hypochlorite fill station.
3.	Contractor	Connect chemical suction piping from temporary bulk tanks to existing transfer pumps.
4.	Contractor	Remove existing chemical bulk tanks and protect existing piping.
5.	Contractor	Install and start up new bulk sodium hypochlorite chemical storage tanks.
6.	Contractor	Remove temporary bulk chemical feed system from service.
7.	Contractor	Replace BST-2 chemical bulk tank fill and discharge piping and between P-112 and DT-2.
8.	Contractor	Install and start up new bulk sodium hypochlorite BST-2 chemical feed piping.
9.	Contractor	Replace BST-1 chemical bulk tank fill and discharge piping and between P-111 and DT-1
10.	Contractor	Replace bulk storage tank containment wall and enclosure panel including louvers. Recoat chemical containment area.
11.	Contractor	Remove and replace chemical storage tank DT-1. Complete start up of DT-1 prior to performing work on DT-2 including installing chemical feed pumps.
12.	Contractor	Remove and replace chemical storage tank DT-2. Complete start up of DT-2 including installing existing chemical feed pumps.
13.	Contractor	Replace day tank room closure panel and exhaust fans.
14.	Contractor	Replace chemical feed discharge piping from DT-1 to all chemical locations. Verify and ensure continuity of chemical feed at all required locations prior to disconnecting.
15.	Contractor	Replace chemical feed discharge piping from DT-2 to all chemical locations. Verify and ensure continuity of chemical feed at all required locations prior to disconnecting.
16.	Contractor	Punch list and cleanup.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

3.1 PROVISIONS

A. General:
   1. Perform the work to provide for:
      a. The water treatment facilities to be in effective operation at all times.
      b. Maintaining a treatment efficiency of not less than the efficiency achieved during the corresponding month of the previous year.
   2. Provide temporary pumps and other facilities necessary to meet the requirements of this Section.

B. Notification of Owner: Notify Owner at least 48 hours prior to starting to relocate piping or taking existing components out of service.

END OF SECTION 01 12 16

SECTION 01 31 19 – PROJECT MEETINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes scheduling and administering of preconstruction and progress meetings.

B. Scheduling and Administration of Meetings:
   1. Responsibility:
      a. Preconstruction Meeting: Engineer or Owner.
      b. Progress Meetings: Contractor.
   2. Procedures:
      a. Prepare agenda.
      b. Distribute written notice and agendas of meetings 4 days in advance of the meeting date.
      c. Make physical arrangements for the meetings.
      d. Preside at meetings.
      e. Record minutes and include significant proceedings and decisions.
      f. Distribute copies of the minutes within 4 days after meetings to:
         1) Participants.
         2) Others affected by proceedings.

1.3 PRECONSTRUCTION MEETING

A. Schedule: Preconstruction meeting will be scheduled by Engineer:
   1. Within 20 days after the Effective Date of Agreement.
   2. Before starting the Work at the Site.

B. Attendance: Representatives of the following parties are to be in attendance at the meeting:
   1. Owner.
   2. Engineer.
   3. Contractor.
   4. Major Subcontractors.

1.4 PROGRESS MEETINGS

A. Types of Progress Meetings:
   1. Regular.
   2. Called.
   3. Preinstallation for the following:
      a. Installation of each slaker.
      b. Installation of each sodium hypochlorite chemical tank.

B. Schedule meetings as follows unless otherwise approved by Engineer:
   1. Regular: Weekly.
   2. Called: As the progress of the Work dictates.
   3. Preinstallation: At least 5 working days prior to start of installation.

C. Location: Hold meetings at as indicated by the Owner.

D. Attendance: Representatives of the following parties are to be in attendance at the meeting:
   1. Engineer.
   2. Contractor.
   3. Major Subcontractors as pertinent to the agenda.
   4. Owner's representative as appropriate.
   5. Governmental or other regulatory agencies as appropriate.

E. Minimum Agenda: The minimum agenda for progress meetings shall consist of the following:
   1. Review and approve minutes of previous meetings.
   2. Review progress of the Work since the previous meeting.
   3. Note field observations, problems and decisions.
   4. Identify problems which impede planned progress.
   5. Review offsite fabrication problems.
   6. Develop corrective measures and procedures to regain plan schedule.
   7. Revise construction schedule as indicated.
   8. Review submittal schedules; expedite as required to maintain schedule.
   9. Maintenance of quality and work standards.
   10. Review changes proposed by Owner for their effect on the construction schedule and completion date.
   11. Identify all claims and potential claims.
   12. Pending changes and substitutions.
   13. Complete other current business.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION 01 31 19

SECTION 02 41 19 – SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the modification, alteration, conversion, and renovation of existing structures:
   1. Be aware of the many incidental items which exist which must be demolished, relocated, or replaced in order to accomplish the remodeling work of trades.
   2. Include the price of such demolition, relocating, and replacement in the base Bid.
   3. These incidental items may or may not be indicated in the Contract Documents.
   4. Contractor and Subcontractors performing remodeling work are expected to be familiar with the unknown nature of existing utilities serving an area to be remodeled and shall calculate the base Bid to include the demolition, removal, relocation, and replacement of these utilities.

1.3 REFERENCES

A. Except as herein specified or as indicated on the Drawings, the work of this Section shall comply with the pertinent provisions of the following:
   1. American National Standards Institute: ANSI A10.6 - Safety Requirements for Demolition Operations.
   2. ASTM: D1557 - Laboratory Compaction Characteristics of Soil Using Modified Effort.
   3. EPA: Rule 406(b) of the Toxic Substances Control Act of 1992.
   4. NFPA: NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations.

1.4 DEFINITIONS

A. Terms:
   1. Abandon:
      a. Remove an item to the extent that it is not visible and does not interfere with new construction.
      b. Portions of the abandoned item may be left in place.
      c. No abandoned items shall be left below new footings.
   2. Demolish:
      a. Remove existing items from their present location in the Project area and haul to an area outside of the Project area.
      b. Remove utilities serving these items.
   3. Relocate:
      a. Move existing items from their present location to another location in the Project area.
      b. Extend utilities serving the present location to the new location.
   4. Remove:
      a. Except for items indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner’s property, demolished materials shall become Contractor’s property.
      b. Remove existing items from their present location in the Project area and haul to an area outside of the Project area.
      c. Remove utilities serving these items.
   5. Replace:
      a. Remove existing items from their present location in the Project area, haul them to an area outside of the Project area, and furnish and install new items in the same or another location.
      b. Extend utilities serving the present location to the new location.
   6. Reuse: Move existing items from their present location to another location in the Project area. Extend utilities serving the present location to the new location.

7. Historic Items:
   a. Historic items, relics, and similar object including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, antiques, and other items of interest or value to Owner that may be encountered during selective demolition remain Owner's property.
   b. Carefully remove and salvage each item or object in a manner to prevent damage and deliver promptly to Owner.

1.5 DIVISION OF WORK

A. Work: In accordance with the General Conditions, Contractor is responsible for dividing the Work among the Subcontractors and Suppliers and for delineating the work to be performed by specific trades. The following are suggestions as to how the Work may be divided. This is not a complete list of the work:
   1. Contractor:
      a. Cut and patch walls, floors, and ceilings to allow for recessed utilities and ductwork.
      b. Replace damaged units.
      c. Furnish and install new structural steel where required for reinforcement at floor, wall, and roof openings.
   2. Mechanical, Electrical, and Fire Protection Subcontractors:
      a. Furnish and install sleeves in gypsum board and masonry construction.
      b. Furnish new heads, piping, and connections as required for completion of the Work.
   3. Miscellaneous:
      a. Each trade shall be financially responsible for cutting and patching for sleeves, penetrations, and installation of isolated components as necessary for its work unless herein specifically stated to the contrary.
      b. On renovation projects, cut and patch walls, floors, and ceilings to allow for continuous runs of recessed utilities and ductwork.
      c. Patching shall be done by the trade whose work is damaged.
      d. Costs caused by defective or ill-timed work shall be borne by the party responsible.
      e. Each trade shall do fitting of its own work as required to make its several components fit together or to receive the work of other trades.

1.6 SUBMITTALS

A. Predemolition Photographs:
   1. Submit showing existing conditions of construction to remain that could be misconstrued as damage caused by construction activities.
   2. Including building and Site, as well as interior and exterior finishes.
   3. Submit prior to commencing Work.

1.7 QUALITY ASSURANCE

A. Qualifications: Engage an experienced firm that has specialized in demolition work similar to material and extent indicated for this Project.

B. Regulatory Requirements:
   1. Comply with governing EPA notification regulations before beginning selective demolition.
   2. Comply with hauling and disposal regulations of authorities having jurisdiction.
   3. Comply with ANSI A10.6 and NFPA 241.
   4. Comply with 29 CFR 1926.62-(OSHA Paint Standard).

C. Pre-Demolition Conference:
   1. Conduct pre-demolition conference at Site in accordance with in Division 01 Section "Project Meetings."
   2. Review methods and procedures related to selective demolition including, but not limited to, the following:
      a. Inspect and discuss condition of construction to be selectively demolished.
      b. Review structural load limitations of existing structure.
      c. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and to avoid delays.
      d. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.

1.8 PROJECT CONDITIONS

A. Owner Occupancy:
1. Owner will occupy portions of building immediately adjacent to selective demolition area.
2. Conduct selective demolition so Owner's operations will not be disrupted.
3. Provide not less than 72 hours notice to Owner of activities that will affect Owner's operations.

B. Access:
1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities.
2. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from authorities having jurisdiction.

C. Conditions:
1. Owner and Engineer assume no responsibility for condition of areas to be selectively demolished.
2. Conditions existing at time of inspection for bidding purposes will be maintained by Owner as far as practicable.
3. Before selective demolition begins, Owner will remove the following items:
a. Sodium hypochlorite will be removed from the bulk and day tanks to the extent possible prior to removal and replacement of tank.

D. Storage or sale of removed items or materials on Site will not be permitted.

E. Maintenance of Utilities:
1. Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
2. Maintain fire-protection facilities in service during selective demolition operations.

F. Unknown Hazardous Materials:
1. It is not expected that hazardous materials will be encountered in the Work.
2. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Engineer and Owner.
3. Hazardous materials will be removed by Owner under a separate contract.

G. Lead Paint: Remove and remediate existing lead paint as required to comply with all codes and requirements while performing the requirements of the Work. Either remove lead paint completely or partially as required to achieve this.

1.9 WARRANTIES

A. Existing Warranties:
1. Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials so as not to void existing warranties.
2. If possible, retain original installer or fabricator to patch exposed work that is damaged during selective demolition.
3. If it is not possible to engage original installer or fabricator, engage another recognized, experienced, and specialized firm.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General:
1. Materials and workmanship shall conform to the requirements of other Sections of the Specifications.
2. Where no materials are specified in these specifications, use materials of an equivalent type, quality, and size to match those existing in other areas of the facility.
3. If none exist, use materials and workmanship recognized as of the highest quality in the industry.
4. Obtain Engineer's review of such material and workmanship.

B. Piping: Existing piping which is removed from its present location shall not be reused where new piping is required unless specifically noted on the Drawings.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that utilities have been disconnected and capped.

B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.

C. Inventory and record the condition of items to be removed and reinstalled, and of items to be removed and salvaged.

D. Conflicts:
1. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict.
2. Promptly submit written report to Engineer.

E. Survey, or engage a competent person to survey condition of the building, in accordance with requirements of OSHA, to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of the structure or adjacent structures during selective demolition operations.

F. Perform additional surveys as the work progresses to detect hazards resulting from operations to date.

3.2 UTILITY SERVICES

A. Maintain existing services indicated to remain and protect them against damage during selective demolition operations.

B. Interruptions:
1. Do not interrupt existing utilities serving occupied or operating facilities unless authorized in writing by Owner and other authorities having jurisdiction.
2. Provide temporary services during interruptions to existing utilities, as acceptable to Owner and to authorities having jurisdiction.
3. Provide at least 72 hours notice to Owner if shutdown of service is required during changeover.

C. Utility Requirements:
1. Locate, identify, disconnect, and seal or cap off indicated utilities serving areas to be selectively demolished.
2. Owner will arrange to shut off indicated utilities when requested by Contractor.
3. Arrange to shut off indicated utilities with utility companies.
4. If utility services are required to be removed, relocated, or abandoned, before proceeding with selective demolition, provide temporary utilities that bypass areas of selective demolition and that maintain continuity of service to other parts of building.
5. Cut off pipe or conduit in walls or partitions to be removed.
6. Cap, valve, or plug and seal remaining portion of pipe or conduit after bypassing.

3.3 PREPARATION

A. Dangerous Materials:
1. Drain, purge, or otherwise remove, collect, and dispose of chemicals, gases, explosives, acids, flammables, or other dangerous materials before proceeding with selective demolition operations.

B. Site Access and Temporary Controls:
   1. Conduct selective demolition and debris removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
   2. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and other authorities having jurisdiction.
   3. Provide alternate routes around closed or obstructed traffic ways if required by governing regulations.
   4. Erect temporary protection, such as walks, fences, railings, canopies, and covered passageways, where required by authorities having jurisdiction.
   5. Protect existing Site improvements, appurtenances, and landscape features to remain.
   6. Erect a plainly visible fence around drip line of individual trees or around perimeter drip line or groups of trees to remain.

C. Temporary Facilities:
   1. Protection:
      a. Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
      b. Provide protection to ensure safe passage of people around selective demolition area, and to and from occupied portion of building.
      c. Weather Protection:
         1) Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
         2) Where heating or cooling is needed and permanent enclosure is not complete, provide insulated temporary enclosures.
         3) Coordinate enclosures with ventilating and material drying or curing requirements to avoid dangerous conditions and effects.
      d. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
      e. Cover and protect furniture, furnishings, and equipment that have not been removed.
   2. Shoring and Bracing:
      a. Provide and maintain shoring, bracing, or structural support to preserve stability and prevent movement, settlement, or collapse of construction to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
      b. Strengthen or add new supports when required during progress of selected demolition.

3.4 POLLUTION CONTROLS

A. Dust Control:
   1. Use water mist, temporary closures, and other suitable methods to limit spread of dust and dirt.
   2. Do not use water when it may damage existing construction or create hazardous or objectionable conditions, such as ice, flooding, and pollution.
   3. Wet mop floors to eliminate trackable dirt and wipe down walls and doors of demolition enclosure.
   4. Vacuum carpeted areas.
   5. Comply with governing environmental protection regulations.

B. Disposal:
   1. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
   2. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.

3.5 GENERAL

A. Demolish and remove existing construction only to the extent required by new construction and as indicated.

B. Methods:
   1. Use methods required to complete the work within limitations of governing regulations.
   2. Level by Level:
      a. Proceed with selective demolition systematically, from higher to lower level.
      b. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.

3. Cutting Openings:
   a. Neatly cut openings and holes plumb, square, and true to dimensions required.
   b. Use cutting methods least likely to damage construction to remain or to adjoining construction.
   c. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces.
   d. Temporarily cover openings to remain.
4. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
5. Flame Cutting:
   a. Do not use cutting torches until work area is cleared of flammable materials.
   b. At concealed spaces, such as duct and pipe chases, verify condition and contents of hidden space before starting flame-cutting operations.
   c. Maintain fire watch and portable fire suppression devices during flame-cutting operations.
   d. Maintain adequate ventilation when using cutting torches.
6. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials, and promptly and legally dispose of off Site.
7. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
8. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
9. Dispose of demolished items and materials promptly.
10. Return elements of construction and surfaces that are to remain to condition existing before selective demolition operations began.

C. Existing Facilities: Comply with Owner's requirements for using and protecting elevators, stairs, walkways, loading docks, building entries, and other building facilities during the selective demolition operations.

D. Removed and Salvaged Items:
1. Clean salvaged items.
2. Pack or crate items after cleaning and identify contents of containers.
3. Store items in a secure area until delivery to Owner.
4. Transport items to Owner's storage area designated by Owner and as indicated on Drawings.
5. Protect items from damage during transport and storage.

E. Removed and Reinstalled Items:
1. Clean and repair items to functional condition adequate for intended reuse.
2. Paint equipment to match new equipment.
3. Pack or crate items after cleaning and repairing, and identify contents of containers.
4. Protect items from damage during transport and storage.
5. Reinstall items in locations indicated.
6. Comply with requirements for new materials and equipment.
7. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.

F. Existing Items to Remain:
1. Protect construction indicated to remain against damage and soiling during selective demolition.
2. When permitted by Engineer, items may be removed to a suitable, protected storage location and reinstalled in their original locations after selective demolition operations are complete.

3.6 DEMOLITION

A. Structures:
1. Cut, repair, reuse, excavate, demolish or otherwise remove parts of the existing structures or appurtenances, as indicated on the Drawings, herein specified and necessary to permit completion of the Work.
2. Dispose of demolished materials in an approved manner.
3. Include necessary cutting, bending, and welding of reinforcing steel, structural steel, or miscellaneous metal work found embedded in the existing structures.
4. When removing materials or portions of existing structures, shore up, underpin, and protect adjacent structures.

5. Concrete:
   a. Demolish in small sections.
   b. Cut concrete to a depth of at least 3/4-inch at junctures with construction to remain, using a power driven saw.
   c. Dislodge concrete from reinforcement to remain at perimeter of areas being demolished, cut reinforcement, and then remove remainder of concrete indicated.
   d. Neatly trim openings to dimensions indicated.
6. Engineer's review of cutting: No existing structure, equipment or appurtenance shall be shifted, cut, removed or otherwise altered without obtaining review of Engineer.

B. Equipment:
1. Dismantle, remove, and relocate existing equipment, piping, and other appurtenances required for the completion of the Work.
2. Cut existing pipelines for the purpose of making connections thereto.
3. Cut off anchor bolts for equipment and structural steel indicated to be removed 1-inch below the concrete surface.
4. Patch remaining concrete surface to smooth even finish.
5. Remove air conditioning equipment without releasing refrigerants, if applicable.

C. Piping, Fire Protection, and Electrical Components:
1. When a new connection is made to an existing pipeline, install additional new piping, extending to and including the most convenient new valve.
2. Piping, conduit, and wiring indicated or required to be demolished shall be done so to the nearest reasonable connection outside of the Project area or as directed by Engineer.
3. Where necessary or required for the purpose of making connections, cut existing pipelines in a manner to provide an approved joint.
4. Weld beads, flanges, and provide Dresser couplings on existing and new piping.
5. Remove and reinstall existing fire protection heads to allow for new construction.
6. Comply with applicable fire protection codes.
7. Furnish new heads, piping, and connections as required for completion of the Work.
8. Remove junction boxes and electrical outlets which will no longer be in use.
9. At existing walls which are made thicker, extend piping and wiring to accommodate additional wall thickness.
10. Remove and reinstall fixtures and electrical outlets, switches, etc.

D. Ductwork:
1. Remove portions of existing ductwork systems to the nearest branch outside the project area, except as indicated otherwise on drawings.
2. Remove existing ductwork in a manner to minimize dispersion of dust in the duct system.
3. Repair and replace existing insulation and duct liner disturbed by this Work to provide a continuous smooth surface.
4. New connections to existing ductwork shall comply with the requirements of Division 23 Section “Metal Ducts.”

E. Masonry Walls:
1. Where masonry walls are to be removed and replaced, and where filling existing openings, allow for toothing in of the new masonry at alternate courses so that the existing running bond pattern is maintained.
2. Brick:
   a. Existing brick which becomes exposed due to the removal of materials such as adjacent walls, windows, doors, cabinetry, equipment, etc., shall be thoroughly cleaned, scraped, brushed, and tuck pointed to match adjacent existing brick.
   b. Blend appearance of exposed brick with the adjacent brick.
   c. Replace damaged brick.

F. Floor Slabs:
1. Where new utilities must be installed below the existing floor slab, saw cut the slab for at least 1-inch of depth.
2. Break out the remaining depth with jack hammers or hand tools to provide a rough surface.

3. Leave existing steel reinforcing so that it laps at least 6 inches into the new concrete slab over the trench.
4. The exact width of the concrete removed shall depend upon the required depth and diameter of the new utility.
5. Allow for sufficient working space in the trench.

G. Conceal Utilities: Recess new piping, conduit, and other utilities into floors, wires, and ceilings in finished areas.

H. Ownership of Salvaged Materials:
1. Materials and equipment removed shall remain the property of Owner at Owner's option.
2. Items not salvageable, as determined by Engineer and Owner, and items Owner elects not to keep shall become the property of Contractor to be properly disposed of off the Site.
3. Salvaged equipment shall be thoroughly cleaned, lubricated, and greased for protection during prolonged storage.

I. Nonshrink Grout: Use nonshrink grout for setting wall castings, sleeves, leveling pump bases, doweling anchors into existing concrete and elsewhere as indicated.

J. Protect Facility from Water Damage: Provide flumes, hoses, piping, suitable plugs, bulkheads, or other means to divert or hold back the flow of wastewater, water, or other liquids, as required for proper performance of the Work.

K. Blasting: Not permitted.

L. Sleeves:
1. Subcontractors for mechanical, electrical, and other trades shall furnish sleeves and inserts for pipes, conduits, and similar items in forms, walls, partitions, and floors.
2. Perform work in cooperation with Contractor.
3. Place items in ample time so as not to delay operations.
4. Do not place sleeves so they pass through beams, girders, and similar construction.

M. Roofing: If existing roofing is to remain, obtain original roofing Manufacturer's approval and warranty on new roof penetrations and where removing existing roof penetrations and curbs.

N. Firestopping and Smokestopping: Install firestop and smokestop systems at utility penetrations in accordance with local building codes.

O. Miscellaneous: At existing walls which are made thicker, reinstall fire extinguisher cabinets, clocks, thermostats, and other wall hung items in new wall to accommodate additional wall thickness.

3.7 PATCHING AND REFINISHING

A. Promptly repair damage to adjacent construction caused by selective demolition operations.

B. Patching:
1. Patch and repair existing surfaces from which items have been removed leaving holes, fasteners, and surface blemishes exposed to view.
2. Where repairs to existing surfaces are required, patch to produce surfaces suitable for new materials.
3. Completely fill holes and depressions in existing masonry walls that are to remain with an approved masonry patching material applied according to Manufacturer’s written recommendations.
4. Comply with Division 01 Section “Cutting and Patching.”

C. Refinishing:
1. Prepare existing surfaces for finishes by scraping, sanding, filling, acid etching, and sand blasting to ensure bonding and a smooth finish.
2. Refinish entire surfaces as necessary to provide an even finish.
3. Refinish continuous surfaces to the nearest intersection and entirely finish assemblies.

4. Restore exposed finishes of patched areas and extend restoration into adjoining construction in a manner that eliminates evidence of patching and refinishing.
5. Refinish entire surfaces if necessary to remediate existing lead painted surfaces.

D. Floors and Walls:
1. Where floors or partitions that are demolished extend one finished area into another, patch and repair floor and wall surfaces in the new space.
2. Provide an even surface of uniform finish, color, texture, and appearance.
3. Remove existing floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
4. Patch with durable seams that are as invisible as possible.
5. Provide materials and comply with installation requirements specified in other Sections of these Specifications.
6. Where patching occurs in a painted surface, apply primer and intermediate coats over the patch and apply final coat over entire unbroken surface containing patch.
7. Provide additional coats until patch blends with adjacent surfaces.
8. Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.

E. Ceilings: Patch, repair, or rehang existing materials as necessary to provide even plane surface of uniform appearance.

3.8 CLEANING

A. Clean materials installed under this Section in accordance with Division 01 Section “Cleaning and Waste Management.”

B. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations.

C. Return adjacent areas to conditions existing before selective demolition operations began.

END OF SECTION 02 41 19

SECTION 02 42 13 - REMOVAL OF EXISTING EQUIPMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes: the removal of existing equipment and all pipe, fittings, valves and appurtenances not required for the proper operation of the project.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

3.1 GENERAL

A. Do not proceed with removal of any equipment, piping or appurtenances without specific approval of Engineer. All equipment, piping or appurtenances removed without proper authorization, which is necessary for the operation of the existing facility, shall be replaced to the satisfaction of Engineer at Contractor's expense.

B. All existing tubing, insulation, hangers and supports shall become the property of Contractor immediately upon removal from their present locations. Contractor shall remove such material from the Site at his own expense and it shall not be reused.

C. All existing valves, and other special piping and utility elements, greater than 3-inch diameter, removed shall remain the property of Owner. Contractor shall furnish all labor and material to identify, clean, protect, crate and box and store them at the Site.

D. Provide pieces of equipment weighing 150 pounds or more with suitable skids before storing.

E. Wherever piping is removed, adjacent pipe and headers that are to remain in service shall be blanked off or plugged and then anchored in an approved manner.

F. Equipment to be retained by Owner shall be carefully removed from the present location, cleaned and immediately stored onsite as designated by Owner.

G. Take all necessary precautions against damaging the material and equipment to be stored. Repair all damage resulting from Contractor operations, as directed by and to the satisfaction of Engineer.

H. Give itemized lists of materials removed and stored to Engineer daily. A final typed itemized list shall be furnished to Engineer electronically at the completion of construction. The list shall include items, method of packaging, and place of storage.

3.2 EQUIPMENT TO BE RETAINED

A. The following is a list of items which shall be removed and remain the property of Owner. The list is not intended to be complete, but only to convey the general types of equipment to be retained by Owner:
   1. Sodium hypochlorite chemical feed pumps

B. All equipment removed shall remain the property of Owner unless designated otherwise by Owner.

C. If Owner elects not to retain ownership of certain items, the items will become the property of Contractor and shall be removed from the Site at Contractor's expense.

END OF SECTION 02 42 13

SECTION 02 82 00 – ASBESTOS REMEDIATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:
   1. Asbestos abatement.
   2. Procedures for construction on items with lead paint.

B. Provided by Owner: Notification to building occupants.

1.3 REFERENCES

A. Except as herein specified or as indicated on the Drawings, the work of this Section shall comply with the following:
   1. DOT - U.S. Department of Transportation: Title 29, Part 171 and 172 of the Code of Federal Regulations - Hazardous Substances.
   2. EPA - U.S. Environmental Protection Agency: Title 40, Part 61, Sub-part A, and Sub-part M (Revised Sub-part B) of the Code of Federal Regulations - National Emission Standard for Hazardous Air Pollutants (NESHAPS, and National Emission Standard for Asbestos.
   3. MIOSHA Rule 2205.
   4. Michigan Public Act 55.
   5. Michigan Public Act 147.
   6. Michigan Public Act 440.
   7. OSHA - U.S. Department of Labor, Occupational Safety and Health Administration:
      a. Title 29, Part 1910, Section 2 of the Code of Federal Regulations - Access to Employee Exposure and Medical Records.
      b. Title 29, Part 1910, Section 134 of the Code of Federal Regulations - Respiratory Protection.
      c. Title 29, Part 1910, Section 145 of the Code of Federal Regulations - Specifications for Accident Prevention Signs and Tags.
      d. Title 29, Part 1910, Section 1001 and Part 1926, Section 1101 of the Code of Federal Regulations - Occupational Exposure to Asbestos, Tremolite, Anthophyllite, and Actinolite; Final Rules.
      e. Title 29, Part 1910, Section 1200 of the Code of Federal Regulations - Hazard Communication.
      f. Title 29, Part 1926, of the Code of Federal Regulations - Construction Industry.
      g. Title 29, Part 1926 - Sub-part J - Welding and Cutting.
      h. Title 29, Part 1926 - Sub-part J - Fire Prevention.
      i. Title 29, Part 1926 - Sub-part T - Demolition.
   8. Local Requirements: Abide by local requirements which govern asbestos abatement work or hauling and disposal of asbestos waste materials.

1.4 DEFINITIONS

A. Abbreviation:
   1. ACM: Asbestos Containing Material.

1.5 DESIGN AND PERFORMANCE REQUIREMENTS

A. Legal Requirements:
   1. Asbestos abatement subcontractor shall be licensed for asbestos abatement work in the State of Michigan as required by Michigan Public Act 55, effective June 8, 1993.
   2. Use only workers who have received health and safety training which, as a minimum, fulfills the training required by Michigan Public Act 147 (1986) and OSHA 20 CFR 1926.62.

3. Furnish labor, supervision, materials (lien free), training, physicals, insurance and equipment necessary to carry out asbestos and lead abatement/demolition procedures in accordance with OSHA, EPA, MIOSHA, and other applicable federal, state, and local government regulations.
4. Deposit asbestos containing wastes at a Type II landfill.
5. Provide project notification to EGLE, and the Environmental Protection Agency Region V Office and Michigan Department of Public Health, Air Quality Division at least 10 days prior to commencement of asbestos abatement work.

B. Contractor Responsibilities:
1. Obtain a licensed qualified professional to perform hazardous material inspection, if applicable. Cost to be included in Base Bid.
2. Provide items, articles, materials, operations or methods listed, required to be furnished or accompanied by reason of the Contract Documents, including labor, materials, equipment and incidentals required or necessary for their completion.
3. It is understood and agreed by the Contractor, that the work herein described is to be completed in every detail. The Contractor shall be held responsible to provide labor and materials necessary for the entire completion of the work described in the Contract Documents and reasonably implied therefrom.
4. Quantities of ACM shall be verified by the Contractor. Quantities listed in the Contract Documents, if any, are for general information only.
5. Waste manifests shall be submitted after the completion of the project.
6. Provide Fax copies of the notifications sent to the regulatory agencies. The State notification documents shall be submitted for written approval prior to submission to the State.
7. Assume full responsibility and liability for the compliance with standards pertaining to work practices, hauling, disposal, and protection of workers, visitors to the Site and persons occupying areas adjacent to the Site. Hold the Owner and Engineer harmless for failure to comply with applicable standards on the part of Contractor, Contractor's workers or subcontractors.

1.6 SUBMITTALS

A. Submit a detailed job-specific plan of the procedures proposed for use in complying with the requirements of the specification. Include in the plan:
1. Layout of the containment work area.
2. Intended procedures.
3. Written HAZCOM program and proof of worker training for working around ACM.
4. Written respiratory protection program, proof of employee training, and most recent fit test certification.
5. Sequencing of safety procedures.
6. Means of protecting workers, visitors, and the general public.
7. Engineering controls to reduce dust and debris emission.
8. Removal of asbestos material from building.
9. SDS documentation for materials brought on site before materials are used.

B. Asbestos Related Submittals: Prior to initiation of asbestos removal, provide a bound notebook with the following information:
1. Proof that each worker assigned to this project has completed a physical complete with chest X-rays and pulmonary functions testing. A medical determination shall be provided by a competent physician as to the overall condition of the worker to perform asbestos removal work as it may pertain to applicable Federal, State and Local Standards.
2. Copies of Michigan Asbestos Abatement Supervisor and Asbestos Abatement Worker Accreditation Cards as issued by the Michigan Department of Health. The Accreditation period shall not expire prior to the project's scheduled completion date.
3. Proof that non asbestos workers assigned to this project, for general labor, bag-out, and similar activities, have received 2-hour asbestos awareness training.
4. Copies of the Environmental Protection Agency (EPA) or designated state agency, or both, notifications as required under 40 CFR 61.22 (d).
5. Michigan Abatement Contractor's License.

C. Close Out Submittals: Waste shipment records at project completion.

1.7 QUALITY ASSURANCE

A. Faithfully comply with federal, state, and local laws, standards, and regulations while carrying out work.

B. Quality Assurance:
   1. Engineer will be the neutral third party to provide industrial hygiene consultation, conduct air monitoring and ensure compliance with applicable asbestos abatement and lead standards, regulations, and procedures. Air monitoring procedures will follow the NIOSH 7400 A method (third revision of May 19, 1989) and Appendix A of 29 CFR 1926.1101 (Construction standard for asbestos and the NIOSH 7082 method for lead. Air samples will be collected as follows:
      a. Background, baseline or pre-abatement samples will be collected prior to the start of area preparation. The results of these samples assess the condition of the air in each removal area prior to commencement of work.
      b. General (clean) area samples will be collected outside the restricted area to verify that the engineering controls established on this project are effective in preventing the spread of airborne asbestos fibers to uncontaminated areas. In the event that general area samples obtained outside the enclosure but in the removal area are equal to or exceed 0.05 fiber/cc, work inside the removal area shall cease and the cause identified. Should there be contamination from inside the work area, the cause shall be eliminated, and Engineer will notify the Contractor that the contamination source has been eliminated before work may resume.
      c. Contractor will be responsible for collection of asbestos and lead personal breathing zone samples and the Contractor shall be responsible for collecting lead (if cutting/burning) personal breathing zone samples from personnel performing representative work activities within restricted areas. Samples shall be representative of assigned worker tasks. Sample results shall be displayed in the clean area within 24 hours of collection. Giving due consideration to protection factors, concentrations to which the Contractor's workers are exposed to shall be kept to less than the action limit or the lowest reasonable concentration given the nature of the work. If the airborne fiber or lead concentration is in excess of the PEL, the Contractor shall document the steps taken to control and minimize the levels of airborne asbestos fibers or lead particulates.
      d. Clearance samples will be collected only after a visual examination has been performed on the removal area by the Engineer and a representative of the Contractor. If asbestos is detected subsequent to clearance sampling, the ACM shall be removed. Additional clearance samples may be required.
   2. The Owner will be responsible for the first set of PCM clearance samples for asbestos in each of the work areas. The Contractor shall be responsible for additional clearance samples and Engineer's costs if the first set does not meet the established release criteria.

1.8 SEQUENCING AND SCHEDULING

A. Removal may begin on the date stated in the 10 day notification submitted to MDLEG and/or EGLE.

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

3.1 CONTRACTOR'S MATERIALS AND EQUIPMENT

A. As selected by Contractor for the performance of the Work.

B. Electrical equipment shall be in good repair with no exposed wires or insulation. Plugs shall be equipped with a ground. Extension cords shall be rated for "hard surface" and shall have watertight connectors.

C. Light fixtures shall be general service, incandescent lamps of sufficient power for adequate illumination. Guard cages or tempered glass shall be used to protect the lamps. Exterior fixtures shall be used if exposed to moisture.

D. Owner will provide a source of water for the duration of the project. The Contractor shall be responsible for disposal of wastewater generated on site during the project to the sanitary sewer.

E. Dumpsters:
1. Ensure that the dumpsters maintained on-site are locked at all times when not attended. In addition, the dumpsters shall have a hard top.
2. Provide “Danger – Asbestos Hazard” signs and banner tape encompassing the dumpster to ward off any unauthorized personnel from the dumpster area.

3.2 PREPARATION

A. Before initiation of asbestos removal, the Contractor shall:
1. Effectively isolate the removal area from other areas of the building. Special attention shall be taken to isolate and seal supply and exhaust air ducts, doors, hallways and other openings into the project area that may conduct airborne fibers from the area of abatement.
2. Post warning signs and barrier tape at entrances or openings to the removal area in accordance with applicable regulations.
3. Provide for complete decontamination by constructing decontamination facilities, and require that non-emergency access to the removal area from the outside be limited to passage through these decontamination facilities. The location of the decontamination facility shall be determined by the Contractor with the approval of the Engineer.

B. Maintain the removal area so that a net movement of air from outside the removal area to the inside exists until acceptable final clearance results have been obtained. This may be accomplished by filtering exhaust air through High Efficiency Particulate Air (HEPA) filters, or by other methods that conform to accepted industry practices and applicable EPA and OSHA regulations. Supply a sufficient number of Air Filtration Devices (AFD) to provide a minimum of 4 air changes per hour and a negative pressure of 0.02-inch w.c. in the project areas. Provide a means to measure water column pressure of an enclosure throughout the project (e.g., Negamaster/Monometer).

C. Carry out work practices that minimize generation of airborne asbestos fibers or lead dust from areas with pealing or flaking painted surfaces. Practices that cause high airborne fiber or dust levels, such as dry sweeping, use of compressed air, or other high risk activities, are expressly prohibited without regard to the use of an NPE system.

D. Establish emergency and fire exit routes from the work area. In an emergency, preservation of life and treatment of seriously injured workers shall have priority over decontamination. Emergency response personnel (fire, police, and emergency technicians) shall have immediate access to the work area in an emergency. In case of a fire, the Fire Chief or his designated representative shall have complete jurisdiction over the building and work area.

E. Provide and make arrangements necessary to access utilities on Site:
1. Access to sufficient electrical power will be provided by Owner. Hard wired connections of Contractor’s equipment shall be performed by licensed electricians.
2. Access to sufficient cold running water for decontamination and amended water for asbestos removal will be provided by Owner. The Contractor is responsible for supplying hot water for the purpose of decontamination. Ensure residual water used in abatement or worker decontamination is filtered and disposed of in the sanitary sewer. Plumbing connections shall be performed by licensed plumbers.

F. Work Area Preparation - Negative Pressure Enclosures:
1. Isolate the project areas from the remainder of the facility. Each area shall be pre-cleaned and suspect ACM and ACM debris found on floors or ledges shall be wetted and removed with the use of a HEPA vacuum prior to erecting the enclosure. Engineer will inspect the integrity of the Contractor's barriers prior to the start of abatement in each area. Isolate work areas for the duration of the project by completely sealing off openings to the area. Sealing of openings and fixtures of the work area shall include, but not be limited to, heating and ventilation ducts and openings, attic ventilation ducts extending downward into the floor, doors, windows, skylights and lighting, electrical panels and conduit openings. Sealing shall be accomplished with 6 mil polyethylene sheeting, or equivalent, taped or glued into place in areas where burning and/or cutting is anticipated. Enclosure walls shall be constructed of 1 layer of polyethylene sheeting taped and glued into place. The floors of the enclosures shall be constructed of a single layer of 6 mil polyethylene sheeting, or equivalent, taped or glued into place.

2. Airlocks for entrance into and egress from the work area shall be constructed of 6 mil polyethylene sheeting and wooden or metal framing. The airlocks from the work area, to the equipment (dirty) room, to the shower area, to the clean (change) room shall be contiguous. Should conditions warrant non-contiguous decontamination facilities, consult with the Engineer to determine a lawful and appropriate decontamination procedure.
3. Provide ventilation controls that facilitate movement of airborne fibers away from the worker in removal areas. The equipment used for such ventilation controls shall have HEPA filters for filtering exhaust air that may be discharged into the work area or into areas outside the work area. The ventilation controls shall provide a net inward movement of air from the outside to inside the restricted area. In each restricted area, ventilation controls shall operate continuously throughout the project until final clearance sampling levels are attained. In no case shall ventilation controls damage the integrity of the enclosure. The AFDs shall be exhausted outside unless otherwise directed by Owner.
4. Post lawfully required notification of asbestos removal, abatement contractor's license and training certificate of abatement contractor's personnel trained in the requirements of the NESHAP standard, adjacent to the entrance of the removal area, and adjacent to other points of access to the work area.
5. If contaminated movable objects are located within the removal area, vacuum, clean, and remove these objects from the removal area while setting up the restricted area.

G. Work Area Preparation-Glovebags Debris Cleanup: Isolate the area of abatement by posting "DANGER ASBESTOS" barrier tape around the perimeter of the work area. "DANGER ASBESTOS" signs shall be posted at entrances to the work area.

3.3 ABATEMENT

A. Worker Protection:
1. General:
   a. Workers shall wear disposable full-body coveralls, head covers, and appropriate footwear in the removal area. Reusable footwear (i.e., boots) may be left in the dirty room of the removal area between work days, but must be either disposed of with other contaminated wastes, or decontaminated thoroughly before removal from the dirty room.
   b. Provide gloves, hard hats, goggles or safety glasses and other personal protective equipment as may be appropriate for use by workers on the project Site.
2. Respiratory Protection:
   a. Individuals entering the removal area during the project shall comply with OSHA standard 29 CFR 1910.134, including selection of an approved respirator with HEPA filters, or an approved supplied air respirator. The individuals shall have passed a medical examination as specified in the respiratory standard, shall have completed a pulmonary function test, shall have their doctor's permission to engage in activities while wearing a respirator, and shall have passed a respiratory fit test as specified in 29 CFR 1910.134.
   b. Facial hair that interferes with the fit of a negative pressure respirator shall be removed before the individual dons the respirator.
   c. The minimum respiratory protection for workers shall be a half-mask air purifying respirator equipped with HEPA filter cartridges approved by the National Institute for Occupational Safety and Health (NIOSH).
   d. Establish a respirator usage program as specified in 29 CFR 1910.134, and have proof of formal employee training in respirator usage for inspection by the Engineer and state or federal regulatory personnel.
   e. Have a sufficient quantity of replacement HEPA respirator filter cartridges available so workers can change filters at least daily. Respirator filters shall be stored on the work site in the "clean" room in an area away from exposure to asbestos fibers and to water, and shall be easily accessible to workers.
   f. Ensure that workers properly decontaminate and clean their respirators each time they exit the work area.
   g. Keep a bound, written and dated log of the following. The log shall be kept on-site at or near the enclosure, for periodic review.
      1) Meetings: Purpose, attendees, brief discussion and significant decisions.
      2) Visitations: Authorized and unauthorized.
      3) Log of those entering and leaving work area including personnel, by name.
      4) Accidents.
      5) Special or unusual events, i.e., barrier breaching, equipment failures.

6) Actual count of personnel at the Site.
7) Air sample results (personal).

h. Should air sampling indicate that the airborne asbestos fiber concentration within the restricted area is in excess of the safe allowable limits for the respiratory protection worn, provide for worker respiratory protection that will allow for safe working conditions.

i. Communicate the results of the air sampling to workers by posting the air sampling results on the project Site, or in writing within 24 hours.

j. In the event the results of the personal breathing zone samples exceed the Permissible Exposure Limit (PEL) of 0.10 fibers/cc for asbestos or 50 ug/m3 for lead, at the discretion of the Engineer work will be stopped until the cause can be isolated.

k. During asbestos abatement, personnel shall wear Powered Air Purifying Respirators (PAPR) respiratory protection until sufficient data has been collected through personal breathing zone sampling to ensure the method of removal does not result in airborne concentrations in excess of the restrictive limits of the respirator. The abatement contractor may provide data from a previous project of similar nature that supports downgrading from a PAPR. For the data to be applicable, the results must be generated by a neutral third party who participates in the PAT program and is registered with AIHA for airborne asbestos sample analysis. Respiratory protection requirements may be relaxed to Negative Pressure Respirators when sufficient data has been generated and with the approval of the Engineer.

3. Decontamination:
   a. Construct and isolate a decontamination area in accordance with 29 CFR 1926 Appendix F.
   b. Workers shall remove street clothes in the clean change room, and dress in disposable coveralls, head covers, foot covers, and respiratory protection prior to entering negative pressure enclosure work areas. Unless plastic suits provided with supplied air are worn, personal clothing shall not be worn under protective outerwear while working within a negative pressure enclosure.
   c. When workers leave the work area, they shall remove their head coverings, disposable coveralls, and foot coverings in the "dirty" or "equipment" room, and while wearing a respirator, proceed to the shower. Respirators shall be removed while showering with soap and water.
   d. Because cold water showers discourage thorough worker decontamination, provide showers with water of at least 70 degrees F for worker decontamination. Provide a portable water heater.
   e. Workers shall shower, as a minimum:
      1) Before lunch.
      2) At the end of each work day.
      3) At any other time the worker leaves the contaminated area.
   f. Provide the details for equipment and recyclable material decontamination and include procedures, testing, and on-site storage of materials that will be taken off-site for recycling.
4. Prohibited Activities: Smoking, drinking, eating, or chewing gum or tobacco inside the contaminated area and surrounding work areas shall be prohibited. Immediately release individuals of the privilege of working on the project if the individual is smoking, eating, drinking or chewing tobacco or gum inside the work area. Before a worker smokes, drinks, eats, or chews tobacco or gum, the worker must thoroughly decontaminate and leave the work area. A worker break area shall be designated and approved by the Contractor, Engineer, and Owner.

B. Asbestos Removal:
1. General:
   a. Removal of asbestos shall be with wet methods. Asbestos surfaces shall be sprayed with water and an acceptable wetting agent. A fine spray of this solution shall be applied to prevent fiber liberation preceding removal, fine spraying of surfaces shall be continued, to minimize worker exposure.
   b. Asbestos containing material shall be removed and placed into 6 mil, labeled bags while still wet. Bags shall be labeled with legally required hazard warnings, sealed, washed, and placed into a second 6 mil, labeled, polyethylene bag or fiber drum, which shall be labeled and sealed in accordance with federal and state regulations.
   c. Asbestos containing material shall not be removed with power tools. Asbestos covered pipes shall not be removed during the removal process of the asbestos containing pipe insulation.
   d. Equipment used during removal shall be wet cleaned before removal from the work area.
   e. Plastic sheeting, cleaning materials, clothing, and other disposable materials used during removal shall be double bagged or bagged and fiber barreled in the same manner as asbestos containing insulation.

f. Transportation of asbestos containing materials to the landfill shall be in vehicles with hard roofs. Transportation of asbestos containing wastes in open pickup trucks, or in pickup trucks with tarpaulins is expressly prohibited.

2. Glovebag Method: If glovebags are used to remove ACM, comply with 29 CFR 1926.1101, which states that glovebagging shall be conducted by 2 person teams according to the procedure described following:
   a. Slit top of the glove bag open (if necessary) and cut down the sides to accommodate the size of the removal area.
   b. Place necessary tools into pouch located inside glove bag.
   c. Place the glove bag around section of pipe and seal the bag around the pipe with duct tape.
   d. Insert the wand from a garden sprayer through the water sleeve provided in the side of the glove bag. Duct tape the water sleeve tightly around the wand to prevent leakage.
   e. Thoroughly wet the asbestos containing material with amended water or removal encapsulant and allow ample absorption time. Wet adequately to penetrate and soak the material through to the substrate.
   f. Place the nozzle of the HEPA filtered vacuum unit into the bag and seal with duct tape.
   g. Prior to removal, the negative pressure glovebags shall be smoke tested to ensure the glovebag has an adequate seal.
   h. Cut the asbestos containing material as necessary and remove using the necessary tools, continue wetting as necessary to prevent liberation of fibers. Place the pieces of asbestos containing material in the bottom of the bag without dropping.
   i. Rinse tools and the inside of the bag, and place the tools back into the pouch.
   j. Remove the water wand from the sleeve and insert the wand from lockdown encapsulant sprayer. Thoroughly encapsulate the pipe and interior surface of the bag.
   k. Remove tool pouch from side of bag and pull arm and tool pouch from the bag. Twist the glove shut and duct tape over the twisted portion. Cut through the taped portion to remove tools. Tools shall may be placed either into the next bag or into a bucket of water, opened below the surface, and decontaminated.
   l. With removed asbestos containing material in the bottom of the bag, evacuate air from the bag using a HEPA filtered vacuum, twist bag several times and seal it shut with duct tape.
   m. Remove the HEPA vacuum nozzle from the glove bag and seal it closed with duct tape.
   n. Slip a 6 mil disposal bag over the glove bag and detach the glovebag from the surface and fold it down into the disposal bag. Seal the disposal bag by twisting it shut, wrapping it 3 times with duct tape, bending it over (gooseneck) and wrapping it 3 more times with duct tape.

C. Decontamination of Work Area:
   1. Clean surfaces in the work area with water or a HEPA-filter equipped vacuum, or both. After the work area has been cleaned, together with Engineer conduct a thorough visual examination to certify removal of ACM and debris. Upon completion of the visual inspection and approval by Engineer, apply a sealant (encapsulant) to potentially contaminated surfaces inside the removal area. The encapsulant shall be allowed to dry before clearance air sampling will occur.
   2. If after final clearance air sampling, the Engineer finds the work area is not sufficiently decontaminated, repeat the cleaning and encapsulation. This shall continue until no asbestos is found during the area inspection.
   3. After the work area is found to be in compliance, barriers, plastic sheeting, tape, and other wastes and debris shall be removed and disposed of as asbestos containing wastes.

D. Disposal:
   1. Dispose of the asbestos containing materials in disposal bags labeled as follows:
      a. First Label: Provide in accordance with 29 CFR 1910.1200(f) of OSHA's Hazard Communication standard:

DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD
BREATHING AIRBORNE ASBESTOS, TREMOLITE, ANTHOPHYLLITE,
ACTINOLITE FIBERS IS HAZARDOUS TO YOUR HEALTH

b. Second Label: Provide in accordance with U. S. Department of Transportation regulation on hazardous waste marking. 49 CFR parts 106, 107, 171 to 180, published December 21, 1990:

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2. Labels shall be applied to bags before bags are loaded onto vehicles to be transported to the landfill.
3. Waste shall be transported to the landfill in hard-roofed trucks and waste shipment records shall be submitted to the Engineer following their receipt from the landfill.

E. Visual Inspection: When the Contractor believes that asbestos removal is complete, request a visual inspection. Engineer will enter the regulated area and inspect every aspect of the work area. Engineer will search the area of visible or suspect asbestos material. If any such material is discovered, the Contractor shall immediately clean up the section to the satisfaction of the Engineer and at no extra cost to the Owner. Once the Engineer is satisfied, the project will move on to clearance air testing.

F. Clearance Air Testing (PCM): After the cleaning process results have passed the Engineer's visual inspection, the Engineer will conduct an aggressive clearance test for each work area. The Engineer will aggress the air with the use of a leaf blower and fan units. After the Engineer has completed the air aggression, the Engineer will run a phase contrast microscopy sample, PCM, for each of the work areas for a minimum of 1,350 liters of air. The sample results must be below the standard of 0.01 fiber per cubic centimeter (f/cc). Only after passing clearance sample standard may the Contractor proceed.

3.4 LEAD

A. All painted pipe surfaces shall be assumed to contain lead. The Contractor shall be responsible for ensuring compliance with the OSHA Lead Standard (29 CFR 1926.61) when disturbing painted surfaces to the extent that airborne concentration of lead may reach 30ug/M3. These disturbances include, but are not limited to, sanding, abrasive blasting, welding, cutting and torch burning.

3.5 REPAIR

A. Damage to Owner's services or property caused as a result of the Contractor's actions for this project shall be repaired to the Owner's satisfaction. Expenses resulting from repairs of damage shall be at the Contractor's expense.

END OF SECTION 02 82 00

SECTION 03 15 16 – POST-INSTALLED ANCHORS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the furnishing and installation of post-installed anchors.

1.3 REFERENCES

A. Except as herein specified or as indicated on the Drawings, the work of this Section shall comply with the following pertinent provisions:
   1. ASTM:
      a. A36 - Carbon Structural Steel.
      b. A153 - Zinc Coating (Hot Dip) on Iron and Steel Hardware.
      c. A198 - Steel Bolting Materials for High-Temperature Service.
      d. A240 - Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications.
      e. A307 - Carbon Steel Bolts and Studs, 60,000 psi Tensile Strength.
      f. A510 - General Requirements for Wire Rods and Coarse Round Wire, Carbon Steel.
      g. A563 - Carbon and Alloy Steel Nuts.
      h. B633 - Electrodeposited Coatings of Zinc on Iron and Steel.
      i. E488 - Strength of Anchors in Concrete and Masonry Elements.
      j. E1512 - Testing Bond Performance of Bonded Anchors.
      k. F436 - Hardened Steel Washers.
      l. F593 - Stainless Steel Bolts, Hex Cap Screws, and Studs.
      m. F594 - Stainless Steel Nuts.
      n. F844 - Washers, Steel, Plain (Flat), Unhardened for General Use.
   2. ACI:
      a. 318, Chapter 17 - Anchoring to Concrete.
      b. 355.2 - Qualification of Post-Installed Mechanical Anchors in Concrete.
      c. 355.4 - Qualification of Post-Installed Adhesive Anchors in Concrete.
   3. International Code Congress Evaluation Service - ICC-ES:
      a. AC-193 - Mechanical Anchors in Concrete Elements.
      b. AC-308 - Post-installed Adhesive Anchors in Concrete Elements.
   4. Michigan Building Code.

1.4 SUBMITTALS

A. Product Data: For each anchor type to be furnished for each base material to which it will be fastened, including:
   1. Anchor specific type, physical properties and installation procedures.
      a. General catalog sheets of anchors without specific reference are not acceptable.
   2. Strength developed by anchor in each base material to which each is being fastened.
   3. Anchor embedment depth in base material.
   4. Anchor material.
   5. ICC-ES Report for each specific anchor indicating compliance to applicable building code.

1.5 QUALITY ASSURANCE

A. Provide special inspections of post-installed anchors in accordance with Division 01 Section “Special Inspections and Tests.”

B. Compliance:
   1. Mechanical anchors shall comply with AC-193 and ACI 355.2.
   2. Adhesive anchors shall comply with AC-308 and ACI 355.4.

C. Installation Personnel Qualifications:
   1. Knowledgeable of the specific Manufacturer's requirements for proper installation of post-installed anchors.
   2. Anchor installers shall be properly trained by the anchor Manufacturer on Site.
      a. Anchor Manufacturer's representative shall not be a distributor or third party.
      b. The installers to be trained shall be the actual person or persons installing the anchors, not the foreman, superintendent or similar supervisory personnel.
      c. The on Site training shall include training for installation of each anchor in each substrate on the Project for each trade.
      d. Each person installing the anchor shall be trained.
      e. Anchor installation training shall take place prior to the installation of the anchors. The installer shall have training verification available for review at any time.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis of Design: Hilti.

B. Products of the following manufacturers are among those which may be considered equal based on Submittals reviewed by Engineer; approval or rejection of the proposed or equal will be at Engineer's sole discretion:
   1. Powers/Rawl.
   2. Redhead.
   3. Simpson.

C. If Contractor intends to substitute other than Basis of Design products, Contractor shall be responsible to submit substitution product data that proves equivalence including, but not limited to:
   1. Capacities for specific anchor sizes, embedment lengths, and base materials into which the anchor will be fastened.
   2. Capacity reduction factors for spacing and edge distance.
   3. Material of each anchor type.
   4. ICC ES report applicable to each anchor type.

2.2 MATERIALS

A. Actual or Potential Ambient Conditions:
   1. Submerged or Corrosive Environment (including sodium hypochlorite and lime storage and feed areas): Stainless steel in accordance with ASTM F593.
   2. Dry Areas: Mild steel, galvanized in accordance with ASTM B633, SC1, Type III.

2.3 POST-INSTALLED ANCHORS

A. Anchors that Resist Loads Through Mechanical Friction or Keying Forces:
   1. Expansion Anchors Approved for Use in Cracked Concrete:
      a. Wedge style anchor.
      b. Hilti Kwik Bolt TZ2 (ICC-ESR 4266).
      c. Capable of sustaining an ultimate load of 4 times the imposed load capacity in concrete when tested in accordance with ASTM E488.
   2. Expansion Anchors Approved for Use in Uncracked Concrete:
      a. Wedge style anchor.
      b. Hilti Kwik Bolt TZ2 (ICC-ESR 42660.
      c. Capable of sustaining an ultimate load of 4 times the imposed load capacity in concrete when tested in accordance with ASTM E488.

3. Sleeve Anchors Approved for Use in Cracked and Uncracked Concrete:
   a. Expanding sleeve style anchor.
   b. Hilti HSL-3 (ICC-ESR 1545).
   c. Hex, acorn, round or flat head anchor or threaded anchor with hex nut as situation requires or as indicated on the Drawings.
4. Undercut Anchors Approved for Use in Cracked and Uncracked Concrete:
   a. Expanding sleeve, self-undercutting wedge style anchor.
   b. Hilti HDA (ICC-ESR 1546).
   c. Hex or flat head anchor or threaded anchor with hex nut as situation requires or as indicated on the Drawings.
5. Screw Style Anchors Approved for Use in Cracked Concrete:
   a. Hilti Kwik HUS EZ (ICC-ESR 3027).
   b. Capable of sustaining an ultimate load of 4 times the imposed load capacity in concrete when tested in accordance with ASTM E488.
6. Expansion Anchors Approved for Use in Solid Grouted Masonry:
   a. Wedge style anchor.
   b. Hilti Kwik Bolt TZ2 (ICC-ESR 4561).
7. Screw Style Anchors Approved for Use in Solid Grouted Masonry:
   a. Hilti Kwik HUS EZ (ICC-ESR 3056).

B. Anchors that Resist Loads Through an Injectable Chemical Adhesive:
   1. In Concrete: Hilti HIT HY 200 Safe Set.
   2. In Solid Grouted Masonry: Hilti HIT-HY 270.
   3. In Hollow Brick or Hollow Masonry: Hilti HIT-HY 270 with screen tubes.
   4. Anchored Material: Carbon steel or stainless steel threaded rods or deformed reinforcing bars as specified herein or as indicated on the Drawings.
   5. Bonding Strength: Tested in accordance with ASTM E1512.
   6. If installation temperatures of base materials fall below 41 degrees F, review cold weather applications with Manufacturer.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install post-installed anchors:
   1. In strict accordance with the installation instructions supplied by the Manufacturer.
   2. In rotary hammer drilled holes, unless otherwise approved by Engineer.
   3. In drilled out holes of the proper depth and diameter cleaned of dust and debris according to the Manufacturer’s specific installation instructions.

B. Provide sizes, spacings, edge distances and embedment as indicated on the Drawings.

C. Anchors that Resist Loads Through an Injectable Chemical Adhesive:
   1. Install in concrete with minimum age of 21 days, and in masonry with a minimum age of 7 days.
   2. Do not apply load until adhesive has properly cured and developed specified strength where cure time shall be as called out in the Manufacturer’s literature based on prevailing environmental conditions at the time of installation.

END OF SECTION 03 15 16

SECTION 03 30 03 – CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the furnishing and installation of formwork, reinforcement and concrete.

1.3 REFERENCES

A. Except as herein specified or as indicated on the Drawings, the work of this Section shall comply with the following:
   1. ACI - American Concrete Institute:
      a. 211.1 - Standard Practice for Selecting Proportions for Normal, Heavyweight and Mass Concrete.
      b. 301 - Specifications for Structural Concrete.
      c. 304R - Guide for Measuring, Mixing, Transporting and Placing Concrete.
      d. 305R - Hot Weather Concreting.
      e. 306R - Cold Weather Concreting.
      f. 309R - Guide for Consolidation of Concrete.
      g. 318 - Building Code Requirements for Structural Concrete.
      h. 347R - Guide to Formwork for Concrete.
   2. ASTM Standard Specifications, Test Methods, and Classifications:
      a. A185 – Specification for Steel Welded Wire Fabric, Plain, for Concrete Reinforcement.
      b. A615 - Specification for Deformed and Plain Billet - Steel Bars for Concrete Reinforcement.
      c. A1064 - Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete.
      d. C31 – Practice for Making and Curing Concrete Test Specimens in the Field.
      e. C33 - Specification for Concrete Aggregates.
      f. C39 - Test Method for Compressive Strength of Cylindrical Concrete Specimens.
      g. C94 - Specification for Ready-Mixed Concrete.
      h. C138 – Test Method for Density (Unit Weight), Yield and Air Content (Gravimetric) of Concrete.
      i. C143 – Test Method for Slump of Hydraulic-Cement Concrete.
      j. C150 - Specification for Portland Cement.
      k. C172 - Practice for Sampling Freshly Mixed Concrete.
      l. C173 - Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method.
      m. C231 - Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.
      n. C260 - Specification for Air-Entraining Admixtures for Concrete.
      o. C309 - Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
      p. C494 - Specification for Chemical Admixtures for Concrete.
      q. C595 – Blended Hydraulic Cement.
   3. MDOT Publications:
      a. Standard Specifications for Construction.
      b. Standard Plans.

1.4 DESIGN AND PERFORMANCE REQUIREMENTS

A. Formwork: Perform the design and engineering of formwork, as well as its construction.

1.5 SUBMITTALS

A. Shop Drawings: For reinforcing steel.

B. Mix Designs: Submit for review prior to placing concrete.

1.6 QUALITY ASSURANCE

A. Concrete Material Testing:
   1. Owner will provide the services of an independent concrete testing laboratory.
   2. Point of sampling and method of sampling: In accordance with ASTM C172.
   3. Slump Tests:
      a. Perform slump tests in accordance with ASTM C143.
      b. Perform one slump test on the Site for each load of concrete.
   4. Perform 1 air-entraining test in accordance with ASTM C231 or C173 for each load of concrete.
   5. Test the concrete unit weight in accordance with ASTM C138.
   6. Concrete Cylinder Testing:
      a. In accordance with ASTM C31 and C39.
      b. Take concrete cylinder Samples for each load of concrete.
      c. Concrete cylinder Sample shall consist of a minimum of four 4x8 or 6x12 cylinders.
      d. Handle cylinders carefully.
      e. On Site Storage:
         1) 12 hours, minimum, 48 hours maximum.
         2) At a temperature range of 60 to 80 degrees F and in a moist environment.
         3) Shielded from direct sunlight and radiant heat.
         4) Construct heated or water bath enclosures, as applicable, if conditions require.
      f. Provide laboratory curing for duration of curing after on Site storage.
      g. Test 1 of the cylinders at 7 days and 2 cylinders at 28 days. Save 1 cylinder as a spare.
      h. Acceptance and evaluation of the concrete shall be based on ACI 301.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Formwork:
   1. Form grade plywood or metal panels; no torn edges or worn plywood.
   2. Form Release Agent: Non-staining, non-emulsifiable type.
   3. Form ties, spreaders, and accessories as required by the formwork design.
   4. Provide chamfered strips in exposed corners of concrete.

B. Reinforcement:
   1. Reinforcing Bars:
      a. ASTM A615.
      b. Yield Stress: F_y = 60,000 psi, Grade 60.
   2. Accessories resting on surfaces to be left exposed as finished surfaces shall have plastic coated legs.

C. Concrete Materials:
   1. Portland Cement: ASTM C150, Type I, or A595, Type 1L.
   2. Ground-Granulated Blast Furnace (GGBF) Slag: ASTM C989, Grade 100 or 120.
   3. Fine and Coarse Aggregates:
      a. Inert, non-chemically reactive, and non-radioactive.
      b. Conforming with ASTM C33.
   4. Water: Clean, fresh, and potable.
   5. Air-Entrainment:
      a. ASTM C260.
      b. For all concrete mixes except interior floor slabs and pads.
   6. Water Reducing Agents: ASTM C494.
   7. No calcium chloride allowed in materials used in concrete mix.
   8. Membrane Curing Compounds: ASTM C309.

D. Waterproof Bead:
   1. Waterstop RX by CETCO; or equal.
   2. 3/4-inch x 3/8-inch.

2.2 CONCRETE MIXES

A. Proportioning:
1. Proportions of materials for concrete shall be in accordance with ACI 211.1.
2. Mix Design:
a. Minimum Design Compressive Strength: 4,000 psi.
b. Minimum Cementitious Content: 5.5 sacks.
c. Replacement of Cement by Slag: Permitted, up to 35% combined.
d. Water-Cementitious Ratio: 0.52 maximum.
e. Slump Limits: 4 inches ± 1-inch before addition of water reducer, if any.
f. Entrained Air Content: 6% ± 1%.

2.3 SOURCE QUALITY CONTROL

A. Production and Delivery:
1. Batch, mix and transport ready mixed concrete in accordance with ASTM C94.
2. Furnish ready-mix delivery tickets with each batch of concrete before unloading at the Site, on which is printed, stamped or written the following information:
a. Name of ready-mix batch plant.
b. Serial number of ticket.
c. Date and truck number.
d. Name of Contractor.
e. Project name and location.
f. Specific class of designation of concrete.
g. Amount of concrete (cubic yards).
h. Time loaded or of first mixing of cement and aggregates.
i. Type, name and amount of admixture.
3. Minor amounts of concrete may be mixed on Site with prior review by Engineer.

PART 3 - EXECUTION

3.1 ERECTION AND PLACEMENT

A. Forms:
1. Provide required forms, shores, bracing, breast timbers, form ties and accessories in sufficient quantities so as not to delay the work.
2. Coordinate work with other trades for the installation of embedded items and form penetrations.
3. Form Removal: No earlier than 3 days.

B. Reinforcement: Free from rust scale, loose mill scale, oil, paint, and other coatings which will destroy or reduce bond between steel and concrete at the time concrete is placed around it.

C. Concrete:
1. Handle concrete from mixer to place of final deposit in carts, buggies or conveyors.
2. Compact concrete by mechanical vibration equipment, but do not transport concrete through forms by vibrating.
3. Concrete Finish:
a. Formed Surfaces: As cast, smooth formed finish.
b. Unformed Exposed Surfaces:
1) Interior: Smooth troweled finish unless specified otherwise.
2) Exterior: Light broomed finish unless specified otherwise.
4. As soon as possible after finishing or removing forms, treat surfaces with a liquid membrane-forming curing compound unless specified otherwise.
5. Protect freshly placed concrete from damage due to extreme temperatures in accordance with ACI 305R and ACI 306R.

END OF SECTION 03 30 03

SECTION 07 42 13 - METAL WALL PANELS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Manufactured metal panels for exterior wall panels, interior liner panels, and subgirt framing assembly, with insulation, related flashings, and accessory components.

1.2 SUBMITTALS

A. Product Data - Wall System: Manufacturer's data sheets on each product to be used, including:
   1. Physical characteristics of components shown on shop drawings.
   2. Storage and handling requirements and recommendations.
   3. Installation instructions and recommendations.

B. Shop Drawings: Indicate dimensions, layout, joints, construction details, and methods of anchorage.

C. Delegated-Design Submittal: Provide certification from the delegated design engineer licensed in the State in which the project is constructed, that the performance criteria indicated on the drawings has been met in the design of the metal wall panel system, supporting girts and sub-girts.

D. Manufacturer's qualification statement.

1.3 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.

B. Installer Qualifications: Company specializing in installing products of the type specified in this section with minimum three years of documented experience and approved by manufacturer.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Protect panels from accelerated weathering by removing or venting sheet plastic shipping wrap.

B. Store prefinished material off the ground and protected from weather; prevent twisting, bending, or abrasion; provide ventilation; slope metal sheets to ensure proper drainage.

C. Prevent contact with materials that may cause discoloration or staining of products.

1.5 WARRANTY

A. Correct defective work within a twenty year period after Date of Substantial Completion for degradation of panel finish, including color fading caused by exposure to weather.

B. Special Warranty: Provide 2-year warranty covering water tightness and integrity of seals of metal wall panels. Complete forms in Owner's name and register with warrantor.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Metal Wall Panels - Exposed Fasteners: Subject to compliance with requirements, equivalent products of the following manufacturers may be provided.
   1. ATAS International, Inc: www.atas.com/#sle.
   2. Englert, Inc: www.englertinc.com/#sle.
   3. Fabral: www.fabral.com/#sle.
   4. McElroy Metal: www.mcelroymetal.com/#sle.
   5. Morin Corporation: www.morincorp.com/#sle.
   6. Petersen Aluminum Corporation: www.pac-clad.com/#sle.

B. Metal Wall Panels - Concealed Fasteners: Subject to compliance with requirements, equivalent products of the following manufacturers may be provided.
   1. ATAS International, Inc: www.atas.com/#sle.
   2. Centria: www.centria.com/#sle.
   3. Englert, Inc: www.englertinc.com/#sle.
   4. Fabral: www.fabral.com/#sle.
   5. McElroy Metal: www.mcelroymetal.com/#sle.
   6. Morin Corporation: www.morincorp.com/#sle.
   7. Petersen Aluminum Corporation: www.pac-clad.com/#sle.

2.2 METAL WALL PANEL SYSTEM

A. Exterior Wall Panels:
   1. Profile: Horizontal; style as indicated.
   2. Side Seams: Double-interlocked, tight-fitting, sealed with continuous gaskets.
   3. Material: Precoated steel sheet, 20 gage, 0.0359 inch minimum thickness.
   4. Material: Precoated aluminum sheet, 20 gauge, 0.032 inch minimum thickness.
   5. Panel Width: 12 inches.
   6. Color: As selected by Architect from manufacturer's full line.

B. Interior Liner Panels:
   1. Profile: Vertical; style as indicated.
   2. Side Seams: Interlocking, sealed with continuous gaskets.
   3. Material: Precoated steel sheet, 20 gage 0.0359 inch minimum thickness.
   4. Material: Precoated aluminum sheet, 18 gauge, 0.0403 inch minimum thickness.
   5. Panel Width: 12 inch.
   6. Color: As selected by Architect from manufacturer's standard line.

C. Subgirt Framing Assembly: Manufacturer's standard components as required for wind loads based on ASCE 7-16, ± 23 psf.

D. Expansion Joints: Same material, thickness and finish as exterior sheets; thick; manufacturer's standard brake formed type, of profile to suit system.

E. Trim, Closure Pieces, Caps, Flashings, Facias, and Infills: Same material, thickness and finish as exterior sheets; brake formed to required profiles.

F. Anchors: Stainless steel.

2.3 MATERIALS

A. Precoated Steel Sheet: Aluminum-zinc alloy-coated steel sheet, ASTM A792/A792M, Commercial Steel (CS)) or Forming Steel (FS), with AZ50/AZM150 coating; continuous-coil-coated on exposed surfaces with specified finish coating and on panel back with specified panel back coating.

B. Precoated Aluminum Sheet: ASTM B209/B209M, 3105 alloy, O temper, with smooth surface texture; continuous-coil-coated on exposed surfaces with specified finish coating and on panel back with specified panel back coating.

C. Select materials with surface flatness, smoothness, and lack of surface blemishes where exposed to view in finished system.

D. Insulation: Rigid. Match existing.
1. Thickness: 2 inch.

2.4 FINISHES

A. Exposed Surface Finish: Panel manufacturer's standard polyvinylidene fluoride (PVDF) coating, top coat over epoxy primer.

B. Panel Backside Finish: Panel manufacturer's standard acrylic, polyester, or siliconized polyester wash coat.

C. Interior Application, Panel Finish: Panel manufacturer's standard polyvinylidene fluoride (PVDF) coating, top coat over recommended primer.

2.5 ACCESSORIES

A. Gaskets: Manufacturer's standard type suitable for use with system, permanently resilient; ultraviolet and ozone resistant.

B. Concealed Sealants: Non-curing butyl sealant or tape sealant, see Section 07 92 00

C. Field Touch-up Paint: As recommended by panel manufacturer.

D. Bituminous Paint: Asphalt base.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that building framing members are ready to receive panels.

3.2 PREPARATION

A. Install subgirts perpendicular to panel length, securely fastened to substrates and shimmed and leveled to uniform plane. Space at intervals indicated, or if not indicated, at spacing required to meet performance requirements.

3.3 INSTALLATION

A. Install panels on walls in accordance with manufacturer's instructions.

B. Protect surfaces in contact with cementitious materials and dissimilar metals with bituminous paint; allow to dry prior to wall panel installation.

C. Fasten panels to structural supports; aligned, level, and plumb.

D. Locate joints over supports.

E. Lap panel ends 2 inches, minimum.

F. Provide expansion and control joints where indicated.

G. Use concealed fasteners unless otherwise indicated by Architect.

H. Seal and place gaskets to prevent weather penetration. Maintain neat appearance.

3.4 TOLERANCES

A. Offset From True Alignment Between Adjacent Members Abutting or In Line: 1/16 inch, maximum.

B. Maximum Variation from Plane or Location Indicated on Drawings: 1/8 inch.

3.5 CLEANING

A. Remove site cuttings from finish surfaces.

B. Remove protective material from wall panel surfaces.

C. Clean and wash prefinished surfaces with mild soap and water; rinse with clean water.

D. Upon completion of installation, thoroughly clean prefinished aluminum surfaces in accordance with AAMA 609 & 610.

3.6 PROTECTION

A. Protect metal wall panels until completion of project.

B. Touch-up, repair, or replace damaged wall panels or accessories before Date of Substantial Completion.

END OF SECTION

SECTION 09 91 00 – PAINTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the furnishing and application of coating products, such as paints, stains and sealers, and labeling products.
   1. Surfaces to be painted or finished include, but are not necessarily limited to, the following interior and exterior surfaces for items furnished or installed under this Work, except as otherwise indicated on the Drawings or herein specified, and existing surfaces specifically identified herein or on the Drawings:
      a. Concrete floors.
      b. All other surfaces not specifically excluded in the following paragraph. A completely finished project is required, regardless of whether every individual item is specified herein or indicated on the Drawings to be painted.
   2. Surfaces not to be painted or finished include the following unless otherwise indicated on the Drawings:
      a. Immersed cast-in-place and precast concrete.
      b. Interior, below grade walls and ceilings.
      c. Glass.
      d. Manufacturer's name and identification plates.
      e. Concealed ducts, pipes and conduits.
      f. Galvanized, aluminum and fiberglass grating.
      g. Prefinished electrical and control panels with factory applied final finish.
      h. Aluminum (unless specifically indicated to be painted).
      i. Door and window hardware.
      j. Stainless steel (unless specifically indicated to be painted).
      k. Prefinished wall, ceiling and floor coverings.
      l. Items with factory applied final finish, such as cabinets, anodized door and window frames, and the like, but excluding machinery and equipment.
      m. Brick.
      n. Structural glazed facing tile.
      o. Items indicated on the Drawings as not to be painted.
      p. PVC insulation jackets for pipe.

1.3 REFERENCES

A. Except as herein specified or as indicated on Drawings, the work of this Section shall comply with the pertinent provisions of the following:
   1. ASME/ANSI: A13.1 - Scheme for the Identification of Piping Systems.
   2. ASTM:
      a. A780 - Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings.
      b. D16 - Terminology for Paint, Related Coatings, Materials, and Applications.
      c. D520 - Zinc Dust Pigment.
      d. D523 - Test Method for Specular Gloss.
      e. D7234 - Test Method for Pull-Off Adhesion Strength of Coatings on Concrete Using Portable Pull-Off Adhesion Testers.
      f. F1869 - Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor using Anhydrous Calcium Chloride.
   3. Great Lakes Upper Mississippi River Board of State Public Health & Environmental Managers:
      a. Ten States Standards 2.14 - Recommended Standards for Water Works.
      b. Ten States Standards 54.5 - Recommended Standards for Wastewater Facilities.
      c. International Concrete Repair Institute: Guideline No. 310.2R - Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, Polymer Overlays, and Concrete Repair.
   4. Michigan Administrative Code: R 325.51992 Part 603 - Lead Exposure in Construction.

5. National Association of Pipe Fabricators (NAPF):
   a. NAPF 500-03-01 - Solvent Cleaning for Ductile Iron.
   b. NAPF 500-03-02 - Hand Tool Cleaning for Ductile Iron.
   c. NAPF 500-03-03 - Power Tool Cleaning for Ductile Iron.
   d. NAPF 500-03-04 - Abrasive Blast Cleaning for Ductile Iron Pipe.
   e. NAPF 500-03-05 - Abrasive Blast Cleaning for Cast Ductile Iron Fittings.
6. NSF/ANSI/CAN Standards:
   a. 61 – Drinking Water System Components – Health Effects.
   b. 600 – Health Effects Evaluation and Criteria for Chemicals in Drinking Water.
7. Steel Structures Painting Council (SSPC):
   a. AB-1 - Mineral and Slag Abrasives.
   b. PA-1 - Shop, Field, and Maintenance Painting of Steel.
   c. PA-2 - Procedure for Determining Conformance to Dry Coating Thickness Requirements.
   d. PA-3 - A Guide to Safety in Paint Application.
   e. SP-1 - Solvent Cleaning.
   f. SP-2 - Hand Tool Cleaning (SSI-St2).
   g. SP-3 - Power Tool Cleaning (SSI-St3).
   h. SP-5 - White Metal Blasting (SSI-Sa3) (NACE #1).
   i. SP-6 - Commercial Blast Cleaning (SSI-Sa2) (NACE #3).
   j. SP-7 - Brush-off Blast (SSI-Sa1) (NACE #4).
   k. SP-8 - Pickling.
   l. SP-10 - Near-White Blast Cleaning (SSI-Sa2-1/2) (NACE #2).
   m. SP-11 - Power Tool Cleaning to Bare Metal.
   n. SP-16 - Brush-Off Blast Cleaning of Coated and Uncoated Galvanized Steel, Stainless Steels, and Non-Ferrous Metals.
   o. VIS-1 - Visual Standard for Abrasive Blast Cleaned Steel.
8. United States Department of Labor, Occupational Safety and Health Administration (OSHA): 29 CFR 1926.62.

1.4 DEFINITIONS

A. Terms:
   1. Coating: Paint, stain, sealer or other product specified.
   2. Environment:
      a. Severe: Highly corrosive industrial atmospheres with sustained exposure to high humidity and condensation, frequent cleaning using strong chemicals, heavy concentrations of strong chemical fumes, and frequent splashing and spilling of harsh chemical products.
      b. Moderate: Corrosive industrial atmospheres with intermittent exposure to high humidity and condensation, occasional mold and mildew development, regular cleaning with strong chemicals, and occasional splashing and spilling of chemical products.
      c. Mild: Industrial atmospheres with normal exposure to moderate humidity and condensation, occasional mold and mildew development, infrequent cleaning with strong chemicals, low levels of mild chemical fumes, occasional splashing and spilling of chemical products, and normal outdoor weathering.
   3. Exposure:
      a. Environmental conditions to which different surfaces may be exposed as follows:
         1) Concealed: Surfaces within the confines of a building or other enclosure not constantly exposed to weather, trapped moisture, high heat or other deteriorating conditions, and normally concealed from view.
         2) Immersed:
            a) Surfaces below a liquid surface or exposed to spray.
            b) Surfaces exposed to spray include areas to 8 inches above maximum liquid surface in quiescent structures and to 18 inches above maximum liquid surface in mixed or agitated structures.
            c) Immersed surfaces also include the interior surfaces of the floors, walls, and tops of fully or partially enclosed liquid containing structures, regardless of the liquid level.
         3) Interior: Surfaces within the confines of a building or other enclosure not immersed or constantly exposed to weather, trapped moisture, high heat or other deteriorating conditions, and exposed to view.

4) Exterior:
a) Above Grade: Surfaces above finished grade and not included in 1), 2), or 3) above.
b) Below Grade: Surfaces below finished grade and not included in 1), 2), or 3) above.

4. Gloss Range (as determined by ASTM D523):
a. High Gloss: A high sheen finish of more than 70 when measured at a 60 degree meter.
b. Semi Gloss: A medium sheen finish of 35 - 70 when measured at a 60 degree meter.
c. Satin: A low-to-medium sheen finish of 15 - 35 when measured at a 60 degree meter.
d. Eggshell: A low sheen finish of 20 - 35 when measured at a 60 degree meter.
e. Flat: A lusterless or matte finish of less than 5 when measured at an 60 degree meter.

1.5 SUBMITTALS

A. Manufacturer's Literature: Specification data sheets and color charts for materials proposed for use on the Work. Provide Safety Data Sheets (SDS) as requested by Engineer.

B. Schedules:
1. Submit a finish schedule indicating rooms and other structures and systems to be coated, items or areas to be coated, the proposed coating system, including surface preparation, primer, intermediate/finish coats, application methods and color charts.
2. Schedule shall be submitted as a complete package.
3. No coatings may be applied until Engineer has made a complete review of the entire submittal.

C. Manufacturer's Certificates: Submit signed affidavit from coatings Manufacturer that submitted coatings are of same or better quality than those specified, and Manufacturer’s approval of applicator.

D. NSF/ANSI/CAN Certifications: Coating systems in contact with potable water, including water that is a part of a treatment process that will ultimately become potable water, require NSF/ANSI/CAN 61 and 600 certifications Submit evidence of current product certifications with the requirements of these standards. Certification from Testing Laboratories must demonstrate acceptable credentials to allow them to certify product conformance with the NSF/ANSI/CAN 61 and 600 standards.

E. Applicator's Experience: Submit written verification of experience required herein.

F. Product and Maintenance Schedules:
1. At or before the completion of the Work, submit complete lists, in a finish schedule, of the actual products used. Include item covered, coating Manufacturer's name, type of coating and color.
2. Provide pipe coding schedules listing pipe name, coating Manufacturer's name, type of coating and color.
3. Provide maintenance manuals detailing the proper procedures and materials to be used for maintenance and repainting of the various coatings.

1.6 QUALITY ASSURANCE

A. General:
1. Acceptability of materials and performance shall be determined by Engineer.
2. Testing or certifications may be required to aid Engineer's determination.
a. Expense of testing and certifications when required and, unless noted otherwise in the Contract Documents, shall be borne by Contractor.
b. If destructive testing is required, Contractor shall repair damaged area. Expense of repair shall be borne by Contractor.
c. If initial testing results are unsatisfactory or yield failing results, additional testing will be required. Cost of additional testing shall be borne by Contractor.
3. Coating Reviews:
a. Request, in writing, a review of each coat by Engineer of first finished surface of each type for color, texture and workmanship.
b. First accepted surface of each type and color shall be visibly labeled by Engineer with removable label as Project standard for that type and color of item.
c. Labels shall remain in place until painting is finished and accepted.
d. For spray application, paint a surface of 100 square feet as a Project standard.

4. Work may be inspected as to proper surface preparation, pretreatment, priming, dry film thickness, curing, color, and workmanship.
5. Applicable standards, test methods, and inspection equipment includes, but is not necessarily limited to the following:
    a. SSPC-VIS-1 photographic blast cleaning standards (latest revision).
    b. Inspector's wet film and dry film thickness gages.
    c. Zorelco 369/PHD pin hole detector.
    d. Mark II Tooke Gage.

B. Coating Subcontractors:
1. Applicators shall have experience with the coating systems specified.
2. Experience shall be substantiated by previous project experience, certifications, seminar attendance, Manufacturer validation, or similar means.

C. Pre-Application Meeting:
1. Convene a pre-application meeting before the start of work and prior to ordering materials.
2. Require attendance of parties directly affecting work of this Section, including Engineer, applicator and coating Manufacturer’s technical representative.
3. Review the following as a minimum:
    a. Access and safety requirements.
    b. Heating, ventilation and humidity control measures to be utilized.
    c. How application information will be monitored and recorded, including responsible personnel, monitoring equipment, forms, and timely reporting of information recorded.
    d. Protection of surfaces not scheduled to be coated.
    e. Schedule of work.
    f. Surface preparation.
    g. Coating application.
    h. Daily log to be used.
    i. Repairs anticipated.
    j. Applicator’s field quality control.
    k. Cleaning procedures.
    l. Testing procedures.
    m. Protection of coating systems.
    n. Coordination with Owner’s activities.

D. Manufacturer’s Services:
1. Arrange for Manufacturer's technical representative to provide the services indicated below.
2. Site Visits by the Manufacturer's Technical Representative:
    a. The pre-application meeting.
    b. A visit to observe surface preparation and review application techniques of components of the system.
    c. A visit to review the completed installation.
3. Generally provide assurance and guidance for the entire coating system installation.
4. Written documentation required from the coating system Manufacturer:
    a. A letter of acknowledgement that the coating system materials are specified to be used in a location and for a purpose that meets with the approval of the coating system Manufacturer and the intent of the Contract Documents. The signed letter shall certify that the Manufacturer's technical representative:
        1) Is familiar with the Project, has attended meetings and is aware of the Project conditions and aware of associated products (i.e. filler resurfacers, primers, coatings and other products proposed for the Project).
        2) Agrees with the intended application of their products as specified.
        3) Agrees with the surface preparation specified, as completed.
        4) Agrees with the specifications. If necessary, submit revisions to specifications.
        5) Agrees that their products are compatible with associated products (i.e. concrete repair materials, existing coating systems, and other products proposed for the Project).
        6) Agrees with the type and quantity of testing to be performed, to ensure their product is adequately installed.
        7) Approval of surface preparation prior to proceeding with subsequent work.
        8) Approval of filler resurfacing, if applicable.

9) Approval of primer.
10) Approval of DFT tests.

E. Installation Subcontractor's Supervising Site Representative:
1. On Site during work being performed.
2. Knowledgeable of all aspects of the work.
3. Review each day's agenda with crew, and with Contractor's and Engineer's Site representatives.
4. If a portion of the work becomes unclear as to the most appropriate direction, work shall stop until a consensus is reached by all parties, including the Engineer's representative and the Manufacturer's technical representative, as required.

F. Applicator's Project Record:
1. Applicator shall maintain a record for each day work is performed, and shall include a record of application process information. At a minimum, applicator's record shall include:
a. Material Manufacturer's batch numbers.
b. Surfaces to which material is applied.
c. Time of application.
d. Ambient temperature.
e. Substrate temperature.
f. Substrate moisture.
g. Relative humidity.
h. Dew point temperature.
i. Use of heating, dehumidification and ventilation equipment.
j. Unusual or important conditions, features, or events that occur before, during or after work is performed that day. Such information shall be referred to on previous or subsequent daily reports, when appropriate.
2. Submit for Project record.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials in original sealed containers of the Manufacturer with labels legible and intact. Include the following on labels on each container:
1. Manufacturer's name.
2. Type of coating.
3. Manufacturer's stock number.
4. Manufacturer's batch identification.
5. Color name and number.
6. Instructions for mixing and reducing, where applicable.
7. Percent total solids by volume.
8. Identification of toxic substances and special instructions.
9. VOC content.

B. Storage:
1. Store materials in tightly covered containers at a minimum ambient temperature of 45 degrees F.
2. Store materials in a well ventilated area and in such a manner as to comply with safety requirements including applicable federal, state, and local rules and requirements.
3. Storage shall also be in accordance with instructions of the paint Manufacturer and requirements of insurance underwriters.
4. Maintain storage containers in a clean condition, free from foreign materials and residue:
a. Protect from freezing.
b. Keep storage area neat and orderly.
c. Remove oily rags and waste daily and dispose of legally.

C. Handle volatile products carefully and use caution so as not to puncture containers. Keep open flame away from areas while handling containers and be aware of material flash points.

1.8 PROJECT CONDITIONS

A. Environmental Requirements:
   1. Waterborne Paints:
      a. Apply only when temperature of surface to be painted and surrounding air are between 50 and 90 degrees F.
      b. Maintain temperature range throughout the minimum cure time recommended by the Manufacturer.
   2. Solvent-Thinned Paints:
      a. Apply only when temperature of surface to be painted and surrounding air are between 45 and 95 degrees F.
      b. Maintain temperature range throughout the minimum cure time recommended by the Manufacturer.
   3. Inclement Weather:
      a. Do not apply paint:
         1) In snow, rain, fog, or mist.
         2) When relative humidity exceeds 85%.
         3) When steel temperature is less than 5 degrees F above the dew point.
         4) To damp or wet surfaces.
      b. Painting may continue during inclement weather if surfaces and areas to be painted are enclosed and heated within temperature limits specified by the Manufacturer during application and drying periods. Refer to Article 1.7 for further restrictions.

B. Existing Painted Surfaces:
   1. When painting is specified over existing painted surfaces and existing coating types are not known, analyze samples of existing coatings using a laboratory approved by Engineer to determine generic type of coating present and the presence of lead.
   2. Submit written report from the lab to Engineer before coating is applied.
   3. Required modifications to painting schedule caused by existing paint shall not be justification for extra payment.
   4. Existing Coat Bonding Failure:
      a. Remove existing coating by abrasive blasting or other means, obtaining surface cleanliness and profile required for coating specified without damaging the substrate to the point of affecting its appearance.
      b. Paint as new surface.
      c. Unforeseen failure conditions may be justification for extra payment.

C. Epoxy Coatings:
   1. Do not expose epoxies during application and cure to sunlight and heaters that emit carbon dioxide and carbon monoxide.
   2. Use caution when applying and curing epoxy coatings to ensure that surrounding areas are not occupied and that adequate ventilation and fresh air are present.

D. Contractor shall demonstrate acceptability of environmental conditions as required by Engineer.

1.9 LEAD PAINT REMOVAL

A. Comply with applicable rules and regulations for lead based paint removal.

B. Personnel assigned to perform demolition activities in areas containing lead based paint shall be properly trained as outlined in 29 CFR 1926.62 (OSHA Lead Standard). In addition, task specific exposure monitoring shall be conducted to establish either a positive or negative initial determination.

C. Remove and remediate existing lead paint as required to comply with codes and regulations while performing the requirements of the Work. Either remove lead paint completely or partially as required to achieve this.

D. Notify Engineer when lead paint removal is complete.

E. Dispose of lead paint in a manner that complies with laws and regulations.

1.10 EXTRA MATERIALS

A. Leave with Owner at least 1 gallon of each type and color of paint used for finish coats and 1 gallon of each type of thinner required.

B. Containers shall be tightly sealed and clearly labeled.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturers:
   1. Coatings:
      a. Fix All.
      b. No Substitutions.
   2. Concrete Sealers:
      a. Euclid Chemical.
      b. Dayton Superior.
      c. L & M Construction Chemicals, Inc.
      d. Tnemec.
      e. Carboline.
      f. Sherwin Williams.
      g. Or equal.

B. Single Manufacturer:
   1. Materials selected for coating systems for each type of surface shall be the product of a single Manufacturer.
   2. Provide primers and undercoats produced by the same Manufacturer as the finish coats.

2.2 MATERIALS

A. Material Types:
   1. NSF/ANSI/CAN Standards Certification:
      a. Coating systems in contact with potable water, including water that is a part of a treatment process that will ultimately become potable water, require NSF/ANSI/CAN 61 and 600 certifications.
      b. Products represented by manufacturers to have NSF/ANSI/CAN 61 and 600 have been included in the painting schedule, where the intended use requires products to meet the requirements of those standards. However the listing of a product is not a representation by the Engineer that the product has the current certifications. Submittal of current certifications is a requirement.
      c. Proposed substitutions shall also carry NSF/ANSI/CAN certifications for specific applications.
      d. Verify that coating systems utilized carry NSF/ANSI/CAN certifications, where such certifications are required. Provide product currently certified at no extra cost to Owner.
   2. Paint, primer and related materials are included in the painting schedule in this Section.
   3. Paint used for repair of galvanizing shall have minimum 95% zinc dust in accordance with ASTM D520.

B. Colors: Colors of finish coats shall be as selected by Engineer.

C. Blast Abrasives:
   1. Level of ionic contaminants shall be in accordance with SSPC-AB 1.
   2. Products and Manufacturers:
      a. Magnum Blast by Dust Net, Wedron, Illinois.
      b. Black Magnum by Dust Net, Wedron, Illinois.
      c. Black Beauty by Reed Minerals, Highland, Indiana.

D. VOC Compliance:
1. Individual coatings and coating systems shall have VOC levels at or below the EPA recommendations identified in 40 CFR Part 59.
2. VOC content shall be tested in accordance with EPA Method 24.

2.3 MIXES

A. Mixing:
1. Deliver paints to the Site ready-mixed, when possible.
2. Mix two-component paints at the Site and observe pot life as recommended by Manufacturer.
3. Proceed with mixing until paint becomes smooth, homogeneous, and free of surface swirls or pigment lumps.
4. When mixing multi-component paints, remix each component individually, then blend the components, as recommended by the Manufacturer, until the mixture is completely uniform in color.

B. Thinning:
1. No thinning will be permitted unless absolutely necessary.
2. Paint shall be spray-applied in as-received condition to demonstrate necessity for thinning.
3. Use only thinners as recommended by paint Manufacturer for specific use.
4. Amount of thinner used shall be reported to Engineer.
5. Measure viscosity to ensure proper thinning ratios have been used.

C. Tinting:
1. Onsite tinting will be permitted only when accepted in writing by Engineer.
2. Use only tinting colors recommended by the Manufacturer for the specific type of coating.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Inspection:
1. Prior to the commencement of surface preparation or other coating activities, thoroughly inspect the surfaces to determine if the Work is ready to be prepared and painted.
2. Report in writing to Engineer conditions that may potentially affect proper application.
3. Do not commence surface preparation or other coating activities until such defects have been corrected.

B. Correction of Defects:
1. Correct defects and deficiencies in surfaces which may adversely affect work of this Section.
2. Apply filler resurfacers, patching materials and the like that are required to provide the surface recommended by the coating Manufacturer.
3. Start of painting will be construed as the applicator’s acceptance of surfaces and conditions within a particular area.

3.2 TEMPORARY HEATING, VENTILATION AND HUMIDITY CONTROL REQUIREMENTS

A. General:
1. Ventilation is mandatory.
2. Provide ventilation that exhausts fumes and odors to the exterior at a location where existing HVAC systems will not pick up these fumes and odors.
3. Provide negative air pressure to those spaces receiving coatings without reducing air temperatures in those spaces which may impede the curing process of those coating systems.
4. Ventilation is required during surface preparation, application of coating systems, and the curing period for those systems.
5. Provide additional equipment and fuel as required to condition the space for surface preparation, application of products, and curing of those products, in accordance with Manufacturer’s requirements. This equipment may include, but is not limited to, heaters, dehumidifiers and fans for intake and exhaust air.

B. Enclosures:
1. Provide temporary enclosures as required to isolate dust, fumes and odors from areas in use, to control temperature and humidity, and to protect surface to be coated from the weather.
2. The enclosure shall be of such quality as to maintain optimal conditions for the work of this Section.
3. The enclosure shall remain until the work is sufficiently cured.

3.3 PREPARATION

A. General:
1. Prepare surfaces in accordance with this Article, the paint Manufacturer's recommendations and as specified in the painting schedule of this Section.
2. Cleanliness of Abrasive Blast-Cleaned Steel:
a. Determined by Engineer using Steel Structures Painting Council Manual SSPC-VIS-1.
b. Small steel panels which have been abrasive blast-cleaned and approved for a specific cleanliness may be used for comparative purposes to facilitate inspection and approval.
c. Securely wrap these panels in clear plastic, seal to protect them from deterioration and mark with appropriate SSPC-SP6 cleaning specification.
3. Cleanliness of Compressed Airs:
a. Do not use contaminated air for blast cleaning.
b. Periodically check compressed air used for blasting to verify that it is clean, dry and oil-free by directing its flow toward a sheet of clean white paper.
4. Place oil and water separators in the air line as close as possible to blast-cleaning equipment. Make measurements of surface profile of abrasive blast-cleaned steel with a Keane-Tator Surface Profile Comparator or Testex Press-O-Film and Micrometer.
5. Abrasive Media:
a. Select abrasive media to provide the type of profile required by the Manufacturer of the coating product.
b. Abrasive media shall contain less than 5% free silica sand.
6. Protective Covers:
a. Protect motors, bearings, chain drives, and other moving parts by wrapping with plastic and sealing with tape.
b. Maintain protective covers in dust tight condition.
7. Correct steel and fabrication defects revealed by surface preparation, such as weld imperfections, delamination, scabs, and slivers, by appropriate trade before proceeding further with surface preparation.
8. Clean Up of Blast Cleaned Areas:
a. Remove dust and blast products from the abrasive blast-cleaned surfaces by high pressure air or vacuum cleaning.
b. Completely clean up residue from blasting operations within the entire space to be painted prior to applying coatings.
9. Inspect surfaces after surface preparation is complete and prior to application of coatings.
10. Remove hardware, accessories, plates, machined surfaces, lighting fixtures, and similar items in place that are not to be painted, or provide surface applied protection prior to surface preparation and painting, and then replace items after paint has dried.
11. When acid etching is the approved means of preparing surfaces for coating systems, protect the surrounding areas. Neutralize dispensed solutions and dispose of properly.

B. Moisture Testing of Concrete and Masonry Surfaces:
1. Securely tape a 12-inch x 12-inch piece of heavy gage plastic film to the surface in various locations.
2. Carefully seal the film with tape to prevent the escape of moisture and keep in place for a minimum of 16 hours.
3. If, after this period of time, moisture is present between the plastic and the surface, additional time for the material to dry will be required. Also, it may be appropriate to execute other means of testing for moisture.
4. Other Means of Testing for Moisture:
a. ASTM F1869.
b. Qualifying moisture meters capable of reading 2 to 100% moisture content on a surface.

C. Concrete:
1. Do not coat new concrete for at least 28 days.
2. Test concrete for moisture content as specified herein.
3. Remove oil and grease with a solution of tri-sodium phosphate prior to the commencement of coating or blasting activities.
4. Abrasive brush blasting shall create a CSP3 surface profile as defined by the International Concrete Repair Institute.
5. Provide additional surface preparation as may be required by the coating Manufacturer prior to application of coating systems.
6. Concrete shall be clean and dry before coating.
7. Prior to painting or sealing concrete floors, seal cracks and joints in floors with a sealant rated for traffic surfaces and compatible with the floor coatings specified.
   a. Prepare cracks by routing or other means, as recommended by sealant Manufacturer.

D. Tanks and Equipment: Open doors, hatches, and covers, and remove removable appurtenances and prepare surfaces separately in accordance with this Section.

3.4 APPLICATION

A. General:
1. Take necessary safety precautions in accordance with this Article, SSPC-PA Guide 3, Manufacturer's recommendations, federal, state, and local rules and requirements, and insurance underwriter’s guidelines.
2. Apply coatings in accordance with this Article, SSPC-PA1, and the Manufacturer's recommendations.
3. Moisture Content:
   a. Do not apply initial coating until moisture content of surface is within limitations recommended by paint Manufacturer.
   b. Determine moisture content by one of the following methods:
      1) As specified herein.
      2) By use of a moisture meter approved by Engineer.
4. Mil Thickness:
   a. Apply coats in a uniform manner and of the minimum dry film thickness as indicated in the painting schedule.
   b. Maximum mil thickness shall be as recommended by coating Manufacturer.
   c. Where the mil thickness is not indicated in the painting schedule, it shall be as recommended by coating Manufacturer.
5. Sand and dust between each coat to remove defects visible from a distance of 5 feet.
6. Additional Coats:
   a. Apply within recoat recommendation of the Manufacturer based on temperature and humidity variations.
   b. Schedule inspections so as to not interfere with recoat time.
7. Each coat shall be smooth, free of brush marks, streaks, laps or pile-up of paint, and skipped or missed areas.
8. Make edges of paint adjoining other materials or colors clean and sharp with no overlapping.
9. Spray apply coatings on hollow metal units.
10. Finish door tops, edges, and bottoms the same as exposed surfaces.
11. Except for contact surfaces, surfaces of fabricated assemblies that are inaccessible after erection shall receive field coats of paint before erection.
12. Ensure that concrete cracks and defects have been repaired prior to applying coating, then fill remaining depressions and crevices with paint if practical.
13. Protect wet paint against damage from dust or other detrimental foreign matter as much as is practicable.
14. Remove grills, covers, and access panels of mechanical and electrical systems and tanks from location and paint separately.
15. Paint the interior surface of ducts flat black in the immediate area of supply and exhaust grilles.
16. Omit application of masonry filler on acoustical masonry.
17. Coat concrete and masonry walls prior to mounting equipment.
18. Where equipment, piping, conduit or the like are removed from an existing painted surface, patch and paint the newly exposed surface as required so the newly exposed surface matches surrounding surfaces in coating and appearance.

19. Where epoxy coatings are scheduled over existing paint:
    a. Test existing paint and substrate for lifting or alligatoring.
    b. If existing paint lifts or alligators, remove it down to bare substrate.
20. Where a portion of a surface is to be coated, carry the coating to the nearest break point in the surface plane beyond the portion specified.

B. Valves, Fittings, and Supports:
1. Paint valves and fittings the same base color as the pipe they adjoin.
2. Paint floor stands the same base color as the pipe they adjoin.
3. Wall Brackets and Pipe Hangers:
    a. Paint the same base color as the wall or ceiling they adjoin.
    b. Use gray color if wall or ceiling is not painted.

3.5 PIPE AND EQUIPMENT IDENTIFICATION

A. General:
1. Identify non-buried piping installed as part of the Work in accordance with ASME/ANSI A13.1, this Section, as required in the pipe identification schedule, and as indicated on the Drawings.
2. Painting or banding of concealed piping above suspended ceilings is not required, but labels as specified following are required.
3. Identify pumps, tanks, and equipment.

B. Color Bands:
1. Where color bands are indicated for piping identification, use colored vinyl tape spaced every 6 feet, before and after each valve and where pipe enters and leaves each wall.
2. Band Widths:
    a. Pipe up to and including 2-inch diameter: 3/4-inch wide.
    b. Pipe 2-1/2-inch to 6-inch diameter: 2 inches wide.
    c. Pipe 8-inch to 12-inch diameter: 4 inches wide.
    d. Pipe 14-inch diameter and over: 6 inches wide.

C. Labels and Arrows:
1. Label pipes at intervals not to exceed 20 feet and where pipe enters and leaves each wall, to identify the contents of the pipe as determined by Engineer.
2. Place an arrow adjacent to every pipe label to indicate direction(s) of flow.
3. Use preprinted labels and arrows manufactured by a company which normally manufactures pipe identification systems.
4. Supply pipe labels, arrows, and color bands by a single Manufacturer.
5. Labels and Arrow Heights:
    a. Pipe or Covering Over 3-inch Diameter: 2-1/4 inches.
    b. Pipe or Covering 1-inch to 3-inch Diameter: 1-1/8 inches.
    c. Pipe or Covering Under 1-inch Diameter: 1/2-inch.
6. Materials shall be suitable for the use intended.
7. Label pumps, tanks, and equipment items, including description and tag number, with lettering size coordinated with Engineer depending on equipment size.

3.6 TANK IDENTIFICATION

A. General:
1. Provide tank contents identification with painted labels using stencils.
2. Letters and Numbers: 4 inches high.
3. Colors: Match pipe identification schedule.

3.7 PHYSICAL HAZARDS IDENTIFICATION

A. General:
   1. Identify physical hazards of the facilities constructed and installed under this Work.
   2. Identify physical hazards in accordance with the requirements and standards of OSHA, and other governing state and local laws, ordinances, and codes.
   3. In the event of discrepancy between regulations and standards, the more strict requirements shall govern.

3.8 FIELD QUALITY CONTROL

A. Inspection:
   1. To facilitate painting and inspection, each coat of paint shall be of a different color or tint.
   2. Finished metal surfaces shall be free of skips, voids or pinholes in each coat when tested with a low voltage detector.
   3. Do not apply additional coats until previous coat has been inspected and acknowledged in writing by Engineer.
   4. Only coats of paint acknowledged in writing will be considered in determining number of coats applied.

B. Final Touch-Up:
   1. Surface damage shall be repaired with touch-up paint matching material used for original coating.
   2. Repaired areas shall be rubbed out and polished to match surrounding finish.
   3. Finish repair shall be of the quality typically found within the auto body industry.

3.9 CLEANING

A. Remove spilled, splashed, or spattered paint from surfaces.

B. Do not mar surface finish of item being cleaned.

C. Prior to acceptance of the work of this Section, thoroughly clean painted surfaces and related areas in accordance with Division 01 Section “Cleaning and Waste Management.”

3.10 PROTECTION

A. General:
   1. Adequately protect other surfaces from paint and damage.
   2. Repair damage as a result of inadequate or unsuitable protection.

B. Protective Materials: Furnish sufficient drop cloths, shields, and protective equipment to prevent spray or droppings from fouling surfaces not being painted and in particular, surfaces within storage and preparation area.

C. Fire Hazards: Place cotton waste, cloths, and materials which may constitute a fire hazard in closed metal containers and remove daily from Site.

D. Electrical Plates and Hardware:
   1. Remove electrical plates, surface hardware, fittings and fastenings prior to painting operations.
   2. These items are to be carefully stored, cleaned and replaced upon completion of work in each area.
   3. Do not use solvent to clean hardware that may remove permanent lacquer finish.

E. Equipment with Factory-Applied Final Finishes:
   1. Certain equipment with factory-applied finishes may be accepted by Engineer at Engineer‘s discretion.
   2. Protect finishes of equipment with approved factory-applied final finishes from scratches and abrasions by all practical means.
   3. Repair surface damage with touch-up paint furnished by equipment Manufacturer by workmen skilled in this type of work.
   4. Rub out and polish repaired areas to match surrounding finish.

5. Finish repair shall be of the quality typically found within the auto body industry.
6. If damage to item is severe in the judgment of Engineer, the equipment will be rejected or a new finish coat shall be applied after proper surface preparation at the discretion of Engineer, at no additional cost to Owner.

3.11 PAINTING SCHEDULE

A. See finish schedule on Drawings for further information.

B. All mil thicknesses indicated are dry film thicknesses (DFT).

1. Cast-In-Place Concrete Floors – Gloss Polyamidoamine Epoxy System:

System Manufacturer	Surface Preparation	First Coat	Second Coat
Fix All	(Field): SSPC-SP13/ICRI-CSP3	(Field): Per Manufacturers Recommendation 6.0-12.0 Mils	(Field): Per Manufacturers Recommendation 6.0-12.0 Mils

END OF SECTION 09 91 00

SECTION 09 96 35 – CHEMICAL-RESISTANT COATINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the furnishing and installation of chemical resistant coatings.
   1. Areas To Be Coated:
      a. Sodium hypochlorite bulk tank room floor, concrete surfaces and interior containment walls.
   2. Surfaces Not To Be Coated: All equipment within containment area, stainless steel piping, and select piping identified in Drawings.

1.3 REFERENCES

A. Except as herein specified or as indicated on the Drawings, the work of this Section shall comply with the following:
   1. ASTM:
      a. B117 - Test Method of Salt Spray (Fog) Testing.
      b. D638 - Test Method for Tensile Properties of Plastics.
      c. D4060 - Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser.
      d. D4541 - Method for Pull-Off Strength of Coatings Using Portable Adhesion - Testers.
      e. D4585 - Practice for Testing the Water Resistance of Coatings Using Controlled Condensation.
      f. E96 - Test Methods for Water Vapor Transmission of Materials.
      g. G14 - Test Method for Impact Resistance of Pipeline Coatings (Falling Weight Test).
   2. Steel Structures Painting Council (SSPC):
      a. AB-1 - Mineral and Slag Abrasives.
      b. PA-1 - Shop, Field, and Maintenance Painting of Steel.
      c. PA-3 - A Guide to Safety in Paint Application.
      d. SP-1 - Solvent Cleaning.
      e. SP-2 - Hand Tool Cleaning (SSI-St2).
      f. SP-3 - Power Tool Cleaning (SSI-St3).
      g. SP-5 - White Metal Blasting (SSI-Sa3) (NACE #1).
      h. SP-6 - Commercial Blast Cleaning (SSI-Sa2) (NACE #3).
      i. SP-7 - Brush-off Blast (SSI-Sa1) (NACE #4).
      j. SP-8 - Pickling.
      k. SP-10 - Near-White Blast Cleaning (SSI-Sa2-1/2) (NACE #2).
      l. SP-11 - Power Tool Cleaning to Bare Metal.
      m. VIS-1 - Visual Standard for Abrasive Blast Cleaned Steel.
   3. International Concrete Repair Institute: Guideline No. 03732 - Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, and Polymer Overlays.

1.4 DEFINITIONS

A. Terms: Exposure:
   1. Environmental conditions to which different surfaces may be exposed as follows:
      a. Interior: Surfaces within the confines of a building or other enclosure not constantly exposed to weather, trapped moisture, high heat or other deteriorating conditions, and exposed to view.
      b. Concealed: Surfaces within the confines of a building or other enclosure not constantly exposed to weather, trapped moisture, high heat or other deteriorating conditions, and normally concealed from view.
      c. Immersed: Surfaces below a liquid surface or exposed to spray. Surfaces exposed to spray include areas to 8 inches above maximum liquid surface in quiescent tanks and to 18 inches above maximum liquid surface in mixed or agitated tanks. Also included as immersed surfaces are floors, walls and the bottom side of the roof of an enclosed tank.

2. Exterior:
   a. Above Grade: Surfaces above finished grade and not included in a, b, or c above.
   b. Below Grade: Surfaces below finished grade and not included in a, b, or c above.

1.5 SUBMITTALS

A. Manufacturer's Literature: Specification data sheets and color charts for materials proposed for use on the Work.

B. Manufacturer's Certificate: Signed affidavit from coatings Manufacturer that submitted coatings are of same or better quality than those specified and that the systems provided are appropriate in this application.

C. Product Maintenance Schedules: Maintenance manuals detailing the proper procedures and materials to be used for maintenance of the various coatings.

1.6 QUALITY ASSURANCE

A. General:
   1. Acceptability of materials and performance shall be determined by Engineer.
   2. Testing or certifications may be required to aid Engineer's determination.
   3. Expense of testing and certifications, when required and unless noted otherwise in the Contract Documents, shall be borne by Contractor.
   4. If destructive testing is required, Contractor shall repair damaged area. Expense of repair shall be borne by Contractor.
   5. Request, in writing, Engineer’s review of each coat of first finished surface of each coating type, for color, texture and workmanship. First accepted surface of each type and color shall be visibly labeled by Engineer with removable label as Project standard for that type and color of item. Labels shall remain in place until job is finished. For spray application, paint a surface of 100 square feet as Project standard.
   6. Work may be inspected as to proper surface preparation, pretreatment, priming, dry film thickness, curing, color and workmanship. Applicable standards, test methods and inspection equipment includes, but are not necessarily limited to the following:
      a. SSPC-VIS-1 photographic blast cleaning standards (latest revision).
      b. Inspector's wet film and dry film thickness gages.
      c. Zorelco 369/PHD pin hole detector.
      d. Mark II Tooke Gage.

B. Qualifications:
   1. Applicators shall have experience with the coating systems specified.
   2. Experience shall be substantiated by previous project experience, certifications, seminar attendance, Manufacturer validation, or similar means.

C. Manufacturer's Services:
   1. Submit Manufacturer's sworn statement that the materials furnished complies with this Specification.
   2. Provide Manufacturer's field service.
   3. Manufacturer shall review environmental Site conditions for surface preparation and coating application.
   4. Manufacturer shall inform coating Subcontractor, Contractor, and Engineer of measures to be taken to ensure high quality coating performance.

D. Testing of Coatings: In accordance with Division 01 Section “Special Inspections and Tests.”

E. Labeling: Include the following on a label on each container:
   1. Manufacturer's name.
   2. Type of coating.
   3. Manufacturer's stock number.
   4. Manufacturer's batch identification.
   5. Color.
   6. Instructions for mixing and reducing, where applicable.
   7. Percent total solids by volume.
   8. Identification of toxic substances and special instructions.

F. It shall be Contractor's responsibility to ensure the compatibility of coating materials proposed for this Contract. Contractor shall coordinate this work with other trades to ensure compliance with these Specifications.

G. Review Meeting: Prior to ordering any of the materials of this Section, Contractor, Engineer, coating Subcontractor, and coating Manufacturer's representative shall attend a progress meeting in accordance with Division 01 Section “Project Meetings,” and review the work to be performed under this Section.

1.7 DELIVERY, STORAGE AND HANDLING

A. Deliver materials in original, unbroken, brand marked containers.

B. Handle and store materials in a manner which will prevent deterioration or damage, contamination with foreign matter, damage by weather or elements, and in accordance with Manufacturer's directions.
1. Restrict storage area to coating materials and related equipment.
2. Store materials indoors, protected from damage, moisture, direct sunlight and temperatures below 70 degrees F and above 90 degrees F.

C. Reject damaged, deteriorated or contaminated material and immediately remove from the Site. Replace rejected materials with new materials at no additional cost to Owner.

1.8 PROJECT CONDITIONS

A. Environmental Requirements:
1. Comply with Manufacturer's recommendations regarding environmental conditions under which coatings may be applied.
2. Environmental conditions which affect coating application include, but are not necessarily limited to, ambient air temperature, surface temperature, humidity, dew point and environmental cleanliness.
3. Do not expose coatings during application and cure to sunlight and heaters that emit carbon dioxide and carbon monoxide.
4. Contractor shall demonstrate acceptability of environmental conditions as required by Engineer.

B. Existing Coated Surfaces:
1. When coatings are specified over existing coated surfaces and existing coating types are not known, Samples of existing coatings shall be analyzed by a laboratory approved by Engineer to determine generic type of coating present. A written report from the lab shall be submitted to Engineer before coatings are applied.
2. Alternate Method for Steel, Concrete or Masonry: Remove existing coating by abrasive blasting obtaining surface cleanliness and profile required for coating specified.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturers: Except otherwise specified, materials shall be the products of the following Manufacturers:
1. Tnemec Company, Inc.
2. Ceilcote Corrosion Control Products by Akzo Nobel.
3. Advanced Polymer Products, Inc.
4. Carboline, Inc.

B. Single Manufacturer: Materials selected for coating systems for each type of surface shall be the product of a single Manufacturer.

C. V.O.C. Compliance: Individual coatings and coating systems shall have V.O.C. levels below 2.90 pounds per gallon (350 gm/liter).

2.2 MATERIALS

A. Primer:
1. Tnemec Series 201 Epoxoprime Modified Polyamine Epoxy.
2. Ceilcote 380 by Akzo Nobel.
3. ChemLINE Primer by Advanced Polymer Products.
4. Semstone 800 by Carboline.
5. Thickness: 6 mils DFT.

B. First Coat:
1. Tnemec Series 270 Stranlok Fiber Reinforced Polyamine/Novolac Epoxy.
2. Flakeline 242 by Akzo Nobel.
3. ChemLINE 784/32 by Advanced Polymer Products.
4. Semstone 870 by Carboline.
5. Thickness: 15-20 mils DFT.

C. Top Coat:
1. Tnemec Series 120 Vinester.
2. Flakeline 242 by Akzo Nobel.
3. ChemLINE 784/32 by Advanced Polymer Products.
4. Semstone 870 by Carboline.
5. Thickness: 15-20 mils DFT.
6. Floor finish shall be rough or textured, or appropriate aggregate shall be added, to provide a slip resistant finish.

D. Coving and Resurfacing:
1. Tnemec Series 239 ChemTread Modified Novolac Polyamine Epoxy Mortar.
2. Ceilcote 165 Grout by Akzo Nobel.
3. ChemLINE Caulk by Advanced Polymer Products.
4. Semstone 870 Mortar by Carboline.

E. Thickness: 1/4-inch minimum DFT.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Inspection:
1. Prior to the commencement of surface preparation or other coating activities, thoroughly inspect the surfaces to determine if the Work is ready to be prepared and coated.
2. Report in writing to Engineer, conditions that may potentially affect proper application.
3. Do not commence surface preparation or other coating activities until such defects have been corrected.

B. Correction of Defects: Correct defects and deficiencies in surfaces which may adversely affect work of this Section.

3.2 SURFACE PREPARATION

A. General:
1. Prepare surfaces in accordance with this article and coating Manufacturer's recommendations.
2. Periodically check compressed air used for blasting to verify that it is clean, dry and oil-free by directing its flow toward a sheet of clean white paper. Place oil and water separators in the air line as close as possible to blast-cleaning equipment. Do not use contaminated air for blast cleaning.
3. Measure surface profile of abrasive blast-cleaned steel with a Keane-Tator Surface Profile Comparator or Testex Press-O-Film and Micrometer.
4. Select abrasive media to provide the type of profile required by the Manufacturer of the coating product. Abrasive media shall contain less than 5% free silica sand.

5. Protect motors, bearings, chain drives and other moving parts by wrapping with plastic and sealing with tape. Maintain protective covers in dust tight condition.
6. Remove dust and blast products from the abrasive blast-cleaned surfaces by high pressure air or vacuum cleaning. Completely clean up residue from blasting operations.

B. Masonry Walls:
1. Do not coat new masonry walls for at least 28 days.
2. Test masonry walls for moisture content by securely taping a 12-inch x 12-inch piece of heavy gage plastic film to the wall in various locations. Seal the film carefully with tape to prevent the escape of moisture. Film shall remain in place for a minimum of 16 hours. If, after this period of time, moisture is present between the plastic and the wall, additional time for the walls to dry will be required. A Delmhorst Moisture Detector Model BD-7 may also be used.
3. By scrubbing with a stiff brush, remove dirt, loose mortar, scale, powder and other foreign matter from masonry surfaces which are to be coated.
4. Remove oil and grease with a solution of tri-sodium phosphate, rinse well and allow to thoroughly dry.
5. Remove stains from masonry surface caused by weathering of corroding metals, with a solution of sodium metasilicate, after thoroughly wetting the surfaces with water and allowing them to thoroughly dry.

C. Concrete:
1. Do not coat new concrete for at least 28 days.
2. Test concrete for moisture content as specified in Article 3.2.B.2.
3. Remove oil and grease with a solution of tri-sodium phosphate prior to the commencement of coating or blasting activities.
4. Brush blast concrete to specification required for coating to be applied and to open up voids and cracks. Abrasive brush blasting shall have a minimum surface profile, as defined by the International Concrete Repair Institute, of CSP3.
5. Patch voids and cracks that will cause discontinuities in coating, using a patching compound compatible with the coating system.
6. Scrub concrete with stiff brush to remove loosely adhered patching compound.
7. Concrete shall be clean and dry before coating.

D. Immersed Ferrous Metals: Surface Preparation - Field:
1. Remove dirt, oil, grease and other foreign matter in accordance with SSPC-SP1.
2. Prepare field welds by grinding to remove sharp edges, undercuts, recesses, and pin holes.
3. Completely remove weld slag and spatter.
4. Abrasive blast clean surfaces to specification required for coating to be applied.
5. Perform abrasive blast cleaning only when the relative humidity is no higher than 75% and the surface temperature of the steel is at least 5 degrees F above the dew point.
6. Coat cleaned surfaces before visible rust forms on the surface.
7. Do not leave cleaned surfaces uncoated for more than 24 hours.
8. Apply coating as specified under this Section.

3.3 APPLICATION

A. General:
1. Take necessary safety precautions in accordance with this Article, SSPC-PA Guide 3, Manufacturer's recommendations, federal, state, and local rules and requirements, and insurance underwriters.
2. Apply coatings in accordance with this Article, SSPC-PA1, and the Manufacturer's recommendations.
3. Do not apply initial coating until moisture content of surface is within limitations recommended by coating Manufacturer. Moisture content shall be determined by one of the following methods:
   a. As specified in 3.2.B.2. of this Specification.
   b. By use of moisture meter approved by Engineer.
4. Mil Thickness:
   a. Coats shall be applied in a uniform manner.
   b. Maximum mil thickness shall be as recommended by coating Manufacturer.
   c. Where the mil thickness is omitted, it shall be as recommended by coating Manufacturer.
5. Following coats to be applied within recoat recommendation of the Manufacturer. Schedule inspection so as not to interfere with recoat time.
6. Coats shall be smooth, free of streaks, laps or pile-up of coats and skipped or missed areas.

7. Make edges of coating adjoining other materials or colors clean and sharp with no overlapping.
8. Fill cracks and crevices with coating Manufacturer's recommended fillers.
9. Install coving material at all inside corners of wall-to-wall, wall-to-floor and wall-to-ceiling intersections to provide rounded, non-sharp corners. Minimum radius shall be 1-inch, or as indicated on the Drawings.
10. Protect wet coatings against damage from dust or other detrimental foreign matter as much as is practical.

3.4 FIELD QUALITY CONTROL

A. Manufacturer’s Field Service: Arrange and pay for Manufacturer's engineer to provide the services indicated below for a minimum onsite time of 3 separate visits. Schedule the following:
   1. A visit to observe surface preparation and review application techniques.
   2. A visit to observe coating system application.
   3. A visit to review the completed installation prior to issuing Manufacturer's approval.

B. Manufacturer's Engineer: Check work.

C. Promptly make changes and additions required by Manufacturer's engineer.

D. Inspection: Do not apply additional coats until completed coat has been inspected and acknowledged in writing by Engineer.

E. Final Touch-Up: Surface damage shall be repaired with matching material used for original coating.

F. Submit Manufacturer's engineer's written approval of installation.

3.5 CLEANING

A. Remove spilled, splashed or spattered coating from surfaces.

B. Do not mar surface finish of item being cleaned.

C. Prior to acceptance of the work of this Section, thoroughly clean surfaces and related areas in accordance with Division 01 Section “Cleaning and Waste Management.”

3.6 PROTECTION

A. General:
   1. Protect other surfaces from damage.
   2. Repair damage as a result of inadequate or unsuitable protection.

B. Protective Materials: Furnish sufficient drop cloths, shields, and protective equipment to prevent spray or droppings from fouling surfaces not being coated, and in particular, surfaces within storage and preparation area.

C. Fire Hazards: Place cotton waste, cloths, and materials which may constitute a fire hazard in closed metal containers and remove daily from the Site.

END OF SECTION 09 96 35

SECTION 10 14 24 – SAFETY EQUIPMENT AND SIGNS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the furnishing and installation of safety equipment, signs, and related items.

1.3 REFERENCES

A. Except as herein specified or as indicated on the Drawings, the work of this Section shall comply with the following:
   1. MIOSHA.
   2. WEF: Water Environment Federation: Manual of Practice No. 1.
   3. State and Local laws and ordinances having jurisdiction.
   4. OSHA: Occupational Safety and Health Administration.

1.4 SYSTEM DESCRIPTION

A. Signs:
   1. Label all hazardous substances and areas including flammable, toxic, combustible, and corrosive liquids, solids, and gases.
   2. Hazardous substances and areas shall be clearly labeled and identified as dangerous or hazardous with wording DANGER, WARNING or CAUTION, plus a list of precautionary measures and remedies.

1.5 SUBMITTALS

A. Product Data: For each type of manufactured material and product specified.

B. Shop Drawings: For signs.
   1. Quantities.
   2. Locations.
   3. Mounting details.
   4. Wording of each sign.

C. Samples: For signs. Submit 1 representative Sample of each type of material and type.

PART 2 - PRODUCTS

2.1 EQUIPMENT

A. Pipe Labels: As specified in Division 09 Section “Painting.”

B. Accident Prevention Signs:
   1. Meet the requirements of 29 CFR 1910.
   2. Rounded corners.
   3. Provide, at a minimum, the signs indicated the schedule at the end of this Section.
   4. Fastening:
      a. Exterior Doors: Stainless steel screws.
      b. Interior Doors: 3M #4432 foam tape or pressure sensitive tape.
      c. Hatches: Mount on hatch lid on the tank side of the lid with stainless steel fasteners.
   5. Lettering: Block style, silk-screened.

6. Manufacturers:
   a. Lab Safety Supply.
   b. Or equal.

C. HMIG Signs:
1. Right-To-Know Signs: Meet the requirements of 29 CFR 1910.120(f) (i-iii), (6) and (9).
2. Substrate:
   a. Aluminum: 0.032-inch aluminum with rounded corners and 1/8-inch mounting holes. Baked enamel background.
   b. Acrylic: 1/8-inch acrylic with square corners and 1/8-inch mounting holes.
3. Color:
   a. First and Second Paragraphs: Yellow on black background.
   b. Remainder of Text: Black letters on yellow background.
4. Lettering: Block style, silk-screened with UV-resistant ink.
5. Provide signs indicated in the schedule at the end of this Section. Wording for each chemical shall be as indicated in the schedule.
6. Manufacturers: Lab Safety Supply; or equal.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install equipment and signs according to with the submittals reviewed by Engineer, and the Manufacturer's recommendations.

B. Install signs after painting in adjacent areas is complete.

C. Provide temporary identification signage when applicable chemicals are present onsite until final signage is installed.

D. Coordinate actual mounting locations with Owner.

3.2 SCHEDULE

A. Accident Prevention Signs:

Recommended Location	Sign Type	Message	Substrate	Size
Sodium Hypochlorite room	DANGER	Sodium Hypochlorite	Acrylic or fiberglass	7" x 10"
Above sodium hypochlorite fill pipe	NOTICE	Sodium Hypochlorite Fill	Aluminum	7" x 10"
Above plant utility water fixture	NOTICE	Water not suitable for drinking.	Aluminum	7" x 10"

B. Right-To-Know Signs:

Recommended Location	Chemical	Substrate	Size	Fastening
Sodium Hypochlorite Bulk Tank room work area	Sodium Hypochlorite	Polypropylene	7" x 10"	Adhesive
Sodium Hypochlorite Day Tank room work area	Sodium Hypochlorite	Polypropylene	7" x 10"	Adhesive

C. Sign Copy: For specific chemicals.
   1. Chlorine (liquid):
      a. First Paragraph: SODIUM HYPOCHLORITE.
      b. Second Paragraph: Hypochlorous Acid, Sodium Salt.
      c. Third Paragraph: CAUTION!
      d. Fourth Paragraph: AVOID CONTACT WITH EYES SKIN AND CLOTHING. DO NOT BREATH VAPORS/FUMES. WHEN NOT IN USE, KEEP IN TIGHTLY CLOSED CONTAINER.
      e. Fifth Paragraph: No known delayed or chronic hazards associated with sodium hypochlorite.
      f. Sixth Paragraph: PRECAUTIONARY STATEMENTS: If dusty conditions exist, wear a NIOSH approved dust respirator. Wear eye protection and appropriate protective clothing. Store away from sources of heat and direct sunlight. Incompatible with strong acids, chlorine, reducing agents, aluminum, amines, ammonia and other organic materials.
      g. Seventh Paragraph: FIRST AID PROCEDURES: If contacted, flush effected area with water for 15 minutes. If ingested, give milk, milk of magnesia, induce vomiting and seek medical assistance. If inhaled, remove to fresh air. If patient is not breathing, give artificial respiration. Seek medical attention.
      h. Eighth Paragraph: Consult Safety Data Sheet for further health and safety information. CAS Number: 7681-52-9.

3.3 CLEANING

A. Clean materials installed under this Section according to Division 01 Section “Cleaning and Waste Management.”

END OF SECTION 10 14 24

SECTION 10 14 25 – PROCESS EQUIPMENT IDENTIFICATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the furnishing and installation of proper identification for process equipment components, and major items requiring identification or labeling as follows:
   1. Process tanks.
   2. Process equipment.
   3. Instrumentation equipment.
   4. Chemical feed equipment.
   5. Valves.
   6. Enclosures.
   7. Storage tanks and bins.
   8. Chemical injection points and sampling points.

1.3 REQUIREMENTS

A. General:
   1. Identification shall include equipment name or function (i.e., Sodium Hypochlorite Tank, Transfer Pump, etc.), and shall include equipment tag number if one is indicated on the Drawings (i.e., P-1, NaOCl-3, etc.).
   2. Coordinate with requirements of related sections to avoid duplication.
   3. Lettering:
      a. Height to width ratio shall be no greater than 2:1.
      b. Typeface: Sans serif gothic bold, or as approved by Engineer.

1.4 SUBMITTALS

A. Shop Drawings to include:
   1. Text and location for each nameplate, label, and tag.
   2. Product data for nameplates and tags.

B. Samples: Submit 1 sample of each type of identification media to be supplied.

PART 2 - PRODUCTS

2.1 MANUFACTURED UNITS

A. Engraved Nameplate:
   1. Plastic laminate with engraved lettering.
   2. Minimum 3/8-inch white letters on a black background.

B. Engraved Tag:
   1. Brass round tags.
   2. Engraved lettering on one side.
   3. Fill letters with high contrast paint.
   4. Tag diameter: 2-inch.

C. Vinyl Label:
   1. Vinyl lettering with high tack adhesive backing.
   2. Custom manufactured labels. Individual letters not allowed.
   3. Label color shall be black typically, but white where mounting location is black.

D. Stenciled Label:
1. Custom cut stencil board for each label. Individual letter stencils not allowed.
2. Paint label using coating compatible with equipment finish and in accordance with Division 09 Section "Painting."
3. Label color shall be black typically, but white where mounting location is black.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General:
1. Locate identification media where highly visible.
2. Location shall not interfere with operation of equipment or create a safety hazard.
3. Firmly attach all media.
4. Nameplates shall be affixed to a flat, smooth surface.
5. Clean mounting location in accordance with Manufacturer's instructions prior to applying adhesives.

B. Tanks and Bins:
1. Steel and FRP: Vinyl or stenciled label. Use stenciled label if tank surface is rough and will not provide an adequate bond with adhesive.
2. Concrete: stenciled label.
3. Letter Height:
a. Small Tanks and Bins: 2-inch minimum.
b. Large Tanks and Bins: 3-inch minimum.

C. Metering Pumps: Engraved nameplate on each meter pump and speed controller.

D. Process Pumps: Engraved nameplate where equipment surface is flat and smooth enough to provide strong bond with adhesive, otherwise vinyl or stenciled label.

E. Enclosure, Instruments, Sensors, Transmitters, Etc.:
1. For enclosures not specified in Division 21 - Fire Suppression, Division 22 - Plumbing, Division 23 - Heating, Ventilating, and Air Conditioning, Division 25 - Integrated Automation, Division 26 - Electrical, Division 27 - Communications.
2. Engraved nameplate.

F. Valves:
1. Engraved tag.
2. Required only for process valves identified with a number on the Drawings.
3. Valves require tag number only. Number on tag shall be the same as indicated on the Drawings.
4. Attach with brass jack chain or nylon tie below or behind operator. Do not attach chain or tie to handwheels, chainwheels, or valve chains. Use adhesive to attach tags where no operator is provided, or where hanging the tag could interfere with valve operation or cause a safety hazard.

G. Process Equipment: Engraved nameplate.

H. SCADA Computer:
1. Engraved nameplate.
2. Indicate primary computer and backup computer.
3. Coordinate mounting location with Owner.

I. Sample Sink Faucets in Laboratory:
1. Engraved nameplate.
2. Identify sample source.

J. Sample Taps and Chemical Injection Points:
1. Engraved nameplate or vinyl label mounted near tap in piping.
2. Identify tag number.

K. Piping Covered Under this Section:
   1. Vinyl label.
   2. Letter height in accordance with ANSI A131 or the pipe identification paragraph in Division 09 Section "Painting."

END OF SECTION 10 14 25

SECTION 23 05 00 – GENERAL HVAC PROVISIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes specifying the general requirements for execution of that portion of the Work defined in Division 23 of these Specifications and as indicated on the Drawings:
   1. Major items include, but are not necessarily limited to:
      a. Ductwork.
      b. Temperature control systems.
      c. Demolition of existing mechanical work.
      d. Labor, materials, equipment, tools, supervision and start-up services.
      e. Mechanical systems testing, adjusting and balancing.
      f. Incidental and related items necessary to a complete and functionally operational installation of the Work.

B. Division of Work: In accordance with the General Conditions, Contractor is responsible for dividing the Work among the Subcontractors and Suppliers and for delineating the Work to be performed by specific trades

1.3 REFERENCES

A. Except as herein specified or as indicated on the Drawings, the work of Division 23 shall comply with the following:
   1. International:
      a. Building Code of 2015 including Michigan amendments.
      b. Mechanical Code of 2021 including Michigan amendments.

1.4 DESIGN AND PERFORMANCE REQUIREMENTS

A. Construction details, components, accessories, sizes and model numbers indicated on the Drawings or in these specifications are used to indicate minimum levels of quality and coordination requirements.

B. Drawings:
   1. Are diagrammatic and indicate general arrangement of systems and work included.
   2. Do not necessarily indicate every required elbow, transition, offset turning vane, mounting support and access panel.
   3. Shall not be scaled for measurement or installation location.
   4. Shall not serve as Shop Drawings.

C. Schedules and model numbers shall not be used to:
   1. Serve as final, definitive quantity requirements. Contractor shall make own count as indicated on Drawings.
   2. Determine proper type or model with arrangement, mounting and accessories applicable.

D. Coordinate installation work of Division 23 with work of other trades to provide a complete and functional system.

1.5 PRODUCT UNLOADING AND HANDLING

A. Unload equipment and materials required for completion of the Work.

B. Handle and store equipment and materials carefully to prevent damage. Method of rigging and handling shall be subject to the approval of an authorized representative of the equipment Manufacturer whose equipment is being handled.

1.6 TROUBLESHOOTING

A. By Contractor: If, during the start-up or warranty period, mechanical systems operational problems occur for which the root cause is not readily apparent, Contractor shall promptly, through a Subcontractor or other resource designated by Subcontractor, provide diagnostic and investigative services to determine the cause or causes.

B. By Engineer:
1. At Contractor's request, Engineer will provide the services necessary to determine the cause or causes of the operational problems.
2. Under the provisions of the General Conditions, Engineer will also provide these services if Contractor fails to respond satisfactorily to operational problems within a reasonable time after written notice from Engineer.
3. If while working at Contractor's request or under the provisions of the General Conditions, Engineer determines that the problems are due to failure of the Work to comply with the requirements of the Contract Documents, Owner will compensate Engineer for additional services and deduct the amount paid from payment or payments to Contractor.

1.7 MAINTENANCE

A. Special Tools: Where special tools are required for operation, furnish these to Owner.

B. Loose and Detachable Parts:
1. Retain loose and small detachable parts of the apparatus and equipment furnished until the completion of the Work.
2. Turn over these parts to Owner.

1.8 SUBSTITUTIONS

A. The Base Bid shall be based on equipment as specified. Where items are mentioned thusly, "may be furnished at the Contractor's option", the Contractor may use any one of the items named for their Base Bid. Proposals for substitutions are welcomed, but must be noted separately from the Base Bid and applied for in writing at Bid submittal.

B. Where the Contractor furnishes equipment or material specified as equal or which is accepted as a substitution, they are responsible for all modifications required for their work, and work of all other trades to install the equipment and ensure performance as originally specified.

C. Equipment and materials furnished as equal or as a substitution must be equal in quality, design, features, performances, arrangement, and appearance to that specified as standard.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Character of Work: Installation shall be executed in a workmanlike manner and shall present a neat mechanical appearance when completed.

B. Laying Out of Work:
   1. Layout ductwork, equipment and components in accordance with the Contract Documents and the Manufacturer's recommended practice, including provision of adequate space for maintenance. Review layout with Engineer prior to installation.
   2. Check drawings of other trades to verify spaces in which work will be installed. Maintain maximum head room and space conditions at all points. Where head room or space conditions appear inadequate, notify Engineer before proceeding with installation.
   3. If directed by Engineer, Contractor shall make reasonable modifications in the layout as required to permit proper execution of the Work and to prevent conflict with work of other trades.
   4. Work shall be installed so as to be ready for operation, maintenance and repair. Minor deviations from Drawings may be made to accomplish this. Changes shall not be made without approval of Engineer.

3.2 MODIFICATIONS TO EXISTING FACILITIES

A. Comply with the requirements of Division 02 Section "Demolition" for removal of existing pipes, equipment, and other systems.

B. Comply with the requirements of Division 02 Section "Selective Demolition," for all work related to the modification, alteration, conversion, renovation, and reuse of existing facilities.

3.3 START-UP

A. Coordinate the start-up, testing and shutdown of the new and reused equipment and systems involved.

B. Operating personnel, fuel, water, power and other utilities necessary for equipment start-up, will be furnished by Owner. Instructions shall be provided to the operators by the equipment vendor's personnel.

C. Inspection:
   1. Verify that Project conditions comply with requirements.
   2. Verify that status of Work meets requirements for starting of systems.

D. Preparation:
   1. Coordinate sequence for start-up of various systems.
   2. Notify Engineer 7 days prior to start-up of each system.
   3. Have at hand during entire start-up process:
      a. Contract Documents.
   4. Verify that each piece of equipment has been checked for:
      a. Proper lubrication.
      b. Drive rotation.
      c. Belt tension.
      d. Control sequence.
      e. Other conditions which may cause damage.
   5. Verify control systems are fully operational in automatic mode.
   6. Fan Wheels:
      a. Inspect fan wheels for clearance and balance.
   7. Control Circuits: Check each electrical control circuit to ensure that operation complies with requirements to provide desired performance.

3.4 ADJUSTING

A. Adjust and align equipment for smooth operation:
   1. Plumb true and with parts in proper position and alignment.
   2. Rotating parts shall turn freely and in the correct direction.
   3. Flexible couplings shall be checked for alignment subject to Owner's approval.
   4. Follow Manufacturer's instructions.

B. The work of installation shall be executed in conformity with the best practice, so as to contribute to efficiency of operation, minimum noise or vibration, minimum maintenance, accessibility and sightlines.

3.5 FIELD QUALITY CONTROL

A. Manufacturer's Field Services:
   1. Provide when required by individual Section.
   2. Provide the following services except where indicated otherwise in individual Sections:
      a. Inspect, check and approve system installation.
      b. Supervise system start-up.
      c. Provide written report indicating that system:
         1) Has been properly installed and lubricated.
         2) Is in accurate alignment.
         3) Is free from undue stress imposed by connecting lines or anchor bolts.
         4) Has been satisfactorily operated under full load conditions.
      d. Demonstrate operation of system to Owner's personnel.
      e. Instruct Owner's personnel on operation and maintenance of system.

B. Performance Test:
   1. Test the entire Work, including all of its individual systems for 2 weeks before final payment will be made.
   2. The ventilating equipment shall be operated separately, or in conjunction one with the other to demonstrate to Engineer the ability of the plant to meet operational requirements., in accordance with the true intent and purpose of these Specifications.
   3. Make final tests in the presence of Owner and Engineer.
   4. If a part of the Work or equipment does not meet Specifications:
      a. Correct the situation.
      b. Obtain approval of Engineer before final payment is made.
   5. Provide the personnel and bear costs for correcting malfunctions.
   6. Owner will provide operating personnel and utilities.

C. Preparation:
   1. Verify That System:
      a. Has been inspected and put in service.
      b. Is fully operational.

3.6 CLEANING AND FINISHING

A. Entire installation shall be free from surface oil and grease before work will be considered for final payment.

END OF SECTION 23 05 00

SECTION 23 31 13 – METAL DUCTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the furnishing and installation of sheet metal ductwork, and appurtenances:
   1. As indicated on the Drawings.
   2. As specified herein.
   3. As required to provide a complete and operational air distribution system.
   4. As necessary for the proper and complete performance of the Work.
   5. Including all hangers, supports, and anchors.

1.3 REFERENCES

A. Except as herein specified or as indicated on the Drawings, the work of this Section shall comply with the following:
   1. ASHRAE Guidelines: 2000 Handbook - Chapter 16 - "Duct Construction."
   2. ASTM Specifications:
      a. A480 - General Requirements for Flat-Rolled Stainless Steel and Heat-Resisting Steel Plate, Sheet, and Strip.
      b. A653 - Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
      c. A924 - General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.
   3. ASTM Standard Test Methods:
      a. A90 - Weight of coating on Zinc-Coated (Galvanized) Iron or Steel Articles.
      b. C731 - Extrudability, after Packaging, Aging, of Latex Sealants.
      c. D2202 - Slump of Sealants.
   4. NFPA Standards:
      a. 90A - Installation of Air Conditioning and Ventilating Systems.
      b. 90B - Installation of Warm Air Heating and Air Conditioning Systems.
      c. 96 - Standard for Ventilation Control and Fire Protection of Commercial Cooking Operation.
   5. SMACNA Guidelines:
      a. "HVAC Duct Construction Standards, Metal and Flexible," Latest edition.
      b. "Rectangular Industrial Duct Construction Standards."

1.4 SYSTEM DESCRIPTION

A. Duct sizes indicated on Drawings are net clear inside dimensions.

B. Duct Construction Pressure Classifications:

	Duct System	SMACNA Pressure Classification
1.	Exhaust duct connected to fans	1" W.G.
2.	Outdoor air intake duct, filter housing/spacer	1" W.G.

1.5 QUALITY ASSURANCE

A. Fabrication and Installation Personnel Qualifications:
   1. Trained and experienced in the fabrication and installation of the materials and equipment.
   2. Knowledgeable of the design and the reviewed Shop Drawings.

B. Regulatory Agencies Requirements:
   1. All state and local codes, and ordinances.
   2. Owner's insurer.

1.6 DELIVERY, STORAGE, AND HANDLING

A. All materials shall be delivered in original, unbroken, brand marked containers or wrapping as applicable.

B. Handle and store materials in a manner which will prevent deterioration or damage, contamination with foreign matter and damage by weather or elements in accordance with Manufacturer's directions.

C. Reject damaged, deteriorated or contaminated material and immediately remove from the Site. Replace rejected materials with new materials at no additional cost to Owner.

PART 2 - PRODUCTS

2.1 MATERIALS

A. PVC Coated Galvanized Steel:
   1. Galvanized steel sheet metal conforming to ASTM A653, G90 coating weight.
   2. Heat-fused polyvinyl chloride (PVC) coating applied to both inside and outside duct surfaces:
      a. Minimum thickness: 4 mil both sides
      b. Coating shall be continuous, uniform, and bonded to substrate

B. Acceptable Fasteners: Stainless steel only.

C. Tapes:
   1. High pressure rated, non-hardening, water resistant and fire-resistant.
   2. Compatible with PVC coating.

D. Sealants:
   1. Fire and Smoke Hazard Rating:
      a. As tested by ASTM E84, NFPA 255, or UL 723.
      b. Not to exceed: Flame spread 25, smoke developed 50.
   2. PVC compatible.

2.2 FABRICATION

A. General: Construct rectangular, filter housing and spacer in accordance with the SMACNA HVAC Duct Construction Standards, Metal and Flexible, current edition.

B. Connections:
   1. Make connections to equipment as indicated on Drawings or called for by these Specifications.
   2. Apply continuous bead of PVC-compatible sealant at all joints.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General: Ducts shall be air-tight, rigid, securely hung or bracketed in position.

B. Joint Sealing of Duct Systems:
   1. Seal ductwork in accordance with SMACNA Class A:
      a. For Rectangular Ductwork:
         1) Apply approved sealant to transverse and longitudinal joints.
         2) Extend sealant a minimum of 1-inch on each side of joint.
      b. Follow sealant Manufacturer's directions for application, storage and cure time.

END OF SECTION 23 31 13

SECTION 26 05 00 – COMMON WORK RESULTS FOR ELECTRICAL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

B. Excess Quantities and Sizes: Where quantities, sizes or other requirements on Drawings or Specifications are in excess of code requirements, Drawings or Specifications govern.

C. Conflicts: When conflicts exist between referenced Specifications or standards, more stringent requirements govern. No extra compensation for such compliance allowed.

1.2 SUMMARY

A. This Section includes the following:
1. Electrical equipment coordination and installation.
2. Sleeves for raceways and cables.
3. Sleeve seals.
4. Grout.
5. Duct seal.
6. Duct seals and plugs.
7. Common electrical installation requirements.

1.3 REFERENCES

A. Except as herein specified or as indicated on the Drawings, the work of this Section shall comply with
1. NECA 1 - Standards Practices for Good Workmanship in Electrical Construction.
2. NEC – National Electrical Code (NFPA 70).

1.4 DEFINITIONS

A. EPDM: Ethylene-propylene-diene terpolymer rubber.

1.5 SUBMITTALS

A. Product Data: For sleeve seals.

1.6 DELIVERY, STORAGE AND HANDLING

A. Deliver materials in original, unbroken, brand marked containers or wrapping as applicable.

B. Handle and store materials in a manner which will prevent deterioration, damage, contamination with foreign matter, and damage by weather or elements, and according to Manufacturer's directions.

C. Store materials indoors and protect from weather. When necessary to store outdoors, elevate materials above grade and enclose with durable, weather tight wrapping.

D. Reject damaged, deteriorated or contaminated material and immediately remove from the Site. Replace rejected materials with new materials at no additional cost to Owner.

1.7 COORDINATION

A. Coordinate arrangement, mounting, and support of electrical equipment:
   1. To allow maximum possible headroom unless specific mounting heights that reduce headroom are indicated.
   2. To ensure that mounting heights and locations of electrical equipment do not interfere with all other building appurtenances such as, but not limited to, containment areas, special coatings, and other equipment.
   3. To allow easy access and disconnection of electrical equipment while ensuring the least amount of interference with other installations.
   4. To allow right-of-way for piping and conduit installed at required slopes.
   5. To ensure that connecting raceways, cables, wireways, cable trays, and busways will be clear of obstructions and outside of the dedicated working and access space of other equipment.

B. Coordinate installation of required supporting devices and set sleeves in cast-in-place concrete, masonry walls, and other structural components as they are constructed.

C. Coordinate location of access panels and doors for electrical items that are behind finished surfaces or otherwise concealed.

PART 2 - PRODUCTS

2.1 SLEEVES FOR RACEWAYS AND CABLES

A. Steel Pipe Sleeves: ASTM A53/A53M, Type E, Grade B, Schedule 40, galvanized steel, plain ends.

B. Cast-Iron Pipe Sleeves: Cast or fabricated "wall pipe," equivalent to ductile-iron pressure pipe, with plain ends and integral waterstop, unless otherwise indicated on the Drawings.

2.2 PENETRATION SEAL SYSTEMS

A. Description: Mechanical modular sealing device, designed for field assembly, to fill annular space between penetration and raceway or cable.
   1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
      a. Advance Products & Systems, Inc.
      b. Calpico, Inc.
      c. Metraflex Co.
      d. Or equal.
   2. Sealing Elements: EPDM interlocking links shaped to fit surface of cable or conduit. Include type and number required for material and size of raceway or cable.
   3. Pressure Plates: Glass reinforced plastic.
   4. Connecting Bolts and Nuts: Stainless steel of length required to secure pressure plates to sealing elements. Include one for each sealing element.

2.3 GROUT

A. Coordinate the selection and application of grout with other trades in order to match the color and properties of the surface being repaired, where applicable. In existing construction, grout shall match existing color and material properties.

B. At a minimum grout shall be:
   1. Nonshrink; recommended for interior and exterior for sealing openings in non-fired-rated walls or floors.
   2. Standard: ASTM C1107, Grade B, post-hardening and volume-adjusting, dry, hydraulic-cement grout.
   3. Design Mix: 5,000 psi, 28 day compressive strength.
   4. Packaging: Premix and factory packaged.

2.4 DUCT SEAL

A. Description: UL listed, pliable, non-hardening, non-corrosive, weather-proof putty material, designed as a moisture barrier for weather-sealing service entries, electrical cables, and conduit ducts.
   1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
      a. Arnco Corp. - Hydra-Seal.
      b. Ilsco Corp. – DS Duct Seal.
      c. JM Clipper – Duxseal.
      d. OZ/Gedney Co. – DUX.
      e. RectorSeal - Duct Seal Compound.
      f. Thomas & Betts Corp. - DX.
      g. Or equal.

2.5 DUCT SEALING PLUGS

A. Cable duct sealing plugs shall be designed to effectively seal conduits, reducing the cost of cable placement and maintenance in underground construction projects and routine work.
   1. All plastic construction – corrosion proof.
   2. Pull ‘Rope Eye’ attachment (can be supplied with security hex nut).
   3. Water tight.
   4. Simple to install.
   5. Removable and reusable.
   6. Full range of sizes.
   7. Full range of forms (round, square).
   8. Full range of supported cable count (simplex, duplex, triplex, quadplex and specials).

B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   1. Roxtec.
   2. TE Connectivity.
   3. CalAm.
   4. Innerduct.
   5. Or equal.

PART 3 - EXECUTION

3.1 COMMON REQUIREMENTS FOR ELECTRICAL INSTALLATION

A. Comply with NECA 1 and NEC.

B. Headroom Maintenance: If mounting heights or other location criteria are not indicated, arrange and install components and equipment to provide maximum possible headroom consistent with these requirements.

C. Equipment: Install to facilitate service, maintenance, and repair or replacement of components of both electrical equipment and other nearby installations. Connect in a manner as to facilitate future disconnecting with minimum interference with other items in the vicinity.

D. Right of Way: Give to piping systems installed at a required slope.

3.2 INSTALLATIONS FOR ELECTRICAL PENETRATIONS

A. Electrical penetrations occur when raceways, cables, wireways, cable trays, or busways penetrate:
   1. Exterior walls or slabs.
   2. Fire-rated floor and wall assemblies.
   3. Interior non-rated floor and wall assemblies.

B. Use core drilled holes, formed openings, or pipe sleeves for all penetrations unless penetration arrangement requires a rectangular sleeved opening or otherwise indicated herein or on the Drawings.
   1. When using a pipe sleeve:
      a. Use cast-iron pipe sleeves with integral water stop in new construction only. Coordinate installation of pipe sleeve with wall/slab construction.
      b. Use steel pipe sleeve in existing construction or new above grade interior construction.
   2. Obtain approval from Engineer before using rectangular sleeved openings not indicated on the Drawings.

C. Pipe Sleeve Installation:
   1. In walls, cut sleeves to length for mounting flush with both surfaces of walls.
   2. In floors, extend sleeves installed in floors 2 inches above finished floor level.
   3. Size sleeve to provide a minimum 1/4-inch annular clear space between sleeve and raceway or cable, unless otherwise indicated herein or on the Drawings. When using a modular mechanical seal, provide annular space between sleeve, raceway, or cable as required by seal Manufacture.
   4. Seal space outside of sleeves. Seal shall match existing surface construction and properties. When grout or similar compound is used promptly pack solidly between sleeve and wall so no void remains. Tool exposed surfaces smooth; protect while curing.

D. Penetration Types:
   1. Fire-Rated Assembly Penetrations:
      a. Apply firestopping to penetrations to maintain fire rating of walls, partitions, ceilings, and floors at penetrations. Seal penetration with firestop materials. Comply with the requirements in Division 07 Section “Firestopping”.
      b. Reference Architectural Drawings and Owner Record Drawings for fire ratings of walls and floors.
   2. Interior Penetrations of Non-Fire-Rated Walls and Floors:
      a. Seal annular space between penetration and raceway or cable, using joint sealant appropriate for size, depth, and location of joint.
      b. Comply with requirements in Division 07 Section "Joint Sealants."
      c. Repair surface to match finish and properties of penetrated surfaces.
   3. Roof-Penetrations:
      a. Roof penetrations shall be made using RMC.
      b. Seal annular space between penetration and raceway or cable, using joint sealant appropriate for size, depth, and location of joint.
      c. Comply with requirements in Division 07 Section "Joint Sealants."
      d. For new roofing installation penetrations, seal all penetrations of individual raceways as required by the roofing Manufacturer to maintain the roof warranty. Coordinate work with other trades.
      e. For existing roofing installation penetrations, seal all penetrations of individual raceways with flexible boot-type flashing units.
      f. Roof penetrations shall require the installation of duct sealing plugs in raceways. Duct seal shall be used when duct sealing plugs are not available in the size or configuration required.
   4. Exterior-Wall and Elevated Slab Penetrations:
      a. Seal penetrations using mechanical modular seals. Size penetrations as required to install mechanical modular seal.
      b. Exterior penetrations shall require the installation of duct sealing plugs. Duct seal shall be used when duct sealing plugs are not available in the size or configuration required.
      c. Repair surface to match finish and properties of penetrated surfaces.
   5. Manhole, Handhole, and Vault Penetrations:
      a. Seal penetrations using mechanical modular seals. Size penetration as required to install mechanical module seal.
      b. Manholes, handhole, and vault penetrations shall require the installation of duct sealing plugs. Duct seal shall be used when duct sealing plugs are not available in the size of configuration required.
      c. Repair surface to match finish and properties of penetrated surfaces.
   6. Varied Temperature Penetrations:
      a. Penetrations where raceways will be simultaneously exposed to different temperatures on each side of the penetration such as freezers, coolers, or room to room where the temperature variation is greater than 10 degrees Fahrenheit and one side of the room will be 60 degrees or less.

b. Seal penetrations using mechanical modular seals where penetrated material permits. Size penetrations as required to install mechanical modular seal. Where modular mechanical seals cannot be utilized use clear silicone caulk or grout as applicable.
c. Inside of the raceway shall be sealed with duct sealing plugs. Duct seal shall be used when duct sealing plugs are not available in the size of configuration required.
d. Repair surface to match finish and properties of penetrated surfaces.

3.3 PENETRATION SEAL SYSTEM INSTALLATION

A. Use type and number of sealing elements recommended by manufacturer for raceway or cable material and size. Position raceway or cable in center of penetration. Assemble modular mechanical seals and install in annular space between raceway or cable and penetration. Tighten bolts against pressure plates that cause sealing elements to expand and make watertight seal.

3.4 DUCT SEAL INSTALLATION

A. Install duct seal materials in strict accordance with the Manufacturer’s instructions.

B. Obtain approval from Engineer prior to installing duct seal as the application may require duct seals and plugs to be utilized in lieu of duct seal.

3.5 DUCT SEALING PLUG INSTALLATION

A. Where conduits penetrate into the building, seal duct openings at conduit termination points with duct sealing plugs for all conduits entering the building to prevent migration of water and gases into the building and to prevent the condensation of water vapor inside the enclosures where the conduits terminate.

B. Duct sealing plugs shall be applied after all cables have been installed.

C. Install duct sealing plug materials in strict accordance with the Manufacturer’s instructions.

D. All open ended riser conduits shall require duct sealing plugs to be installed.

END OF SECTION 26 05 00

SECTION 26 05 20 – CONDUCTORS AND CABLES – 600V AND BELOW

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections apply to this Section.

1.2 SUMMARY

A. This Section includes the furnishing and installation of all electrical conductors, cables, splices, and connectors.

B. Major Systems Include:
1. 600V and below service entrance, feeders and electrical distribution.
2. Branch circuit wiring.
3. System wiring.

1.3 REFERENCES

A. Except as herein specified or as indicated on the Drawings, the work of this Section shall comply with the standards of the following organizations as applicable to materials, construction and testing of wire cables:
1. NEMA - National Electrical Manufacturer Association Standards.
2. IEEE Standards.
3. Insulated Cable Engineers Association - Standards.
4. ASTM Standards.
5. NEC - National Electrical Code (NFPA 70).
6. UL508A - Standard for Industrial Control Panels.
7. NFPA 79 – Electrical Standard for Industrial Machinery.

1.4 SUBMITTALS

A. Product Data: For each type of product.

1.5 QUALITY ASSURANCE

A. Fabrication and Installation Personnel Qualifications:
1. Trained and experienced in the fabrication and installation of the materials and equipment.
2. Knowledgeable of the design and the reviewed submittals.

B. Manufacturers: Firms regularly engaged in the manufacture of electrical conductor and cable products of the types and ratings required, whose products have been in satisfactory use in similar service for not less than 5 years.

1.6 DELIVERY, STORAGE AND HANDLING

A. Deliver all materials in original, unbroken, brand marked containers or wrapping as applicable.

B. Handle and store materials in a manner which will prevent deterioration or damage, contamination with foreign matter, damage by weather or elements, and in accordance with Manufacturer's directions.

C. Store materials indoors and protect from weather. When necessary to store outdoors, elevate materials above grade and enclose with durable, watertight wrapping.

D. Reject damaged, deteriorated, or contaminated materials and immediately remove from the Site. Replace rejected materials with new materials at no additional cost to Owner.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General: Except as otherwise indicated, provide conductors, cables, and connectors of Manufacturer's standard materials, as indicated by published product information; designed and constructed as recommended by the Manufacturer and as required for the installation.

B. Power Wire:
1. All conductors and cables shall be new with a minimum wire size of No. 12 AWG. Manufacturer's name, type, and size shall be permanently marked on the outer covering at regular intervals and delivered in complete coils or reels.
2. Provide factory fabricated conductors of size, rating, material, and type as indicated for each service. Where not indicated, provide proper selection as determined by installer to comply with installation requirements and with NEC standards, from only the following types and conductors:
   a. Type THHN/THWN-2 dual rated, 600-Volt, 90 degrees C rated.: Stranded copper for all sizes.
   b. Bare Conductors: Stranded copper for all sizes.

C. Control Cable: No. 14 AWG minimum, type THHN/THWN-2.

D. Instrumentation Signal Cable:
1. One pair of No. 16 AWG stranded, tinned copper conductors, 600V polyethylene insulation, twisted pair, 100% coverage aluminum polyester shield, No. 18 AWG stranded, tinned copper drain wire with vinyl outer jacket, UL listed.
2. For use outdoors, below grade, above grade, and inside control panels.
3. Where more than 2 conductors are required for an instrument, provide multiple cables.
4. Manufacturers: Belden 8719; or equal.

E. Power Wiring Cable Accessories: For Connectors:
1. Wing nuts by Ideal.
2. Sta-Kon by Thomas & Betts.
3. Scotchlox Spring by Minnesota Mining & Manufacturing Company.
4. Compression Type 53200 by Thomas & Betts.
5. Hydent by Burndy.
6. Insulated multi-cable mechanical connector blocks by Polaris, or Ilsco.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General:
1. Install electrical conductors, cables, and connectors as indicated on the Drawings, in accordance with the Manufacturer's written instructions, the applicable requirements of NEC and the National Electrical Contractors Association's "Standard of Installation," and in accordance with recognized industry practices to ensure that products serve the intended functions.
2. Conductors and cables shall be sized in accordance with the Drawings or, in the absence thereof, in accordance with NEC requirements. Except where indicated herein, conductor sizes greater than No. 12 AWG are indicated on the Drawings.
3. Provide a dedicated grounded conductor (neutral) for each circuit that requires a neutral for proper operation. Unless indicated otherwise on the Drawings, shared neutrals are not allowed.
4. Provide an equipment grounding conductor in all raceways. Conductor shall be sized in accordance with the National Electrical Code.

B. Voltage Drop Compensation:
   1. Provide No. 10 AWG conductors in lieu of No. 12 AWG conductors to compensate for voltage drop as follows:
      a. For each 277V, 20 ampere branch circuit that exceeds 200 feet in length between the branch circuit panelboard and the last outlet.
      b. For each 120V, 20 ampere branch circuit that exceeds 100 feet in length between the branch circuit panelboard and the last outlet.
   2. When conductor size is increased to compensate for voltage drop, provide equipment grounding conductor increased in size in accordance with NEC.

C. Installation Procedures:
   1. Install interior conductors after building is enclosed and water tight.
   2. Each conduit shall be free of moisture and debris before conductors are installed.
   3. Remove moisture from conduits by swabbing.
   4. Install conductors so insulation is not damaged. Replace all conductors that are damaged.
   5. Install conductors and cables only in code conforming raceway.
   6. Pull conductors together where more than one conductor is being installed in a raceway.
   7. Use heat shrink tubing for all instrument signal cable terminations.
   8. Use manufacturer-approved pulling compound or lubricant, where necessary. Compound shall not deteriorate conductor and insulation. Compounds shall be UL listed.
   9. Use a pulling means, including fish tape, cable or rope, and basket-weave wire/cable grips that will not damage the raceway or the wire.
   10. Keep conductor splices to a minimum.
   11. Install splices and taps which have equivalent or better mechanical strength and insulation as the conductor.
   12. Use splice and tap connectors which are compatible with the conductor material.
   13. Make all joints, splices, and connections only at accessible junction or outlet boxes, never inside conduit or fitting. Make splices in No. 10 AWG and smaller wire with insulated spiral mechanical connectors.
   14. Make splices in No. 8 AWG and larger copper wire with compression type mechanical connectors.
   15. All splices located in handholes and wet locations shall be rated for wet locations.
   16. Low voltage and signal cable splices located in handholes and wet locations shall be sealed in 2-part epoxy sealing pack, 3M Scotchcast connector sealing pack 3570G.
   17. Make conductor length for parallel feeds identical.
   18. Where exposed cables are installed, cables shall be installed parallel and perpendicular to exposed structural members and building lines.
   19. Do not lace, strap or tie feeder or branch circuit conductors together in panels, switchboards, variable speed drives, motor control centers, automatic transfer switches, boxes, and wireways.
   20. All conductors and cables shall be identified in accordance with Division 26 Section “Identification for Electrical Systems.”
   21. Use color coded conductors as follows:
      a. For Power Distribution:
         1) Phases: Black-red-blue (under 150V to ground).
         2) Phases: Brown-orange-yellow (over 150V to ground).
         3) Neutral: White (under 150V to ground).
         4) Neutral: Grey (over 150V to ground).
         5) Ground: Green identified (feeders); Green (branch circuits).
      b. For Controls:
         1) Follow industry standards (UL508A and NFPA 79) for coloring associated with control circuits and control panels:
            a) AC Ungrounded (Hot) Circuits: Red.
            b) DC Ungrounded (Hot) Circuits: Blue.
            c) AC Grounded (Neutral): White or Gray.
            d) DC Grounded (Neutral): White with Blue Stripes.
            e) Ungrounded (Hot) Circuits which remain energized when main switch is off: Orange or Yellow.
            f) Grounded (Neutral) Control Circuits which remain energized when main switch is off: White with Yellow or Orange Stripes.
            g) Equipment Grounding Conductors: Green.

22. Support conductors in vertical raceways in accordance Division 26 Section “Hangers and Supports for Electrical Systems.”
23. Outlets:
    a. Leave at least 6 inches of free conductor at all outlets except where conductors are intended to loop without joints through outlets for fixtures or wiring device hook-ups.
    b. Free ends and loops at boxes and enclosures shall be pushed back into boxes and protected by blank cover plates or other means until interior painting and decorating work is completed.
24. Lights and outlets shall be grouped on circuits as indicated on the Drawings. Different types of circuits such as feeders, branch circuits, control circuits, and signal circuits, shall not be mixed in common conduit runs, but shall be run separately, although more than 1 circuit of the same system may be run in common conduit runs.
25. Conductor ampacity derating shall be adhered to for all conductors in accordance with the National Electrical Code.
26. Type MC cable is not permitted.

3.2 FIELD QUALITY CONTROL

A. General:
1. Prior to energization, check conductors and cables for continuity of circuitry and for short circuits. Correct malfunctions when detected.
2. Subsequent to conductor and cable hook-ups, energize circuitry and demonstrate functioning in accordance with requirements.

END OF SECTION 26 05 20

SECTION 26 05 27 – GROUNDING AND BONDING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the furnishing and installation of a complete and continuous grounding system.

1.3 SUBMITTALS

A. Test Reports: For grounding. Grounding electrode resistance test results.

1.4 DESIGN AND PERFORMANCE REQUIREMENTS

A. All equipment, raceway systems, interior wiring systems with neutrals, receptacles, and power outlets, motors and motorized equipment shall be grounded.

1.5 QUALITY ASSURANCE

A. Fabrication and Installation Personnel Qualifications:
   1. Trained and experienced in the fabrication and installation of the materials and equipment.
   2. Knowledgeable of the design.

B. Grounding system shall be in accordance with the current National Electrical Code (NEC).

C. Grounding system rods, connectors and clamps shall be UL labeled.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General: A portion of the required materials for grounding systems are specified in the Division 26 – Electrical Sections.

B. Grounding Electrodes:
   1. Ground Rods: Copper-clad steel; 3/4-inch diameter by 10 feet in length.
   2. Where ground grids are required they shall consist of copper clad steel driven rods with underground ring bus, sized as indicated on Drawings, of bare stranded copper interconnecting cable.
   3. Ground rods to be as manufactured by Copperweld; or equal.

C. Connectors:
   1. Welded Connectors: Exothermic-welding kits of types recommended by kit manufacturer for materials being joined and installation conditions as manufactured by Thomas and Betts; or equal.

PART 3 - EXECUTION

3.1 DISTRIBUTION SYSTEM GROUNDING

A. Provide a green, insulated, equipment grounding conductor in each raceway (metallic and non-metallic; rigid and flexible). Equipment grounding conductors shall be sized in accordance with Article 250 of the NEC.

B. Circuit Grounding: Install grounding bushings, grounding studs, and grounding jumpers at distribution centers, pull boxes, motor control centers, panelboards, load centers, and all like equipment.

C. Bonding Jumpers:
   1. Provide green insulation, size correlated with overcurrent device protecting the wire, attached to grounding bushings on conduits, to lugs on boxes, and other enclosures.
   2. Bond to neutral only at service neutral bar.

D. Receptacles and Power Outlets: Ground receptacles and power outlets to the conduit system with a green grounding conductor sized in accordance with Article 250 of the NEC and connected between the device grounding screw and outlet box.

E. Metallic Conduit: When bare grounding electrode conductors are enclosed in metallic conduit, the conduit shall be bonded to the grounding electrode conductor(s) at both ends utilizing equipment UL listed for this purpose.

F. Ground motor bases and frames by pulling a separate equipment grounding conductor in with the motor branch circuit.

G. Expansion Joints: Provide a bonding jumper around expansion fittings in metallic conduit to maintain ground continuity. Expansion fittings may include an internal bonding jumper constructed of a tinned copper braid, sized to meet UL fault current test requirements and complying with the bonding requirements of Article 250 of the NEC.

H. Separately Derived Systems: Grounding of separately derived systems, i.e., secondary transformers, shall be in accordance with Article 250 of the NEC. Use suitable ground lugs and clamps approved for this purpose.

3.2 FIELD QUALITY CONTROL

A. Tests:
   1. Measured resistance of grounding electrode system to ground shall be 5 Ohms or less. Perform Earth Ground Resistance (Fall of Potential) tests and provide additional grounding electrodes to grounding electrode system until measured resistance to ground is 5 ohms or less.
   2. Transmit test results to Engineer.

END OF SECTION 26 05 27

SECTION 26 05 29 – HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the furnishing and installation of hangers and supports for electrical equipment and systems.

1.3 DEFINITIONS

A. Electrical Supports: Angles, channels, brackets, and mounting accessories for supporting all conduit, luminaires, switches, and other electrical equipment which are hung or mounted above floor.

1.4 DESIGN AND PERFORMANCE REQUIREMENTS

A. This Section defines general criteria for the selection and installation of supporting devices, but does not cover all types specifically required for the Project.

B. Choose or design supporting devices in accordance with these general criteria.

1.5 QUALITY ASSURANCE

A. Fabrication and Installation Personnel Qualifications:
1. Trained and experienced in the fabrication and installation of the materials and equipment.
2. Knowledgeable of the design and the reviewed submittals.

B. Regulatory Agencies Requirements:
1. Provide supporting devices listed by Underwriters' Laboratory for their application as installed.
2. Comply with National Electrical Code (NFPA 70) as applicable to construction, installation, and requirements for supporting devices.
3. Comply with Metal Framing Manufacturers Association Standard Publication (MFMA-4); factory-fabricated components for field installation.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver all materials in original, unbroken, brand marked containers or wrapping as applicable.

B. Handle and store materials in a manner which will prevent deterioration or damage, contamination with foreign matter, damage by weather or elements, and in accordance with Manufacturer’s directions.

C. Store materials indoors and protect from weather. When necessary to store outdoors, elevate materials above grade and enclose with durable, watertight wrapping.

D. Reject damaged, deteriorated, or contaminated material and immediately remove from the Site. Replace rejected materials with new materials at no additional cost to Owner.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Conduit Supports:
1. Where information indicated on Drawings conflicts with information herein, the more stringent requirements shall take precedence and the better quality or greater quantity of work shall be provided.
2. Single Runs: Galvanized conduit straps or ring bolt type hangers with spring clips. Do not use plumber's perforated straps.
3. Use PVC coated steel (40 mil thickness) supports in corrosive areas. All hardware used in corrosive areas shall be 316 stainless steel.
4. All supports, such as, but not limited to, metal channel (strut) framing systems, angles, straps, hangers, etc. shall match the raceway type that is being supported. For example, galvanized conduit requires galvanized metal channel (strut) framing systems and straps, PVC coated conduit requires PVC coated metal channel (strut) framing systems and straps, PVC conduit requires PVC channel (strut) framing systems and straps.
5. In general, all hardware, such as anchors, nuts, bolts, washers, threaded rod, etc. shall match the conduit type: Galvanized steel hardware shall be used with galvanized steel rigid metal conduit; 316 stainless steel hardware shall be used with PVC and PVC coated rigid metal conduit.
6. Multiple Runs: Conduit rack with 25% spare capacity.
7. Vertical Runs: Channel support with conduit fittings.
8. Manufacturers:
   a. Cooper B-Line; a division of Eaton Corporation.
   b. ERICO International Corporation.
   c. Power-Strut; Power Engineering Co., Inc.
   d. GS Metals Corp.
   e. Michigan Hanger Co., Inc.; O-Strut Div.
   f. National Pipe Hanger Corp.
   g. Thomas & Betts Corporation.
   h. Unistrut; a brand of Atkore International, Inc.
   i. Wesanco Channel Systems; ZSi-Foster, Inc.
   j. Or equal.

B. Mounting, Anchoring, and Attachment Components
1. Mechanical-Expansion Anchors: Insert-wedge-type, 316 stainless steel, for use in hardened Portland cement concrete with tension, shear, and pullout capacities appropriate for supported loads and building materials where used. See item 2.1 A 5 above for clarification.
2. Manufacturers:
   a. Hilti, Inc.
   b. ITW Construction Products.
   c. MKT Fastening, LLC.
   d. Or equal.

C. Supports for Conductors in Vertical Conduit:
1. Install in compliance with NEC article 300.19.
2. Factory-fabricated assembly consisting of threaded body and insulating wedging plug or plugs for non-armored electrical conductors or cables in riser conduits. Plugs shall have number, size and shape of conductor gripping pieces as required to suit individual conductors or cables supported. Body shall be malleable iron.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General:
1. Layout to maintain headroom, neat mechanical appearance, and to support equipment loads.
2. Secure Engineer's approval before welding or bolting to steel framing or anchoring to concrete structure.

3. Where equipment is to be suspended from cast-in-place concrete construction, set approved concrete inserts in formwork to receive hanger rods. Where equipment is to be suspended from metal deck and beam or joist construction, support equipment from beams or joists only.
4. Do not use existing supports without approval from Engineer and Owner.

END OF SECTION 26 05 29

SECTION 26 05 34 – RACEWAYS FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the furnishing and installation of conduits and fittings for electrical wiring.

1.3 SUBMITTALS

A. PVC Coated RMC Installers: Submit Manufacturer's certified training record (i.e., sign-in sheet on Manufacturer's letterhead) for all employees trained and certified to install PVC Coated RMC.

B. Product Data:
   1. For surface raceways, wireways and fittings.
      a. Name of Manufacturer.
      b. Model number.
      c. Details of construction and installation.
      d. Electrical specifications and ratings.
      e. Dimensional data.
      f. Color and finish.

1.4 QUALITY ASSURANCE

A. Fabrication and Installation Personnel Qualifications:
   1. Trained and experienced in the fabrication and installation of the materials and equipment.
   2. Knowledgeable of the design.

B. Regulatory Agencies Requirements:
   1. ACI – American Concrete Institute: Standards pertaining to conduits embedded in concrete (Section 6.3 in ACI 318 – Building Code Requirements for Structural Concrete and Section 6.3 in ACI 350R – Environmental Engineering Concrete Structures.)
   2. NEMA – National Electrical Manufacturer's Association – Standards pertaining to raceways.
   3. NEC – National Electric Code – As applicable to construction and installation of conduit system.
   4. Provide conduit which is listed and labeled by Underwriters' Laboratories.

1.5 DELIVERY, STORAGE AND HANDLING

A. Deliver all materials in original, unbroken, brand marked containers or wrapping as applicable.

B. Handle and store materials in a manner that will prevent deterioration or damage (e.g., bending, end damage, finish scoring), contamination with foreign matter, damage by weather or elements, and in accordance with Manufacturer's directions.

C. Store materials indoors and protect from weather. When necessary to store outdoors, elevate materials above grade and enclose with durable, watertight wrapping. Provide color coded end cap thread protectors on exposed threads of threaded metal conduit.

D. Reject damaged, deteriorated, or contaminated material and immediately remove from the Site. Replace rejected materials with new materials at no additional cost to Owner.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Rigid Metal Conduit (RMC):
   1. Galvanized Steel RMC: Galvanized steel, heavy wall conduit with threaded fittings, 3/4-inch trade size minimum, insulated bushings.

B. Rigid Nonmetallic Conduit (RNMC):
   1. Schedule 40, rigid polyvinylchloride, rated for 90 degrees C conductors, 3/4-inch trade size minimum, solvent cement connectors and couplings.
   2. Nonmetallic strap hangers allowing thermal expansion movement.
   3. Conduit to meet NEMA TC-2; fittings to meet NEMA TC-3.
   4. Expansion Coupling: Nonmetallic to compensate for thermal expansion.

C. Liquid Tight Flexible Metal Conduit (LTFMC): 3/4-inch trade size minimum. Flexible conduit with flexible, moisture-proof PVC jacket and liquid tight connectors.
   1. In Corrosive Locations, LTFMC fittings shall be nonmetallic.

D. PVC Coated RMC:
   1. Galvanized Steel RMC with a minimum of 40 mil PVC exterior coating and 2 mil urethane internal coating.
   2. Manufacturers:
      a. Robroy Industries: Plasti-Bond RED.
      b. Perma-Cote Industries: Perma-Cote Standard.
      c. OCAL, Inc.: OCAL-BLUE.
      d. Calbond: Calpipe Industries.
   3. Fittings, conduit bodies, outlet boxes, hangers, supports, straps, and accessories shall be products of the same Manufacturer and shall be coated with a minimum of 40 mil PVC exterior coating and 2 mil urethane internal coating.
   4. Finished conduit shall fully conform to the current NEMA Standard RN-1 and shall have a label affixed indicating compliance with UL Standard No. 6.

E. Seal-off Fittings:
   1. Malleable iron with zinc electroplated finish.
   2. Threaded for connection of RMC or IMC.
   3. UL listed for use in Class I, Division 1 Hazardous Locations.
   4. Provide sealing compound and fiber as required.
   5. In Corrosive Locations, seal-off fittings shall be PVC coated RMC.

F. Joint Compound for RMC: Listed for use in cable connector assemblies and compounded for use to lubricate and protect threaded raceway joints from corrosion and enhance their conductivity.

G. Conduit Hubs for RMC:
   1. Suitable for environment served.
   2. Grounding screw.
   3. O-ring gasket.
   4. Material: Malleable Iron with zinc electroplate.
   5. Manufacturer:
      a. Cooper Myers Hubs.
      b. Thomas & Betts.
      c. Killark.

PART 3 - EXECUTION

3.1 INSTALLATION

A. All conduits to be exposed unless otherwise specified or indicated on the Drawings.

B. Install conduit products in accordance with:
1. The Drawings.
2. The Manufacturer's written instructions.
3. Applicable requirements of NEC and National Electrical Contractors Association's "Standard of Installation."
4. Recognized industry practices to ensure that products serve intended function.

C. Conduit Joints: Cut square, reamed smooth and drawn up tight.

D. Threaded Conduit Joints: Apply listed anti-corrosion/anti-seize compound to threads of raceway and fittings before making up joint. Follow compound manufacturer’s written instructions.

E. Bends:
1. Number per run for conduit that support feeder and branch circuits: Do not exceed the equivalent of 4 quarter bends (360 degrees) between pull points.
2. Number per run for conduit that supports data/communications cabling: Do not exceed the equivalent of 2 quarter bends (180 degrees) between pull points.
3. Make bends and offsets so as not to reduce the inner diameter of the conduit.
4. To the extent possible, avoid using large junction boxes as 90 degree junctions.

F. Routing:
1. Concealed Conduits: Run in a direct line with long sweep bends and offsets.
2. Exposed Conduits: Run parallel to, and at right angles to, building lines.
3. Run continuous from outlet to outlet and from outlets to cabinets, pull or junction boxes.
4. Secure to boxes and cabinets with locknuts and bushings in such a manner that each system is electrically continuous throughout.

G. Cap conduit ends to prevent entrance of foreign materials during construction.

H. Provide insulated bushings on threaded conduit run terminations. Where entering the bottom of open-bottom switchboards, motor control centers, transformers, primary switches, and similar equipment provide bonding bushings and bonding jumpers.

I. Where entering the bottom of open-bottom equipment (i.e., switchboards, panelboards, motor control centers, transformers, and similar equipment) conduit shall not be installed flush with the floor/equipment pad and shall not rise more than 3 inches above the bottom of the enclosure.

J. Conduit entering control panels shall not obstruct internal components and shall allow for neat and workmanlike wire management.

K. Completely install conduit systems before installing conductors.

L. Refer to Division 26 Section “Common Work Results for Electrical” for sealing underground and above grade conduit that is exposed to temperature differences to prevent the passage of air and condensation.

M. Support:
1. Where information on Drawings conflicts with information herein, the more stringent requirements shall take precedence and the better quality or greater quantity of work shall be provided.
2. Adequately support conduit from structural elements of the building.
3. Do not drill or tap structural building steel without approval from Engineer.

4. Do not rest raceways or wiring systems on, nor support it from, ceiling suspension systems, ceiling tiles or mechanical equipment including, but not necessarily limited to ductwork and fans.
5. Conduit shall be supported in accordance with the NEC and Division 26 Section “Hangers and Supports for Electrical Systems.”

N. Provide conduit expansion couplings where conduits cross building or structure expansion joints.

O. Install pull wires in empty raceways. Use polypropylene or monofilament plastic line with not less than 200 pound tensile strength. Label and leave at least 12 inches of slack at each end of pull wire.

P. LTFMC Installation:
1. Provide separate grounding conductor in accordance with Division 26 Section “Grounding and Bonding.”
2. Connection to light fixtures shall not exceed 6 feet in length within an accessible ceiling and 3 feet in length where exposed. Connection to solenoids, pressure switches, motors, fans, HVAC equipment, and similar equipment shall not exceed 3 feet in length.
3. Flexible conduit shall not be used to connect to surface mounted light fixtures or other non-moving, non-vibrating, or non-adjustable equipment.

Q. PVC Coated RMC Installation:
1. Installers shall be trained and certified by Manufacturer to install PVC Coated RMC.
2. Install in accordance with Manufacturer’s published installation guide, National Electrical Code, local codes and standard trade practices.
3. Use Manufacturer’s recommended pipe wrenches, clamping devices, benders, and threading tools.
4. Provide PVC coated fittings at each termination point.
5. Field threads shall be degreased and coated with Manufacturer’s recommended compounds.
6. Provide separate grounding conductor in accordance with Division 26 Section “Grounding and Bonding.”
7. Take care not to damage PVC coating during assembly, cutting, bending, clamping, and threading.
8. Use Manufacturer's approved touch-up compound to repair nicks and cuts to the outer PVC jacket, and for use as a sealant. Where large abrasions are made in the outer PVC jacket the conduit shall be replaced.

R. Rigid Nonmetallic Conduit Installation:
1. Provide separate grounding conductor in accordance with Division 26 Section “Grounding and Bonding.”
2. Support conduit in accordance with the NEC.
3. Provide expansion couplings where length change due to temperature variation exceeds 1/4-inch.
4. When penetrating concrete surfaces or grade, make a transition to rigid steel conduit 6 inches (minimum) below the surface. Provide corrosion protection by coating the RMC with a bituminous coating from inside the encasing material to 4 inches of exposed conduit; vinyl corrosion protection tape may be installed, but must be reviewed with the Engineer prior to installation.
5. Provide rigid steel elbows in all conduit that is underground or encased in concrete.
6. In areas of assembly, where RNMC is installed, conduits shall be encased in a minimum of 2 inches of concrete.
7. Where RNMC is embedded in concrete, conduit shall be securely fastened and supported in accordance with the NEC to prevent damage during concrete pours.

S. Firestopping: Firestop all conduit penetrations of fire rated barriers by using approved material to ensure integrity of the rating.

T. Underground Installation:
1. As indicated on the Drawings, including the excavating, pumping, backfilling, shoring and removal of surplus excavated material.
2. Underground Obstructions:
   a. Locate all that may interfere with excavation.
   b. Be responsible for damage to existing underground systems and assume all cost of repairing the same.
3. Backfilling:
   a. Use only clean sand thoroughly compacted to prevent settling of trenched areas.
   b. In the event that backfilled areas do settle, fill and compact to finish grade, and repair all damage caused by settling.

4. Repair all disturbed surface to match existing.
5. Unless otherwise indicated on the Drawings, install top of conduit 30 inches below grade when located outside the walls of the building
6. Provide warning ribbon 12 inches above conduits.

U. Embedment in Concrete:
1. Where conduit is embedded in concrete, follow the requirements of Section 6.3 in ACI 318 – Building Code Requirements for Structural Concrete and Section 6.3 in ACI 350R – Environmental Engineering Concrete Structures.
2. Review proposed routing of embedded conduit with Engineer prior to installation.
3. Embedded conduit shall be installed between top and bottom reinforcement, in a manner that prevents concrete from entering the conduit system.

3.2 CONDUIT SCHEDULE

A. Where information on Drawings conflict with information herein, the more stringent requirements take precedence, and the better quality or greater quantity of work shall be provided.

B. Feeders, Branch Circuits and System Conduits:
1. Underground and In or Below Concrete: RNMC.
2. Exterior Above Slab or Grade: RMC.
3. Unfinished Spaces:
   a. Dry, Damp, Wet; RMC
   b. Hazardous Locations: RMC or PVC coated RMC.
   c. Corrosive Locations: PVC coated RMC.
4. Underground Duct Banks:
   a. Encased In Concrete: RNMC.
   b. Not Encased In Concrete: RNMC.

C. Lighting Fixture Support: RMC, PVC coated RMC.
1. Where explosion-proof light fixtures are supported via conduit, provide fittings that allow for changing of lamps.
2. Light fixtures shall not be supported via standard locknuts at the fixture connection. Provide fittings with set-screw or other means to prevent loosening.
3. Hands-free swivel type hangers shall be used in dry locations. Threaded condulet fittings shall be used in Damp, Wet, Corrosive, and Hazardous Locations.

D. Connection To Equipment:
1. Lighting Fixtures and Control Devices (including, but not necessarily limited to solenoids, pressure switches, and field instruments):
   a. Dry Locations: LTFMC.
   b. Wet or Damp Locations: LTFMC.
   c. Corrosive Locations: LTFMC with nonmetallic fittings.
   d. Hazardous Locations:
      1) Class I, Division 1: Bronze flexible couplings. Equal to Killark ECF/EKJ Series.
      2) Class I, Division 2: LTFMC with listed fittings.
2. Vibrating Equipment (including, but not necessarily limited to motors and transformers):
   a. Motors:
      1) Dry Locations: LTFMC.
      2) Wet or Damp Locations: LTFMC.
      3) Corrosive Locations: LTFMC with nonmetallic fittings.
      4) Hazardous Locations:
         a) Class I, Division 1: Bronze flexible couplings. Equal to Killark ECF/EKJ Series.
         b) Class I, Division 2: LTFMC with listed fittings.
   b. Transformers:
      1) Dry Locations: LTFMC.
      2) Wet or Damp Locations: LTFMC.

c. Equipment Mounted On Vibration Isolators::
   1) Dry Locations: LTFMC.
   2) Wet or Damp Locations: LTFMC.
d. Hazardous Locations:
   1) Class I, Division 1: Bronze flexible couplings. Equal to Killark ECF/EKJ Series.
   2) Class I, Division 2: LTFMC with listed fittings.

E. Provide separate raceway systems for:
   1. Normal power wiring.
   2. Emergency power wiring.
   3. A.C. signal and control wiring.
   4. Low voltage signal and control wiring.
   5. Analog instrumentation wiring.
   6. Special systems wiring.

F. Do not utilize panelboards, motor control centers, distribution equipment or like devices as raceways.

G. Provide seal-off fittings in all conduit runs that enter/leave Hazardous Locations and where entering enclosures in accordance with the NEC. Fill seal-off fittings with sealing compound prior to Substantial Completion.

H. Provide cable seals on all cable terminations in Hazardous Locations in accordance with the NEC.

I. For conduits that enter NEMA Type 2, 3, 3R, 4, 4X, and 12 enclosures, provide conduit hubs with o-ring gaskets. Hubs shall be suitable for the environment served and shall match the conduit type. Grounding hubs shall be used with nonmetallic enclosures.

END OF SECTION 26 05 34

SECTION 26 05 35 – BOXES FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the furnishing and installation of all electrical boxes and the major items listed below:
   1. Outlet boxes.
   2. Junction boxes.
   3. Pull boxes.

1.3 REFERENCES

A. Except as herein specified or as indicated on the Drawings, the work of this Section shall comply with the following:
   1. NEMA - National Electrical Manufacturer's Association: Standards as applicable to nonmetallic fittings for underground installation.
   2. NECA - National Electrical Contractor's Association's: Applicable portions of "Standard of Installation".

1.4 QUALITY ASSURANCE

A. Fabrication and Installation Personnel Qualifications:
   1. Trained and experienced in the fabrication and installation of the materials and equipment.
   2. Knowledgeable of the design and the reviewed submittals.

B. Regulatory Agencies Requirements:
   1. Provide boxes which are listed and labeled by Underwriters' Laboratories.
   2. NEC - National Electrical Code (NFPA 70) - As applicable to construction and installation of electrical boxes.

1.5 DELIVERY, STORAGE AND HANDLING

A. Deliver all materials in original, unbroken, brand marked containers or wrapping as applicable.

B. Handle and store materials in a manner which will prevent deterioration or damage, contamination with foreign matter, damage by weather or elements, and in accordance with Manufacturer's directions.

C. Store materials indoors and protect from weather. When necessary to store outdoors, elevate materials above grade and enclose with durable, watertight wrapping.

D. Reject damaged, deteriorated, or contaminated materials and immediately remove from the Site. Replace rejected materials with new materials at no additional cost to Owner.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Interior Outlet Boxes:
   1. Galvanized steel outlet boxes of the type, shape, and size, including depth of box, to suit each respective location and installation; constructed with stamped knockouts in back and sides, and with threaded holes with screws for securing box covers or wiring devices.

2. In areas requiring exposed RNMC, provide nonmetallic outlet boxes of type, shape and size to suit each location. Each box is to have conduit hubs with removable plugs and a non-metallic cover. Each box shall be compatible with RNMC.

B. Interior Outlet Box Accessories:
1. As required for each installation, including mounting brackets, wallboard hangers, extension rings, fixture studs, cable clamps, and metal straps for supporting outlet boxes. Accessories shall be compatible with outlet boxes being used and meet the requirements of individual wiring situations.
2. Choice of accessories is installer's option.

C. Weatherproof Outlet Boxes:
1. Corrosion-resistant cast metal, weatherproof outlet boxes, of the type, shape, and size, including depth of box, suitable for each application, with threaded conduit ends.
2. In corrosive atmospheres that are not hazardous (NEMA 7) provide glass fiber reinforced plastic outlet boxes.

D. Surface Mounted: 4-inch square.

E. Junction and Pull Boxes:
1. Sheet steel junction and pull boxes, with screw-on covers; of the type and shape and size to suit each respective location and installation; with welded seams and equipped with stainless steel nuts, bolts, screws, and washers. Dry interior location boxes shall have baked enamel finish. Damp location and exterior boxes shall have galvanized finish.
2. Glass fiber reinforced plastic junction and pull boxes in corrosive, nonhazardous areas.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General:
1. Install electrical boxes as indicated, in compliance with NEC requirements and in accordance with the Manufacturer's written instructions and recognized industry practices to ensure that the boxes and fittings serve the intended purposes.
2. Provide weatherproof outlet boxes for interior and exterior locations exposed to weather or moisture.
3. Provide knockout closures to cap unused knockout holes where blanks have been removed.
4. Locate boxes and conduit bodies so as to ensure accessibility of electrical wiring.
5. Secure boxes rigidly to the substrate upon which they are being mounted, or solidly embed boxes in concrete or masonry.
6. Do not install boxes back-to-back in same wall. Coordinate cutting of masonry walls to achieve neat openings for boxes.
7. Do not use sectional or handy boxes.
8. For boxes mounted in exterior walls install insulation behind outlet boxes to prevent condensation in boxes.
9. All boxes shall have covers installed at completion of construction.

END OF SECTION 26 05 35

SECTION 26 05 53 – IDENTIFICATION FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the furnishing and installation of proper identification for electrical system components.

B. Items requiring identification or labeling include:
   1. Cables and conductors.
   2. Conduit systems.
   3. Controls:
      a. Motor starters.
   4. Distribution Equipment:
      a. Disconnect switches.
      b. Enclosed circuit breakers.

1.3 SUBMITTALS

A. Nameplate schedule identifying each device to be labeled and project specific label text.

PART 2 - PRODUCTS

2.1 ELECTRICAL LABELS

A. Provide engraved laminated plastic nameplate to identify each piece of electrical equipment:
   1. Nameplate shall have 3/8-inch minimum black letters on a white background.
   2. Punched or drilled for mechanical fasteners.

B. Provide printed labels by Brady or T&B to identify conductors.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General:
   1. Attach nameplates directly to each piece of electrical equipment. In finished areas of building, install nameplates behind enclosure door where possible.
   2. Where several conductors pass through a pull box, junction box, or enclosure, provide wire labels. Group wires before labeling.

B. Cables and Conductors:
   1. Cables and conductors shall be color-coded in accordance with Division 26 Section “Conductors and Cables – 600V and Below.”
   2. All conductors and cables for power, lighting, control, supervision, low voltage systems, etc. shall be labeled with the source and circuit number and/or match the identification provided in the manufacturer’s submittals and O&M manuals. If none of the identifiers are suitable or available, the Contractor shall devise a clear and understandable identification labeling system. Without exception, all cables and conductors shall be clearly labeled.
   3. Labeling shall occur everywhere cables and conductors are terminated or spliced.

C. Conduit Systems:
   1. Junction boxes used for fire alarm system wiring shall be red.
   2. Provide label inside each junction and pull box identifying circuit numbers for all conductors contained inside the box. Labeling shall be printed neatly with permanent, waterproof, black ink marker.

D. Controls: For each of the following control devices, provide label attached to enclosure cover. Label shall identify:
   1. Motor Starters: Name of equipment served and load (example, “EF-5, 5 HP”).

E. Distribution Equipment: For each of the following pieces of electrical distribution equipment, provide label attached to enclosure cover. Label shall identify:
   1. Disconnect Switches: Name of equipment served, number of poles, ampere rating/fuse size (where applicable), and load (example, “RTU-1, 3P30/25, 8 TON”).
   2. Enclosed Circuit Breakers: Name of device as indicated on one line diagram, number of poles, and circuit breaker size (example, “MCB, 3P200”).

END OF SECTION 26 05 53

SECTION 26 27 26 – WIRING DEVICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the furnishing and installation of all wiring devices and the major items listed below:
   1. Receptacles.
   2. Switches.
   3. Wall plates.
   4. Box covers.

1.3 REFERENCES

A. Except as herein specified or as indicated on the Drawings, the work of this Section shall comply with the following:
   1. NEMA - National Electrical Manufacturer's Association - Standards for general and specific purpose wiring devices WD-1, WD-s.
   2. Federal Specifications WC-596 and WS-896.
   3. Underwriter Laboratories (UL) Standard 498.

1.4 SUBMITTALS

A. Shop Drawings: For wiring devices.
   1. Name of Manufacturer.
   2. Model number.
   3. Details of construction and installation
   4. Electrical specifications and ratings.
   5. Dimensional data.
   6. Color and finish.

1.5 QUALITY ASSURANCE

A. Regulatory Agencies Requirements:
   1. NEC - National Electrical Code (NFPA 70) as applicable to construction and installation of electrical wiring devices.
   2. UL Labels. Provide wiring devices which have been tested and are listed and labeled by Underwriters' Laboratories.

1.6 DELIVERY, STORAGE AND HANDLING

A. Deliver all materials in original, unbroken, brand marked containers or wrapping as applicable.

B. Handle and store materials in a manner which will prevent deterioration or damage, contamination with foreign matter, damage by weather or elements, and in accordance with Manufacturer's directions.

C. Store materials indoors and protect from weather. When necessary to store outdoors, elevate materials above grade and enclose with durable, watertight wrapping.

D. Reject damaged, deteriorated, or contaminated materials and immediately remove from the Site. Replace rejected materials with new materials at no additional cost to Owner.

PART 2 - PRODUCTS

2.1 WIRING DEVICES

A. General:
1. Provide factory-fabricated wiring devices in type, color, and electrical rating as indicated below.
2. Where type and grade are not indicated, proper selection shall be determined by installer to fulfill the wiring requirements and to comply with NEC and NEMA standards for wiring devices.

B. Manufacturers: Provide equal products by one of the following Manufacturers for switches and receptacles specified:
1. Eaton (Arrow Hart).
2. Leviton Manufacturing Co., Inc.
3. Hubbell Incorporated: Wiring Device-Kellems.
4. Pass & Seymour/Legrand (Pass & Seymour).

C. Switches:
1. Switch Rating: 20 amp, 1201277V, specification grade, quiet operating.
2. Switch Provisions: Back and side wiring.
3. Device Color: Ivory.
4. Manufacturer: Hubbell HBL1220 Series.

D. Duplex Receptacles:
1. Ratings: 20 amp, 125V, industrial, heavy duty, tamper-resistant, specification grade.
2. Provisions: Back and side wiring, grounding screw.
3. One Piece Mounting Strap: 260 brass, 0.05-inch thick.
4. Device Color: Ivory.
5. Manufacturer: Hubbell HBL5362TR Series.

E. Corrosion Resistance Duplex Receptacles:
1. Ratings: 20 amp, 125V, industrial, extra heavy duty specification grade.
2. Provisions: Back and side wiring, grounding screw.
3. One-Piece Mounting Strap: 260 brass, 0.05-inch thick.
4. Device Color: Yellow.
5. Manufacturer: Hubbell HBL53CM62.

F. Ground Fault Circuit Interrupter Duplex Receptacles:
1. Ratings: 20 amp, 125V, self-test, extra heavy duty, industrial, tamper-resistant, specification grade.
2. Provisions: Feed through protection.
3. Nickel plated brass mounting strap.
4. Device Color: Ivory.
5. Manufacturer: Hubbell GF5362SG Series.

G. Wall Plates:
1. Number: Provide a single (switch or duplex outlet) wall plate for wiring devices grouped at each location.
2. Attachment: Provide metal screws for securing plates to devices, screw heads colored to match finish of plate.
3. Construction:
   a. Stainless Steel: 0.04-inch thick, Type 302 satin finished stainless steel, accurately die cut, protected with release paper.
   b. Plastic: High abuse nylon or polycarbonate, color to match device.
   c. Cast Metal: Die cast profile, ribbed for strength, flash removed, painted with gray enamel, furnished complete with 4 mounting screws with gaskets.
   d. Steel: Hot dip galvanized, 1.25 ounce per square foot minimum.
4. Plate Application:
   a. When surface mounted device boxes are utilized, the plate shall match the box (i.e., a 4 square box shall require a raised device cover, an FS or FD box shall require an FS or FD device cover, and a PVC coated box shall require a PVC coated cover, etc.)
   b. Devices ln Process Spaces: Plastic, ivory..

c. Weatherproof Outlet Covers and Face-Plates:
   1) Cast aluminum impact resistant polycarbonate, NEMA 3R, weatherproof while-in-use outlet cover with faceplate, faceplate gasket and corrosion proof fasteners.
   2) Manufacturers: Hubbell, Leviton, Thomas & Betts Red Dot.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General:
   1. Install wiring devices in accordance with:
      a. The Drawings.
      b. Manufacturer's written instructions.
      c. Applicable requirements of NEC and National Electrical Contractors Association's "Standard of Installation".
      d. Recognized industry practices to ensure that products serve intended function.
   2. Delay installation of devices until wiring is completed.
   3. Install receptacles and switches only in electrical boxes which are clean and free from excess building materials and debris.

B. Switches:
   1. Install as indicated on the Drawings to control lights as indicated.
   2. Where more than 1 wall switch is installed in same location, set under 1 cover plate.

C. Receptacles:
   1. Locate approximately as indicated on the Drawings, long dimension vertical, with grounding pole at top.
   2. Centerline generally at 18 inches above floor on a tile or block joint unless otherwise indicated on the Drawings. When mounting height exceeds 27 inches above floor, mount horizontally with grounding pole at left.
   3. Refer to architectural Drawings for specific location requirements for architectural details when located above counters (long dimension horizontal), and for centering to meet architectural conditions.
   4. Refer to mechanical Drawings for coordination with mechanical equipment, radiation, fin tube, grilles, and diffusers.
   5. Provide bonding jumper from outlet to box.

D. Corrosion Resistant Receptacles: ln areas designated as corrosive areas, install corrosion resistant receptacles, where indicated.

E. Wall Plates:
   1. Install coverplates on all wiring devices
   2. Plate shall cover entire wall opening.

3.2 FIELD QUALITY CONTROL

A. Testing: Test wiring devices to ensure electrical continuity of grounding connections, and test after energizing circuitry, to demonstrate compliance with requirements.

3.3 PROTECTION OF WALL PLATES AND RECEPTACLES

A. Upon installation of wall plates and receptacles, advise Subcontractors regarding proper and cautious use of convenience outlets. At time of Substantial Completion, replace those items which have been damaged, including those burned and scored by faulty plugs.

END OF SECTION 26 27 26

SECTION 26 28 00 – LOW VOLTAGE CIRCUIT PROTECTIVE DEVICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections apply to this Section.

1.2 SUMMARY

A. This Section includes the furnishing and installation of all low voltage circuit protective devices:
   1. The types of low voltage circuit protective devices required for the Project and specified in this Section include the following:
      a. Fuses.
      b. Circuit breakers.

1.3 REFERENCES

A. Except as herein specified or as indicated on the Drawings, the work of this Section shall comply with the following:
   1. UL 489 – Molded Case Circuit Breakers.
   2. NEMA AB1 – Molded Case Circuit Breakers.
   3. NEMA 250 – Enclosures for Electrical Equipment.
   4. NFPA 70 – National Electrical Code.

1.4 SUBMITTALS

A. Manufacturer's literature for each type of low voltage circuit protective device furnished to include:
   1. Name of Manufacturer.
   2. Model.
   3. Time-current curves.
   4. Interrupt ratings.
   5. NEC class.
   6. Details of construction and installation.
   7. Options and accessories.

B. Installation Instructions: For low voltage circuit protective devices.

C. Operation and Maintenance Manuals: For low voltage circuit protective devices.
   1. Equipment function, normal operating characteristics, and limiting conditions.
   2. Assembly, installation, alignment, adjustment, and checking instructions.
   3. Operating instructions for start-up, routine and normal operating, regulation and control, shutdown, and emergency conditions.
   4. Maintenance instructions.
   5. Guide to "troubleshooting."
   6. Parts list and predicted life of parts subject to wear.
   7. Project specific outline and cross sections, assembly drawings, engineering data, and wiring diagrams.
   8. Test data and performance curves.

1.5 QUALITY ASSURANCE

A. Fabrication and Installation Personnel Qualifications:
   1. Trained and experienced in the fabrication and installation of the materials and equipment.
   2. Knowledgeable of the design and the reviewed submittals.

B. Provide fuses and circuit breakers which have been tested, listed, and labeled by Underwriters' Laboratory.

1.6 DELIVERY, STORAGE AND HANDLING

A. Deliver all materials in original, unbroken, brand marked containers or wrapping as applicable.

B. Handle and store materials in a manner which will prevent deterioration or damage, contamination with foreign matter, damage by weather or elements, and in accordance with Manufacturer's directions.

C. Store materials indoors and protect from weather. When necessary to store outdoors, elevate materials above grade and enclose with durable, watertight wrapping.

D. Reject damaged, deteriorated, or contaminated materials and immediately remove from the Site. Replace rejected materials with new materials at no additional cost to Owner.

PART 2 - PRODUCTS

2.1 FUSES

A. General: Provide fuses manufactured by Bussmann, Inc. as required for all motor starters, fused disconnect switches, and other equipment requiring fuse protection as indicated on the Drawings, or in absence thereof, as selected by the installer to meet the specific electrical requirements of the equipment being served. Select only from the following:
   1. Dual element plug fuses, 0-30 ampere, 150 volt, 10,000 ampere interrupting rating: Buss "Fusetron".
   2. Dual element fuse, 0-600 ampere, 250 or 600 volt, 200,000 ampere interrupting rating, Type R-K5: Buss "Fusetron".
   3. 601 amperes and above, 250 or 600 volt, 200,000 ampere interrupting rating: Buss "Hi-Cap".

B. All fuses shall be by one Manufacturer.

2.2 CIRCUIT BREAKERS

A. General:
   1. Provide required circuit breakers for installation in panelboards, switchboards, individual enclosures, or motor control centers. Circuit breaker Manufacturer shall be that of the equipment in which it is installed or shall be supplied by that equipment Manufacturer.
   2. Provide electronic trip circuit breakers where indicated on the Drawings.
   3. All breakers shall be rated for the applied voltage and have a minimum 10,000-amp interrupt rating.

B. Mechanism: Molded case circuit breakers shall have over center toggle-type mechanisms, providing quick-make, quick-break action. Breakers shall be calibrated for operation in an ambient temperature of 40 degrees C. Each circuit breaker shall have trip indication by handle position and shall be trip-free. 2 and 3 pole breakers shall be common trip.

C. Thermal Magnetic Trip:
   1. Each circuit breaker shall have a permanent trip unit containing individual thermal and magnetic trip elements in each pole.
   2. Circuit breakers with frame sizes greater than 100 amperes shall have variable magnetic trip elements which are set by a single adjustment (to ensure uniform tripping characteristics in each pole).
   3. Single pole 15 and 20 ampere breakers shall be SWD rated.

D. Enclosures:
   1. Provide a UL listed circuit breaker enclosure for each individually mounted circuit breaker.
   2. Enclosure to have NEMA rating for its intended location (NEMA 12, 3R, 4).
   3. Provide handle mechanism padlockable in "OFF" position.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install fuses in all combination motor starters, fused disconnects, and equipment as required. Install circuit breakers in all panelboards, switchboards, and motor control centers as required.

3.2 FIELD SETTINGS

A. Perform field adjustments of protective devices as required to place the equipment in final operating condition.

END OF SECTION 26 28 00

SECTION 28 20 00 – VIDEO SURVIELLANCE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, Division 01 Specification Sections, and Division 26 Specification Sections apply to this Section.

1.2 SUMMARY

A. This Section includes the procurement and installation of video surveillance equipment including:
   1. Cameras.
   2. Camera mounting equipment.
   3. Accessories.

B. The Owner will supply head end equipment for the video surveillance system and will provide all associated programming.

C. This specification and the Drawings indicate minimum requirements for the video surveillance system. All video surveillance equipment, devices, and installation shall be coordinated with and approved by the Owner. Supplier is responsible for complete and functional design of system.

1.3 SUBMITTALS

A. Shop Drawings:
   1. Product Data:
      a. Cutsheets.
      b. Installation instructions.
      c. Include an equipment list/bill of material consisting of every piece of equipment by model number and manufacturer.

B. Closeout Submittals:
   1. Operation and Maintenance Manuals, indicating the following:
      a. Equipment function, normal operating characteristics and limiting conditions.
      b. Assembly, installation, alignment, adjustment and checking instructions.
      c. Operating instructions for start-up, routine and normal operating, regulation and control.
      d. Maintenance instructions.
      e. Manufacturer’s guide to "troubleshooting".
      f. Parts lists and predicted life of parts subject to wear.
      g. Assembly drawings, engineering data and wiring diagrams.

1.4 QUALITY ASSURANCE

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

B. Comply with NFPA Standards:
   1. NFPA 70.
   2. NECA 1.

1.5 DELIVERY, STORAGE AND HANDLING

A. Deliver materials in original, unbroken, brand marked containers or wrapping as applicable.

B. Handle and store materials in a manner that will prevent deterioration, damage, contamination with foreign matter, and damage by weather or elements, and according to Manufacturer's directions.

C. Store materials indoors and protect from weather.

D. Reject damaged, deteriorated, or contaminated material and immediately remove from the Site. Replace rejected materials with new materials at no additional cost to Owner.

1.6 WARRANTY

A. In accordance with the warranty provisions defined in the General Conditions and Supplementary Conditions.

B. Provide a 1 year complete manufacturer's warranty on all products to be free of manufacturer's defects beginning at time of Final Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Johnson Controls.

B. Or equal.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General:
1. Install video surveillance equipment as indicated herein.
2. Install video surveillance equipment in accordance with Manufacturer's recommendations.
3. Install (1) high definition camera in sodium hypochlorite bulk chemical storage room. Coordinate location with Owner.

B. Cameras:
1. All camera locations and mounting heights shall be coordinated with and approved by the Owner before installing.
2. Interior Ceiling Mounted:
   a. Coil extra Ethernet cable ("slack") near camera above accessible ceiling space. Provide a galvanized steel j-hook for coiling/storage of cable.
   b. Coordinate final installation location with other ceiling mounted equipment and devices.
3. Interior Pendant Mounted:
   a. Mount at 12'-0" above finished floor unless noted otherwise. Provide pendent lengths as required for mounting.
   b. Coordinate final installation location with other obstructions in space.
   c. Coil extra Ethernet cable ("slack") near camera at structure above. In wet and corrosive locations, provide NEMA 4X fiberglass box for coiling/storage of cable. In dry locations, a galvanized steel j-hook may be used for coiling/storage of cable.
4. Interior Wall Mounted:
   a. Mount at 12'-0" above finished floor unless noted otherwise.
   b. Provide wall/pole mount camera bracket.
   c. Coordinate final installation location with other obstructions in space.
   d. Coil extra Ethernet cable ("slack") above camera. In wet and corrosive locations, provide NEMA 4X fiberglass box for coiling/storage of cable. In dry locations, a galvanized steel j-hook may be used for coiling/storage of cable.

C. Dust Protection:
1. Blue painters tape shall be the material used for dust protection.
2. Dust protection shall remain in place until construction is substantially complete and dust and/or paint generating operations are complete.

3.2 FIELD QUALITY CONTROL

A. Video Surveillance Startup:
   1. Verify that video surveillance equipment and devices are operating properly.
   2. Verify that all interconnection wires and terminals are identified and labeled.
   3. Owner will provide (furnish and install) front-end equipment for video surveillance. Assist Owner in video surveillance startup. Assume a minimum onsite time of (2) days to troubleshoot, re-aim, and relocate cameras as directed by Owner.

B. Replace any cameras deemed defective by Owner during startup.

3.3 CLEANING

A. Clean all video surveillance system components at Final Completion.

B. Replace damaged work.

END OF SECTION 28 20 00

SECTION 40 05 13 – PROCESS PIPING SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the furnishing and installation of process piping.

B. Work included under this Section:
   1. Non-buried process piping indicated on the Process Drawings.

C. Work not included under this Section:
   1. Buried process piping greater than a distance of 5 feet from a tank or building penetration.
   2. Piping indicated on plumbing and mechanical Drawings, including natural gas piping, building waste, plumbing vent and drainage systems, and piping systems to support HVAC systems.

D. Related Section includes Division 40 Section “Process Valves.”

1.3 REFERENCES

A. Except as herein specified or as indicated on the Drawings, the work of this Section shall comply with the following:
   1. ANSI B 16.5 - Pipe Flanges and Flange Fittings.
   2. ASTM Standards:
      a. A36 - Structural Steel.
      b. A53 - Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless.
      c. A193 - Alloy-Steel and Stainless Steel Bolting Materials for High-Temperature Service.
      d. A194 - Carbon and Alloy Steel Nuts for Bolts for High-Pressure and High-Temperature Service.
      e. A234 - Pipe Fittings of Wrought Carbon Steel and Alloy Steel for Moderate and Elevated Temperatures.
      f. A283 - Low and Intermediate Tensile Strength Carbon Steel Plates.
      g. A312 - Seamless, Welded, and Heavily Cold Worked Austenitic Stainless Steel Pipes.
      h. A403 - Wrought Austenitic Stainless Steel Piping Fittings.
      i. D1784 - Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds.
      j. D1785 - Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120.
      k. D2464 - Threaded Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80.
      l. D2467 - Socket Type Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80.
      m. D2992 - Obtaining Hydrostatic Design Basis for Reinforced Thermosetting Resin Pipe and Fittings.
      n. D2996 - Filament-Wound "Fiberglass" (Glass-Fiber-Reinforced Thermosetting-Resin) Pipe.
      o. E8 - Low and Intermediate Tensile Strength Carbon Steel Plates.
      p. E23 - Notched Bar Impact Testing of Metallic Materials.
      q. Design Manual M-11 - Steel Pipe – A Guide for Design and Installation.
   3. NSF Standards:
      a. 14 - Plastic Piping Components and Related Materials.
      b. 61 - Drinking Water System Components.

1.4 DESIGN AND PERFORMANCE REQUIREMENTS

A. Pipe:
1. Design, fabricate and install according to the references and standards specified herein.
2. The Drawings indicate general pipe layout only. Details of joints, couplings, tie rods, supports and make-up pieces are not necessarily indicated. Submit proposed details for these components for Engineer's review.
3. Provide makeup pipe spools, supports and suitable couplings so that piping may be easily separated for removing valves and inline flanged device.

B. Supports and Hangers:
1. The detailed design, layout and spacing of process pipe supports shall be the responsibility of the Contractor. However, required locations of some supports may be indicated on the Drawings.
2. Design to prevent pipe sway and movement.
3. Adequate to prevent sagging of plastic pipe.
4. Utilize supporting members as indicated on the structural Drawings for the design, layout and spacing of the process piping supports systems.
5. Design process piping support systems to allow process valves and meters to be removed from the piping system without adding temporary pipe supports to the pipe upstream or downstream of the valve or meter.

1.5 SUBMITTALS

A. Itemized Listings:
1. Equipment to be provided.
2. Deviations from the requirements of this Section.

B. Shop Drawings: For equipment assemblies in this Section to include:
1. Details of construction and installation, including taps, weld-on outlets, water collars, specials, and similar features.
2. Pipe diameter, wall thickness, length, centerline elevations, and locations and dimensions of valves fittings, taps, and in-line equipment and instruments, and similar features.
3. Location and centerline elevation of wall sleeves and wall pipes.
4. Type and location of pipe supports on 8-inch pipe and larger.
5. Details for concrete pipe supports including dimensions, reinforcement, pipe straps and locations proposed for use.
6. Type and location of pipe couplings.
7. Schedule of wall sleeves and pipes indicating proposed sizes, lengths, and connection details.
8. Plan indicating preliminary testing schedule showing pipe sections to be tested, bulkheads, drains, and chlorine injection locations.
9. Schedule of coatings.

C. Product/Catalogue Data: For all products in this Section to include:
1. Manufacturer.
2. Manufacturer's engineering and specification data.
3. Dimensions, thicknesses, cross-sections, materials of construction.
4. Coatings.

D. Installation Instructions:
1. Submit complete Manufacturer's installation instructions for all products.
2. Submit pipe Manufacturer's recommended span lengths between hangers or supports for each pipe size and type.

E. Certifications: Submit Manufacturer's certification that products and materials conform to these Specifications.

1.6 QUALITY ASSURANCE

A. Fabrication and Installation Personnel Qualifications:
   1. Trained and experienced in the fabrication and installation of the materials and equipment.
   2. Knowledgeable of the design and the reviewed Shop Drawings.

1.7 DELIVERY, STORAGE AND HANDLING

A. Deliver materials in original, unbroken, brand marked containers or wrapping as applicable.

B. Handle and store materials in a manner which will prevent deterioration, damage, contamination with foreign matter, and damage by weather or elements, and in accordance with Manufacturer's directions.

C. Reject damaged, deteriorated or contaminated material and immediately remove from the Site. Replace rejected materials with new materials at no additional cost to Owner.

PART 2 - PRODUCTS

2.1 PIPE AND FITTINGS

A. General: Provide taps at locations indicated on the Drawings.

B. Polyvinyl Chloride (PVC) Pipe Systems:
   1. Uses:
      a. Bulk tank and day tank vents.
      b. Bulk tank overflow.
      c. Bulk and day tank fill lines.
      d. Bulk tank drain line.
      e. Chemical transfer lines.
   2. Materials:
      a. PVC pipe installed
      b. Manufacture pipe, valves, and fittings from material which meets the requirements of Type 1, Grade 1 polyvinyl chloride as outlined in ASTM D1784.
      c. PVC shall have a design stress rating of 2,000 psi at 73 degrees F and 440 psi at 140 degrees F for water service.
      d. Test and approve materials from which pipe, valves and fittings are manufactured for conveying potable water.
      e. Joint Primer:
         1) ASTM F656.
         2) Weld On P-75 (Blue); or equal.
      f. Solvent Cement:
         1) ASTM D2564.
         2) Oatey 31036 Heavy Duty Gray PVC Cement; or equal.
      g. Pipe and Fittings: NSF listed for potable water service and labeled as such.
   3. Pipe: Schedule 80 PVC conforming to ASTM D1785.
   4. Fittings:
      a. Schedule 80.
      b. Socket Type Fittings: Conform to ASTM D2467.
      c. Threaded Type Fittings: Conform to ASTM D2464. Used only where necessary to connect to threaded appurtenances. Use MIL Spec P-27730A Schedule 80 fittings when threaded connections are required.
   5. Flange Gaskets: Viton.
   6. Flange Hardware: 316L stainless steel.

C. Low Density Polyethylene (LDPE) Pipe Systems:
   1. Use: Chemical feed locations, connecting to PVC chemical feed piping.
   2. Tubing: Natural, semi-rigid, NSF approved and listed for potable water service. Pressure rated for chemical feed application.
   3. Chemical Compatibility: Compatible with water treatment plant chemicals.
   4. Size: 5/8-inch I.D. or as indicated on the Drawings, or to match pump connections.
   5. Fittings:
      a. Polypropylene compression style fittings.
      b. Manufacturer: Saint-Gobain, Jaco, John Guest; or equal.

2.2 SUPPORTS AND HANGERS

A. General:
   1. Design Layout and Spacing of the Pipe Supports: Responsibility of Contractor.
   2. Furnish factory fabricated hangers and supports complete with necessary inserts, clamps, bolts, nuts, washers, and accessories.
   3. On pipes 12-inch diameter and larger, generally use pipe stand type supports extending to the floor below. Coordinate proposed use of hangers from floors above the pipe with Engineer to ensure that the floors are capable of supporting pipe weight.

B. Manufacturers and Types:
   1. Pipe Hangers: Clevis or split ring type with adjustable threaded hanger rods.
   2. Hangers and Supports: Grinnell, Unistrut, Crane; or equal.

C. Materials (Supports and Hardware);
   1. Chemical Feed Rooms In and Above Process Tanks: Type 316L stainless steel.
   2. General Process Service: Hot-dip galvanized or zinc-plated.
   3. Isolate dissimilar pipe and support materials with 1/8-inch thick EPDM rubber sheet stock

2.3 WALL PENETRATIONS

A. Sleeves:
   1. Schedule 40 steel pipe with continuously-welded water ring of suitable size for installation of casing seal.
   2. White-metal sandblast and hot-dip galvanize sleeves after fabrication.
   3. Paint inside surface of wall sleeve in accordance with Division 09 Section “Painting.”

B. Seals:
   1. Modular mechanical type consisting of chemical resistant interlocking synthetic rubber links shaped to continuously fill the annular space between pipe and wall opening.
   2. Expanded by tightening stainless steel bolts, with a pressure plate under each bolt head.
   3. Providing a water-tight seal between passing pipe and sleeve.
   4. Provide mechanical retaining assemblies for the modular mechanical seals at the locations indicated on the Drawings.
   5. Seal materials shall be NSF listed for potable water service.
   6. Manufacturers and Types:
      a. Link Seal by Thunderline Corporation.
      b. Or equal.

2.4 FLEXIBLE CONNECTORS

A. Required on connections to day tanks and connections to the metering pumps.

B. Flexible, reinforced braided PVC tubing rated for continuous duty. The tubing shall meet NSF 61.

C. Rated Pressure: 100 psig minimum.

D. End Connections: Half unions with stainless steel hose clamps; compatible with chemical service.

E. Manufacturer:
   1. U.S. Plastic.
   2. Or equal.

2.5 SCREENING

A. Use: For tank vents.
   1. Material: Polypropylene.
   2. Color: White.
   3. Mesh per Lineal Inch: 10.2 x 10.2.
   4. Thread Diameter: 0.0315-inch.
   5. Supplier: McMaster-Carr 9275T9; or equal.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General:
   1. Install process piping and accessories in conformance with:
      a. The Manufacturer's recommendations.
      b. The Shop Drawings as reviewed by Engineer.
   2. Install items to be embedded before concrete is placed.
   3. Fasten embedded items securely to prevent movement when concrete is placed.
   4. Install items plumb, square, true to lines, grades, elevations, and locations as indicated on the Drawings and herein specified.
   5. Do not install chemical piping within finished rooms, regardless of size.
   6. Valves, regardless of size and contents, shall be readily accessible. Chemical feed piping valves shall be accessible from operating floor.
   7. Do not install chemical feed piping over equipment.

B. Hangers and Supports:
   1. Install hangers and supports at less than maximum spacing as recommended by pipe Manufacturer.
   2. Adjust hangers and supports to bring pipe lines to proper elevations.
   3. Install inserts in concrete flush with the surface and capable of developing the full strength of the bolt.

C. Wall Sleeves:
   1. Embed in concrete.
   2. After pipes have been placed through wall sleeves, clean the space between the pipe and the wall sleeve.

D. PVC Piping: Installation procedures, including support spacing, solvent welding and allowance for expansion and contraction shall be in accordance with the Manufacturer's recommendations.

E. LDPE Tubing: Bending radius of tube shall be no smaller than 10 times the diameter.

F. Stainless Steel Piping: Tools used for cleaning welds on stainless steel pipe shall be designated for and be suitable for use with stainless steel, and shall not leave carbon residue in the welds.

3.2 PAINTING

A. Paint pipe, fittings, supports, hangers, sleeves and accessories in accordance with Division 09 Section “Painting.” Do not paint stainless steel pipe.

3.3 CLEANING

A. Thoroughly clean installed materials and Products and related areas:
   1. Prior to acceptance of the work of this Section.
   2. In accordance with Division 01 Section “Cleaning and Waste Management.”

END OF SECTION 40 05 13

SECTION 40 05 23 – PROCESS VALVES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the furnishing and installation of all valves and valve operators in the process piping system as indicated on the process Drawings and defined in Division 40 Section “Process Piping Systems.”

B. This Section does not include the valves and operators for the piping systems indicated on the plumbing and mechanical Drawings.

C. Related Section includes Division 40 Section “Process Piping Systems.”

1.3 REFERENCES

A. Except as herein specified or as indicated on the Drawings, the valves and operators of this Section shall comply with the following as applicable:
   1. AWWA Standards:
      a. C 111 - Rubber-Gasket Joints for Ductile-Iron and Gray-Iron.
      b. C 500 - Metal-Seated Gate Valves for Water Supply Service.
      c. C 504 - Rubber-Seated Butterfly Valves.
      d. C 512 - Air Release, Air/Vacuum, and Combination Air Valves for Waterworks Service.
      e. C 509 - Resilient-Seated Gate Valves for Water Supply Service.
      f. C 511 - Reduced Pressure Principle Backflow Prevention Assembly.
      g. C 540 - Power Actuating Devices for Valves and Slide Gates.
      h. C 550 - Protective Epoxy Interior Coatings for Valves and Hydrants.
      i. C 507 - Ball Valves 6-inch through 48-inch.
   2. ANSI/NSF Standards: Standard 61 – Drinking Water System Components.

1.4 SUBMITTALS

A. Shop Drawings:
   1. For equipment assemblies in this Section to include:
      a. Manufacturer.
      b. Model.
      c. Details of construction.
      d. Dimensions, including actuator dimensions and clearances.
      e. Materials of construction.
      f. Listing of components.
      g. Project specific wiring diagrams.
      h. Coatings.
      i. Weight of assemblies.
   2. For each type of equipment installed to include:
      a. Itemized listings.
      b. Deviations from the requirements of this Section.

B. Product Data: For equipment in this Section to include:
   1. Manufacturer.
   2. Model.
   3. Materials of construction.
   4. Manufacturer’s engineering and specification data.

5. Electrical specifications and requirements.
6. Torque specifications for actuators.

C. Torque calculations for actuators.

D. Installation instructions for equipment in this Section.

E. Operation and Maintenance Manuals: For equipment in this Section to include:
1. Copy of reviewed Shop drawings and product/catalog data.
2. Equipment function, normal operating characteristics and limiting conditions.
3. Assembly, installation, alignment, adjustment and checking instructions.
4. Operating instructions for start-up, routine and normal operating, regulation and control, and shutdown and emergency conditions.
5. Lubrication and maintenance instructions.
6. Guide to “troubleshooting.”
7. Parts lists and predicted life of parts subject to wear.
8. Outline, cross-sections, assembly drawings, engineering data, and wiring diagrams.

F. Certifications/Affidavits:
1. Submit Manufacturer’s certification that products and materials conform to these specifications.
2. Submit an affidavit from the valve manufacturer which certifies that actuators used were furnished and installed by the valve manufacturer.

1.5 QUALITY ASSURANCE

A. Fabrication and Installation Personnel Qualifications:
1. Trained and experienced in the fabrication and installation of the materials and equipment.
2. Knowledgeable of the design and the reviewed Submittals.

1.6 DELIVERY, STORAGE AND HANDLING

A. Deliver materials in original, unbroken, brand marked containers or wrapping as applicable.

B. Handle and store materials in a manner which will prevent deterioration or damage, contamination with foreign matter, and damage by weather or elements and in accordance with Manufacturer's directions.

C. Reject damaged, deteriorated or contaminated material and immediately remove from the Site. Replace rejected materials with new materials at no additional cost to Owner.

D. Ship and handle valves in conformance with Section 18 of AWWA C 504.

PART 2 - PRODUCTS

2.1 MANUFACTURERS AND TYPES

A. Provide valves of the size and type as indicated on the Drawings and these Specifications.

B. All valves of each type shall be the Product of one Manufacturer.

2.2 MATERIALS AND FABRICATION

A. PVC Ball Valves, Check Valves:
1. Furnish PVC true union valves with polyethylene end connectors fabricated of the same material as the fittings for chemical feed piping systems.
2. Permanently lubricated teflon ball seats.
3. Seals and O-rings: FKM stem and body seals.
4. Provide vented ball cavities for ball valves to prevent gas buildup.

5. True union type with socket or flange connections and a pressure rating of 150 psi C.W.P. at 73 degrees F.
6. Provide lockable handle which can be used in combination with Owner's pad lock to restrict unauthorized operation of the valve.
7. Manufacturer: Spears.

B. Diaphragm Valves:
1. Use: Sodium Hypochlorite tank isolation.
2. Straight through flow design, full-ported when open.
3. Flanged: 150 lb flat-faced.
4. PVC construction suitable for 15% sodium hypochlorite solution.
5. Provide polyethene end connectors of the same material as the chemical feed piping.
6. Drip-tight shut-off with elastomer as required for chemical resistance.
7. Manufacturer:
   a. Asahi.
   b. Hayward.
   c. Nibco.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install in conformance with:
1. The Shop Drawings reviewed by Engineer.
2. The Manufacturer's recommendations.

B. Check and adjust valves, operators and accessories for smooth operation.

C. Provide valve actuator Manufacturer's field service as required to start-up, adjust, participate in control loop tuning, and calibrate all valve equipment.

3.2 CLEANING

A. Thoroughly clean all installed materials and products and related areas:
1. Prior to acceptance of the work of this Section.

END OF SECTION 40 05 23

SECTION 40 90 00 – INSTRUMENTATION AND CONTROL FOR PROCESS SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes, but is not necessarily limited to, the furnishing and installation of the water plant process control and instrumentation system comprised of the major items listed below, as indicated on the Drawings, as specified herein, and as necessary for the proper and complete performance of the Work:
   1. Control panels and communication panels.
   2. Field instruments.
   3. Spare parts.

1.3 GENERAL REQUIREMENTS

A. System Overview:
   1. Two bulk tanks and two day tanks for the sodium hypochlorite storage system will be replaced at the plant.
   2. Design is based on reusing the Owner's existing main control panel (MCP) and much of the field wiring and conduit connected to the existing MCP and Sodium Hypochlorite Control Panels (DT1-CP and DT2-CP). All existing signals (analog, discrete, etc.) to/from plant equipment to remain shall be disconnected from existing devices in the MCP and connected to new PLC equipment. All front of panel devices shall be disconnected and removed. All display functionality of removed devices shall be indicated on control system interface screens. All devices in the MCP that are rendered obsolete by the new system shall be disconnected and removed.
   3. The existing bulk sodium hypochlorite fill control panel (UNLOADING-CP) will be reused to monitor the sodium hypochlorite bulk chemical storage tanks throughout the filling process.
   4. Contractor shall conduct field investigations as required to determine existing conditions, existing programming, all wiring details, additional I/O requirements, signal ranges, units and calibration requirements.
   5. Two new lime slakers, feeders, grit removal systems, water supply control panels, and dust removal systems will be installed to replace existing equipment.

B. Provide all components and labor necessary, as indicated on Drawings, to achieve functional intent as described in this Section. Some components (i.e., power supplies, terminal strips, etc.) may not be specifically itemized.

C. Provide components which are compatible with process equipment.

D. Functionally similar components shall be products of a single Manufacturer.

E. Installation of new systems and equipment shall be sequenced and coordinated to minimize disruptions to Owner's normal operations.

1.4 SUBMITTALS

A. Itemized Listings:
   1. Description of deviations from the requirements of this Section.
   2. Re-submittals shall contain response(s) to each comment made by Engineer. Re-submittals that do not contain response(s) will be returned and will be subject to re-review compensation.

B. Shop Drawings:
   1. General: Shop Drawing submittal material shall be project specific.
   2. For all systems with control panels, to include:
      a. Control panel layout drawing(s).
      b. Control panel conduit entrance locations and limitations.
      c. Control panel elevation drawing(s).
      d. Control panel wiring diagrams:
         1) Shall clearly differentiate between internal and field wiring.
         2) Shall indicate loop wiring numbers for all devices.
         3) Analog loop diagrams shall indicate instrument range in engineering units.
      e. Ambient temperature range design considerations, design assumptions and specifications.
      f. Where modifications are required to existing control panels, existing control panel wiring shall be field verified and existing wiring shall be depicted in Shop Drawings to the extent required to fully indicate the extent of the modifications and to indicate the integration of the existing and new equipment. Where existing control panel drawings exist, they shall be “scanned in” to create an electronic version of the drawing. The electronic version of the existing panel drawing shall be used to indicate panel modifications for submittal and as-built purposes. Coordinate with Owner for DT1-CP, DT2-CP, Lime Slaker Control Panels (North and South), UNLOADING-CP and MAIN-CP drawings.

C. Operation and Maintenance Manuals:
   1. General:
      a. Table of contents.
      b. Subdivided (tabbed) into separate sections that cover separate equipment or grouping of equipment.
      c. Each site shall be uniquely tabbed. Manuals for each site shall be repeated as required so that remote site material can be separated and stand alone.
      d. Provide 1 electronic copy (CD-ROM) per hard copy, of the overall O&M Manual that includes information for all sites. Owner shall be permitted to make copies of CD-ROM without restriction.

1.5 QUALITY ASSURANCE

A. Fabrication and Installation Personnel Qualifications:
   1. Trained and experienced in fabrication and installation of materials and equipment.
   2. Knowledgeable of the design and reviewed Shop Drawings.

B. Manufacturer’s Services:
   1. Submit Manufacturer’s sworn statement that equipment furnished complies with this Specification and Manufacturer’s engineer’s written approval of installation.
   2. Provide Manufacturer’s field service as specified herein.

C. All materials, installation and testing shall be in accordance with ISA Standards and Recommended Practice.

D. Contractor shall conduct field investigations as required to verify existing conditions, I/O, programming, wiring requirements, instrument ranges/calibration and signal types.

1.6 DELIVERY, STORAGE AND HANDLING

A. Deliver all materials in original, unbroken, brand marked containers or wrapping as applicable.

B. Handle and store materials in a manner which will prevent deterioration or damage, contamination with foreign matter, damage by weather or elements, and in accordance with Manufacturer’s directions.

C. Store materials indoors in a controlled environment with low moisture content. Do not store outdoors.

D. Reject damaged, deteriorated or contaminated materials and immediately remove from Site. Replace rejected materials with new materials at no additional cost to Owner.

1.7 FUNCTIONAL INTENT

A. General:
1. All systems shall be controlled in accordance with the following description, as indicated on the Drawings and herein specified.
2. Contractor shall provide all devices, controls, panels, wiring and miscellaneous items required to achieve the specified functional intent whether specifically itemized on the Drawings or not.
3. Contractor shall inspect existing conditions to determine exact materials and work required to interface new control system components with existing equipment.
4. Coordinate with applicable related trades to incorporate equipment specific parameters in programming as necessary to meet specified performance.
5. Coordinate calibration and tuning of all equipment (including pumps, valves and existing equipment being incorporated into the control system), control components, programming and control loops to provide a complete system and achieve specified system performance.

B. Basic Functionality:
1. The functional intent is provided as an aid to the Contractor to describe the minimum functionality and interoperability of components required for the system to operate properly. Contractor is to provide programming as described herein and as required, whether specifically itemized herein or not, to provide a fully functioning system.
2. Existing Lime Slaker, DT1, DT2, and pump controller programming shall be updated as required to incorporate new signals as indicated on the Drawings. Contractor shall obtain programming from existing PLC and edit as required.
3. Provide alarm horn with “silence/acknowledge” and “test” pushbuttons, and “disable” selector switch mounted inside control panel.

C. Sodium Hypochlorite:
1. Liquid sodium hypochlorite (15% solution) will be received by bulk truck delivery, typically to bulk storage tank BST-1 or BST-2. Liquid level in the tanks (BST-1 and BST-2) shall be continuously measured (LE-101, LE-102) and locally indicated (LIT-101, LIT-102) by new level sensing equipment at the UNLOADING-CP and sent to SCADA. A high-level signal (LSH-101, LSH-102) shall be hardwired to UNLOADING-CP for alarm lights (YL-101, YL-102)
2. Transfer of liquid sodium hypochlorite from bulk tanks (BST-1 or BST-2) will be completed by two existing transfer pumps (P-101, P-102). Existing transfer pumps and controllers to be reused. Transfer pumps include communication signals to Day Tank Fill Panels (DT1-CP, DT2-CP) in the day tank room.
3. New pressure switches (PSH-111, PSH-112) will be installed on the discharge piping from each transfer pump. High pressure switch signals will connect to transfer pump controllers (P-101, and P-102), Day Tank Fill Panels (DT1-CP and DT2-CP) and to the SCADA system.
4. A flat switch (LSH-103) will communicate overflow to SCADA and will be locally communicated with an annunciator (LAH-103).
5. Low (TSL-142) and high (TSH-141) temperature switches will be used to communicate climate control failures in the bulk storage room.
6. Each day tank (DT-1, DT-2) is provided with a level switch (LSH-113, LSH-114) to communicate high tank level to DT1-CP and DT2-CP.
7. Spill containment of each of the day tanks are measured (LSH-115 and LSH-116) and communicated to SCADA. Each level switch is indicated locally in the day tank rooms with annunciators (YL-115, YL-116)
8. Low (TSL-143) and high (TSH-144) temperature switches will be used to communicate climate control failures in the bulk storage room.
9. Day tank levels are measured through (WE-121, WE-122) and locally indicated (WIT-121, WIT-122) and communicated to SCADA.
10. Hypochlorite solution may be fed to various points in the process by 4 metering pumps P-131, P-132, P-133, P-134. Pumps are factory-equipped with dc variable speed motors and controls. In LOCAL mode, each pump may be manually started, stopped and speed-controlled from factory mounted pump controls. In REMOTE mode, each pump shall receive a start/stop control signal (CS-131, CS-132, CS-133, CS-134) and 4-20 mAdc speed control signal (SC-131, SC-132, SC-133, SC-134) from SCADA system.
11. Scaling and spanning of output 4-20 mA pump speed control signal with respect to summed Plant flow signal shall be fully adjustable by operator from SCADA computer.

12. Actual pump speed signals (ST-131, ST-132, ST-133, ST-134) shall be sent to SCADA from metering pumps for indication and logging.
13. There shall also be SCADA inputs from each metering pump for Remote Status (HS-131, HS-132, HS-133, HS-134) for indication; Running Status (ML-131, ML-132, ML-133, ML-134) for indication and run time totalization; Tubing Leak (YS-131, YS-132, YS-133, YS-134) for alarm; and Pump Fault (YA-131, YA-132, YS-133, YA-134) for alarm.
14. New pressure switches (PSH-131, PSH-132, PSH-133, PSH-134) will be installed on the discharge piping from each feed pump. High pressure switch signals will connect to feed pump controllers and the SCADA system.

D. Lime Slakers
1. Lime day bins are equipped with vibrators each with a HAND-OFF-AUTO switch (HS-903, HS-913) connected to the North and South Lime Slaker control panel. On HAND the corresponding lime vibrator will run continuously. On AUTO the controlled will start and stop the appropriate lime vibrator based on a programmed timer. Vibrator run status will be displayed on the North and South Lime Slaker Control Panels by YL-903 and YL-913
2. Each lime feeder and slaker will have an HOA switch (HS-901 HS-911 and HS-902, HS-912). Lime feeder run status will be indicated by YL-902 and YL-912 on the North and South Lime Slaker Control Panels and will be sent to SCADA for indication accumulation and logging. Slaker run status will be indicated on the North and South Lime Slaker Control Panels by YL-901 and YL-902 and sent to SCADA for indication accumulation and logging.
3. Water inlet to each slaker is controlled through solenoid valves controlled through local HAND-OFF-AUTO switches (HS-906, HS-916). On HAND/OFF the corresponding solenoid will open/close regardless of lime controller indication. Position signal control (ZC-906 and ZC-916) and indication (ZT-906, ZT-916) of the batching solenoid valve is provided for each control panel. Open (ZSO-906, ZSO-916) and close (ZSC-906, ZSC-916) are communicated to the North and South Lime Slaker Control Panels.
4. Water inlet to each grit removal system is controlled through solenoid valves controlled through local HAND-OFF-AUTO switches (HS-907, HS-917). On HAND/OFF the corresponding solenoid will open/close regardless of lime controller indication. Position signal control (ZC-907 and ZC-917) and indication (ZT-907, ZT-917) of the grit removal water supply valve is provided for each control panel. Open (ZSO-907, ZSO-917) and close (ZSC-907, ZSC-917) are communicated to the North and South Lime Slaker Control Panels.
5. Flow rate in each lime slaker is measured and indicated by flow meters (FE/FIT-905, FE/FIT-915) and flow sent to the SCADA system for indication, totalization, and logging.
6. An adjustable pressure switch (PSL-905, PSL-915) is provided in the common water supply lime and low pressure water is indicated at the panel (PAL-905, PAL-915) and signaled to the SCADA system. The control stops the operation of the feed and slaker and closes the open water solenoid valve and initiates a SCADA alarm upon low water pressure.
7. Mixer (M-904, M-914) in the slaker is controlled by the North and South Lime Control Panels. Mixer run status will be signaled to the SCADA system for indication and logging.

E. Additional Programming:
1. Provide programming, in addition to that described above, as required to provide a fully functioning system.
2. Provide field modification of SCADA programming as required where system is found, through testing or Owner operation to require the following:
   a. Additional functionality.
   b. Modification of functionality.

1.8 GUARANTEE AND WARRANTY

A. Process control and instrumentation system Supplier shall guarantee new work for a period of 1 year. This guarantee shall cover all parts, labor, troubleshooting, telephone consulting, travel, and equipment recalibration.

B. The 1-year guarantee period shall begin at Substantial Completion.

PART 2 - PRODUCTS

2.1 GENERAL

A. Acceptable Manufacturers for major system components are specified herein.

B. Not all components are specified. It is the system Supplier's responsibility to furnish and install components necessary to achieve the functional intent and to meet or exceed the governing local, state or national standards and/or codes.

C. Coordination of all field mounted instrumentation device installation shall be system Supplier's responsibility:
   1. Mounting of each device shall be designed with consideration to:
      a. Manufacturer's installation recommendations.
      b. Ease of removal for maintenance.
      c. Safety.
   2. Provide all mounting hardware required.
   3. All mounting hardware shall be:
      a. Interior: 316 SST.
      b. Exterior: Galvanized Steel.

D. Pre-Approved Acceptable System Suppliers:
   1. Perceptive Controls.
   2. Commerce Controls.
   3. No substitutions.

E. System Supplier's Qualifications and Services:
   1. Staffed with factory-trained and certified technicians fully capable of providing instructions and routine and emergency maintenance services on all components.
   2. Supplier shall have at least 5 years experience in programming and installation of systems similar in performance to that specified herein and shall be prepared to show evidence of such history.
   3. Before Substantial Completion, demonstrate to the satisfaction of Engineer the ability of the system to meet performance requirements in accordance with these Specifications.
   4. Provide as much on-site time as necessary to coordinate start-up. Once start-up has commenced, Supplier shall be on call for emergency situations and respond in a timely manner.

2.2 CONTROL PANELS AND COMMUNICATION PANELS

A. General:
   1. Install all wiring in a workmanlike manner. Group, bundle, label, support, and route horizontally and vertically to provide a neat and organized appearance.
   2. All field 4-20mAdc signals shall be powered from panels, unless indicated otherwise on the Drawings.
   3. All wiring shall be sized, labeled and color coded. All panel wiring shall be type MTW unless indicated otherwise on the Drawings.
   4. When required, shunt resistors shall be 250 Ohm ± 0.01%.
   5. Provide labeled terminal strips for all wiring entering and leaving panels.
   6. Provide Sub-plate Identification Tags:
      a. Tags shall be made from engraved plastic, white with 3/8-inch minimum black letters, for all internal enclosure components.
      b. Punched or drilled for mechanical fasteners.
      c. Stainless steel machine screw fasteners.
   7. Coordinate and provide all necessary mounting hardware.
   8. Conduit shall not enter into panels from top. Side, rear and bottom entry permitted only. Cast metal, O-ring type sealing conduit hubs shall be used on NEMA rated enclosures.
   9. Corrosion Inhibitor Emitter: Provide an industrial corrosion inhibitor emitter to protect internal components of control panel from corrosion for panels located outdoor or in NEMA 4/4X areas. Corrosion inhibitor shall protect for up to one year and shall be replaceable. Provide one spare for each provided.
   10. Contractor shall provide all mounting hardware, shelves, support brackets, patch panels, etc., as required to install equipment.

B. Modification to Existing Control Panels: Provide all field modification, wiring changes, and wiring additions as indicated on Drawings or as required to achieve function as described in this section.

C. Control Panels:
1. Furnish control panel(s) of the design and type as indicated on the Drawings and in these Specifications. Contractor is responsible for verifying panel size requirements.
2. Control panels shall contain all components listed in Paragraph 1.7 - Functional Intent, specified herein, and as indicated on the Drawings, plus any additional items (24-volt power supplies, panduit, terminal strips, etc.) necessary for completion of the Work.
3. Control panels shall be assembled by a UL listed fabrication facility. Panels shall be UL approved and meet the requirements of NEC and UL508/698. Available fault current is 10,000 amps. Each panel shall have a serialized UL label.
4. New control panels shall have a “Power On” white pilot light on the door of the control panel.

D. Enclosures:
1. General:
a. Size Enclosures:
1) To adequately space necessary components in accordance with NEC.
b. Data pocket.
c. NEMA rated for environment.
d. Coordinate and provide necessary mounting hardware. Locate top of wall mounted enclosures approximately 60 inches above floor.
e. UL listed.
f. White painted steel back panel, unless indicated otherwise on the Drawings.
g. Provide all necessary interior supports to ensure panel structural integrity and prevent "oil canning" of side walls.
2. Non-metallic Enclosure:
a. General:
1) Material: Grey, fiberglass-reinforced polyester, UL 746C listed, UV weathering resistant fire retardant.
2) Front hinged access door.
3) Stainless steel hardware.
4) Polyurethane, seamless gasket.
5) Molded in panel, metal mounting bosses for sub-plate mounting.
6) Padlockable.
b. Wall Mounted:
1) Integral mounting feet.
2) Hinges: Fiberglass.
3) Manufacturer:
a) Hoffman, GQRLP.
b) Stahlin Non-Metallic Enclosures, N Series.
c) Or Equal.

E. Panel Devices:
1. General:
a. Pilot lights, selector switches and push buttons shall be from same Manufacturer. NEMA ratings shall match that of control panel.
b. Indicators and totalizers shall be from same Manufacturer.
2. Pilot Lights:
a. Heavy duty, oil tight, LED-type, 30.5 mm with full voltage, push-to-test feature, nameplate and replaceable color lens and replaceable light unit.
b. Lens Colors:
1) Opened or Motor Running: Green.
2) Closed or Motor Stopped: Red.
3) Alarm or Remote: Amber.
c. Spare Parts:
1) 2 LEDs of each color.
2) 2 of each color lens.

d. Manufacturer:
   1) Allen-Bradley, 800T/H.
   2) Square D, Type K/SK.
   3) Eaton\Cutler-Hammer 10250T, E34.

3. Selector Switches and Push Buttons:
   a. Heavy duty, oil tight, 30 mm, with nameplate.
   b. Selector Switches: Maintained position, unless specified/indicated otherwise.
   c. Push Buttons: Momentary.
   d. Manufacturer:
      1) Allen-Bradley, 800T/H.
      2) Square D, Type K/SK.
      3) Eaton\Cutler-Hammer 10250T, E34.
4. Control Relays:
   a. Heavy duty, 15 amp minimum, 3-pole double throw (minimum).
   b. Pin or blade terminals.
   c. DIN mount sockets IP20, finger safe.
   d. Indicating light and check button.
   e. UL listed.
   f. Provide hold down clips for all relays.
   g. Provide 2 spare of each type provided, per panel. Installed in panel, un-wired.
   h. Provide interposing relay for all solenoids and motor loads.
   i. Manufacturer:
      1) Allen-Bradley.
      2) Square D.
      3) Magnecraft.
      4) Potter & Brumfield.
5. DIN Rail Mounted Miniature Circuit Breakers and Supplementary Protection:
   a. Rated for 250 VAC, 50/60 Hz, 65 Vdc.
   b. Rated cross section for wire sizes #22 to #10 AWG.
   c. Operating life of 6,000 cycles at rated current.
   d. UL listed.
   e. Short-Circuit Current Rating: 10 kA at 125 VAC (minimum).
   f. Provide bus bar where more than 4 circuit breakers are provided in the same panel. Cap unused connectors.
   g. Provide supplementary protection for each solenoid or motor load.
   h. Finger safe terminals.
   i. Amperage ratings of 0.2A to 15.0A, system Supplier shall calculate required ratings, unless otherwise noted.
   j. Manufacturer:
      1) Allen-Bradley.
      2) Square D/Merlin-Gerin.
      3) Moeller Electric.
6. Terminal Blocks:
   a. General: 6mm (nominal), screw type, single tier terminal blocks.
   b. Mounting: Standard TS 35 DIN rail.
   c. Wire Range: 22-2 AWG.
   d. Removable/replaceable marking system (labels).
   e. Manufacturer:
      1) Wieland, WKI series.
      2) Phoenix Contact, UT series.
      3) Weidmuller.
   f. Spare Parts: 25% spare terminal blocks, mounted and unwired.
7. Digital LED Indicator:
   a. 4-digit, 7-character, 0.5-inch character 1/8 DIN, digital display.
   b. Display: Red/Green LED.
   c. Accuracy: 0.05% of span.
   d. Input:
      1) 4-20mAdc.
      2) Dual input where indicated.
   e. Power: 120Vac.

f. Environmental: NEMA 4X front.
g. Manufacturer:
1) Red Lion..
2) No exceptions.

8. Alarm Buzzer:
a. Manufacturers:
1) Mallory Sonalert,
2) Werma;
3) Or equal.

9. Alarm Beacon:
a. General: Weatherproof, rotating alarm indicating light.
b. Input Power: 120VAC, 60Hz.
c. Output: 40 Watt lamp.
d. Construction:
1) Die cast with gray corrosion resistant epoxy finish.
2) Amber polycarbonate dome.
e. Manufacturer: Edwards Signaling Products, 52 Series; or equal.
f. Accessories:
1) Mounting brackets as required.
2) Protective lens guard.
3) Spare lamp.

F. Site Specific Requirements (Major Components):
1. General: The following is provided as an aid to the Contractor. It is the Contractor's responsibility to verify information contained below for completeness and to provide equipment that is indicated elsewhere in Drawings and Specifications, but not listed below.
2. CP-FILL:
a. General:
1) NEMA 4/4X fiberglass.
2) Wall mounted and suitable for outdoor installation.
b. Major Components:
1) Alarm horn.
2) Alarm beacon.
3) Digital level indicators

2.3 PROCESS INSTRUMENTS

A. Existing process instruments are to be disconnected and reinstalled. Systems supplier shall recalibrate instruments as required and adjust existing PLC programming for signals from instruments as required.

2.4 FIELD INSTRUMENTS

A. General:
1. Schedules are provided as an aid to Contractor. It is Contractor's responsibility to verify information contained in the schedules for completeness and to provide equipment that is indicated elsewhere in Drawings and Specifications, but not listed in schedules.
2. Provide instruments rated for environment.
3. Field verify Manufacturer's cable lengths prior to Shop Drawing submittal.
4. Existing instruments that are relocated or modified shall be recalibrated.
5. Existing instruments with unknown scaling or ranges shall be recalibrated.
6. Existing instruments that do not agree with new instrumentation shall be recalibrated.
7. Existing instruments that are used in conjunction with new control systems shall be recalibrated.
8. Tagging: Equip all instruments with a permanently attached, stamped or engraved identification tag. The tags shall include the device name, Engineer's tag identification, and manufacturer's tag identification if different from Engineer's.
9. Finish: Finish on the instruments and accessories shall provide protection against corrosion by the elements in the environment in which they are to be installed.

10. Temperature Rating: Instruments shall be suitable for the temperature in which they are to be exposed. Therefore, instruments located outdoors or in unheated spaces shall be suitable for -20 degrees F to 120 degrees F. Instruments exposed to direct sunlight (without sunshield) shall be suitable for temperatures up to 140 degrees F.
11. Provide configuration software and cables or hand held device(s) for any instrument which cannot be fully programmed via keypad/interface which is integral to device.

B. Continuous Level Measurement:
   1. Non-Contact Radar:
      a. General: Non-contact radar transmitter/receiver to determine level by measuring time-of-flight of a radar pulse from the radar transmitter to the product surface and back.
      b. False Target Rejection shall ignore obstructions including, but not limited to, tank walls.
      c. Micro-processor based transmitter.
      d. Display: Integral LCD.
      e. Material:
         1) 316 Stainless steel process connection and mounting nut.
         2) Epoxy covered, explosion proof, aluminum housing.
         3) Polypropylene dielectric rod antenna.
         4) 316 Stainless steel antennae horn and nozzle extension.
      f. Accuracy: ±0.4 inches.
      g. Repeatability: 0.05% full scale.
      h. Output: 4-20mAdc.
      i. Power: 24Vdc loop powered.
      j. Suitable for mounting via 6-inch ANSI pipe flange or as required, coordinate with application.
      k. Provide 316 stainless steel mounting hardware as required.
      l. Schedule: See Instrument Range Schedule following Part 3.
         1) LE/LIT-101
         2) LE/LIT-102
      m. Manufacturer:
         1) Magnetrol.
         2) Endress + Hauser.
         3) Ohmart/Vega.
         4) Rosemount.
      n. Accessories:
         1) Programming/diagnostic software, software license and programming cable.
         2) Intrinsically safe barrier, where required by manufacturer for hazardous locations.

C. Discrete Level Switch:
   1. Float Type Switch (Mercury Free):
      a. Mechanical acting.
      b. Molded corrosion resistant, polypropylene or PVC body suitable for fluid application.
      c. Float switches shall have 3.5-inch actuation/de-actuation level.
      d. Output Contact: SPDT, 7/3.5 A, 120/230 VAC.
      e. Cable shall be PVC type STO with No. 18 AWG (minimum) conductors:
         1) Jacket for cable shall be factory molded to the float.
         2) Minimum cable length of 20 feet.
      f. Hazardous Location: Level switch and switch circuit shall be intrinsically safe and suitable for switch mounting in a Class 1, Division 1, Group C and D hazardous location.
      g. Schedule:
         1) LSH-103
         2) LSH-113
         3) LSH-114
         4) LSH-115
         5) LSH-116
      h. Manufacturer: Anchor Scientific “Eco-Float”; or equal.
      i. Accessories:
         1) Corrosion resistant hardware and mounting accessories.
         2) See installation detail(s) for additional requirements.

D. Discrete Pressure Measurement:
   1. Pressure Switch Without Display :
      a. Range: To match process. 0-100 unless noted otherwise.
      b. Process Connection: 1/2-inch NPTF, 316 stainless steel.
      c. Sensor: To match process. 316 stainless steel diaphragm unless noted otherwise or as required for process fluid compatibility.
      d. Enclosure: NEMA 4X with 1/2-inch or 3/4-inch conduit entry.
      e. Switch Rating: 10 A at 125 VAC SPDT.
      f. Setpoint: User adjustable.
      g. Deadband: User adjustable.
      h. Schedule:
         1) PSH-111
         2) PSH-112
         3) PSH-131
         4) PSH-132
         5) PSH-133
         6) PSH-134
      i. Manufacturer:
         1) United Electric Controls.
         2) Ashcroft.
         3) Mercoid.

E. Continuous Weight Measurement:
   1. Chemical Day Tank Scale:
      a. Scale:
         1) Provide complete system including platform, transmitter and indicator.
         2) Steel Frame Construction: Polyester coated.
         3) 1/2-inch PVC top plate, with stainless steel hardware.
         4) Accuracy: 0.5% of full scale.
         5) Stainless steel leveling feet and load cell with adjustable tank restraints in base.
         6) Local electronic indicator in NEMA 4X enclosure.
         7) Provide a 4-20 mA output signal proportional to tank contents weight.
         8) Provide tare adjustment.
         9) Manufacturer: Force Flow or equal.
         10) Schedule:
            a) Sodium Hypochlorite
            b) Model: Force Flow Solo 5000 Chemical Day Tank Scale
            c) Scale Platform: 72 inches x 60 inches.
            d) Capacity: 0 - 3500 pounds liquid weight (5000 pounds total).
      b. Transmitter:
         1) 1 for each flow tube.
         2) Wall mounted.
         3) Net Weight Indication: 4-1/2 digit, 0.5-inch high, LCD.
         4) Output:
            a) 4-20 mAdc,
            b) 2 SPDT 4A rated relays.
         5) Power: 120-Vac, 60HZ.
         6) Tare Adjustment: Sealed 10-turn knob.
         7) Enclosure: NEMA 4X.
         8) Provide required lengths of Manufacturer’s cable for remote mounting.
      c. Schedule: See Instrument Range Schedule.
         1) WE/WIT-121
         2) WE/WIT-122

PART 3 - EXECUTION

3.1 INSTALLATION COORDINATION

A. Install process control equipment and instrumentation in conformance with:
   1. Shop Drawings reviewed by Engineer.
   2. Manufacturer's recommendation.

B. Electrical:
   1. Run all 4-20 mAdc process control wiring in separate conduit from power and control wiring.
   2. Communication cabling shall be in separate conduits from power control and analog signal wiring.

C. Mount Control Panels:
   1. Securely with framing and fasteners capable of handling additional future loads.
   2. In a way that does not restrict access to internal components.

3.2 FIELD QUALITY CONTROL

A. System Supplier's Field Service:
   1. Arrange and pay for process control and instrumentation system Supplier's engineer to:
      a. Provide field services indicated below:
         1) Assist with start-up and conduct performance demonstration.
         2) Demonstrate operation and maintenance to the system operators.
         3) Review operations and maintenance manual with system operators.
      b. Minimum Onsite Time:
         1) 8 hours to oversee installation.
         2) 2 hours to inspect and certify installation.
         3) 2 hours to assist with start-up and conduct performance demonstration.
         4) 1 hours to demonstrate operation and maintenance, and1 hours to review operations and maintenance manual.
         5) Additional time as necessary for installation, start-up and training.
   2. Schedule field services as soon as practical and at times approved by Engineer.
   3. Promptly make all changes and additions required by system Supplier's engineer and as necessary for proper operation of the system.
   4. System Supplier's engineer shall submit written approval of installation.

B. Field Performance Demonstration:
   1. Pre-Requisite: Complete installation and test all functionality prior to calling for witnessed field demonstration by Engineer.
   2. Equipment:
      a. Demonstrate proper operation.
      b. Demonstrate that system performs control functions as specified and indicated on the Drawings.
   3. Instruments:
      a. Demonstrate proper calibration and maximum accuracy.
      b. Demonstrate that system performs monitoring functions as specified and indicated on the Drawings.
   4. System: Demonstrate proper operation in failure modes.
   5. Demonstration shall be repeated as required by Engineer until satisfactory results are obtained.

END OF SECTION 40 90 00

SECTION 43 41 16.17 – FIBERGLASS REINFORCED PLASTIC TANKS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the furnishing and installation of fiberglass reinforced plastic (FRP) tanks.

1.3 REFERENCES

A. Except as herein specified or as indicated on the Drawings, the work of this Section shall comply with the following:
   1. ANSI: B16.5 - Pipe Flanges and Flanged Fittings.
   2. ASTM Standards:
      a. A167 - Stainless and Heat Resisting Chromium Nickel Steel Plate, Sheet, and Strip.
      b. D3299 - Filament-Wound Glass-Fiber-Reinforced Thermoset Resin Chemical-Resistant Tanks.
      c. D4097 - Contact-Molded Glass-Fiber-Reinforced Thermoset Resin Chemical-Resistant Tanks.
   3. ASME Standards:
      a. RTP-1-2011 Reinforced Plastic Corrosion-Resistant Equipment
   4. Federal Standards:
      a. 21 CFR 177 - U.S. Food, Drug, and Cosmetic Act.
      b. 29 CFR 1910 - OSHA Standards and Compliance Guidelines.

1.4 SUBMITTALS

A. Shop Drawings: For tanks, covers and fittings.
   1. Dimensions.
   2. Details of fabrication.
   3. Fitting sizes, types and locations.
   4. Resin Manufacturer's corrosion resistance guide.
   5. Materials of construction, including resin systems and reinforcement materials.

B. Summary of design calculations including RTP-1 design where applicable.

C. Operation and Maintenance Manuals: For tanks, covers, and fittings.
   1. Installation instructions.
   2. Inspection procedures.
   3. Instructions for long term care.
   4. Repair procedures.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Tanks shall be the product of:
   1. Plas-Tanks Industries, Inc.
   2. Or Engineer Approved Equal

B. All fiberglass reinforced plastic tanks shall be the product of one Manufacturer and match the design of the existing tanks.

2.2 GENERAL

A. Furnish appurtenances as indicated on the Drawings:
   1. Flanges shall be drilled to ANSI B16.5, 150 pound pattern.
   2. Plate gusseted type flange reinforcement.
   3. Flanged nozzles: Hand lay-up construction with pipe stub molded integrally with the pipe flange. Compression molded and cemented-on flanges are prohibited.
   4. Manways:
      a. Top: Vapor tight, bolted and gasketed coverplate.
      b. Side: Pressure tight gasketed and bolted coverplate.
      c. Provide a glass-in-place sign meeting the requirements of 29 CFR Part 1910.145:
         1) Sign Shall Read: "DANGER - CONFINED SPACE - ENTER BY PERMIT ONLY".
         2) Supplier: Lab Safety Supply, Inc.; Argus; or equal.
   5. Gaskets: Full face, 50 to 70 durometer.
   6. Tank floor of large tanks shall be sloped with foam core to fully drain to bottom outlet fitting as noted.
   7. Tank liquid level shall be visible through tank wall with adequate lighting exterior to tank. Provide visibility strip if required to see liquid level.

B. Tank diameter and height shall be as indicated on the Drawings.

C. Coordinate location, diameter and length of flanged connection for level sensors with level sensor Supplier.

D. Tanks designed for internal pressure greater than 14 inches of water column shall be designed in accordance with the appropriate design criteria in ASME RTP-1 – Reinforced Thermoset Plastic Corrosion Resistant Equipment. This applies to Day Tanks DT-1 and DT-2.

E. Product Marking:
   1. In accordance with the appropriate ASTM Specification.
   2. In compliance with the ASTM/ASME designation of the tank.
   3. Design specific gravity of stored liquid.
   4. Permanent glass-in-place plaque.

F. Service Conditions:
   1. Temperature: Less than 100 degrees F.
   2. Location: Indoor.

2.3 MATERIALS

A. Tanks: Tanks shall be filament-wound glass fiber reinforced type in accordance with ASTM D3299.

B. Resin:
   1. Compatible with stored material.
   2. Pigments, dyes, or colorants shall not be used except as specified herein.
   3. Comply with NSF/ANSI Standard 61.

C. Fasteners and tie-down lugs:
   1. Sodium Hypochlorite Tanks: Type 316 stainless steel.
   2. All Others: ASTM A167 stainless steel, Type 316.

D. Elastomers: Chemically resistant to stored material. Viton or fluoropolymer.

E. Synthetic Veil: When recommended by resin Manufacturer for specified chemical environment.

F. Sodium Hypochlorite Tanks:
   1. Resins:
      a. Dow Chemical Company, Derakane 411.
      b. Ashland Chemical Company, Hetron 922.
   2. Catalyst: Benzoyl peroxide-dimethyl aniline (BPO/DMA).

3. Inner Corrosion Barrier:
   a. 200 mil minimum thickness.
   b. Catalyst: Benzoyl peroxide-dimethyl aniline (BPO/DMA).
   c. Synthetic Surface Veil: 2-ply Nexus.

2.4 EQUIPMENT

A. Sodium Hypochlorite Bulk Tanks (BST-1, BST-2):
   1. Chemical: 15% sodium hypochlorite.
   2. Classification:
      a. Grade 1 – Single vinyl ester resin throughout. BPO/DMA catalyst cure.
      b. Type I: Designed for pressure no greater or lower than atmospheric.
   3. Tank shall be designed to hold liquid with a specific gravity of not less than 1.5.
   4. Provide hold-down lugs designed for the following conditions:
      a. To prevent an empty tank from floating when fluid (S.G. equal to 1.2) outside the tank rises to a level of 3'-0".
   5. Tank Bottom: Sloped, 1/4-inch per 1-foot towards full-drain side drain flange.
   6. Drain: Side drain flange as indicated on Drawings.
   7. Synthetic Surface Veil: 2-ply.

B. Sodium Hypochlorite Day Tanks (DT-1, DT-2):
   1. Chemical: 15% sodium hypochlorite.
   2. Designed for 9’-0” of specific gravity = 1.5 liquid column internal pressure measured at top of tank. ASME RTP-1 design.
   3. Tank shall be designed for a specific gravity of not less than 1.5.
   4. Provide hold-down lugs designed for the following conditions: To prevent an empty tank from floating when fluid (S.G. equal to 1.2) outside the tank rises to a level of 3'-0".
   5. Provide bolted, gasketed cover which has been pressure tested for tightness.
   6. Tank Bottom: Sloped, 1/4-inch per 1-foot towards side drain flange.
   7. Drain: Side drain flange as indicated on Drawings.
   8. Synthetic Surface Veil: 2-ply.

2.5 FABRICATION

A. Post Cure:
   1. Required for tanks containing sodium hypochlorite (BST-1, BST-2, DT-1, and DT-2) and when recommended by resin Manufacturer for specified chemical environment to increase service life.
   2. Maintain tank at a temperature between 180 to 200 degrees F for no less than 4 hours, then wash with mild detergent, and rinse with steam cleaner.

B. Exterior Layer: Smooth resin rich with no exposed fibers or sharp projections. Tank to be painted Safety Yellow and match existing.

C. All cut edges exposed to the chemical environment shall be coated with resin and veil.

D. All fittings and nozzles installed in the tank shall be of the same material as the tank.

E. Metering pump shelf and secondary containment integral to tank.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install tanks according to the submittals reviewed by Engineer, the Manufacturer's recommendations, and the Handling and Installation sections in ASTM D3299 or D4097.

B. Piping and appurtenances attached to tank shall be independently supported.

C. Vertical Tank Mounting:
   1. Place the tank on a cushion consisting of:
      a. One layer of 30 pound roofing felt equal to the tank diameter plus 2 inches placed on the tank support base.
      b. A second layer of felt equal to 1/2 of the tank diameter and placed on top of the first layer.
      c. A third layer of felt equal to 1/4 of the tank diameter and placed on top of the second layer.
      d. Place each layer flat without wrinkles.
      e. Seams of parallel strips of felt shall not overlap.
      f. Neatly trim all exposed felt after tanks are anchored.
   2. Install on scale platform or tank pad with continuous support of the entire tank bottom. No portion of the tank bottom, including bottom knuckle, shall extend beyond the edge of the scale platform or tank pad.

D. Testing:
   1. Fill tanks with clean water after all pipe connections and check for leaks in tank and piping.
   2. Drain and allow to dry completely before chemical filling.

E. Anchoring:
   1. Anchor tanks to floor with 3/4-inch minimum diameter stainless steel anchors drilled completely through pad and into floor slab at least 5 inches.
   2. Anchor rods shall be set in breakable 2-component epoxy capsules, Parabond by Emhart; or equal.

3.2 CLEANING

A. Clean materials installed under this Section according to Division 01 Section “Cleaning and Waste Management.”

END OF SECTION 43 41 16.17

SECTION 46 33 00 – LIQUID CHEMICAL FEED EQUIPMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the furnishing and installation of the major items listed below:
   1. Chemical metering pumps.
   2. Automatic feed rate control equipment.
   3. Day tank scales.

1.3 DESIGN AND PERFORMANCE REQUIREMENTS

A. Chemical Service:
   1. Sodium Hypochlorite Metering Pumps: (P-131. P-134)
      a. Type: Peristaltic.
      b. Pumped Material: 15% sodium hypochlorite at ambient temperatures.
      c. Feed Rate Range: 0.25 to 154 gph.
      d. Rated minimum discharge pressure: 50 psig.
      e. Manual and Automatic feed rate control.

1.4 SUBMITTALS

A. Shop Drawings: For all equipment provided.
   1. Name of Manufacturer.
   2. Model.
   3. Dimensions.
   4. Details of construction and installation.
   5. Materials for all wetted parts and appurtenances.
   6. Documentation of chemical compatibility.
   7. Performance curves for pumps.
   8. Flow diagrams.
   9. Wiring diagrams.

B. Operation and Maintenance Manuals:
   1. Equipment function, normal operating characteristics and limiting conditions.
   2. Assembly, installation, alignment, adjustment and checking instructions.
   3. Operating instructions for start-up, routine and normal operating, regulation and control, and shutdown and emergency conditions.
   4. Lubrication and maintenance instructions.
   5. Guide to "troubleshooting".
   6. Parts lists and predicted life of parts subject to wear.
   7. Outline, cross-sections, assembly drawings, engineering data and wiring diagrams.
   8. Test data and performance curves.

1.5 QUALITY ASSURANCE

A. Fabrication and Installation Personnel Qualifications:
   1. Trained and experienced in the fabrication and installation of the materials and equipment.
   2. Knowledgeable of the design and the reviewed Shop Drawings.

B. Regulatory Requirements: Occupational Safety and Health Act of 1970: Equipment installations shall comply with Act and regulations.

C. Manufacturer's Services: Provide Manufacturer's field service.

PART 2 - PRODUCTS

2.1 CHEMICAL METERING PUMPS

A. General:
1. Fabricated of materials compatible with the chemical solution which the pumps are designated to feed.
2. Complete with check valves, pressure relief valves, back-pressure valves, anti siphon valve, calibration columns, and appurtenances as indicated on the Drawings or as required for a complete installation.
3. Pumps of a specific type shall be the product of one Manufacturer.
4. Reciprocating pumps shall be capable of turndown of 100:1 stroking frequency and 10:1 stroke length.

B. Peristaltic Type Pumps:
1. Manufacturers:
   a. Watson-Marlow 630;
   b. Blue and White ProSeries M5.
2. Construction and details:
   a. 110 Volt AC Grounded Cord and Plug, water resistant.
   b. Conduit connections for control wiring.
   c. Backlit LCD display with keypad controls.
   d. Enclosed pumphead with non-contact optical sensor leak detection device.
   e. Wetted material shall be compatible with pumped liquid.
   f. Provide all special tools required for pump operation and maintenance.
   g. 24V DC input/output status relay contacts.
3. Performance Requirements:
   a. ±1% of full scale metering accuracy.
   b. No flow-through pump in either direction under rated pressure.
   c. No check valves required.
   d. Three-year warranty.
   e. Self-priming.
4. Peristaltic Pump (P-131 and P-134) Model Data:
   a. Maximum Flow Rate (gph) – 154 gph
   b. Discharge Pressure Rating (psi) – 50 psi
   c. Pumped Material: 15% sodium hypochlorite at ambient temperatures.
   d. Manual and Automatic feed rate control.
5. Peristaltic Pump Control:
   a. Control speed and run/stop status of motor in manual and automatic operating modes.
   b. Automatic Mode: Accept external 4-20 mA analog signal and run/stop signal. Lockout signals from manual mode.
   c. Manual Mode: Provide local adjustable speed control and motor run/stop capability. Lockout signals from automatic mode.
   d. Mode Selection: Local hand-off-auto; or equivalent.
   e. Indication: Indicate percent of full speed based on motor tachometer.
   f. Transmit 4-20 mA signal proportional to motor speed.

2.2 APPURTENANCES

A. General:
1. Fabricated of materials compatible with the chemical solution pumped.
2. Supplied as indicated on the Drawings or as applicable to the pumping system components.

B. Pump Discharge Valves:
   1. Supplied by pump Manufacturer.
   2. Required valves for solenoid driven diaphragm pumps:
      a. Multifunction Pump Discharge Valves:
         1) Provides back pressure/anti siphon, pressure relief, priming aid vent.
         2) Fabricated of materials compatible with chemical pumped.
   3. Required valves for motor driven peristaltic pumps:
      a. Supplied by chemical feed pump manufacturer.
      b. Pressure Relief Valves (one for each peristaltic pump):
         1) PVC body, spring loaded valve.
         2) Factory set at pump manufacturer's recommended pressure, but field adjustable 5 to 125 psi.
         3) 1/2-inch NPT pipe size.
         4) Materials compatible with pumped liquids.
         5) Manufacturer: Plastomatic RVD; or Engineer approved equal.
      c. Back Pressure/Anti-Siphon Valves:
         1) PVC body, spring loaded valve.
         2) Factory set at manufacturer's recommended pressure, but field adjustable 5 to 125 psi.
         3) 1/2-inch NPT pipe size.
         4) PTFE diaphragm with secondary support diaphragm.
         5) Materials compatible with pumped liquids.
         6) Manufacturer: Plastomatic RVDT; or Engineer approved equal.

C. PVC Injection Check Valves (for retractable quill hypochlorite and fluoride chemical injection points):
   1. Union Nut Diaphragm Style.
   2. 1.0 to 1.5 psi cracking pressure.
   3. 3/4-inch pipe size.
   4. FKM or Viton elastomer diaphragm.
   5. Plastomatic CKM075V-PV; or Engineer approved equal.

D. Chemical Diffuser Injectors:
   1. Provide for each injection point.
   2. Rectractable.
   3. Quill: CPVC.
   4. Corporation Stop: Bronze.
   5. Complete with corporation cock, check valve, and safety chain.
   6. Manufacturers: Pulsafeeder J61135-C-LF, LMI 49287; or Engineer approved equal.

2.3 SPARE PARTS

A. General:
   1. Supplied by Manufacturer of installed equipment.
   2. Deliver to Owner prior to start-up.

B. Pump Equipment:
   1. Peristaltic Pumps with replaceable tube elements: Provide 4 spare tube elements for each pump, each complete with end connections ready for installation.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install chemical feeding equipment according to the submittals reviewed by Engineer and the Manufacturer's recommendations.

B. Mounting:
   1. Peristaltic Type Pumps:
      a. Mount on integrated day tank shelves (see Drawings).
      b. Provide a loop in the suction and discharge tubing at the connections to the pump.
      c. Use pump manufacturers recommended connectors when transferring between pump suction and discharge and tubing.

C. Provide independent support of all piping, including at pump and tank connections.

D. Install back pressure anti-siphon valves at injection points.

E. Test all pumps and piping with clear water before loading chemicals. Remove all test water and dry before loading chemicals.

F. Calibrate all pumps with respect to input and output signals and furnish report to Engineer relating 4-20 mA signals to pump flow rates and speed (rpm and percent) for each pump after chemicals are loaded into tanks. Comply with OSHA safety regulations.

G. Perform a field demonstration test (running and stopped) of peristaltic pumps against the rated pressures (100 psi set with the discharge pressure relief valves) to verify that pumps will deliver and not allow backflow as specified.

3.2 FIELD QUALITY CONTROL

A. Manufacturer's field services: Arrange and pay for Manufacturer's engineer to provide the services indicated below for a minimum onsite time of 2 days. Schedule the following as soon as is practical after installation, and at times approved by Engineer and Owner:
   1. Manufacturer's engineer: Check work, assist in start-up, demonstrate operation and maintenance to Owner's personnel, and review operation and maintenance manual with Owner's personnel.

B. Promptly make changes and additions required by Manufacturer's engineer.

C. Submit Manufacturer's engineer's written approval of installation.

3.3 CLEANING

A. Clean materials installed under this Section in accordance with Division 01.

END OF SECTION 46 33 00

SECTION 46 36 43 – LIME FEEDING AND SLAKING EQUIPMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the furnishing and installation of lime feeding and slaking equipment.

1.3 DESIGN AND PERFORMANCE REQUIREMENTS

A. Design: Provide 2 paste type lime feeding and slaking systems, each complete with lime inlet shutoff valve, lime feeder, lime slaker, automatic grit remover, control panel, dust and vapor arrestor and supply water piping and accessories and alarms.

B. Performance Criteria:
1. Each slaker shall use a controlled paste-slaking technique with a 2:1 water to lime ratio by weight.
2. Each feeding and slaking system shall have a maximum capacity of 1,000 lbs/hr of quicklime and be adjustable over a 20:1 range.
3. Lime feeders and slakers shall be accurate within 2% of the set feed rate.

1.4 SUBMITTALS

A. Shop Drawings: For lime feeding and slaking equipment.
1. Dimensions.
2. Details of construction and installation.
3. Wiring diagrams.
4. Name of Manufacturer.
5. Model.

B. Operation and Maintenance Manuals: For lime feeding and slaking equipment.
1. Equipment function, normal operating characteristics and limiting conditions.
2. Assembly, installation, alignment, adjustment and checking instructions.
3. Operating instructions for start-up, routine and normal operating, regulation and control, and shutdown and emergency conditions.
4. Lubrication and maintenance instructions.
5. Guide to "troubleshooting".
6. Parts lists and predicted life of parts subject to wear.
7. Outline, cross-sections, assembly drawings, engineering data and wiring diagrams.
8. Test data and performance curves.

1.5 QUALITY ASSURANCE

A. Fabrication and Installation Personnel Qualifications:
1. Trained and experienced in the fabrication and installation of the materials and equipment.
2. Have a minimum of 5 years of experience in design, fabrication and testing of paste lime slaking equipment of the size, materials and scope herein, and shall show evidence of at least ten identical design installations in satisfactory operation for at least 5 years.
3. Knowledgeable of the design and the reviewed Shop Drawings.
4. Supply units containing all necessary appurtenances and components for a complete and operating system conforming to this specification.
5. The entire system shall be pre-assembled, piped, wired, and factory tested prior to shipment to facilitate installation and start-up at the jobsite.

6. System footprint as shown on the drawings shall not be exceeded.
7. The complete system must be assembled and tested by the manufacturer at its facility and be a standard and regularly marketed product of that manufacturer. The manufacturer must have a physical plant, technical and design staff, and fabricating personnel to complete the work specified.
8. The owner reserves the right to be present at the manufacturer's facility for visual inspection of equipment to be supplied and to witness factory functional testing.

B. Manufacturer's Services:
1. Sworn statement that the equipment furnished complies with this Specification.
2. Field service.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. General: All lime feeding and slaking equipment shall be provided by one manufacturer.

B. Manufacturers: Paste type lime slaking system shall be used as manufactured and supplied by Integrity Municipal Systems LLC (IMS), Poway, CA, (858) 486-1620 (Series A-758).

2.2 EQUIPMENT

A. Screw Type Volumetric Lime Feeder:
1. The slaking system will include a screw type volumetric feeder to control the feed rate of pebble lime into the slaker.
2. In order to facilitate on-site assembly of the slaking system and assure proper fit and function of all system components the feeder shall be supplied by the same manufacturer as the slaker.
3. Each unit shall be Model 32-300SP screw-type volumetric feeder having a capacity of 8 cubic feet per hour or 500 pounds per hour of pebble lime, and complete with a 2-inch lime feed screw; VFD speed control with 1/2 horsepower 230/460 volt, 3 phase, 60Hz, TEFC AC motor; and right-angle drive gearbox. The feeder shall be constructed of 304 stainless steel.
4. A VFD shall be provided factory mounted and wired to current NEC requirements, within the system control panel. Power supply to the VFD will be 240 VAC/ 3 phase/ 60Hz from the slaker control panel.

B. Lime Slaker and Appurtenances:
1. Paste type. Other types are not acceptable.
2. Capacity of 1,000 pounds per hour of AWWA 202 grade pebble lime.
3. Trough constructed of 304 stainless steel.
4. Ability to achieve a self-sustaining slaking temperature of 170º F or above without requiring the use of a heat exchanger, heated water or any external heat source.
5. Automatically control the slaking water flow rate to provide a 2:1 water-to-lime ratio by weight and compensate for vapor loss, changes in lime reactivity, and feed rate.
6. Complete with two counter-rotating, pug mill type paddle mixers. Mixers shall have a maximum rotational speed not to exceed 40 rpm. The use of high-speed mixers and replaceable wear plates is unacceptable.
7. The slaking chamber shall be designed to complete the slaking reaction in 5 minutes or less.
8. Slaker shall have up to a 20:1 operating range
9. Mechanical torque operated water control valve to maintain a 2:1 water-to-lime ratio and a five-minute retention time in the slaking compartment. No other type of valve is acceptable.
10. Integral dust and vapor arrestor
11. Water pressure reducing valve
12. Supply water strainer and pressure gauge
13. Supply water low pressure switch
14. 1/2 HP, 230V, 3 ph, 60Hz mixer motor
15. Paste cut-off jet spray nozzles and slurry mixing rakes in the dilution chamber
16. Normally opened bypass solenoid valve to flush slaking compartment on system shutdown
17. Slaker outlet and overflow connections

18. All feeder parts which contact the lime shall be stainless steel, Buna N, or Hypalon.
19. Feeder shall be complete with a transmitting switch for actuating the throughput totalizer and alarm contacts to activate the alarm lights on the control panel.

C. Grit Remover:
1. The grit remover shall be a flight-scraper conveyor-type grit remover with the ability to remove virtually all grit down to 10 mesh in size and a portion of finer grit down to 40 mesh. Grit particles are separated from the lime slurry based on their specific gravity. Lime slurry concentrations up to 18% are achievable. No other type of grit remover is acceptable.
2. The conveyor type grit remover will be complete with:
   a. 304 stainless steel housing construction
   b. 1/4 horsepower, 230 volt, 3 phase, 60Hz TEFC gear motor
   c. Individually replaceable flight scrapers
   d. Water control valve and flowmeter to regulate the grit-wash water flow.

D. Water Piping and Instrumentation:
1. The water supply piping shall be mounted on a stainless steel panel providing a single water source point and shall consist of the following components:
   a. Supply water strainer
   b. Control valves
   c. Pressure reducing valve
   d. Slaking water pressure gauge and switch
   e. Slaking water bypass solenoid valve
   f. Slaking water bypass manual valve
   g. Grit-wash water flowmeter
   h. Automatic batching solenoid valve
   i. The water piping shall be Copper.
2. The water piping shall be Copper.

E. Control Panel and Alarms:
1. The lime slaker electrical control panel shall provide electrical control for the entire system.
2. The control panel enclosure shall be rated NEMA 4X and shall be made of 304SS. The panel shall be remote-mounted next to the slaker system by the contractor. A junction box shall be provided mounted on the slaker system and be factory pre-wired to system components.
3. The panel shall be based on PLC logic and shall include an Allen-Bradley CompactLogix with a color 10” Allen-Bradley Panelview Plus Operator Interface Terminal (OIT) graphical display (touch screen) to provide system automation and operator monitoring of the lime slaker system.
4. The operator interface shall provide access to the following:
   a. Pebble lime feed-rate control
   b. Pebble lime feed rate display
   c. Manual and automatic operation of the lime feeder
   d. On/Off/Auto/Manual/Fault indication of the lime feeder status
   e. Manual and automatic operation of the paddle-shaft mixer motor
   f. On/Off/Auto/Manual/Fault indication of the paddle-shaft mixer motor status
   g. Manual and automatic operation of the grit remover
   h. On/Off/Auto/Manual/Fault indication of the grit remover status
   i. Manual and automatic operation of the autobatch valve
   j. On/Off/Auto/Manual indication of the autobatch valve
   k. Manual and automatic operation of the bypass valve
   l. On/Off/Auto/Manual indication of the bypass valve
   m. Alarm Indication with audible alarm for the following:
      1) Paddle shaft mixer fault
      2) Lime feeder fault
      3) Grit remover fault
      4) Control Power off
      5) Inlet water low pressure
      6) Paddle Shaft Rotation Fault
5. A single source of power shall be required (230V, 3 Ph, 60Hz) for the control panel.
6. Control panel shall be provided with terminal strip for easy wiring connections for input and output.

7. The panel shall provide for the following types of operation and control:
   a. Manual speed control of the feeder via data entry on the OIT.
   b. Automatic control of feeder rate via a 4-20 mA input signal based on flow or process conditions.
      1) Automatic batching.
      2) Automatic system shutdown.
      3) Programmable flush cycle after each shutdown

F. Lime Slaker Dust Arrestor Venturi Fan
1. The lime slaker manufacturer shall provide a draft inducer-type vent fan to be installed in the lime slaker dust arrestor discharge vent.
2. The vent fan shall be attached to a Type 304 stainless steel eductor tube so that all moving parts are external to the air flow stream in the duct.
3. The vent fan shall be capable of maintaining a negative pressure on the lime slaker dust arrestor system.
4. The draft inducer-type, duct vent fan shall be manufactured by Quickdraft of Canton, Ohio or an approved equal.
5. The fan shall be capable of venting a minimum of 100 cfm.
6. The fan blower motor shall be a 3/4 HP, 230 volt, 3-phase, 3,450 rpm.
7. The vent fan shall be mounted in the field by the contractor in the vent piping coming off the lime slaker dust arrestor system.
8. Controls for the vent fan shall be provided by the Owner.

G. Day Bin Hopper Hand Wheel Operated Knife Gate Valve
1. A knife gate valve shall be provided to isolate the day bin hopper discharge from the slaker feeder.
2. The knife gate valve shall be 8” diameter with a cast iron body, 304 stainless-steel wetted parts, and shall be manually operated with a hand wheel arrangement.

H. Accessories: Provide rotary inlet valve, and inlet and outlet flexible connections compatible with lime storage, and lime feeding and slaking equipment.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install equipment in conformance with:
1. Shop Drawings reviewed by Engineer.
2. The Manufacturer's recommendations.

B. It is the contractor’s responsibility to provide:
1. Piping for water, vent from vapor and dust arrestor, overflow/drain and lime slurry discharge lines to/from lime slaker.
2. Wiring to/from system control panel for power, control and alarm interfaces, junction box, plant SCADA, etc.
3. Anchor bolts, suitable equipment supports and other incidentals as necessary to complete the installation.

C. Paint materials and equipment in accordance with Division 09 Section “Painting.”

3.2 FIELD QUALITY CONTROL

A. Manufacturer's Field Service: Arrange and pay for Manufacturer's engineer to provide the services indicated below for a minimum onsite time of 2 days. Schedule the following as soon as practicable after installation and at times approved by Engineer and Owner.
1. Manufacturer's Engineer: Check work, assist in start-up, demonstrate operation and maintenance to Owner’s personnel and review operation and maintenance manual with Owner’s personnel.

B. Promptly make all changes and additions required by Manufacturer's engineer.

3.3 CLEANING

A. Prior to acceptance of the Work of this Section, thoroughly clean all installed materials, equipment, and related areas in accordance with Division 01 Section “Cleaning and Waste Management.”

END OF SECTION 46 36 43

City of Saginaw Water Plant

Lime Slaker and Sodium Hypochlorite Feed System Improvements

Saginaw County, Michigan

Issued for Bids and Construction: February 27, 2026

Project Number: 2501185

fishbeck
Engineers | Architects | Scientists | Constructors

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1515 Arboretum Drive
Grand Rapids, Michigan

SHEET INDEX

* MARKED SHEETS TO BE VIEWED IN COLOR

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G101 COVER SHEET

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D401 PROCESS LIME SLAKERS
D402 PROCESS HYPOCHLORITE BULK STORAGE
D403 PROCESS HYPOCHLORITE DAY TANKS
D404 * PROCESS LIME SLAKER PHOTOS
D405 * PROCESS HYPOCHLORITE PHOTOS
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D601 * HVAC SODIUM HYPOCHLORITE PLANS

ARCHITECTURAL

A101 SODIUM HYPOCHLORITE BULK TANKS FLOOR PLAN
A102 EXTERIOR DETAILS

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P002 GENERAL SYMBOLS
P003 GENERAL INSTRUMENTATION
P004 DETAILS AND TANK SCHEDULES
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P102 TREATMENT AND SUPPLY FLOW SCHEMATIC
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P104 SODIUM HYPOCHLORITE BULK TANKS FLOW SCHEMATIC AND P&ID
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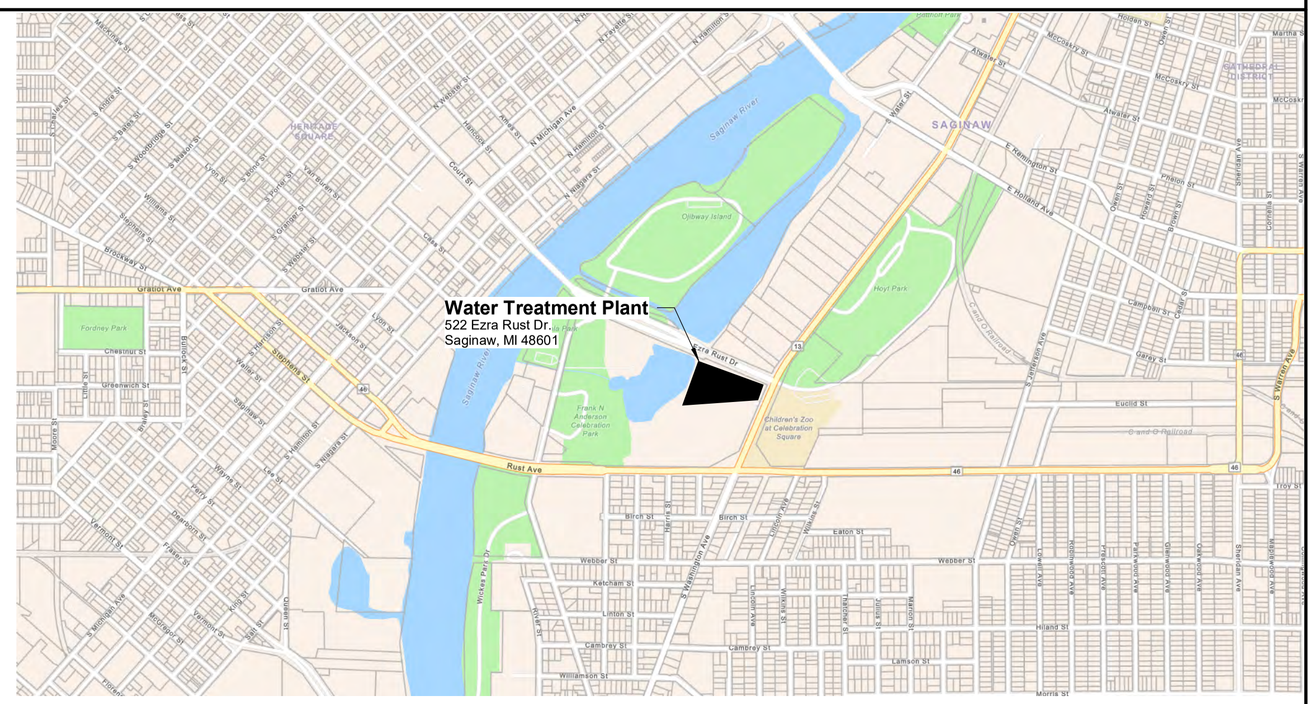
E201 LIME SLAKERS
E202 HYPOCHLORITE BULK STORAGE
E203 HYPOCHLORITE DAY TANK
E501 DETAILS



LOCATION MAP
SCALE: NOT TO SCALE

BUILDING CODE INFORMATION

APPLICABLE CODES AND STANDARDS

2021 MICHIGAN BUILDING CODE
2021 MICHIGAN REHABILITATION CODE
2021 MICHIGAN PLUMBING CODE
2021 MICHIGAN MECHANICAL CODE
2023 NATIONAL ELECTRICAL CODE (WITH MICHIGAN AMENDMENTS PART 8 RULES)
2021 MICHIGAN COMMERCIAL ENERGY CODE
2013 ANSI/ASHRAE/IES STANDARD 90.1
2015 INTERNATIONAL FIRE CODE
2015 INTERNATIONAL FUEL GAS CODE
2017 ICC A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES

DESCRIPTION / CLASSIFICATION OF WORK

INTENT OF PROJECT IS TO REPLACE EQUIPMENT IN AN EXISTING WASTE WATER TREATMENT PLANT.

WORK IS CLASSIFIED AS AN ALTERATION LEVEL 2. LEVEL 2 ALTERATIONS INCLUDE THE ADDITION OR ELIMINATION OF ANY DOOR OR WINDOW, THE RECONFIGURATION OR EXTENSION OF ANY SYSTEM, OR THE INSTALLATION OF ANY ADDITIONAL EQUIPMENT, AND SHALL APPLY WHERE THE WORK AREA IS EQUAL TO OR LESS THAN 50 PERCENT OF THE BUILDING AREA.

ITEM	CODE REFERENCE

MBC CHAPTER 3 - USE AND OCCUPANCY CLASSIFICATION

USE GROUP:
U (UTILITY) 302
H4 (SODIUM HYPOCHLORITE BULK TANK BUILDING)

MBC CHAPTER 5 - GENERAL BUILDING HEIGHTS AND AREAS

ACTUAL HEIGHT:
EXISTING (NO CHANGE IN THIS PROJECT) TABLE 504.3 & 504.4

ACTUAL AREA (SF):
EXISTING (NO CHANGE IN THIS PROJECT)

MBC CHAPTER 6 - TYPES OF CONSTRUCTION

FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HRS)

ITEM	RATING PROVIDED	UL NO.	REMARKS
PRIMARY STRUCTURAL FRAME	0	--	--
BEARING WALLS - EXTERIOR	0	--	--
BEARING WALLS - INTERIOR	0	--	--
NONBEARING WALLS - EXTERIOR	0	--	--
NONBEARING WALLS - INTERIOR	0	--	--
FLOOR CONSTRUCTION	0	--	--
ROOF CONSTRUCTION	0	--	--
SHAFT ENCLOSURES	0	--	--
STAIR ENCLOSURES	0	--	--

CONSTRUCTION TYPE
TYPE IIB NONCOMBUSTIBLE, UNPROTECTED

MBC CHAPTER 9 - FIRE PROTECTION SYSTEMS

AUTOMATIC SPRINKLER SYSTEMS 903
THIS BUILDING IS NOT EQUIPPED WITH AN AUTOMATIC SPRINKLERED SYSTEM 903.1.1

MBC CHAPTER 10 - MEANS OF EGRESS

EXISTING BUILDINGS ARE UNOCCUPIED. THERE WILL BE NO CHANGE IN OCCUPANCY TYPE IN THIS PROJECT.

EXISTING BUILDING EGRESS PATHS TO REMAIN.

ACCESSIBLE ELEMENTS WILL REMAIN ACCESSIBLE.

MBC CHAPTER 29 - PLUMBING SYSTEMS

THE EXISTING BUILDING DOES NOT HAVE PLUMBING FIXTURES. THERE WILL BE NO CHANGE IN THIS PROJECT.

GRAPHIC SYMBOLS

ELEVATION, SECTION AND DETAIL DESIGNATION
1 SECTION SCALE: 1/4" = 1'-0"

PLAN DESIGNATION
PLAN SCALE: 1/8" = 1'-0"
NORTH

EXTERIOR ELEVATION TAG
A / A001

INTERIOR ELEVATION TAG / PHOTO TAG
A / C A301 D / B

NORTH ARROW DESIGNATION
NORTH NORTH (TRUE NORTH)

ROOM NAME AND NUMBER
ROOM NAME
101

ENLARGED DETAIL FRAME
1 / A201

SECTION CUT LINE
1 / A501

ELEVATION TARGET

SPOT ELEVATION EL. 100'-0"

EXISTING CONSTRUCTION GRID 000

NEW CONSTRUCTION GRID 000

LEVEL CALLOUT FIRST FLOOR 100'-0"

DEMOLITION KEY NOTE 1

NEW CONSTRUCTION KEY NOTE 1

REVISION CLOUD

ADDENDUM IDENTIFICATION A1

BULLETIN IDENTIFICATION B1

SEAL

fishbeck
Engineers | Architects | Scientists | Constructors

City of Saginaw
Saginaw County, Michigan
Lime Slaker and Sodium Hypochlorite Feed System Improvements

REVISIONS

2/27/2026 BIDS AND CONSTRUCTION

Drawn By	JKING
Designer	JKING
Reviewer	
Manager	BVANZEE

Hard copy is intended to be 24"x36" when plotted. Scale(s) indicated and graphic quality may not be accurate for any other size.

PROJECT NO.
2501185

SHEET NO.
G101

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REMOVE CONDUIT, SEE ELECTRICAL

REMOVE WALL ASSEMBLY FULL HEIGHT AND WIDTH OF INFILL

REMOVE ACCESS PANEL AND SALVAGE FOR REINSTALLATION

SODIUM HYPOCHLORITE FEED ROOM

B INTERIOR PHOTO

SCALE: 12" = 1'-0"

REMOVE WALL ASSEMBLY FULL HEIGHT AND WIDTH OF INFILL

LOUVERS TO BE REMOVED, SEE MECHANICAL.

A EXTERIOR PHOTO

SCALE: 12" = 1'-0"

NORTH

SODIUM HYPOCHLORITE BULK TANKS

DEMOLITION PLAN

SCALE: 1/4" = 1'-0"

GENERAL DEMOLITION NOTES

1. THESE DEMOLITION NOTES AND PLANS DO NOT FULLY REPRESENT ALL DEMOLITION WORK REQUIRED TO INSTALL NEW WORK IN ACCORDANCE WITH CONTRACT DOCUMENTS, BUT ARE INTENDED TO SERVE AS GENERAL DEMOLITION GUIDELINES.
2. COORDINATE AND PHASE DEMOLITION IN ACCORDANCE WITH PLANS AND SPECIFICATIONS IN ORDER TO MAINTAIN BUILDING SECURITY, WEATHER TIGHTNESS, AND CONTINUING OPERATIONS FOR OWNER.
3. COORDINATE ALL DEMOLITION WORK WITH ALL OTHER CONSTRUCTION TRADES, INCLUDING PROCESS, STRUCTURAL, HVAC, AND ELECTRICAL.
4. ALL WORK INDICATED WITH SOLID LINES IS EXISTING TO REMAIN, UNLESS OTHERWISE NOTED.
5. WHERE ITEMS ARE REMOVED, REFER TO NEW WORK DOCUMENTS FOR PATCH AND REPAIR REQUIREMENTS.
6. ALL ITEMS NOT PART OF THE SCOPE OF DEMOLITION ARE TO BE PRESERVED AND PROTECTED THROUGHOUT THE DURATION OF DEMOLITION AND CONSTRUCTION.

DEMOLITION SYMBOL LEGEND

EXISTING WALLS TO REMAIN

EXISTING WALLS TO BE REMOVED

EXISTING DOOR TO REMAIN

EXISTING DOOR TO BE REMOVED

(#) DEMOLITION KEY NOTES

1 REMOVE WALL ASSEMBLY FOR THE FULL HEIGHT AND WIDTH OF EXISTING INFILL. STEEL CHANNEL AT HEAD JAMB AND SILL TO REMAIN.

2 SAWCUT AND REMOVE CONCRETE CONTAINMENT WALL FLUSH WITH THE FINISHED FLOOR OF THE CONTAINMENT AREA.

3 REMOVE ACCESS PANEL AND SALVAGE FOR REINSTALLATION.

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Saginaw County, Michigan

Lime Slaker and Sodium Hypochlorite Feed System Improvements

REVISIONS

2/27/2026 BIDS AND CONSTRUCTION

Drawn By	DISENOGLE
Designer	DISENOGLE
Reviewer	
Manager	BVANZEE

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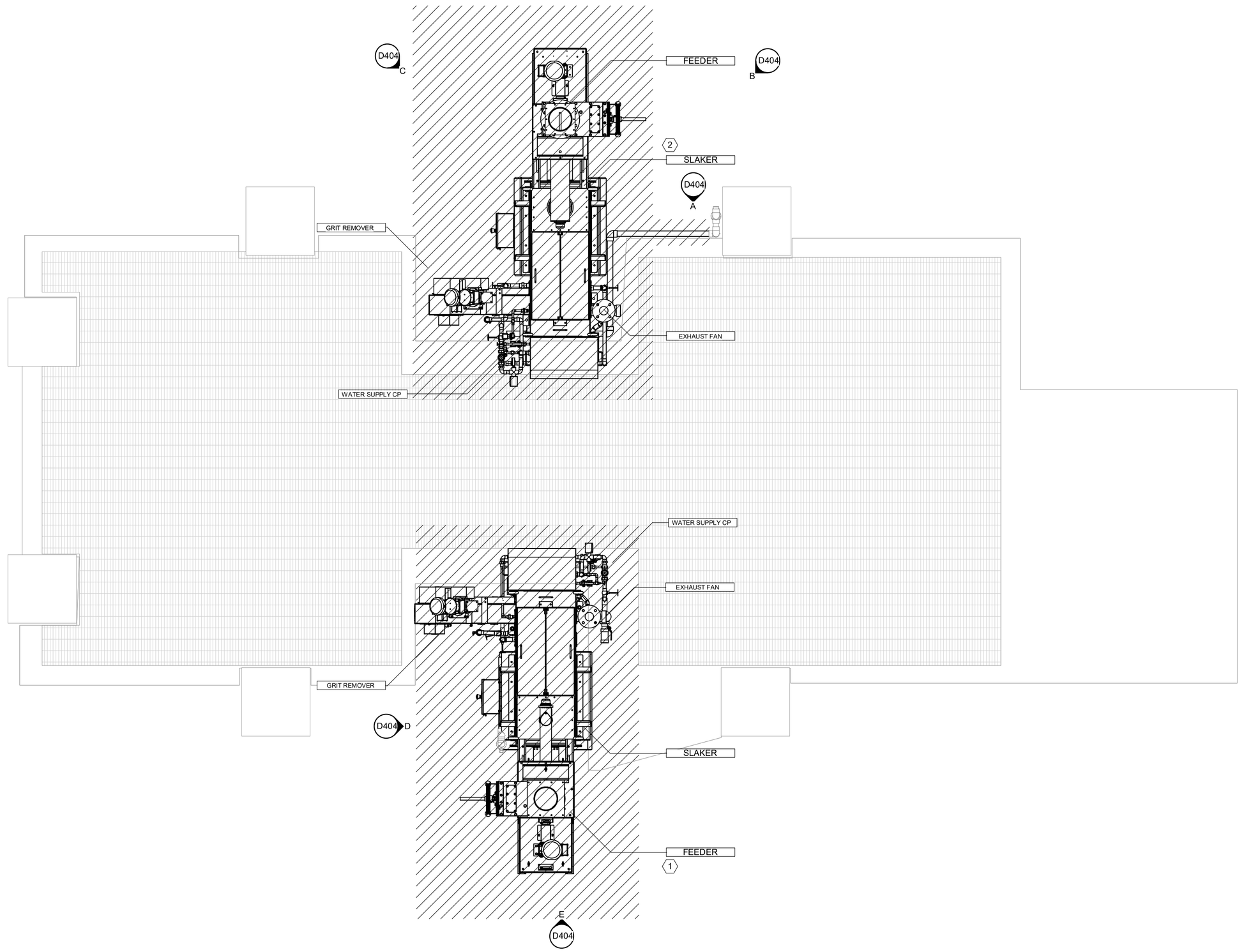

PROCESS
LIME SLAKERS

DEMOLITION PLAN

SCALE: 1/2" = 1'-0"

NORTH

SYMBOLS LEGEND

EQUIPMENT AND PIPING TO BE REMOVED (PATTERN MAY BE ROTATED FOR READABILITY)

PROCESS DEMOLITION NOTES

1. PROCESS DEMOLITION NOTES APPLY TO ALL PROCESS DEMOLITION DRAWINGS.
2. SEE SPECIFICATIONS FOR DETAIL ON SUGGESTED SEQUENCE OF CONSTRUCTION, CONSTRUCTION RESTRAINTS AND DEMOLITION SEQUENCE REQUIREMENTS.
3. REMOVE ALL PORTIONS OF WORK IDENTIFIED BY CROSS HATCHING UNLESS NOTED OTHERWISE.
4. DEMOLITION NOTES AND DRAWINGS DO NOT FULLY REPRESENT ALL DEMOLITION WORK REQUIRED TO INSTALL NEW WORK IN ACCORDANCE WITH CONTRACT DOCUMENTS BUT ARE INTENDED TO SERVE AS GENERAL DEMOLITION GUIDELINES.
5. GRAPHICAL REPRESENTATIONS OF EXISTING SYSTEMS CREATED FROM PREVIOUS CONSTRUCTION AND/OR RECORD DRAWINGS MAY NOT FULLY REPRESENT EXISTING CONDITIONS AND ARE FOR REFERENCE ONLY. FIELD VERIFY EXISTING CONDITIONS TO DETERMINE EXTENT OF WORK.
6. COORDINATE ALL DEMOLITION WORK WITH PROCESS, MECHANICAL, ELECTRICAL, STRUCTURAL, ARCHITECTURAL, AND CIVIL DRAWINGS FOR BOTH DEMOLITION AND NEW CONSTRUCTION.
7. COORDINATE PHASING AND SEQUENCING OF DEMOLITION IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS TO MAINTAIN CONTINUOUS OPERATION FOR OWNER, BUILDING SECURITY, AND WEATHER TIGHTNESS.
8. COORDINATE ITEMS TO BE TURNED OVER TO OWNER PRIOR TO BEGINNING DEMOLITION. REMOVE, PROTECT, AND RELOCATE ITEMS TO BE TURNED OVER TO OWNER.
9. FIELD VERIFY ALL EXISTING UTILITIES AND BURIED PIPING PRIOR TO ABANDONMENT AND INSTALLATION OF NEW PIPING. PROTECT EXISTING STRUCTURES AND PIPING TO REMAIN. SOME PIPING TO BE REMOVED OR ABANDONED MAY BE UNDER PRESSURE. COORDINATE WITH OWNER TO ISOLATE SECTIONS TO BE MODIFIED.
10. BULKHEAD ENDS OF PIPES ABANDONED IN PLACE. BULKHEAD AT A STRUCTURE WHEN POSSIBLE. BULKHEAD METHODS AND DETERMINATION OF PIPES TO BE ABANDONED ARE SUBJECT TO APPROVAL OF OWNER AND ENGINEER.
11. USE APPROPRIATE FITTINGS AND/OR PIPE JOINT DEFLECTION AS NECESSARY TO INSTALL PIPE AT ELEVATIONS INDICATED.
12. SUPPORT PIPING TO REMAIN IN PLACE DURING AND AFTER DEMOLITION.
13. REMOVE ALL UTILITIES ASSOCIATED WITH EQUIPMENT TO BE REMOVED. REMOVE ALL PIPING, SUPPORTS, ANCHOR BOLTS, AND APPURTENANCES TO SOURCE AND PROVIDE SUITABLE CAP.
14. REMOVE EMBEDDED EQUIPMENT AND HARDWARE A MINIMUM OF 1" BELOW SURFACE IT IS ATTACHED TO. REPAIR SURFACE IN ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS.
15. WHERE ITEMS ARE REMOVED AND OPENINGS ARE CREATED BY DEMOLITION IN ROOFS, WALLS, FLOORS, AND ADJACENT SURFACES, REPAIR TO MATCH ADJACENT SURFACES OR APPLY NEW FINISHES WHERE SCHEDULED.
16. REMOVE SIGNAGE RELATED TO EXISTING SYSTEMS AFTER EXISTING SYSTEMS ARE DECOMMISSIONED AND RELATED CHEMICALS HAVE BEEN REMOVED FROM SITE. REPAIR DAMAGED SURFACES RESULTING FROM REMOVAL OF SIGNAGE AND REPAINT DISTURBED AREAS TO MATCH ADJACENT SURFACES.
17. EXISTING EQUIPMENT LIST (WHEN USED) IS NOT ALL INCLUSIVE OF EQUIPMENT IN AREA SHOWN.

(#) DEMOLITION KEY NOTES

1 REMOVE LIME SLAKER ON SOUTH SIDE OF RAPID MIX BASIN. SLAKER AND FEEDER TO BE REMOVED FROM PAD UP TO LOWER FLANGE OF VIBRATOR. ONE SLAKER AND FEEDER SYSTEM MUST REMAIN IN SERVICE AT ALL TIMES TO MAINTAIN CONTINUOUS LIME FEED DURING CONSTRUCTION. NEW SLAKER MUST BE INSTALLED AND OPERATIONAL BEFORE SECOND CAN BE REMOVED.

2 REMOVE LIME SLAKER ON NORTH SIDE OF RAPID MIX BASIN. SLAKER AND FEEDER TO BE REMOVED FROM PAD UP TO LOWER FLANGE OF VIBRATOR. ONE SLAKER AND FEEDER SYSTEM MUST REMAIN IN SERVICE AT ALL TIMES TO MAINTAIN CONTINUOUS LIME FEED DURING CONSTRUCTION. NEW SLAKER MUST BE INSTALLED AND OPERATIONAL BEFORE SECOND CAN BE REMOVED.

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Saginaw County, Michigan

Lime Slaker and Sodium Hypochlorite Feed System Improvements

REVISIONS

2/27/2026 BIDS AND CONSTRUCTION

Drawn By	BSIEFKER
Designer	BSIEFKER
Reviewer	
Manager	BVANZEE

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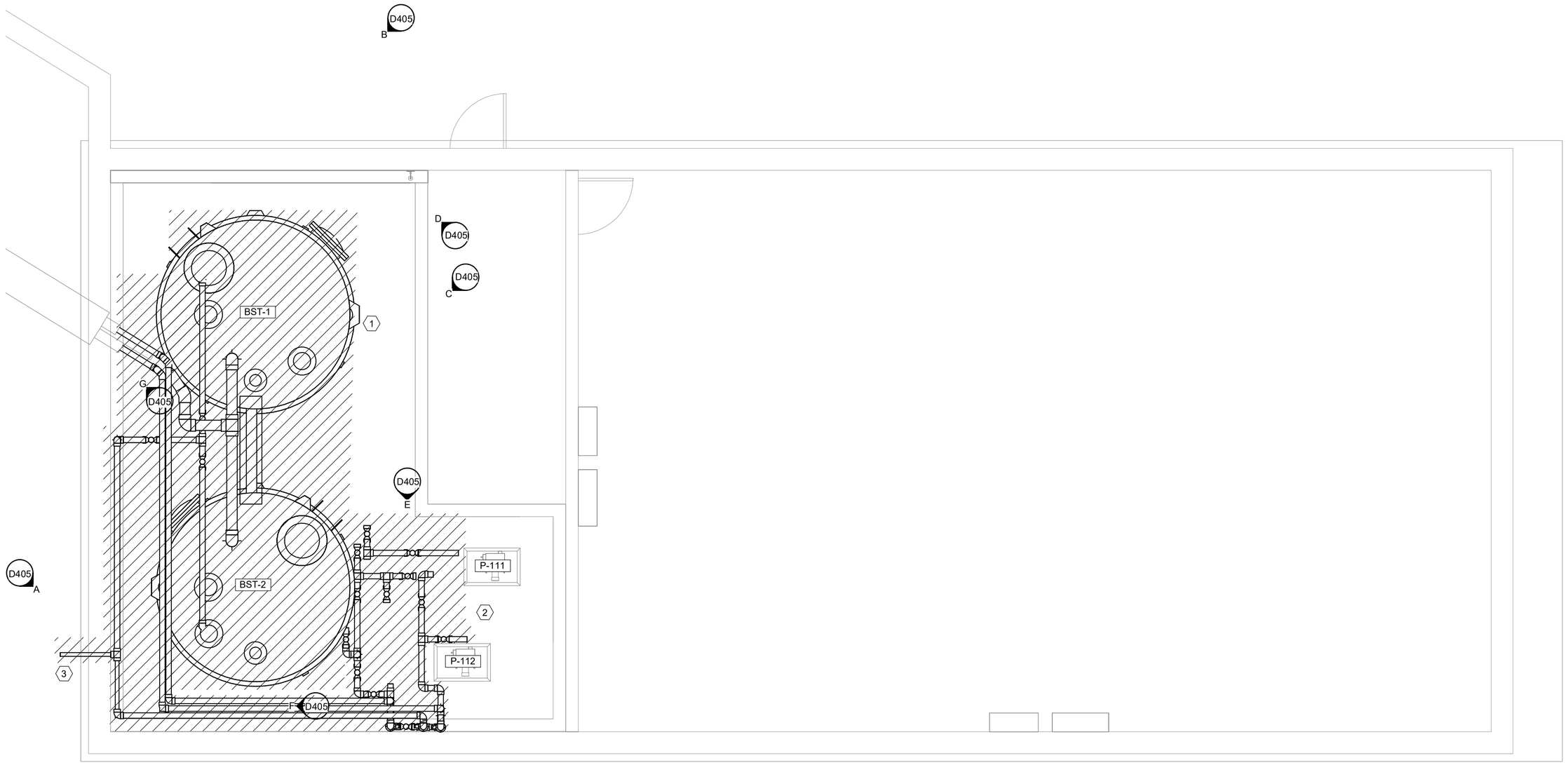

PROCESS
SODIUM HYPOCHLORITE BULK TANKS

DEMOLITION PLAN

SCALE: 1/4" = 1'-0"

NORTH

SYMBOLS LEGEND

EQUIPMENT AND PIPING TO BE REMOVED
(PATTERN MAY BE ROTATED FOR READABILITY)

(#) DEMOLITION KEY NOTES

1 REMOVE SODIUM HYPOCHLORITE BULK CHEMICAL STORAGE TANKS.

2 REMOVE SODIUM HYPOCHLORITE PIPING BETWEEN BULK STORAGE TANKS AND TRANSFER PUMPS AND FROM TRANSFER PUMP DISCHARGE TO CONDUIT BETWEEN BULK AND DAY TANK STORAGE ROOMS.

3 REMOVE SODIUM HYPOCHLORITE BULK TANK FILL PIPING FROM FILL POINT TO BULK TANK CONNECTION.

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Feed System Improvements

REVISIONS

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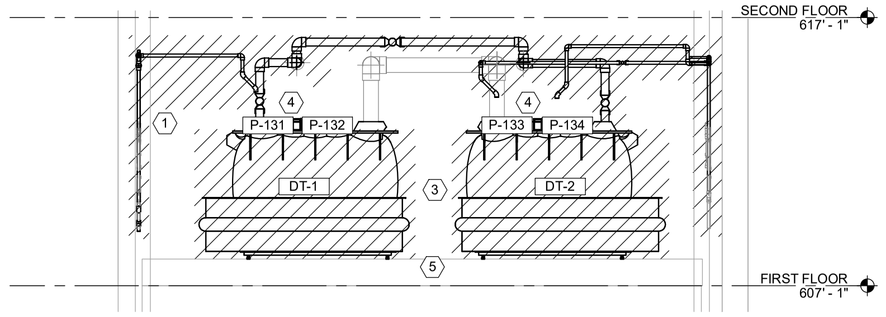
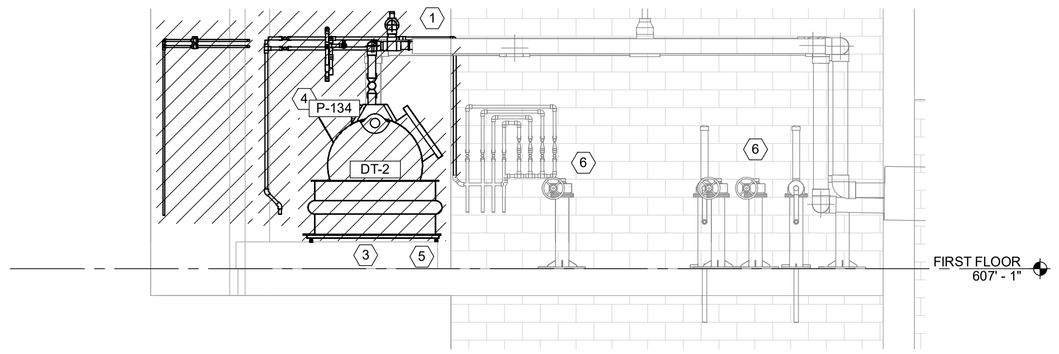


PROCESS
SODIUM HYPOCHLORITE DAY TANKS

3 SECTION

SCALE: 1/4" = 1'-0"



PROCESS
SODIUM HYPOCHLORITE DAY TANKS

2 SECTION

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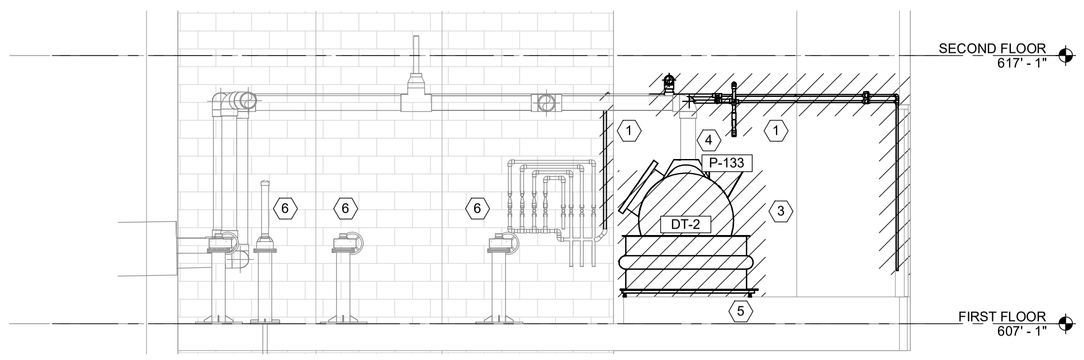

PROCESS
SODIUM HYPOCHLORITE DAY TANKS

1 SECTION

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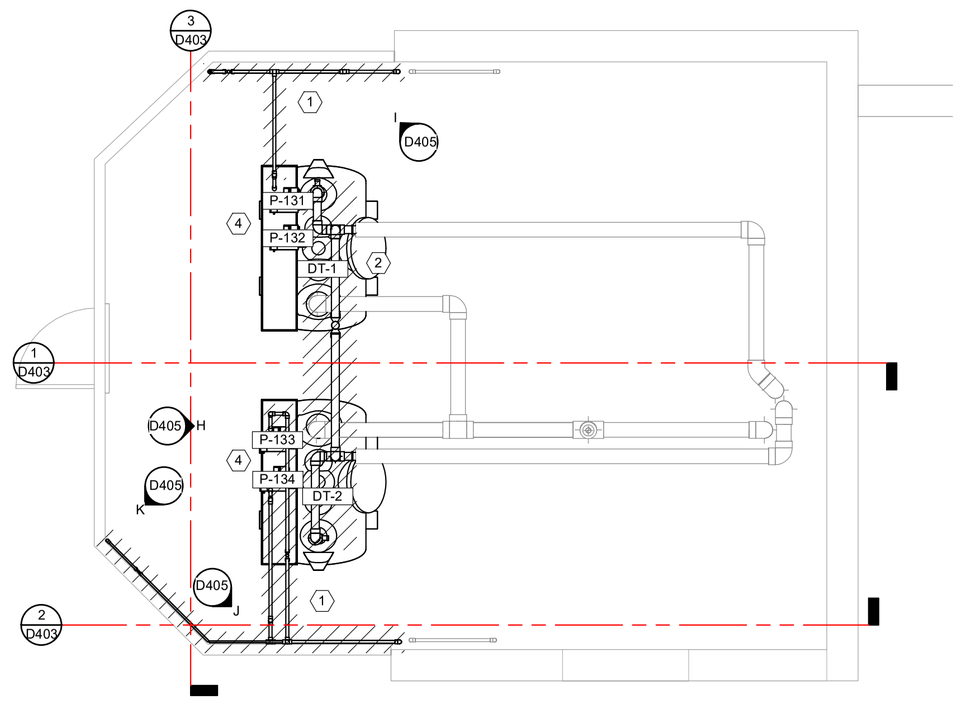
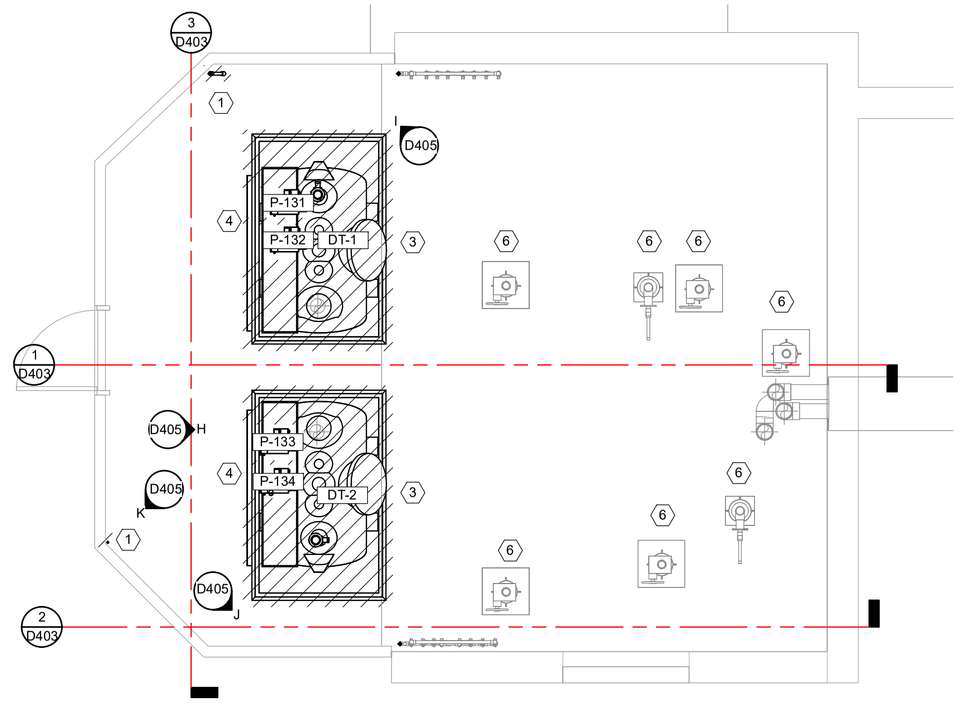


PROCESS
SODIUM HYPOCHLORITE DAY TANK

OVERHEAD DEMOLITION PLAN

SCALE: 1/4" = 1'-0"

NORTH



PROCESS
SODIUM HYPOCHLORITE DAY TANKS

DEMOLITION PLAN

SCALE: 1/4" = 1'-0"

NORTH

SYMBOLS LEGEND

EQUIPMENT AND PIPING TO BE REMOVED
(PATTERN MAY BE ROTATED FOR READABILITY)

NOTES

1. CONTRACTOR TO PROTECT AND SODIUM HYPOCHLORITE HEADER PIPING ON NORTH AND SOUTH WALLS OF FEED ROOM.
2. ONE SODIUM HYPOCHLORITE DAY TANK MUST BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION TO ENSURE CONTINUITY OF FEED.
3. SODIUM HYPOCHLORITE FEED TO RAW WATER RISER OR RAW WATER PIPING MUST BE MAINTAINED AT ALL TIMES. COORDINATE ALL PUMP AND INJECTION LOCATION SHUT DOWNS WITH OWNER AND ENGINEER.

(#) DEMOLITION KEY NOTES

1 REMOVE SODIUM HYPOCHLORITE DAY TANK DISCHARGE PIPING.
2 REMOVE SODIUM HYPOCHLORITE DAY TANK FILL PIPING.
3 REMOVE SODIUM HYPOCHLORITE DAY CHEMICAL STORAGE TANKS.
4 SALVAGE AND PROTECT SODIUM HYPOCHLORITE CHEMICAL FEED PUMPS FOR REINSTALLATION FOLLOWING DAY TANK REPLACEMENT.
5 REMOVE DAY TANK SCALES.
6 REMOVE VALVE OPERATORS TO FACILITATE DAY TANK OR CHEMICAL FEED PIPING INSTALLATION. COORDINATE REMOVAL AND ISOLATION REQUIREMENTS WITH OWNER.

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Saginaw County, Michigan

Lime Slaker and Sodium Hypochlorite
Feed System Improvements

REVISIONS

2/27/2026 BIDS AND CONSTRUCTION

Drawn By	BSIEFKER
Designer	BSIEFKER
Reviewer	
Manager	BVANZEE

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C-1720 WTP Sodium Hypochlorite and Lime Feed Improvements
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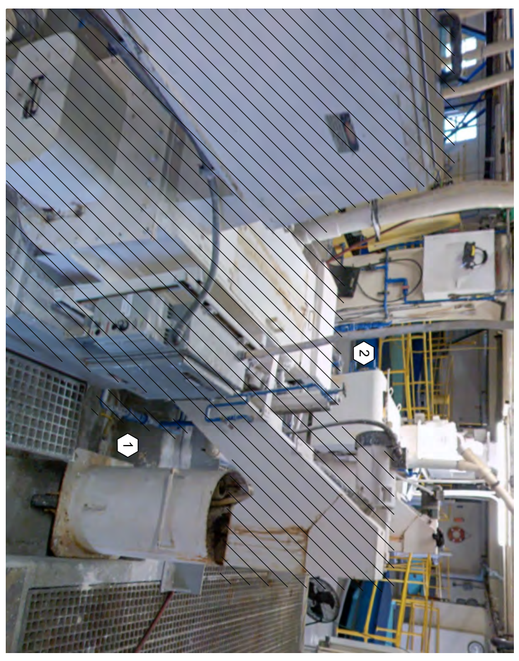

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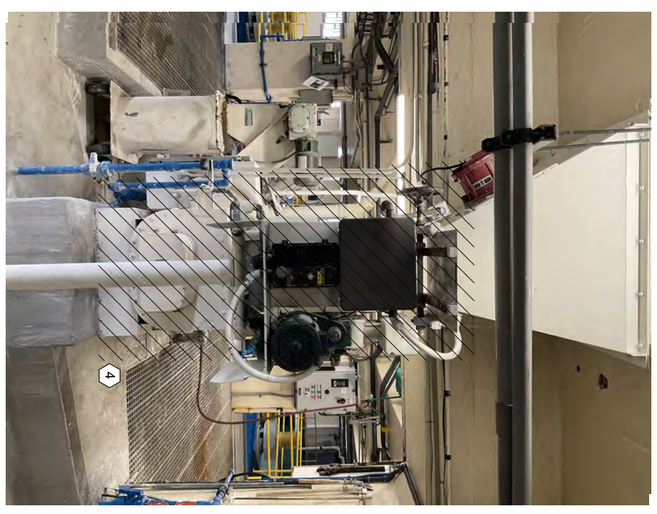

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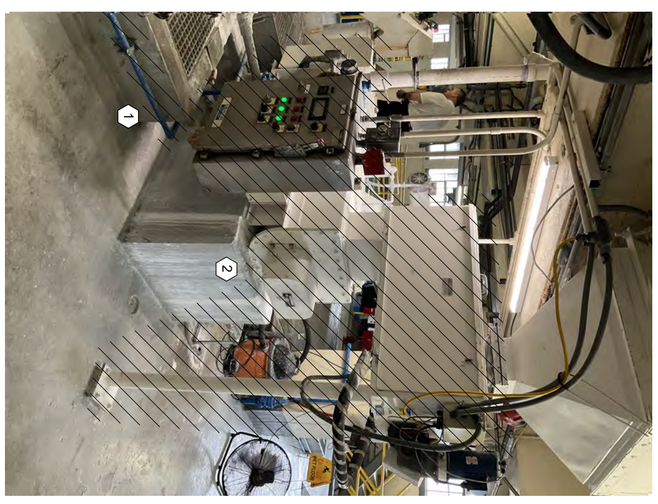

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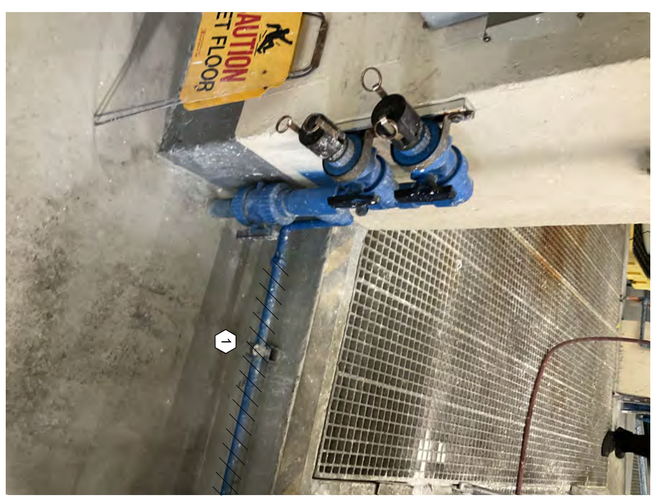

SYMBOLS LEGEND

EQUIPMENT AND PIPING TO BE REMOVED (PATTERN MAY BE ROTATED FOR READABILITY)

NOTES

1. CONTRACTOR TO PROTECT AND MAINTAIN BUILDING MOUNTED ELECTRICAL ITEMS INCLUDING LIGHTS, ACCESS CONTROL DEVICES, AND CONTROL STATIONS NOT IDENTIFIED IN DRAWINGS.
2. PROTECT POTABLE WATER SUPPLY FOR ALL PIPING AND DEMOLITION WORK OCCURING WITHIN POTABLE WATER PROCESS AREAS AND TANKS.
3. ONE COMPLETE LIME SLAKER AND FEEDER SYSTEM MUST REMAIN IN SERVICE AT ALL TIMES DURING CONSTRUCTION.

(#) DEMOLITION KEY NOTES

1 REMOVE NORTH LIME SLAKER WATER FEED LINE FROM EXISTING SERVICE WATER CONNECTION POINT TO SLAKER CONNECTION.

2 REMOVE LIME SLAKER ON NORTH SIDE OF RAPID MIX BASIN FROM CONCRETE SUPPORT PAD TO FLANGED CONNECTION ON LIME VIBRATOR.

3 DISCONNECT AND REMOVE SLAKER WATER SUPPLY PIPING FROM PIPE ELBOW TO SLAKER CONNECTION LOCATION.

4 REMOVE LIME SLAKER ON SOUTH SIDE OF RAPID MIX BASIN. SLAKER AND FEEDER TO BE REMOVED FROM PAD UP TO LOWER FLANGE OF VIBRATOR.

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Saginaw County, Michigan

Lime Slaker and Sodium Hypochlorite Feed System Improvements

REVISIONS

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Reviewer	
Manager	BVANZEE

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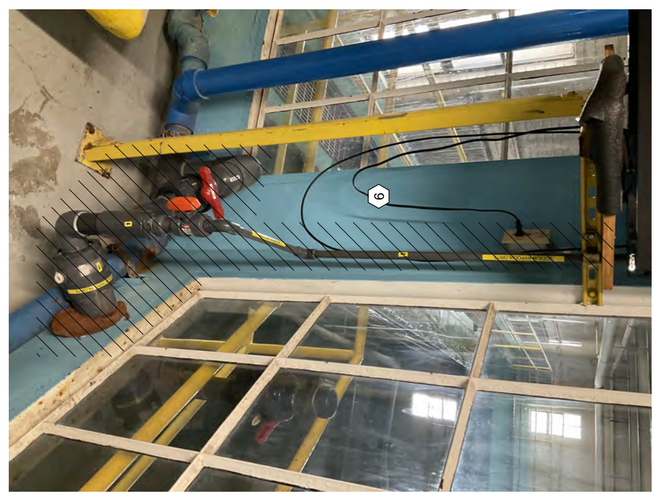

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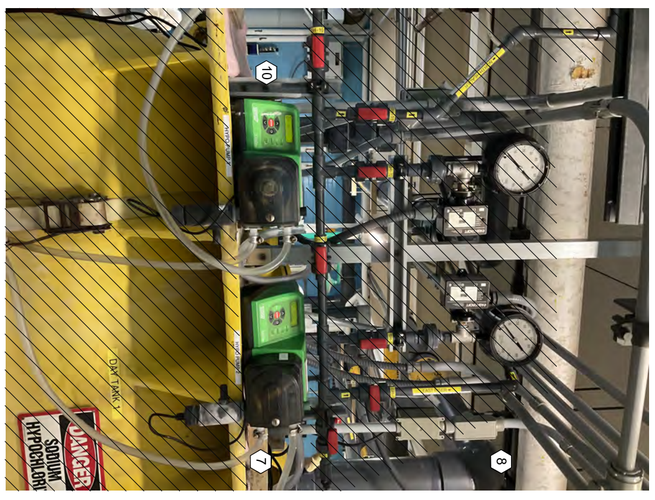

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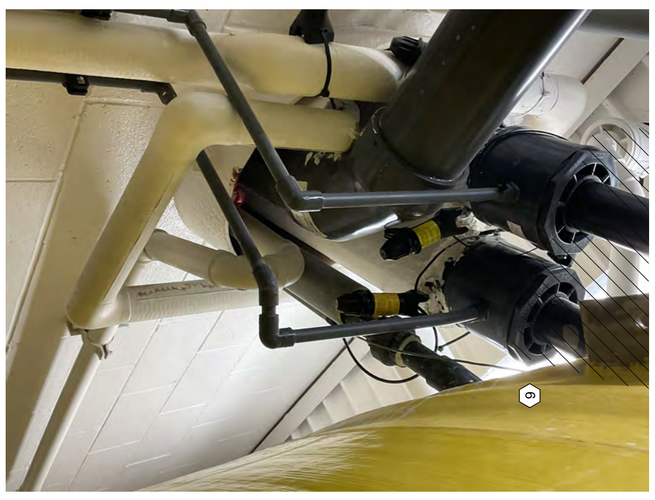

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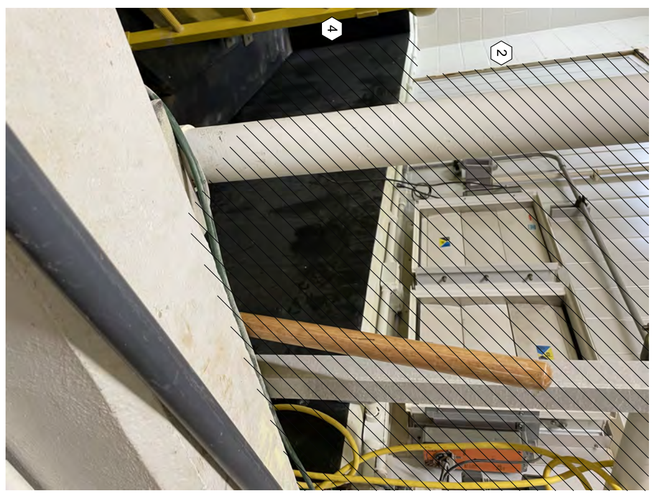

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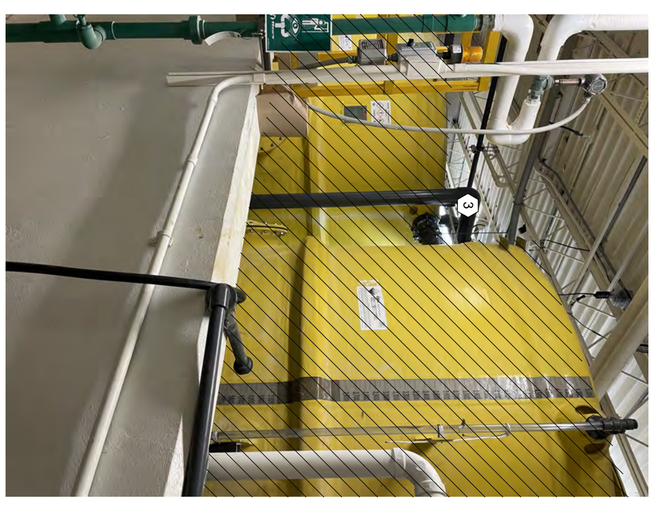

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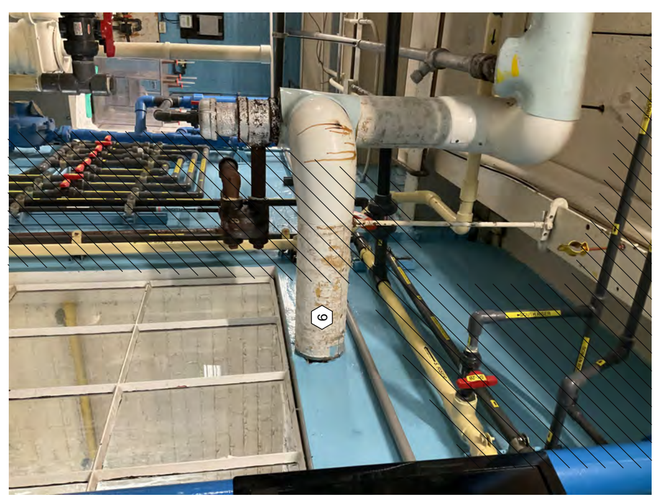

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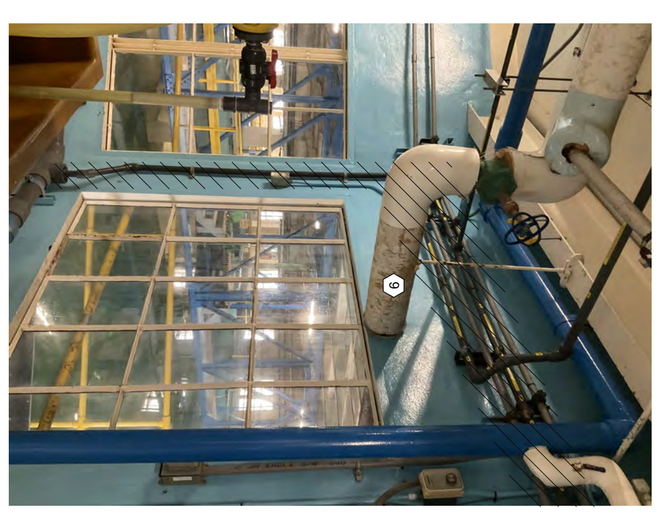

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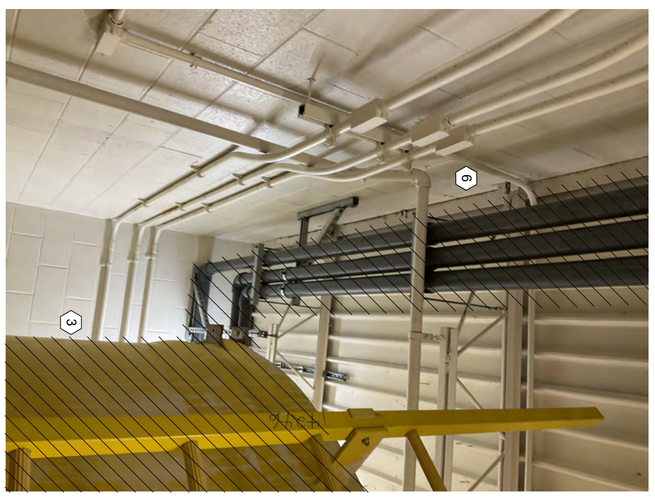

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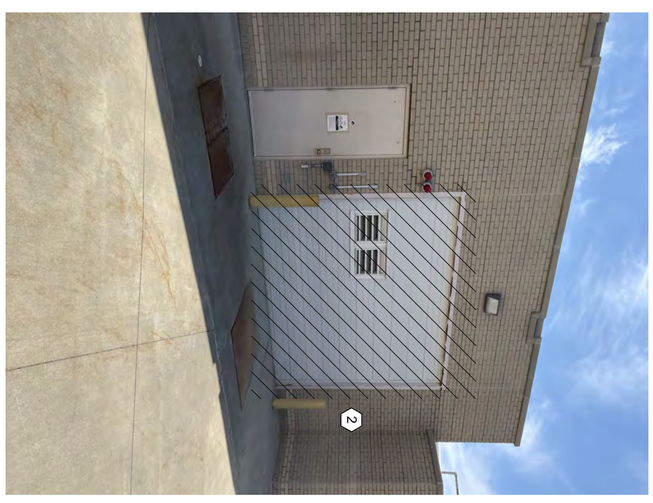

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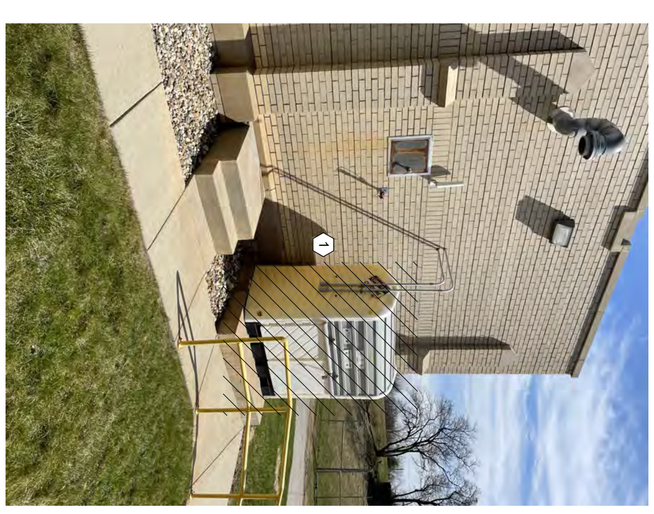

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SYMBOLS LEGEND

EQUIPMENT AND PIPING TO BE REMOVED (PATTERN MAY BE ROTATED FOR READABILITY)

NOTES

1. CONTRACTOR TO PROTECT AND MAINTAIN BUILDING MOUNTED ELECTRICAL ITEMS INCLUDING LIGHTS, ACCESS CONTROL DEVICES, AND CONTROL STATIONS NOT IDENTIFIED IN DRAWINGS.

DEMOLITION KEY NOTES

1. REMOVE HYPOCHLORITE BULK FILL CONNECTION STRUCTURE AND ASSOCIATED PIPING.
2. REMOVE WALL ENCLOSURE PANEL TO FACILITATE REPLACEMENT OF BULK SODIUM HYPOCHLORITE CHEMICAL STORAGE TANKS.
3. REMOVE SODIUM HYPOCHLORITE BULK CHEMICAL STORAGE TANKS.
4. REMOVE CONCRETE CONTAINMENT WALL TO FACILITATE BULK SODIUM HYPOCHLORITE CHEMICAL STORAGE TANK REMOVAL.
5. REMOVE TRANSFER PUMP SUCTION AND DISCHARGE PIPING BETWEEN TANK AND PUMP CONNECTION AND FROM PUMP DISCHARGE TO 6-INCH DIAMETER CARRIER PIPING IN CONDUIT.
6. REMOVE SODIUM HYPOCHLORITE PIPING BETWEEN TRANSFER PUMP DISCHARGE TO CONDUIT BETWEEN BULK AND DAY TANK STORAGE ROOMS.
7. REMOVE SODIUM HYPOCHLORITE DAY CHEMICAL STORAGE TANKS.
8. REMOVE SODIUM HYPOCHLORITE DAY TANK SUCTION AND DISCHARGE PIPING.
9. REMOVE SODIUM HYPOCHLORITE DAY TANK DISCHARGE PIPING.
10. SALVAGE AND PROTECT SODIUM HYPOCHLORITE CHEMICAL FEED PUMPS FOR REINSTALLATION FOLLOWING DAY TANK REPLACEMENT.
11. PROTECT SODIUM HYPOCHLORITE CHEMICAL FEED HEADER WITHIN GATEHOUSE.

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City of Saginaw
Saginaw County, Michigan

Lime Slaker and Sodium Hypochlorite Feed System Improvements

REVISIONS

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Designer BSIEFKER
Reviewer
Manager BVANZEE

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SYMBOLS LEGEND

EQUIPMENT AND PIPING TO BE REMOVED
(PATTERN MAY BE ROTATED FOR READABILITY)

NOTES

1. CONTRACTOR TO PROTECT AND MAINTIN BUILDING MOUNTED ELECTRICAL ITEMS INCLUDING LIGHTS, ACCESS CONTROL DEVICES, AND CONTROL STATIONS NOT IDENTIFIED IN DRAWINGS.
2. PROTECT POTABLE WATER SUPPLY FOR ALL PIPING AND DEMOLITION WORK OCCURING WITHIN POTABLE WATER PROCESS AREAS AND TANKS.
3. SODIUM HYPOCHLORITE FEED TO RAW WATER RISER OR RAW WATER PIPING MUST BE MAINTAINED AT ALL TIMES. COORDINATE ALL PUMP AND INJECTION LOCATION SHUT DOWNS WITH OWNER AND ENGINEER.

(#) DEMOLITION KEY NOTES

1 REMOVE SODIUM HYPOCHLORITE DAY TANK DISCHARGE PIPING.
2 REMOVE SODIUM HYPOCHLORITE RAPID MIX RISER INJECTION PIPING.
3 REMOVE SODIUM HYPOCHLORITE SHOREWELL INJECTION PIPING.
4 REMOVE SODIUM HYPOCHLORITE TUBING AND CARRIER PIPING AS NECESSARY FROM HYPOCHLORITE DAY TANK ROOM THROUGH PIPE GALLERY TO REMOTE INJECTION LOCATIONS.
5 PROTECT VISUAL/SENSOR CHEMICAL LEAK DETECTION EQUIPMENT AT NOTED LOCATIONS.

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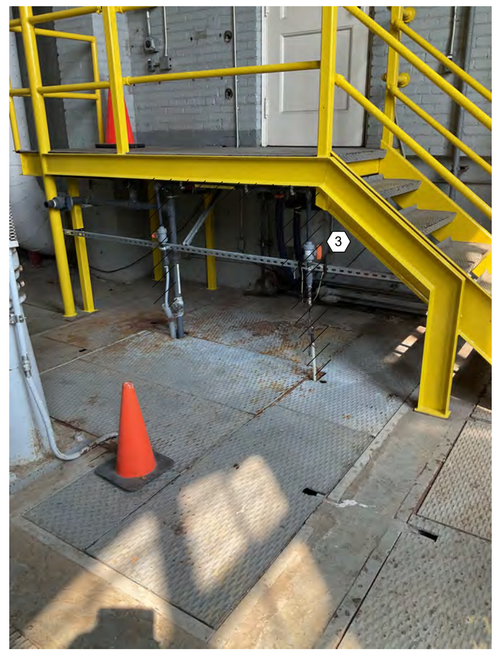

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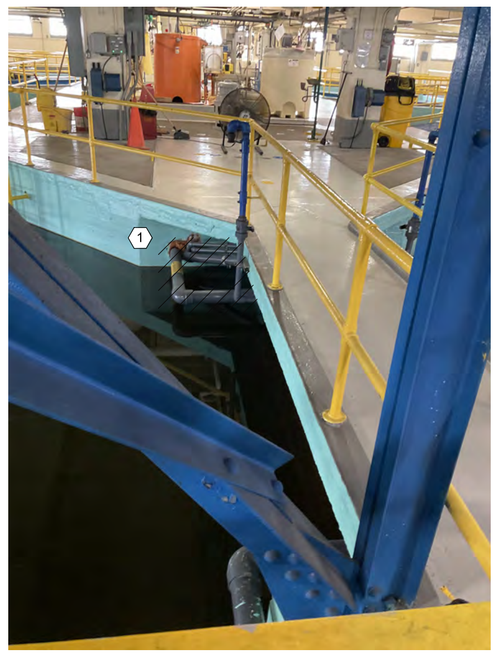

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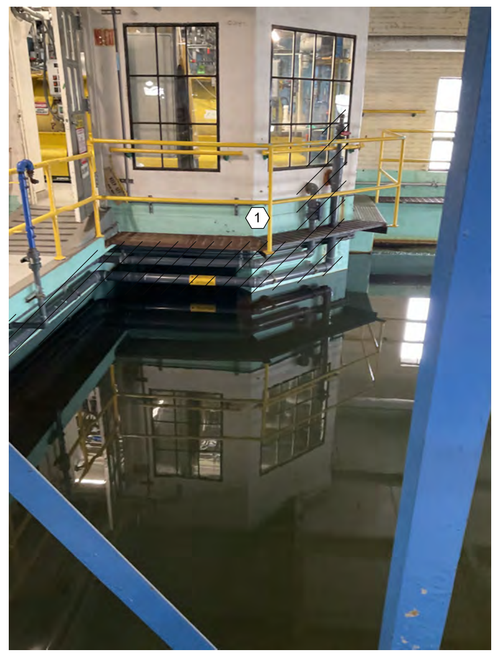

A PHOTO
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Saginaw County, Michigan

Lime Slaker and Sodium Hypochlorite Feed System Improvements

REVISIONS

2/27/2026 BIDS AND CONSTRUCTION

Drawn By	BSIEFKER
Designer	BSIEFKER
Reviewer	
Manager	BVANZEE

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PROJECT NO.
2501185

SHEET NO.
D406

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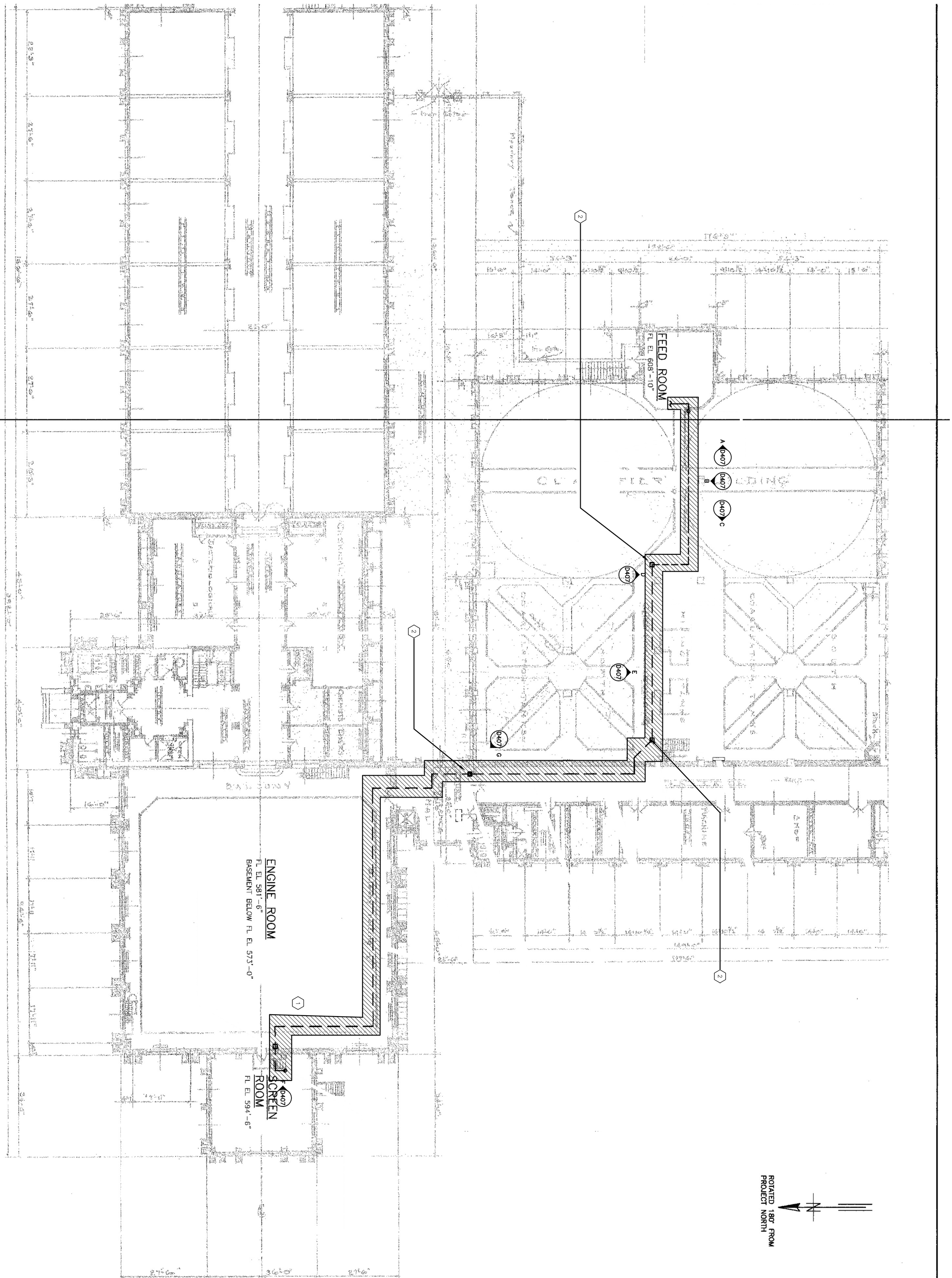

SODIUM HYPOCHLORITE FEED

DEMOLITION PLAN

NO SCALE

DEMOLITION KEY NOTES

1. DEMO 2-INCH PIPING IN 4-INCH CONTAINMENT CONDUIT TO ACCOMMODATE NEW 5/8-INCH ID SODIUM HYPOCHLORITE CHEMICAL TUBING. MAINTAIN EXISTING SECONDARY CONTAINMENT CONDUIT WHERE POSSIBLE FOR REUSE. FINAL CONDUIT SHALL HAVE FUNCTIONALITY TO PULL TUBE THROUGH CONTAINMENT CONDUIT. REPLACE ALL STANDARD ELBOWS WITH LONG RADIUS ELBOWS.
2. PROTECT EXISTING VISUAL/SENSOR LEAK DETECTION STATIONS AT INDICATED LOCATIONS.

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Manager BVANZEE

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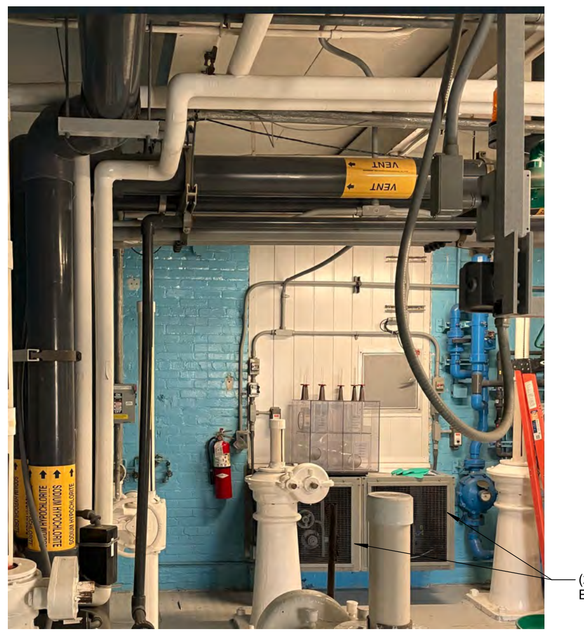
GENERAL NOTES

DEMOLITION NOTES

1. REMOVE ALL PORTIONS OF WORK IDENTIFIED BY CROSS HATCHING UNLESS NOTED OTHERWISE.
2. FIELD DETERMINE EXACT LOCATIONS AND REMOVE PORTIONS OF DUCTWORK AND EQUIPMENT SHOWN BY CROSS-HATCHING. SCHEDULE SHUT-DOWNS WITH OWNER. CAP ALL OPEN DUCT AT END OF WORK DAY. REFER TO OTHER DRAWINGS FOR COORDINATION OF EXTENT OF DEMOLITION WITH NEW WORK.

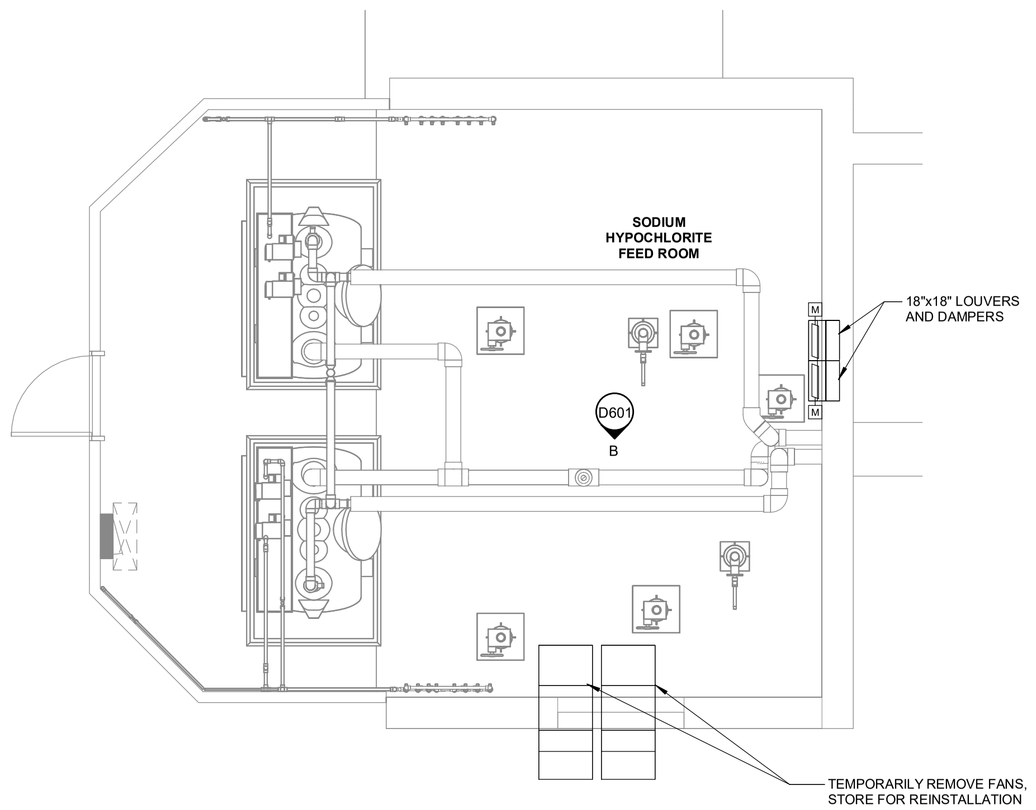


(2) EXISTING EXHAUST FANS

B **PHOTO**
NOT TO SCALE

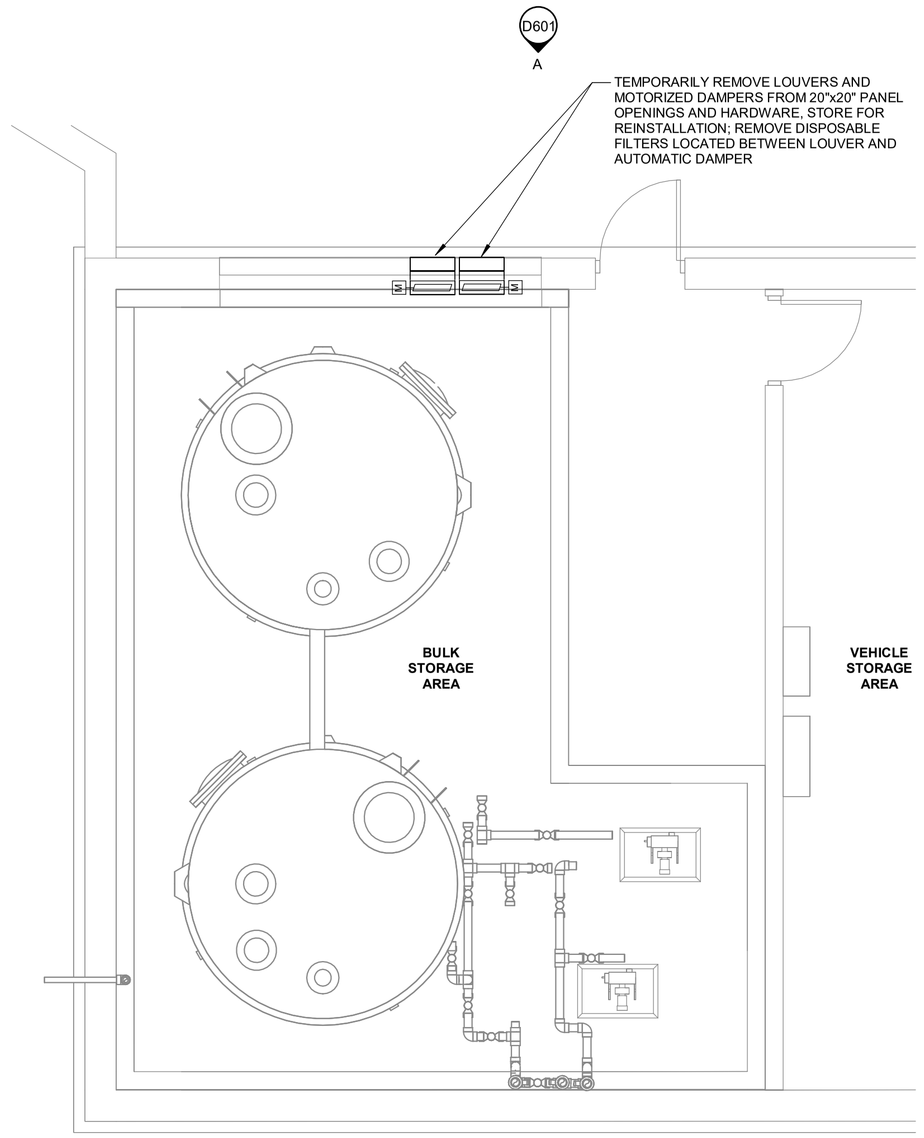
(2) EXISTING 20"x20" LOUVERS, MOTORIZED DAMPERS, AND DISPOSABLE FILTERS

A **PHOTO**
NOT TO SCALE



NORTH

HVAC
SODIUM HYPOCHLORITE DAY TANK
DEMOLITION PLAN
SCALE: 1/4" = 1'-0"



NORTH

HVAC
SODIUM HYPOCHLORITE BULK STORAGE
DEMOLITION PLAN
SCALE: 1/4" = 1'-0"

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Drawn By	CEBAKER
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Manager	BVANZEE

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2501185

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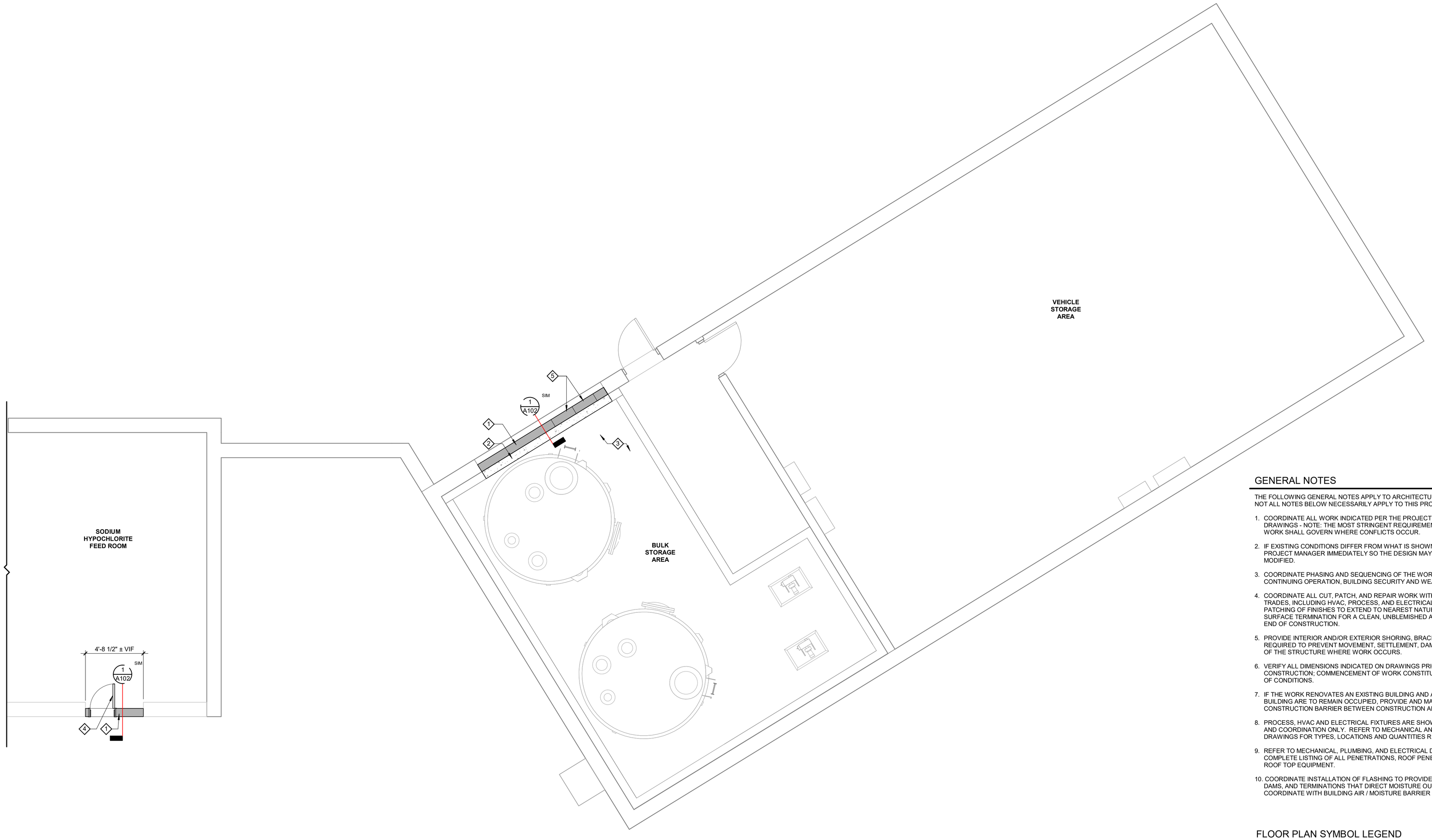
C-1720 WTP Sodium Hypochlorite and Lime Feed Improvements
Page 194 of 217



NORTH

SODIUM HYPOCHLORITE BULK TANKS

FLOOR PLAN

SCALE: 1/4" = 1'-0"

GENERAL NOTES

THE FOLLOWING GENERAL NOTES APPLY TO ARCHITECTURAL SHEETS. NOT ALL NOTES BELOW NECESSARILY APPLY TO THIS PROJECT.

1. COORDINATE ALL WORK INDICATED PER THE PROJECT MANUAL AND DRAWINGS - NOTE: THE MOST STRINGENT REQUIREMENT OR MORE COSTLY WORK SHALL GOVERN WHERE CONFLICTS OCCUR.
2. IF EXISTING CONDITIONS DIFFER FROM WHAT IS SHOWN, NOTIFY THE PROJECT MANAGER IMMEDIATELY SO THE DESIGN MAY BE PROPERLY MODIFIED.
3. COORDINATE PHASING AND SEQUENCING OF THE WORK TO MAINTAIN CONTINUING OPERATION, BUILDING SECURITY AND WEATHER TIGHTNESS.
4. COORDINATE ALL CUT, PATCH, AND REPAIR WORK WITH ALL OTHER TRADES, INCLUDING HVAC, PROCESS, AND ELECTRICAL DRAWINGS. PATCHING OF FINISHES TO EXTEND TO NEAREST NATURAL BREAK OR SURFACE TERMINATION FOR A CLEAN, UNBLEMISHED APPEARANCE AT THE END OF CONSTRUCTION.
5. PROVIDE INTERIOR AND/OR EXTERIOR SHORING, BRACING, OR SUPPORT AS REQUIRED TO PREVENT MOVEMENT, SETTLEMENT, DAMAGE, OR COLLAPSE OF THE STRUCTURE WHERE WORK OCCURS.
6. VERIFY ALL DIMENSIONS INDICATED ON DRAWINGS PRIOR TO CONSTRUCTION; COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.
7. IF THE WORK RENOVATES AN EXISTING BUILDING AND AREAS WITHIN THE BUILDING ARE TO REMAIN OCCUPIED, PROVIDE AND MAINTAIN CONSTRUCTION BARRIER BETWEEN CONSTRUCTION AND OCCUPIED AREA.
8. PROCESS, HVAC AND ELECTRICAL FIXTURES ARE SHOWN FOR REFERENCE AND COORDINATION ONLY. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR TYPES, LOCATIONS AND QUANTITIES REQUIRED.
9. REFER TO MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR COMPLETE LISTING OF ALL PENETRATIONS, ROOF PENETRATIONS, AND ROOF TOP EQUIPMENT.
10. COORDINATE INSTALLATION OF FLASHING TO PROVIDE CONTINUITY, END DAMS, AND TERMINATIONS THAT DIRECT MOISTURE OUT OF THE BUILDING; COORDINATE WITH BUILDING AIR / MOISTURE BARRIER SYSTEMS.

FLOOR PLAN SYMBOL LEGEND

- METAL STUD WALL
- CMU WALL
- FACE BRICK
- CAST IN PLACE OR PRECAST CONCRETE
- EXISTING WALL
- EXISTING DOOR
- NEW DOOR

KEY NOTES

1	METAL PANEL AND GIRT WALL INFILL IN EXISTING OPENING.
2	CONCRETE CONTAINMENT WALL, REFER TO WALL SECTION.
3	RECOAT CONTAINMENT AREA FLOOR AND WALLS.
4	REINSTALL SALVAGED ACESS PANEL.
5	LOUVERS, SEE MECHANICAL. LOCATION TO MATCH EXISTING.

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Drawn By	DISENOGLE
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Reviewer	
Manager	BVANZEE

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SHEET NO.
A101

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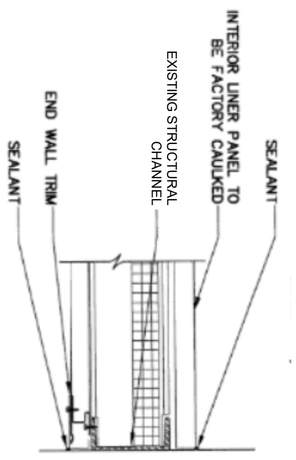

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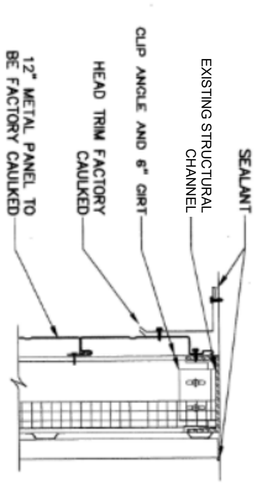

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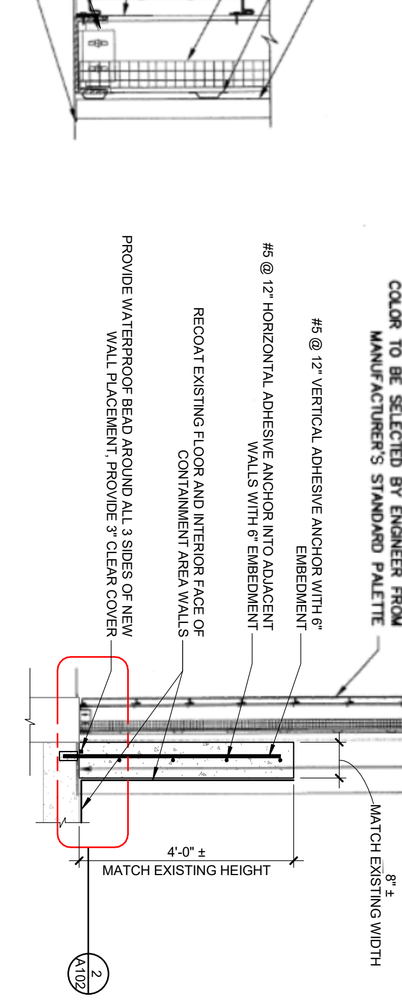

2 SILL
SCALE: 1 1/2" = 1'-0"

1 WALL SECTION
SCALE: 1/2" = 1'-0"

REVISIONS	
2/27/2026	BIDS AND CONSTRUCTION

Drawn By DISENOGLE
Designer DISENOGLE
Reviewer
Manager BVANZEE

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PROJECT NO.
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SHEET NO.
A102

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GENERAL ABBREVIATIONS

A	AIR
AB	ANCHOR BOLT
ABAN	ABANDON, ABANDONED
ADJ	ADJACENT
AFF	ABOVE FINISHED FLOOR
AG	ABOVE GRADE
AL	ALUMINUM
ALT	ALTERNATE, ALTERNATIVE
AMT	AMOUNT
APPROX	APPROXIMATE
ASSY	ASSEMBLY
AVG	AVERAGE
B/B	BACK TO BACK
BF	BLIND FLANGE
BFG	BELOW FINISHED GRADE
BFP	BACKFLOW PREVENTER
BG	BIOGAS
BLDG	BUILDING
BLKHD	BULKHEAD
BLWDN	BLOWDOWN
BM	BENCHMARK
BMC	BOLTED MECHANICAL COUPLING
BTM	BOTTOM
BRG	BEARING
BSMT	BASEMENT
BTU	BRITISH THERMAL UNITS
BTWN	BETWEEN
C/C	CENTER TO CENTER
CF	CUBIC FEET
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CHAM	CHAMFER
CHEM	CHEMICAL
CHKPL	CHECKERPLATE
CL	CENTERLINE
CLR	CLEARANCE
CO	CLEANOUT
COMP	COMPANION
CONC	CONCRETE
CONC	CONCENTRATED
CONC	CONCENTRIC
CONST	CONSTRUCTION
COORD	COORDINATE
CPLG	COUPLING
CTL	CONTROL
CW	COLD WATER
CY	CUBIC YARD
DEG	DEGREE
DEMO	DEMOLITION
DET	DETAIL
DIA	DIAMETER
DIF	DIFFUSER
DIM	DIMENSION
DIR	DIRECTION
DISCH	DISCHARGE
DIST	DISTANCE
DMS	DIAPHRAGM SEAL
DN	DOWN
DP	DEEP, DEPTH
DWG	DRAWING
DWV	DRAIN WASTE VENT
E/E	END TO END
EA	EACH
ECC	ECCENTRIC
EHT	ELECTRICALLY HEAT-TRACED
EJ	EXPANSION JOINT
EL,ELEV	ELEVATION
EL	ELBOW
EMBED	EMBEDMENT
ENGR	ENGINEER
EQ	EQUAL
EQUIP	EQUIPMENT
ES	EACH SIDE
ESEW	EMERGENCY SHOWER AND EYE WASH
EW	EACH WAY
EX, EXIST	EXISTING
EXC	EXCAVATE, EXCAVATION
EXP	EXPOSED
EXT	EXTERIOR
F/F	FACE TO FACE
FAB	FABRICATED
FD	FLOOR DRAIN
FF	FINISHED FLOOR
FIG	FIGURE
FIN	FINISHED
FLR	FLOOR
FM	FORCE MAIN
FRP	FIBERGLASS REINFORCED PLASTIC
FSP	FABRICATED STEEL PIPE
FTG	FITTING
FV	FIELD VERIFY
GA	GAUGE/GAGE
GAC	GRANULATED ACTIVATED CARBON
GFA	GROOVED FLANGE ADAPTER
GPC	GROOVED PIPE COUPLING
GPD	GALLONS PER DAY
GPM	GALLONS PER MINUTE
GR	GRADE
HB	HOSE BIBB
HDPE	HIGH DENSITY POLYETHYLENE EXTRUSION
HDWL	HEADWALL
HGL	HYDRAULIC GRADE LINE
HGR	HANGER
HHWL	HIGH HIGH WATER LEVEL
HORIZ	HORIZONTAL
HP	HIGH POINT
HP	HORSEPOWER
HT	HEIGHT
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
HW	HOT WATER
HWL	HIGH WATER LEVEL
HYD	HYDRAULIC
HZ	HERTZ
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IN	INCH
INCL	INCLUDE
INSUL	INSULATE, INSULATION
INSTR	INSTRUMENT, INSTRUMENTATION
INT	INTERIOR
INV	INVERT
IPS	IRON PIPE SIZE
IR	ISOLATION RING
JT	JOINT
LAB	LABORATORY
LAT	LATERAL
LB	POUND
LF	LINEAL FOOT
LGTH	LENGTH
LH	LEFT HAND
LIQ	LIQUID
LLWL	LOW LOW WATER LEVEL
LONG	LONGITUDINAL
LP	LOW POINT
LR	LONG RADIUS
LWL	LOW WATER LEVEL
M	MOTOR
MAINT	MAINTENANCE
MATL	MATERIAL
MAX	MAXIMUM
MEZZ	MEZZANINE
MFR	MANUFACTURER
MGD	MILLION GALLONS PER DAY
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MTD	MOUNTED
MTL	METAL
N/A	NOT APPLICABLE
NIC	NOT IN CONTRACT
NO	NUMBER
NPT	AMERICAN NATIONAL TAPER PIPE THREAD
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OPNG	OPENING
OPP	OPPOSITE
ORIG	ORIGINAL
OH	OVERHEAD
P&ID	PROCESS AND INSTRUMENTATION DIAGRAM
PE	PLAIN END
PERF	PERFORATED
PHA	PHOSPHORIC ACID
PL	PLATE
PNL	PANEL
PPM	PARTS PER MILLION
PROP	PROPOSED
PS	PUMP STATION
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
Q	FLOW
QD	QUICK DISCONNECT
QTY	QUANTITY
R	RADIUS
RD	ROOF DRAIN
RECIRC	RECIRCULATE, RECIRCULATING, RECIRCULATION
RED	REDUCER, REDUCING
REF	REFERENCE
REHAB	REHABILITATION
REINF	REINFORCE, REINFORCING
REQD	REQUIRED
REV	REVISION
RFA	RESTRAINED FLANGE ADAPTER
RH	RIGHT HAND
RJ	RESTRAINED JOINT
RM	ROOM
RO	ROUGH OPENING
RPM	REVOLUTIONS PER MINUTE
RSR	RISER
RUB	RUBBER
SAN	SANITARY
SCH	SCHEDULE
SCRN	SCREEN
SED	SEDIMENTATION
SHT	SHEET, SHEETING
SIM	SIMILAR
SL	SLOPE
SP	SAMPLE POINT
SP	STATIC PRESSURE
SPEC	SPECIFICATION/SPECIFIED
SPR	SPARE
SF	SQUARE FOOT
SY	SQUARE YARD
SR	SHORT RADIUS
SS	STAINLESS STEEL
STA	STATION
STD	STANDARD
STG	STORAGE
STL	STEEL
SUBM	SUBMERGED
SUCT	SUCTION
SURF	SURFACE
SUSP	SUSPENDED
SW	SOCKET WELDED
SYS	SYSTEM
TDH	TOTAL DYNAMIC HEAD
TEMP	TEMPERATURE
THK	THICK
TYP	TYPICAL
UG	UNDERGROUND
UL	UNDERWRITERS LABORATORY
UNO	UNLESS NOTED OTHERWISE
UTIL	UTILITY
UV	ULTRAVIOLET LIGHT
V	VOLTS
VAC	VACUUM
VB	VALVE BOX
VERT	VERTICAL
VOL	VOLUME
VTR	VENT THROUGH ROOF
VTW	VENT THROUGH WALL
W/	WITH
W/O	WITHOUT
WT	WEIGHT
WH	WALL HYDRANT
WL	WATER LEVEL
WP	WEATHERPROOF
WS	WATERSTOP
WSE	WATER SURFACE ELEVATION
WT	WATERTIGHT
XP	EXPLOSION PROOF

PIPE/TUBING MATERIAL ABBREVIATIONS

CI	CAST IRON
CPVC	CHLORINATED POLYVINYL CHLORIDE
CS	CARBON STEEL
CU	COPPER
DI	DUCTILE IRON
FRP	FIBERGLASS REINFORCED PLASTIC
GALV	GALVANIZED STEEL
HDPE	HIGH-DENSITY POLYETHYLENE
LCS	LINED CARBON STEEL
LDI	LINED DUCTILE IRON
PCCP	PRESTRESSED CONCRETE CYLINDER PIPE
PE	POLYETHYLENE
PP	POLYPROPYLENE
PTFE	TEFLON PIPE
PVC	POLYVINYL CHLORIDE
PVDF	POLYVINYLIDENE FLUORIDE (KYNAR)
RCP	REINFORCED CONCRETE PIPE
###SS	STAINLESS STEEL (### INDICATES GRADE)
TT	TITANIUM

EQUIPMENT TYPE ABBREVIATIONS

A	AIR SYSTEM
AIC	AIR COMPRESSOR
BFP	BELT FILTER PRESS
BP	BOOSTER PUMP
BPS	BOOSTER PUMP SKID
BTK	BULK STORAGE CHEMICAL TANK
B	BLOWER
CENT	CENTRIFUGE
CF	CARTRIDGE FILTER
CIP	CLEAN-IN-PLACE
CL	CLARIFIER
CN	CONVEYOR
DIF	DIFFUSER
DIG	DIGESTER
DTK	DAY TANK (CHEMICAL)
ESEW	EMERGENCY SHOWER AND EYE WASH
FLT	FILTER
FM	FLOCCULATOR MIXER
GT	GRAVITY THICKENER
HP	HIGH-PRESSURE PUMP
HSP	HIGH SERVICE PUMP
HTR	HEATER
HX	HEAT EXCHANGER
LSP	LOW SERVICE PUMP
MH	MANHOLE
MX	MIXER
P	PUMP
PFP	PLATE AND FRAME FILTER PRESS
PM	POLYMER FEED SYSTEM
R	REACTOR
RD	RUPTURE DISC
RPZ	REDUCED PRESSURE ZONE VALVE
S	SAMPLER
SCP	SCREW PRESS
SCR	SCREEN
SMP	SUMP PUMP
SP	SAMPLE PUMP
STR	STRAINER
T	TANK
TP	TRANSFER PUMP
U	MISCELLANEOUS EQUIPMENT
UV	ULTRAVIOLET DISINFECTION
WC	WASHER COMPACTOR

VALVE ABBREVIATIONS

ANV	ANGLE VALVE
ARV	AIR RELEASE VALVE
AVV	AIR/VACUUM VALVE
BAV	BALL VALVE
BFV	BUTTERFLY VALVE
BPV	BACKPRESSURE VALVE
CAV	COMBINATION AIR/VACUUM RELEASE VALVE
CKV	CHECK VALVE
CNV	ROTARY CONE VALVE
CV	CONTROL VALVE
DV	DIAPHRAGM VALVE
ECV	ELECTRONIC CONTROL VALVE
EPV	ECCENTRIC PLUG VALVE
GBV	GLOBE VALVE
GV	GATE VALVE
HG	HAND GATE
MDV	MUD VALVE
NV	NEEDLE VALVE
PFV	PRESSURE RELIEF VALVE
PNV	PINCH VALVE
PRV	PRESSURE REDUCING VALVE
PSV	PRESSURE SUSTAINING/RELIEF VALVE
PV	PLUG VALVE
SAV	SURGE ANTICIPATOR VALVE
SG	SLIDE OR SLUICE GATE
SL	STOP LOG
SV	SOLENOID VALVE
TSV	THERMAL OPERATED SHUT-OFF VALVE
V	VALVE
VBV	VACUUM BREAKER VALVE
WG	WEIR GATE
XV	SPECIALTY VALVE

PIPE SYSTEM ABBREVIATIONS

ALUM	ALUMINUM SULFATE
AR	AIR RELEASE (RELIEF)
AS	AIR SCOUR
BWR	BACKWASH RETURN
BWS	BACKWASH SUPPLY
BWW	BACKWASH WASTE
CA	COMPRESSED AIR
CIT	CITRIC ACID
CLP	CHLORINE GAS (PRESSURIZED)
CLS	CHLORINE SOLUTION
CN	CENTRATE
DC	DECANT
DG	DIGESTER GAS
DR	DRAIN
DSL	DIGESTED SLUDGE
DW	DILUTION WATER
EQ	EQUALIZED WASTEWATER
FE	FINAL EFFLUENT
FECL	FERRIC CHLORIDE / FERROUS CHLORIDE
FLT	FILTRATE
FTW	FILTER TO WASTE
FW	FILTERED WATER
GRIT	GRIT SLURRY
HFS	HYDROFLUOROSILICIC ACID
HYPO	SODIUM HYPOCHLORITE
IA	INSTRUMENT AIR
LIME	LIME
LO	LUBRICATION OIL
LPA	LOW PRESSURE AIR
LPG	LIQUEFIED PETROLEUM GAS
ME	METHANOL
ML	MIXED LIQUOR
NAOH	SODIUM HYDROXIDE (CAUSTIC)
NG	NATURAL GAS
NH	AMMONIA
O2	OXYGEN
O3	OZONE
OF	OVERFLOW
PA	PLANT AIR
PAC	POWDERED ACTIVATED CARBON
PAL	POLYALUMINUM CHLORIDE
PE	PRIMARY EFFLUENT
PEW	PLANT EFFLUENT WATER
PH	PHOSPHATE
PI	PRIMARY INFLUENT
PIPR	PRIMARY INFLUENT W/ PLANT RECYCLE
POLY	POLYMER
PP	POTASSIUM PERMANGANATE
PR	PLANT RECYCLE
PSW	PLANT SERVICE WATER
PW	POTABLE/FINISHED WATER
RAS	RETURN ACTIVATED SLUDGE
RW	RAW WATER
SA	SULFURIC ACID
SAN	SANITARY
SBS	SODIUM BISULFITE
SCUM	SCUM
SE	SECONDARY EFFLUENT
SL	SLUDGE
SLR	SLUDGE RECIRCULATION
SN	SUPERNATANT
SODA	SODA ASH
SPD	SUMP PUMP DISCHARGE
SPL	SAMPLE LINE
STR	SLUDGE TRANSFER
STW	SETTLED/CLARIFIED WATER
TE	TERTIARY EFFLUENT
TSL	THICKENED SLUDGE
V	VENT
VC	VACUUM
WAS	WASTE ACTIVATED SLUDGE
WF	WARM FLARE
WW	INFLUENT WASTEWATER (RAW)

ANALYTICAL ABBREVIATIONS

ALK	ALKALINITY
CH4	METHANE
CL2	CHLORINE
COMB	COMBUSTIBLE GAS
CON	CONDUCTIVITY
DO	DISSOLVED OXYGEN
F	FLUORIDE
IR	INFRARED
H2S	HYDROGEN SULFIDE
METH	METHANOL
NH3	AMMONIA
NO3	NITRATE
O2	OXYGEN
O3	OZONE
ORP	OXIDATION/REDUCTION POTENTIAL
PC	PARTICLE COUNTER
PH	HYDROGEN ION CONCENTRATION
PO4	PHOSPHATE
SC	STREAMING CURRENT
SO2	SULFUR DIOXIDE
TH	TOTAL HARDNESS
TSS	TOTAL SUSPENDED SOLIDS
TURB	TURBIDITY
UV	ULTRAVIOLET

GENERAL SHEET NOTES

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2. CONTACT ENGINEER FOR ABBREVIATIONS USED BUT NOT SHOWN ON THIS DRAWING.

PROCESS GENERAL NOTES

1. THE FOLLOWING NOTES APPLY TO ALL PROCESS SHEETS.
2. NOTES, SYMBOLS, LEGENDS, AND ABBREVIATIONS SHOWN ON PROCESS DRAWINGS MAY NOT BE ALL INCLUSIVE, ONLY APPLY TO PROCESS DRAWINGS (P### SHEETS) AND, WHEN PRESENT, PROCESS DEMOLITION (D4## SHEETS).
3. GRAPHICAL REPRESENTATION OF EXISTING SYSTEMS IS BASED ON PREVIOUS CONSTRUCTION AND/OR RECORD DRAWINGS AND MAY NOT FULLY REPRESENT EXISTING CONDITIONS, AND IS FOR REFERENCE ONLY. FIELD VERIFY EXISTING CONDITIONS TO DETERMINE EXTENT OF WORK.
4. FIELD VERIFY ALL DIMENSIONS SHOWN.
5. REFER TO PIPING PLAN VIEWS FOR CORRECT PIPE ORIENTATION TO BUILDINGS AND STRUCTURES.
6. SEE STRUCTURAL FOR TYPICAL EQUIPMENT PAD DETAIL FOR NEW EQUIPMENT INSTALLATION.
7. WALL SLEEVES AND WALL PIPE TO BE PAINTED PRIOR TO EMBEDMENT/PIPE INSTALLATION.
8. PAINT PIPE SURFACES THAT WILL BE CONCEALED BY PIPE SUPPORTS PRIOR TO INSTALLING PIPE.
9. COORDINATE NEW WORK WITH DEMOLITION.
10. ALL BURIED/EXPOSED PIPE JOINTS NEW AND EXISTING FOR NEW PIPING INSTALLATIONS TO BE RESTRAINED, UNLESS NOTED OTHERWISE.
11. ENCASE BURIED PIPING UNDER STRUCTURES WITH 1'-0" MINIMUM CONCRETE ENCASEMENT AROUND PIPE AND FROM FURTHEST EXTENSIONS OF FITTING JOINTS, AFTER PIPE HAS BEEN PRESSURE TESTED.
12. FIELD VERIFY THAT ALL EXISTING PIPE PENETRATIONS, WALL SLEEVES AND WALL PIPES ARE AS SHOWN ON PLANS.
13. FOR PURPOSE OF CLARITY, NOT ALL PIPING AND VALVES MAY BE SHOWN IN PLAN VIEWS. SEE PROCESS SCHEMATICS FOR COMPLETE DETAILS.

PROCESS SITE PIPING NOTES

1. VERIFY DEPTH, SIZE, MATERIAL AND LOCATION OF ALL EXISTING BELOW GRADE PIPING FOR NEW BURIED PIPE INSTALLATION, PRIOR TO COMMENCING WORK.
2. COORDINATE CONSTRUCTION WITH ENGINEER/OWNER TO MAINTAIN PLANT/FACILITY NORMAL MODE OF OPERATION.
3. FIELD VERIFY ALL EXISTING UTILITIES AND BURIED PIPING PRIOR TO ABANDONMENT AND INSTALLATION OF PIPING.
4. INSTALL VALVE BOXES ON ALL BELOW GRADE VALVES.
5. USE APPROPRIATE FITTINGS AND/OR PIPE JOINT DEFLECTION AS NECESSARY TO INSTALL PIPE AT INVERTS AND ELEVATIONS INDICATED.
6. RESTRAIN ALL NEW BURIED MECHANICAL JOINT PIPE AND NEW TIE-IN CONNECTIONS TO EXISTING PIPE.

PROCESS CHEMICAL FEED NOTES

1. CHEMICAL FEED PIPING SHOWN FOR GENERAL ROUTING AND CHEMICAL FEED POINT LOCATIONS ONLY. ROUTE PIPING AS NECESSARY TO AVOID CONFLICTS AND INSTALL PIPING AND VALVES IN ACCORDANCE WITH THE CHEMICAL FEED SYSTEM SCHEMATIC DIAGRAMS.
2. DO NOT MOUNT VALVES HIGHER THAN 6 FEET ABOVE FINISHED FLOOR.
3. PUMP SHELVES TO BE COMPATIBLE WITH CHEMICAL SERVICE. MOUNT PUMP SHELVES 3 FEET ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE.

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City of Saginaw
Saginaw County, Michigan

Lime Slaker and Sodium Hypochlorite Feed System Improvements

REVISIONS

2/27/2026	BIDS AND CONSTRUCTION

Drawn By	JKING
Designer	JKING
Reviewer	
Manager	BVANZEE

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2501185

SHEET NO.
P001

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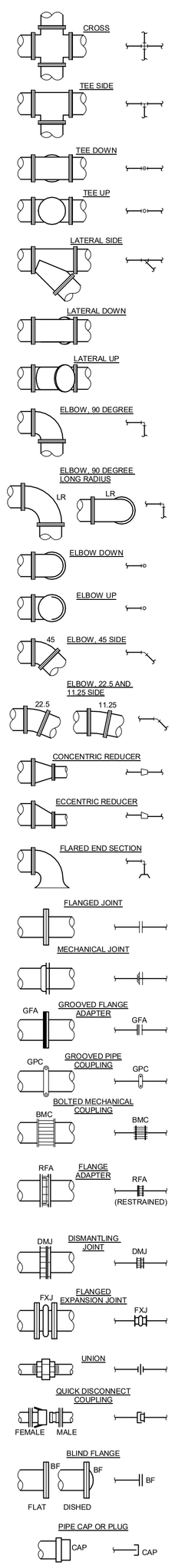
PIPE/FITTINGS SYMBOLS

DOUBLE LINE PIPING — SINGLE LINE/SCHEMATIC



VALVE SYMBOLS

- GATE VALVE
- BUTTERFLY VALVE
- BALL VALVE
- GLOBE VALVE
- PLUG VALVE
- 3-WAY PLUG VALVE
- ROTARY CONE VALVE
- PINCH VALVE
- NEEDLE VALVE
- CHECK VALVE
- BALL CHECK VALVE
- ANGLE VALVE
- DIAPHRAGM VALVE
- KNIFE GATE VALVE
- SOLENOID VALVE
- 3-WAY VALVE
- 4-WAY/MULTI-FUNCTION VALVE
- BACKPRESSURE VALVE
- ANTI-SIPHON VALVE (CHEMICAL)
- MUD VALVE
- TELESCOPING VALVE
- ROTARY VALVE
- CORPORATION STOP
- PSV — PRESSURE SUSTAINING/RELIEF VALVE (PILOT OPERATED)
- PRV — PRESSURE REDUCING VALVE (PILOT OPERATED)
- ECV — ELECTRONIC CONTROL VALVE (PILOT OPERATED)
- SAV — SURGE ANTICIPATOR VALVE (PILOT OPERATED)
- PRESSURE REDUCING VALVE
- PRESSURE RELIEF VALVE
- AUTOMATIC AIR RELEASE VALVE
- MANUAL AIR RELEASE VALVE
- COMBINATION AIR/VACUUM RELEASE VALVE
- VACUUM BREAKER
- ANTI-SIPHON VALVE (PIPING)
- X — SPECIAL VALVE
  - CV - CONTROL VALVE
  - F - FLAP GATE
  - S - STOP COCK
  - X - USER DEFINED
- BACKFLOW PREVENTER

ACTUATOR SYMBOLS

- CONTROL VALVE
- VALVE W/ ELECTRIC ACTUATOR
- VALVE W/ ELECTRIC ACTUATOR (MODULATING)
- VALVE W/ ELECTRO-HYDRAULIC ACTUATOR
- VALVE W/ PNEUMATIC ACTUATOR
- VALVE W/ HYDRAULIC ACTUATOR
- VALVE W/ SOLENOID ACTUATOR
- VALVE W/ MANUAL ACTUATOR

THE FOLLOWING ADDITIONAL DESIGNATIONS MAY BE UTILIZED ADJACENT TO SOME VALVE OR GATE SYMBOLS.

NC NORMALLY CLOSED
NO NORMALLY OPEN
FC FAILS CLOSED
FO FAILS OPEN
FIP FAILS IN LAST KNOWN POSITION

GATE SYMBOLS

- SLUICE GATE
- SLIDE GATE
- WEIR GATE
- STOP LOG / HAND GATE

BLOWER/COMPRESSOR SYMBOLS

- CENTRIFUGAL BLOWER
- ROTARY LOBE BLOWER
- ROTARY SCREW BLOWER
- COMPRESSOR

PUMP SYMBOLS

- CENTRIFUGAL PUMP (GENERAL)
- VERTICAL INLINE PUMP
- HAND (MANUAL) PUMP
- SUBMERSIBLE PUMP
- CHEMICAL METERING PUMP
- DOUBLE DISC PUMP
- GEAR PUMP
- SUMP PUMP
- VACUUM PUMP
- PERISTALTIC PUMP
- ROTARY LOBE PUMP
- PROGRESSIVE CAVITY PUMP
- AIR-OPERATED DOUBLE DIAPHRAGM (AODD) PUMP
- VERTICAL TURBINE PUMP
- VERTICAL TURBINE PUMP (CANNED)
- GENERIC/UNKNOWN PUMP

EQUIPMENT SYMBOLS

- Y-STRAINER
- REGULATOR
- LUBRICATOR
- IN-LINE MIXER
- CALIBRATION COLUMN
- SIGHT GLASS
- AIR PUMP CONNECTION FITTING
- HOSE CONNECTION
- AIR GAP
- TIE-IN POINT/CONNECTION
- SP — SAMPLE POINT
- CHEM — CHEMICAL FEED INJECTION POINT
- PROBE — PROBE LOCATION
- EJECTOR
- BASKET STRAINER
- FILTER
- COALESCING FILTER
- FLEXIBLE CONNECTION
- FLUSHING CONNECTION
- FLUSHING CONNECTION W/BALL VALVE
- PULSATION DAMPER
- MOTOR
- MIXER
- EMERGENCY SHOWER AND EYE WASH (ESEW)
- D — DRAIN
- V — VENT
- BELT CONVEYOR
- SCREW CONVEYOR

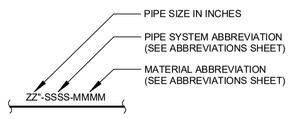
PRIMARY ELEMENT SYMBOLS

- PRESSURE GAUGE
- PRESSURE GAUGE W/SHUTOFF
- PRESSURE GAUGE W/DIAPHRAGM SEAL
- PRESSURE GAUGE W/DIAPHRAGM SEAL & SHUTOFF VALVE
- PRESSURE GAUGE W/ISOLATION RING
- PRESSURE GAUGE W/BALL VALVE
- PRESSURE GAUGE W/DIAPHRAGM SEAL & BALL VALVE
- PS — PRESSURE SWITCH
- PT — PRESSURE TRANSMITTER
- TEMPERATURE GAUGE
- TEMPERATURE GAUGE W/SHUTOFF
- TEMPERATURE PROBE W/THERMOWELL
- ULTRASONIC LEVEL INDICATOR
- FLOAT LEVEL SWITCH
- SUBMERSIBLE LEVEL TRANSMITTER
- RADAR LEVEL INDICATOR (GUIDED WAVE)
- RADAR LEVEL INDICATOR (NON-CONTACT)
- BUBBLER
- FS — FLOW SWITCH
- M — MAGNETIC FLOW METER
- VENTURI FLOW METER
- V-CONE FLOW METER
- PROPELLER/TURBINE FLOW METER
- ΔT — THERMAL MASS FLOW METER
- VORTEX FLOW METER
- ORIFICE FLOW METER
- AFM — MAGNETIC AIR FLOW METER
- ROTAMETER
- FLUME
- WEIR

EQUIPMENT TAG NUMBERS

- X-YZZ — MAJOR EQUIPMENT TAG NUMBER:
  - X - EQUIPMENT TYPE
  - Y - PROCESS AREA DESIGNATION
  - Z - UNIT NUMBER
- X — VALVE TAG
- X-X — SPECIAL VALVE TAG

PIPELINE IDENTIFICATION NUMBERS



LINE SYMBOLS

- MAJOR PROCESS PIPING OR FLOW CHANNEL
- SECONDARY PROCESS PIPING
- MISCELLANEOUS PIPING
- SCREENED LINE DENOTES EXISTING PIPING OR EQUIPMENT
- SCREENED DASHED LINE DENOTES FUTURE PIPING OR EQUIPMENT OR EXISTING BELOW PIPING
- BOLD THICK CENTERLINE DENOTES OWNER PROVIDED EQUIPMENT PACKAGE
- BOLD THICK PHANTOM DENOTES MANUFACTURER PROVIDED EQUIPMENT PACKAGE
- DEMOLISHED PIPING OR EQUIPMENT
- FLOW ARROW FOR MAJOR PROCESS PIPING
- FLOW ARROW FOR SECONDARY / MISCELLANEOUS PROCESS PIPING
- FLOW ARROW FOR BI-DIRECTIONAL PROCESS PIPING
- PROCESS PIPE BREAK (NOT CONNECTED)
- 1 P101 — PROCESS PIPING GOING TO ANOTHER SHEET
  - MATCH LINE SHEET NO.
  - MATCH LINE IDENTIFIER
- 1 P101 — PROCESS PIPING COMING FROM ANOTHER SHEET
- WSE = — WATER SURFACE ELEVATION
- SPOT / LEVEL ELEVATION TARGET

GENERAL SHEET NOTES

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Lime Slaker and Sodium Hypochlorite Feed System Improvements

REVISIONS

2/27/2026	BIDS AND CONSTRUCTION

Drawn By	JKING
Designer	JKING
Reviewer	
Manager	BVANZEE

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2501185

SHEET NO.
P002

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DEVICE TYPE DEFINITIONS

LETTER	FIRST LETTER: PROCESS OR INITIATING VARIABLE	FIRST LETTER: MODIFIER	SUCCEEDING LETTERS: READOUT OR PASSIVE FUNCTION	SUCCEEDING LETTERS: OUTPUT FUNCTION	SUCCEEDING LETTERS: MODIFIER
A	ANALYSIS		ALARM		
B	BURNER FLAME, COMBUSTION		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
C	CONDUCTIVITY			CONTROL (WITH FEEDBACK)	CLOSE OR CLOSED
D	DENSITY OR SPECIFIC GRAVITY	DIFFERENTIAL			DEVIATION
E	VOLTAGE		SENSOR, PRIMARY ELEMENT		
F	FLOW, FLOW RATE	RATIO			
G	GAUGE		GLASS, GAUGE, VIEW		
H	HAND/MANUAL				HIGH
I	CURRENT		INDICATE		
J	POWER		SCAN		
K	TIME, SCHEDULE	RATE OF CHANGE		CONTROL STATION (NO FEEDBACK)	
L	LEVEL		LIGHT (PILOT)		LOW
M	MOTION OR MOTOR	MOMENTARY			MIDDLE, INTERMEDIATE
N	TORQUE		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
O	USER'S CHOICE		ORIFICE, RESTRICTION		OPEN OR OPENED
P	PRESSURE OR VACUUM		POINT (TEST CONNECTION)		
Q	QUANTITY	INTEGRATE, TOTALIZE	INTEGRATE, TOTALIZE		
R	RADIOACTIVITY		RECORD OR PRINT		RUN
S	SPEED OR FREQUENCY	SAFETY		SWITCH	STOP
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	
V	VISCOSITY OR VIBRATION			VALVE	
W	WEIGHT OR FORCE		WELL PROBE		
X	UNCLASSIFIED	X-AXIS	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED
Y	EVENT, STATE	Y-AXIS		RELAY OR COMPUTE	
Z	POSITION	Z-AXIS		DRIVER, ACTUATOR, CONTROL	

GENERAL SYMBOLS

- X / Y — FIELD/LOCAL DEVICE
- X / Y — CONTROL PANEL DEVICE FACE-MOUNTED
- X / Y — CONTROL PANEL DEVICE INTERIOR-MOUNTED
- X / Y — MCC DEVICE FACE-MOUNTED
- X / Y — MCC DEVICE INTERIOR-MOUNTED
- I — LOGICAL INTERLOCK

LINE SYMBOLS

- PROCESS CONTROL LINE
- DISCRETE SIGNAL
- ---A---A--- ANALOG SIGNAL
- --FO----FO-- FIBER OPTIC CABLE
- ----UTP---- UNSHIELDED TWISTED PAIR CABLE
- --W----W-- WIRELESS ETHERNET
- PNEUMATIC PIPING/SIGNAL
- L L HYDRAULIC PIPING/SIGNAL

I/O SYMBOLS

- △ DISCRETE PLC INPUT
- ▲ ANALOG PLC INPUT
- ▽ DISCRETE PLC OUTPUT
- ▼ ANALOG PLC OUTPUT
- X / Y — CONTROL PANEL INPUT/OUTPUT INTERIOR-MOUNTED

INSTRUMENTATION TAG NUMBERS

- X / Y — LOCAL DEVICE
X = DEVICE TYPE
Y = LOOP NUMBER
- X / Y — PANEL MOUNTED DEVICE
X = DEVICE TYPE
Y = LOOP NUMBER

ABBREVIATIONS

AIT	ANALYZER INDICATING TRANSMITTER
AE	ANALYZER SENSOR
AV/SV	VALVE CONTROL
CP	CONTROL PANEL
CS	CONTROL SWITCH
ESPB	EMERGENCY STOP PUSH BUTTON
FE	FLOW ELEMENT
FI	FLOW INDICATOR
FIT	FLOW INDICATING TRANSMITTER
FIQ	FLOW INDICATING TOTALIZER
FR	FLOW RECORDER
FS	FLOW SWITCH
FT	FLOW TRANSMITTER
HOA	HAND/OFF/AUTO
HS	HAND SWITCH
JA	POWER ALARM
JIT	POWER TRANSMITTER
JY	POWER EVENT (FAIL)
KS	TIME DELAY
LAH	LEVEL ALARM HIGH
LAHH	LEVEL ALARM HIGH HIGH
LAL	LEVEL ALARM LOW
LALL	LEVEL ALARM LOW LOW
LE	LEVEL ELEMENT
LI	LEVEL INDICATOR
LS	LEVEL SWITCH
LSL	LEVEL SWITCH LOW
LSLL	LEVEL SWITCH LOW LOW
LSH	LEVEL SWITCH HIGH
LSHH	LEVEL SWITCH HIGH HIGH
LT	LEVEL TRANSMITTER
LIC	LEVEL INDICATING CONTROLLER
LIT	LEVEL INDICATING TRANSMITTER
MCC	MOTOR CONTROL CENTER
MCP	MAIN CONTROL PANEL
ML	MOTION LIGHT
PAH	PRESSURE ALARM HIGH
PAL	PRESSURE ALARM LOW
PE	PRESSURE ELEMENT
PI	PRESSURE INDICATOR
PIT	PRESSURE INDICATING TRANSMITTER
PS	PRESSURE SWITCH
PSH	PRESSURE SWITCH HIGH
PSL	PRESSURE SWITCH LOW
PT	PRESSURE TRANSMITTER
SC	SPEED CONTROL OR CONTROLLER
ST	SPEED TRANSMITTER
SV	SOLENOID VALVE
TS (H/L)	TEMPERATURE SWITCH (HIGH/LOW) (HH=HIGH HIGH) (LL=LOW LOW)
TT	TEMPERATURE TRANSMITTER
VFD	VARIABLE FREQUENCY DRIVE
WE	WEIGHT ELEMENT
WIT	WEIGHT INDICATING TRANSMITTER
WT	WEIGHT TRANSMISSION SIGNAL
XL/ML	EVENT OR STATUS (I.E. RUNNING)
YA/QA	EVENT ALARM (I.E. FAULT)
YS	EVENT SWITCH
ZC	POSITION CONTROL
ZCC	CLOSE POSITION CONTROL
ZCO	OPEN POSITION CONTROL
ZS	POSITION SWITCH
ZSA	EMERGENCY CLOSE CONTROL (ALARM)
ZSC	CLOSED POSITION (LIMIT) SWITCH
ZSM	INTERMEDIATE POSITION (LIMIT) SWITCH (I.E. 95% CLOSED)
ZSO	OPENED POSITION (LIMIT) SWITCH
ZT	POSITION TRANSMITTER (STATUS)

GENERAL SHEET NOTES

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PUMP SCHEDULE

TAG	SIZE INLET	SIZE OUTLET	SERVICE	BASIS OF DESIGN MODEL	GPH	TDH (ft)	MOTOR HP	MOTOR VOLT	RPM	NOTES
P-131			SODIUM HYPOCHLORITE	WATSON MARLOW 630	155		-	120	265	WATSON MARLOW 630 SERIES
P-132			SODIUM HYPOCHLORITE	WATSON MARLOW 530	24		-	120	220	REINSTALL SALVAGED CHEMICAL FEED PUMP.
P-133			SODIUM HYPOCHLORITE	WATSON MARLOW 530	24		-	120	220	REINSTALL SALVAGED CHEMICAL FEED PUMP.
P-134			SODIUM HYPOCHLORITE	WATSON MARLOW 630	155		-	120	265	WATSON MARLOW 630 SERIES

NOTE: ALL CHEMICAL FEED PUMPS TO BE HARDWIRED.

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City of Saginaw
Saginaw County, Michigan

Lime Slaker and Sodium Hypochlorite Feed System Improvements

REVISIONS

2/27/2026 BIDS AND CONSTRUCTION

Drawn By	JKING
Designer	JKING
Reviewer	
Manager	BVANZEE

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SHEET NO.
P003

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C-1720 WTP Sodium Hypochlorite and Lime Feed Improvements
Page 199 of 217

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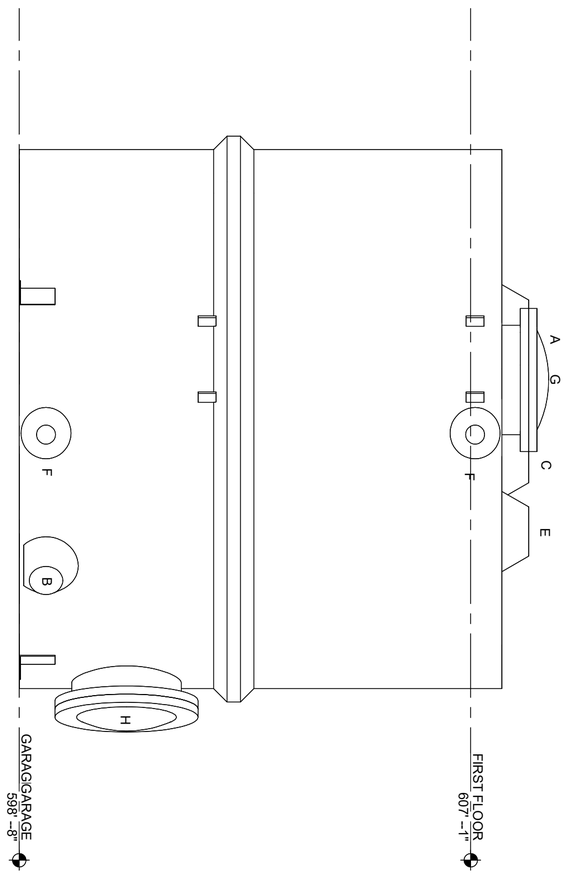
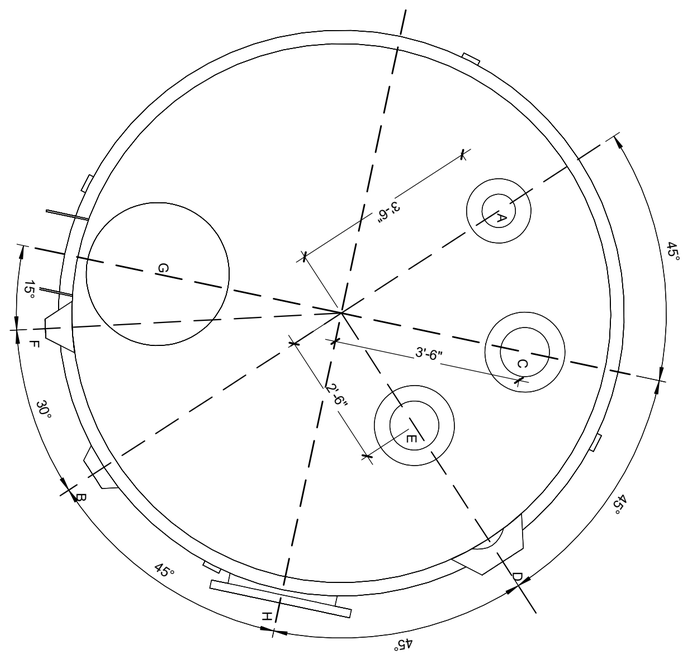


BST-2 ELEVATION
NO SCALE



BST-2 TANK PLAN
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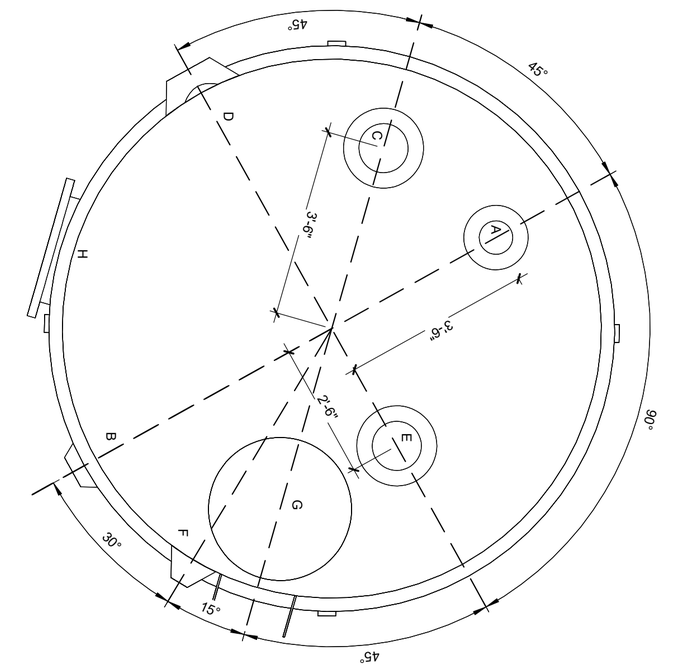
PIPELINE DIFFUSER TYPE 1
NO SCALE



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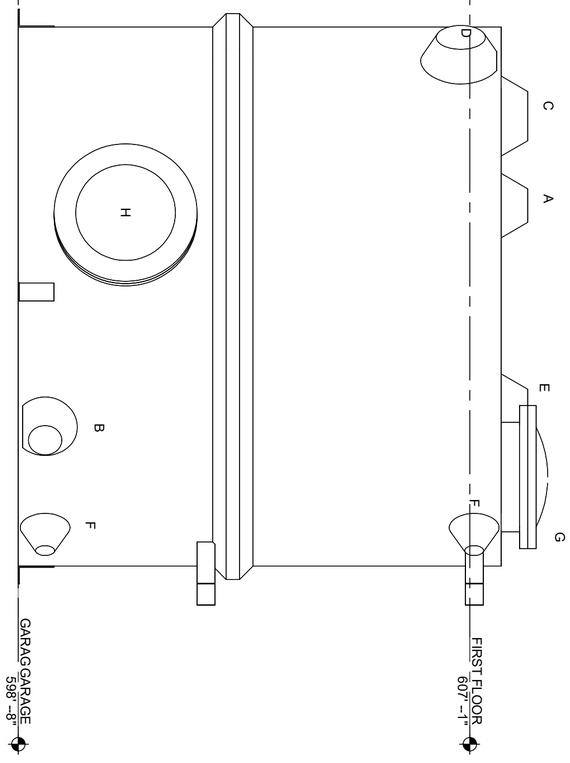

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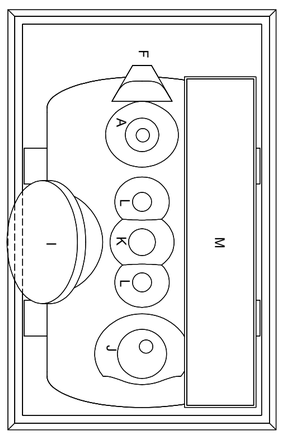

DT-2 TANK PLAN
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DT-1 TANK PLAN
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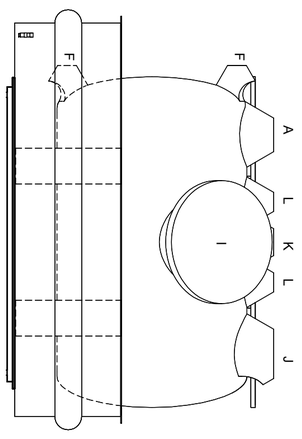

DT-2 ELEVATION
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DT-1 ELEVATION
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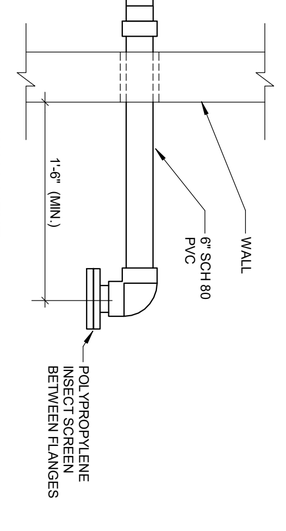

WALL VENT
NO SCALE

TANK NOZZLE KEY SCHEDULE	
A	3 INCH FLANGED - INLET
B	3 INCH FLANGED - SIPHON DRAIN
C	6 INCH FLANGED - VENT
D	6 INCH FLANGED - OVERFLOW
E	6 INCH FLANGED - LEVEL MOUNT
F	1 INCH FLANGED - SIGHT GAUGE
G	24 INCH FLANGED - TOP MANWAY
H	24 INCH FLANGED - SIDE MANWAY
I	20 INCH FLANGED - MANWAY
J	6 INCH FLANGED - VENT/OVERFLOW
K	2 INCH FLANGED - LEVEL PROBE
L	1 INCH FLANGED - PUMP SUCTION
M	INTEGRATED METERING PUMP MOUNTING SHELF

City of Saginaw
Saginaw County, Michigan

Lime Slaker and Sodium Hypochlorite
Feed System Improvements

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REVISIONS

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Drawn By	BSIEFKER
Designer	BSIEFKER
Reviewer	
Manager	BVANZEE

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SHEET NO.
P004

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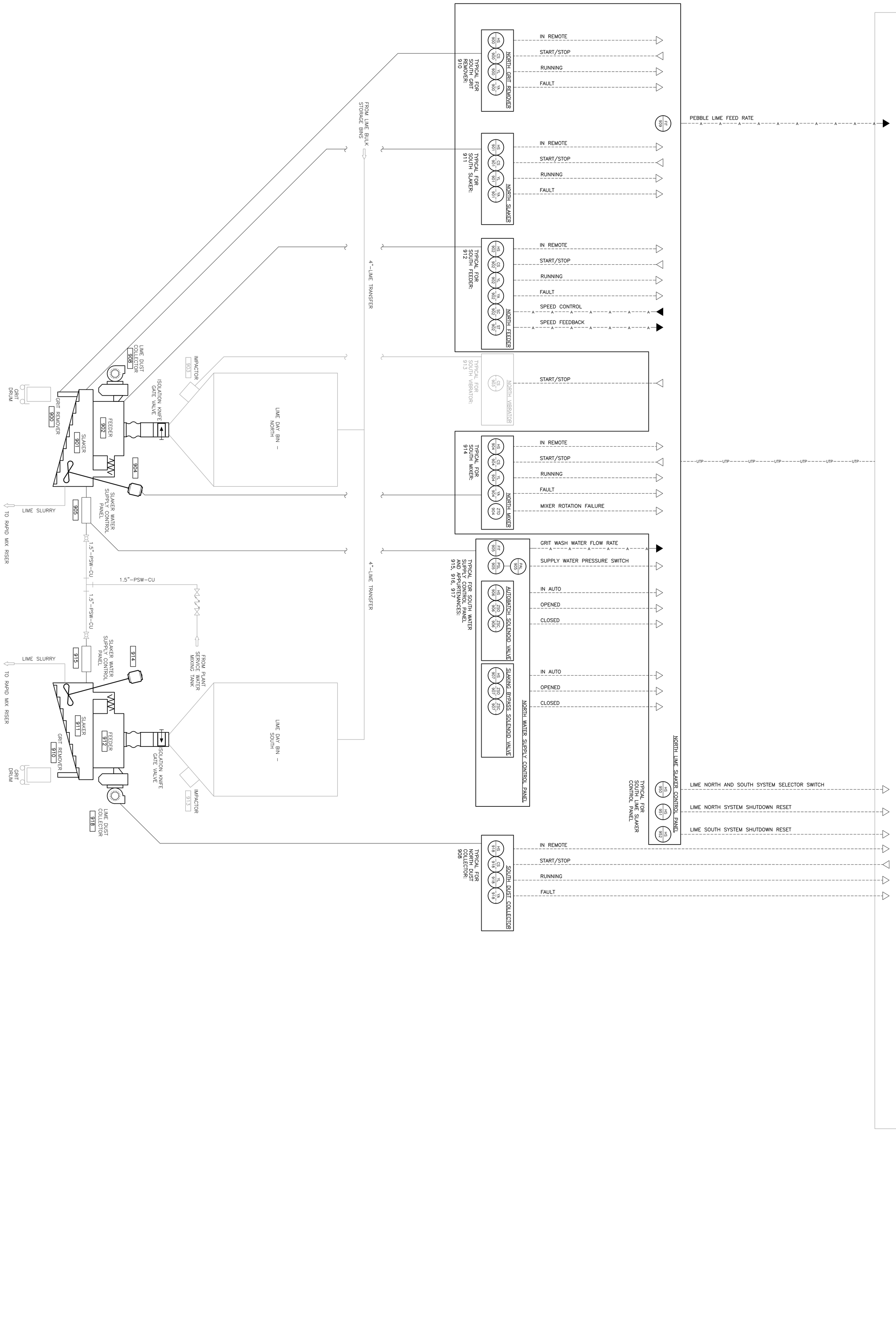
LIME SLAKERS
FLOW SCHEMATIC AND P&ID

NO SCALE



City of Saginaw

Saginaw County, Michigan

Lime Slaker and Sodium Hypochlorite Feed System Improvements

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REVISIONS

2/27/2026	BIDS AND CONSTRUCTION

Drawn By AWALCOTT
Designer BSIEFKER
Reviewer
Manager BVANZEE

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PROJECT NO.
2501185

SHEET NO.
P101

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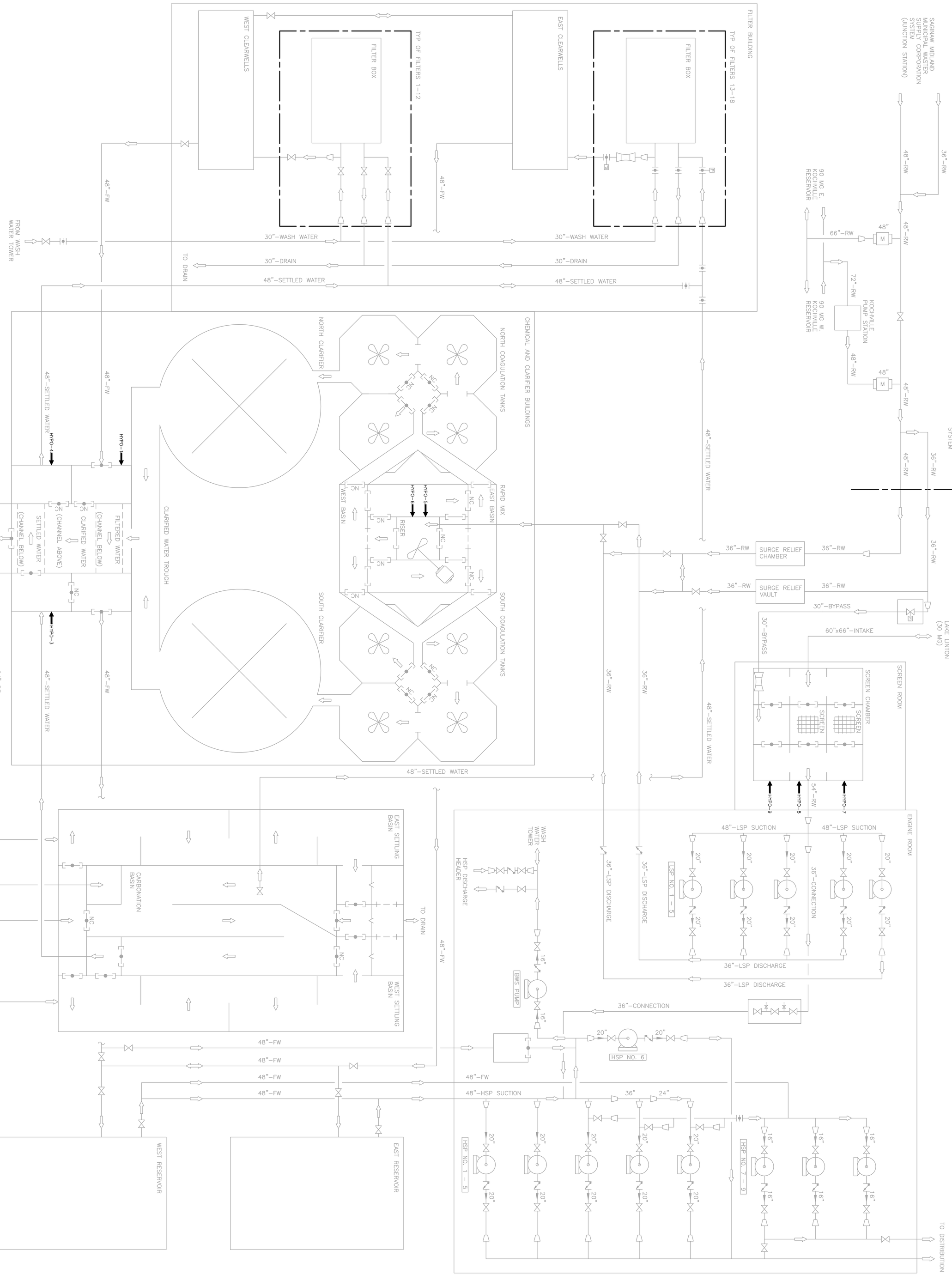

CITY OF SAGINAW WTP
FLOW SCHEMATIC

NO SCALE

CHEMICAL FEED POINT SCHEDULE

HYPO–1	FILTERS TO CLEARWELL (POST CHLORINE)
HYPO–2	CLARIFIER TO SETTLING BASIN (INTER. CHLORINE)
HYPO–3	SETTLING BASINS TO FILTER (INTER. CHLORINE)
HYPO–4	SETTLING BASINS TO FILTER HEADER (INTER. CHLORINE)
HYPO–5	RAPID MIX RISER SOUTH (PRE–CHLORINE)
HYPO–6	RAPID MIX RISER EAST (PRE–CHLORINE)
HYPO–7	RAW WATER TO RISER (PRE CHLORINE SCREEN ROOM)
HYPO–8	RAW WATER TO RISER (PRE CHLORINE VALVE VAULT)
HYPO–9	RAW WATER TO RISER (PRE–CHLORINE LOW SERVICE HEADER)

City of Saginaw

Saginaw County, Michigan

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Drawn By	AWALCOTT
Designer	BSIEFKER
Reviewer	
Manager	BVANZEE

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PROJECT NO.
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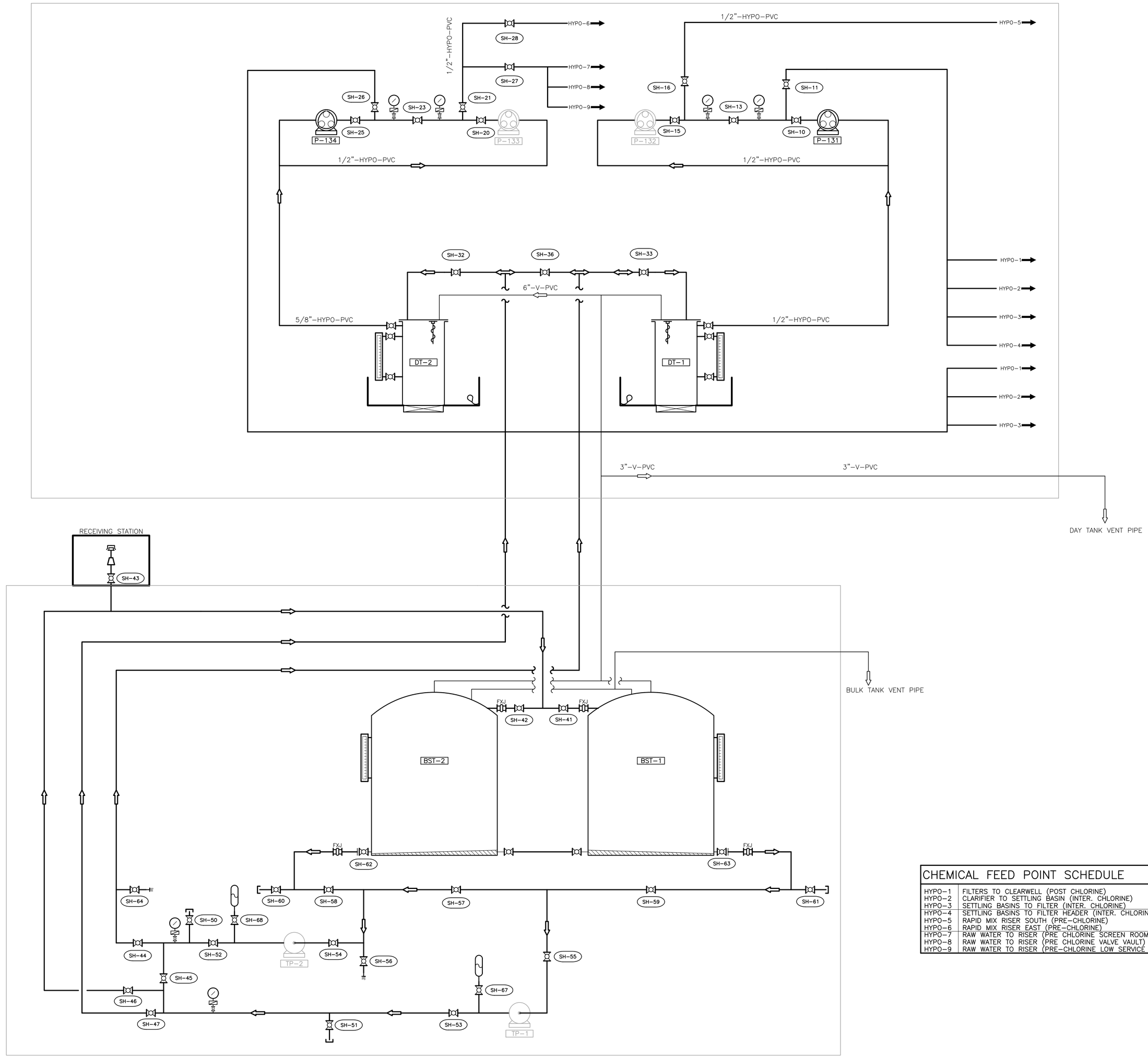

SODIUM HYPOCHLORITE
FLOW SCHEMATIC
NO SCALE

CHEMICAL FEED POINT SCHEDULE

HYPO-1	FILTERS TO CLEARWELL (POST CHLORINE)
HYPO-2	CLARIFIER TO SETTLING BASIN (INTER. CHLORINE)
HYPO-3	SETTLING BASINS TO FILTER (INTER. CHLORINE)
HYPO-4	SETTLING BASINS TO FILTER HEADER (INTER. CHLORINE)
HYPO-5	RAPID MIX RISER SOUTH (PRE-CHLORINE)
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City of Saginaw
Saginaw County, Michigan

Lime Slaker and Sodium Hypochlorite
Feed System Improvements

REVISIONS

2/27/2026 | BIDS AND CONSTRUCTION

Drawn By	AWALCOTT
Designer	BSIEFKER
Reviewer	
Manager	BVANZEE

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P103

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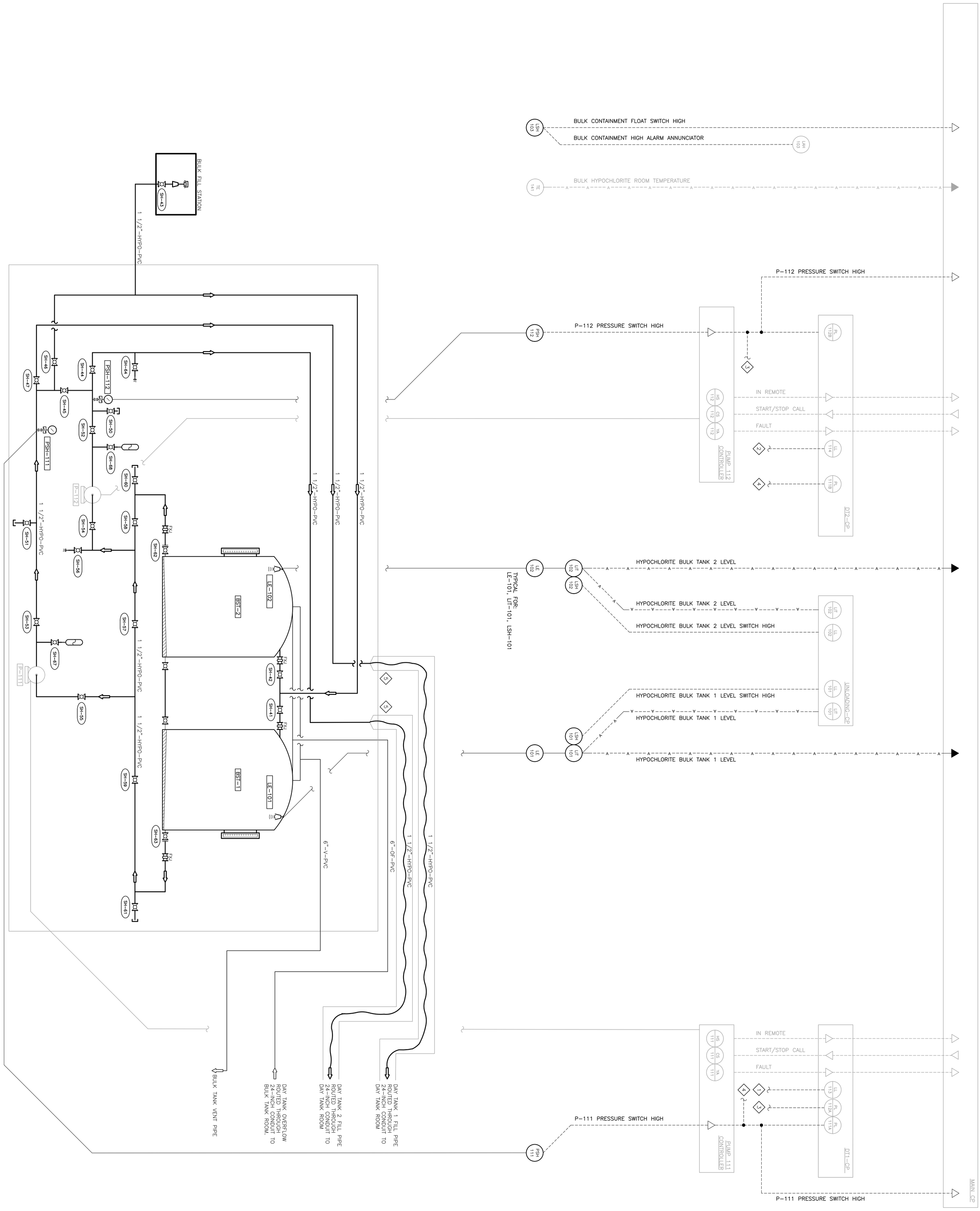
PLOT INFO: Z:\2025\2501185\CAD\CD\LIME SLAKERS\P1012501185.DWG LAYOUT: P104 DATE: 2/27/2026 TIME: 2:46:17 PM USER: BSIEFKER

SODIUM HYPOCHLORITE BULK TANKS

FLOW SCHEMATIC AND P&ID

NO SCALE



KEY NOTES

1. FROM DAY TANK 1 LEVEL SWITCH HIGH LSH-113. SEE P105.
2. FROM DAY TANK 2 LEVEL SWITCH HIGH LSH-114. SEE P105.
3. HIGH PRESSURE SWITCH FROM PSH-112.
4. HIGH PRESSURE SWITCH FROM PSH-111.
5. INSTALL 1 1/2-INCH CHEMICAL FEED TUBING THROUGH EXISTING 3-INCH DIAMETER CHEMICAL FEED PIPING INSIDE EXISTING 6-INCH DIAMETER CONDUIT PIPING BETWEEN DAY AND BULK TANK CHEMICAL FEED ROOMS. EXISTING 3-INCH DIAMETER CHEMICAL FEED PIPING TO BE REPURPOSED AS NEW CONDUIT.

REVISIONS

City of Saginaw

Saginaw County, Michigan

Lime Slaker and Sodium Hypochlorite Feed System Improvements

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Drawn By	AWALCOTT
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P104

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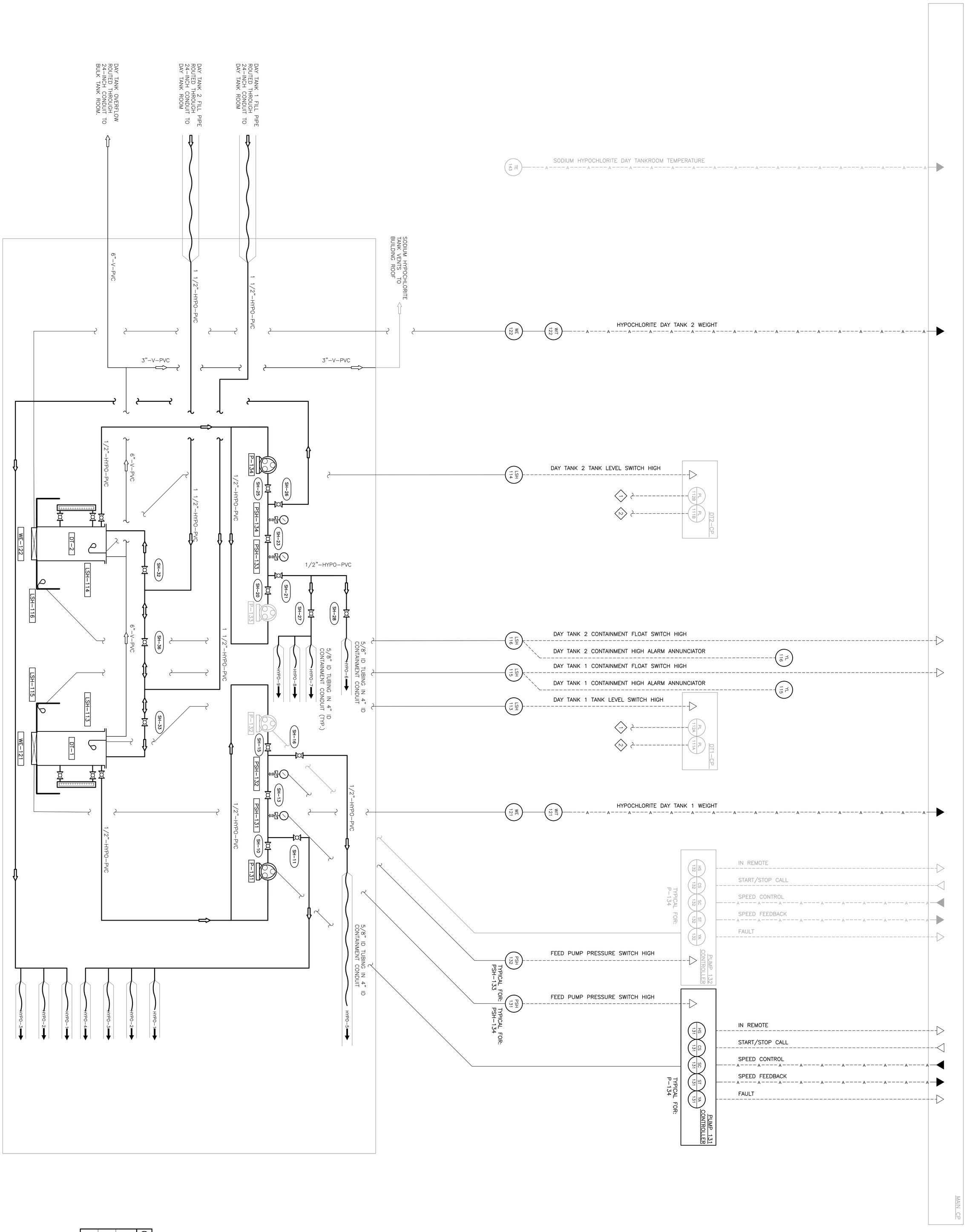
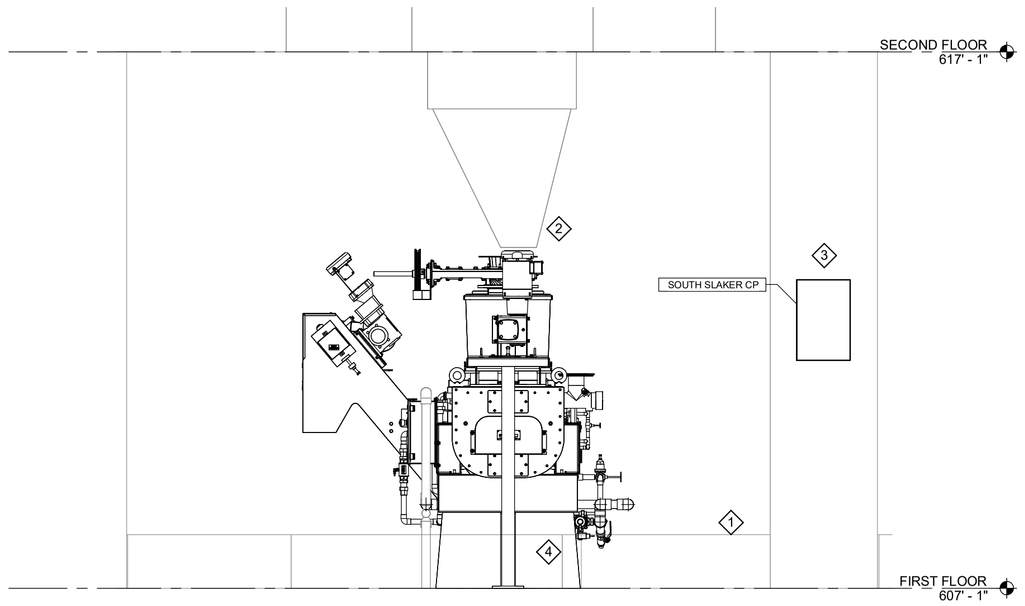
SODIUM HYPOCHLORITE DAY TANKS

FLOW SCHEMATIC AND P&ID

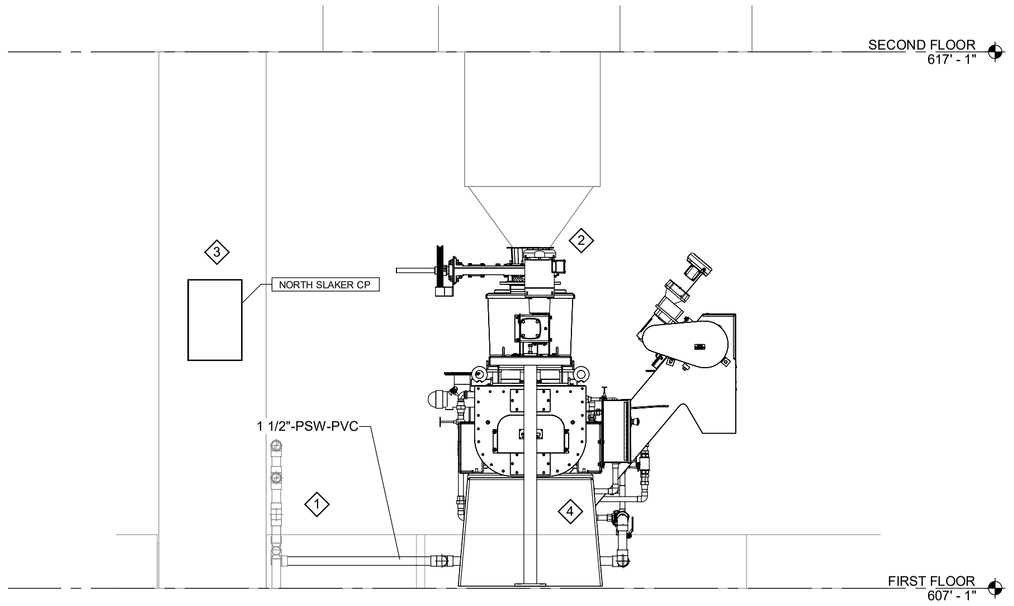
NO SCALE


DAY TANK OVERFLOW ROUTED THROUGH 24-INCH CONDUIT TO BULK TANK ROOM.
DAY TANK 2 FILL PIPE ROUTED THROUGH 24-INCH CONDUIT TO DAY TANK ROOM
DAY TANK 1 FILL PIPE ROUTED THROUGH 24-INCH CONDUIT TO DAY TANK ROOM
SODIUM HYPOCHLORITE TANK VENTS TO BUILDING ROOF
6"-V-PVC
1 1/2"-HYPO-PVC
1 1/2"-HYPO-PVC
3"-V-PVC
3"-V-PVC
1/2"-HYPO-PVC
6"-V-PVC
1 1/2"-HYPO-PVC
1/2"-HYPO-PVC
1 1/2"-HYPO-PVC
1/2"-HYPO-PVC
1/2"-HYPO-PVC



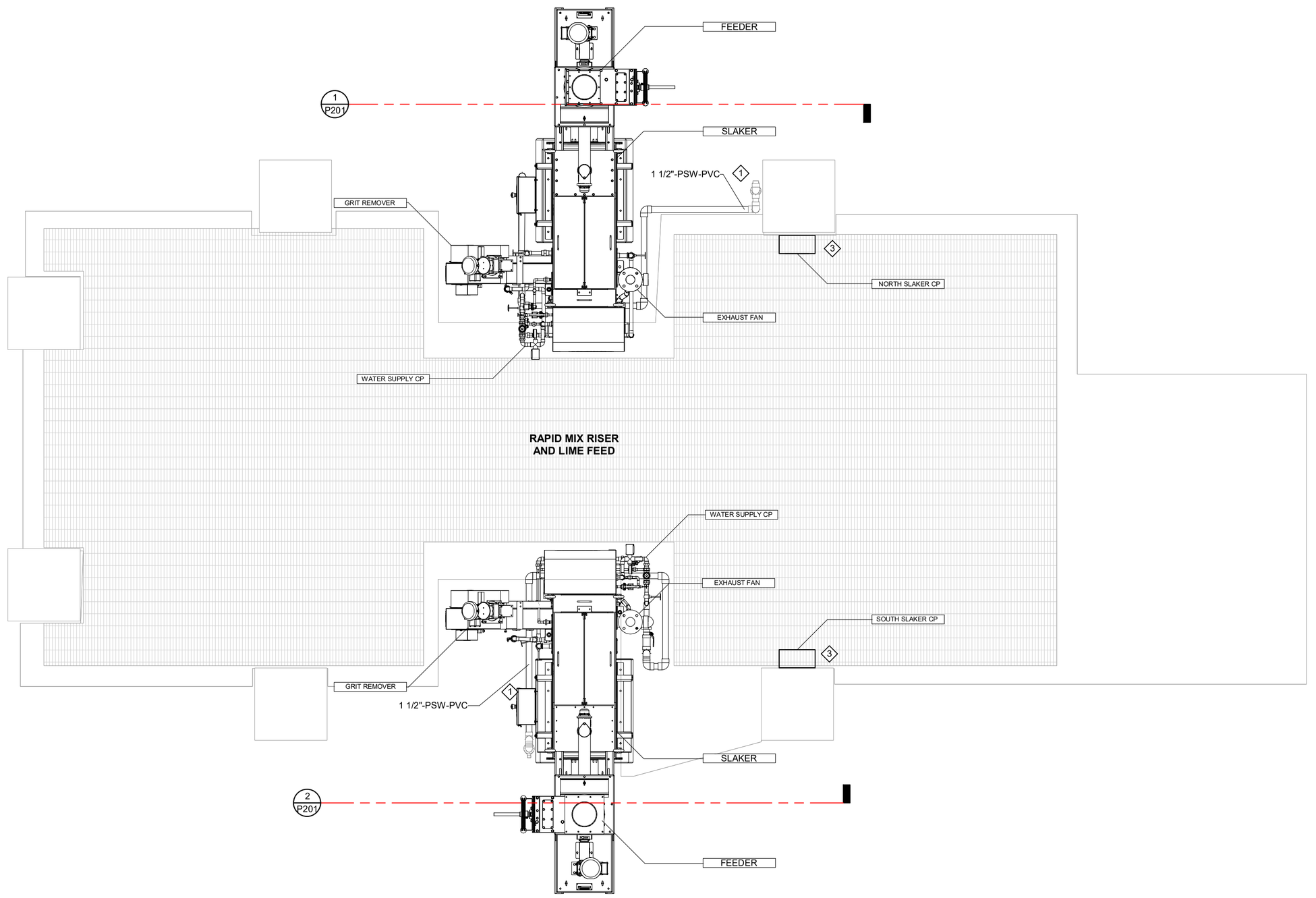
2 SOUTH LIME SLAKER

SCALE: 1/2" = 1'-0"



1 NORTH LIME SLAKER

SCALE: 1/2" = 1'-0"



LIME SLAKER PROCESS PLAN

SCALE: 1/2" = 1'-0"

NORTH

NOTES

1. COORDINATE CONTROL PANEL LOCATIONS WITH OWNER AND ENGINEER.

KEY NOTES

1 CONTRACTOR TO ROUTE SLAKER WATER SUPPLY PIPING FROM EXISTING CONNECTION POINT TO NEW SLAKER CONNECTION. SERVICE WATER ROUTING TO BE FIELD VERIFIED TO MINIMIZE IMPACTS ON SLAKER OPERATIONS.

2 CONTRACTOR TO VERIFY BIN HEIGHT AND PROVIDE FILLER PIECES AS NECESSARY TO CONNECT TO EXISTING CHUTE.

3 CONTRACTOR TO COORDINATE CONTROL PANEL MOUNTING LOCATION WITH OWNER.

4 INSTALL NEW SLAKER ON EQUIPMENT SUPPORTS. SLAKER MANUFACTURER TO PROVIDE EQUIPMENT SUPPORTS AND COORDINATE INSTALLATION WITH OWNER.

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City of Saginaw
Saginaw County, Michigan

Lime Slaker and Sodium Hypochlorite
Feed System Improvements

REVISIONS

2/27/2026	BIDS AND CONSTRUCTION

Drawn By	BSIEFKER
Designer	BSIEFKER
Reviewer	
Manager	BVANZEE

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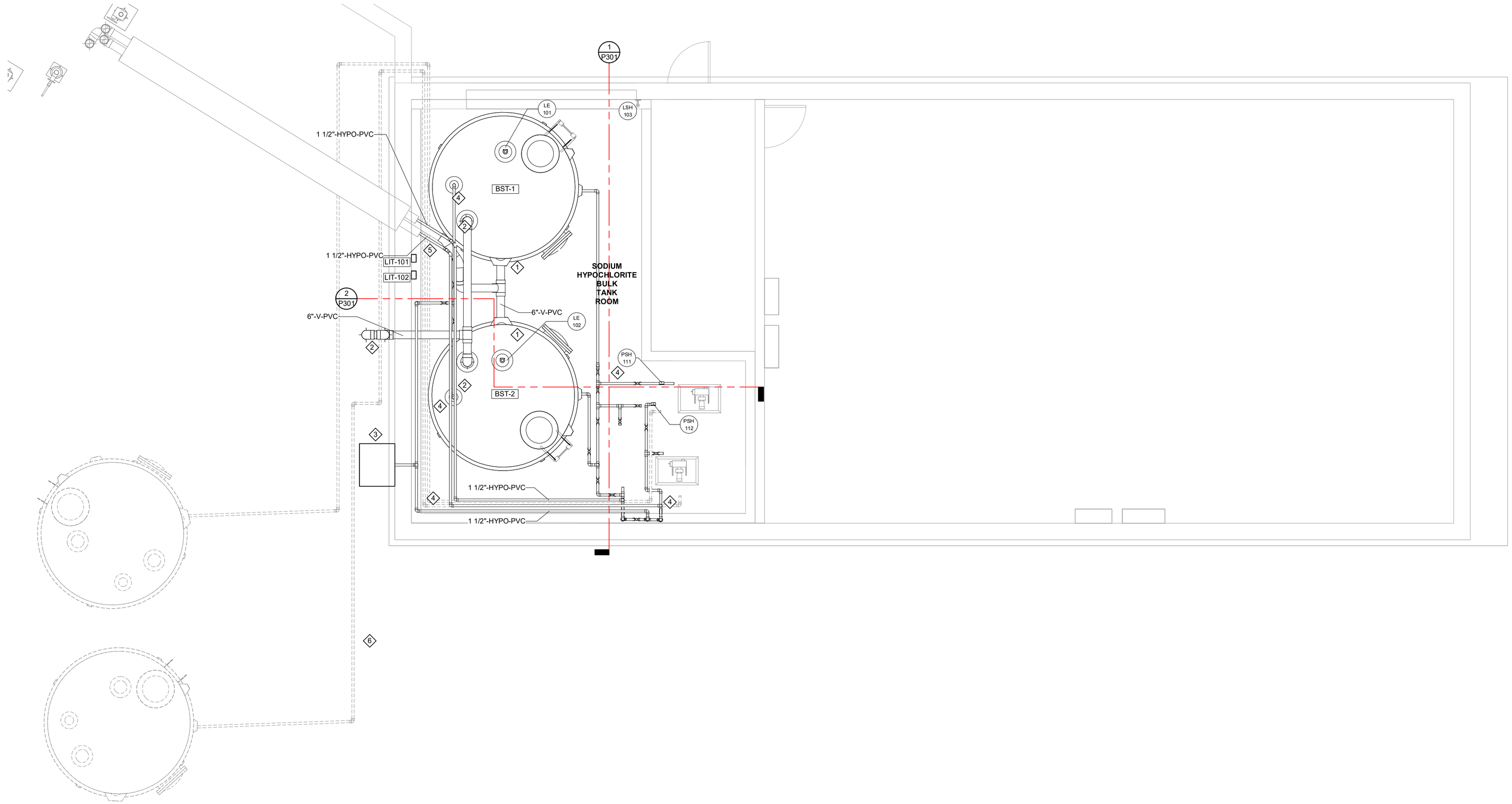

SODIUM HYPOCHLORITE BULK TANKS

PIPING PLAN

SCALE: 1/4" = 1'-0"

NORTH

NOTES

1. CHEMICAL FEED PIPE ROUTING ON SHEET SHOWN TO INDICATE APPURTENANCES AND DIAMETERS. PIPE ROUTING MAY DEVIATE FROM SHOWN ROUTING WHERE APPROPRIATE AND WITH COORIDINATION WITH OWNER.
2. TEMPORARY BULK HYPOCHLORITE TANK AND PIPE ROUTING SHOWN ON PLANS IS A SAMPLE ONLY. CONTRACTOR TO COORDINATE LOCATION AND ROUTING WITH OWNER.
3. NEW BULK STORAGE TANK 1 (BST-1) AND 2 (BST-2) MAY BE USED AS A TEMPORARY BULK STORAGE TANK AT DISCRETION OF OWNER.
4. PROVIDE BLIND FLANGES AT BST-1 CONNECTIONS TO PERMIT TRANSFER PUMP DISCHARGE PIPING AND FILL AND DRAW PIPING FROM BST-2 TO BE PLACED IN OPERATION AND REDUCE POTENTIAL SPILL RISKS DURING BST-1 INSTALLATION.
5. RECOAT SECONDARY CONTAINMENT AREA IN ACCORDANCE WITH SECTION 09 96 35 CHEMICAL RESISTANT COATINGS.
6. RECOAT WALLS AND CLOSURE PANEL INTERIORS AND OTHER SURFACES AS NECESSARY IN ACCORDANCE WITH SECTION 09 91 00 PAINTING.

KEY NOTES

1. CONNECT 6-INCH DIAMETER DAY TANK OVERFLOW AND VENT TO TANK PENETRATIONS.
2. INSTALL NEW 6-INCH BULK CHEMICAL TANK. CONNECT TO EACH BULK TANK FLANGE AND TERMINATE AT BUILDING EXTERIOR WITH A 24-MESH CORROSION RESISTANT SCREEN AND DOWNWARD FACING. REUSE EXISTING WALL PENETRATION.
3. INSTALL NEW SODIUM HYPOCHLORITE CHEMICAL UNLOADING STATION AT EXISTING LOCATION.
4. INSTALL NEW 1.5-INCH SODIUM HYPOCHLORITE BULK FILL AND TRANSFER PUMP SUCTION AND DISCHARGE PIPING.
5. INSTALL NEW 1.5-INCH I.D. SODIUM HYPOCHLORITE DAY TANK FILL PIPING THORUGH EXISTING CONDUIT AND FEED PIPING TO NEW DAY TANKS.
6. INSTALL TEMPORARY 1.5-INCH SODIUM HYPOCHLORITE TRANSFER PUMP SUCTION PIPING FROM EXTERIOR LOCATION TO EXISTING TRANSFER PUMPS. COORDINATE TEMPORARY PIPING, TANK LOCATION, AND ANY ENVIRONMENTAL PROTECTIONS WITH OWNER AND ENGINEER.
7. 1-INCH DIAMETER FLANGED SIGHT GLASS CONNECTION.
8. TRANSFER PUMP SUCTION PIPING CONNECTION.
9. COMBINATION BULK TANK VENT AND DAY TANK OVERFLOW CONNECTION.

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City of Saginaw
Saginaw County, Michigan

Lime Slaker and Sodium Hypochlorite Feed System Improvements

REVISIONS

2/27/2026	BIDS AND CONSTRUCTION
Drawn By	BSIEFKER
Designer	BSIEFKER
Reviewer	
Manager	BVANZEE

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Page 207 of 217

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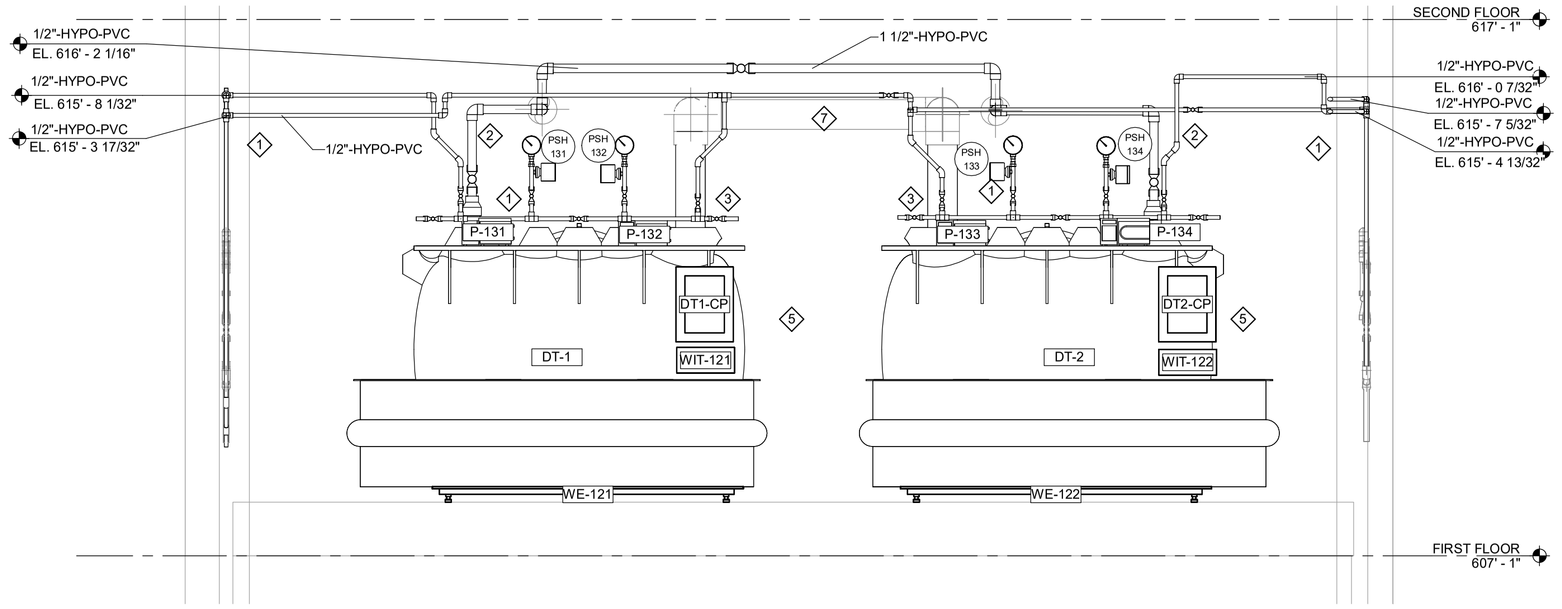
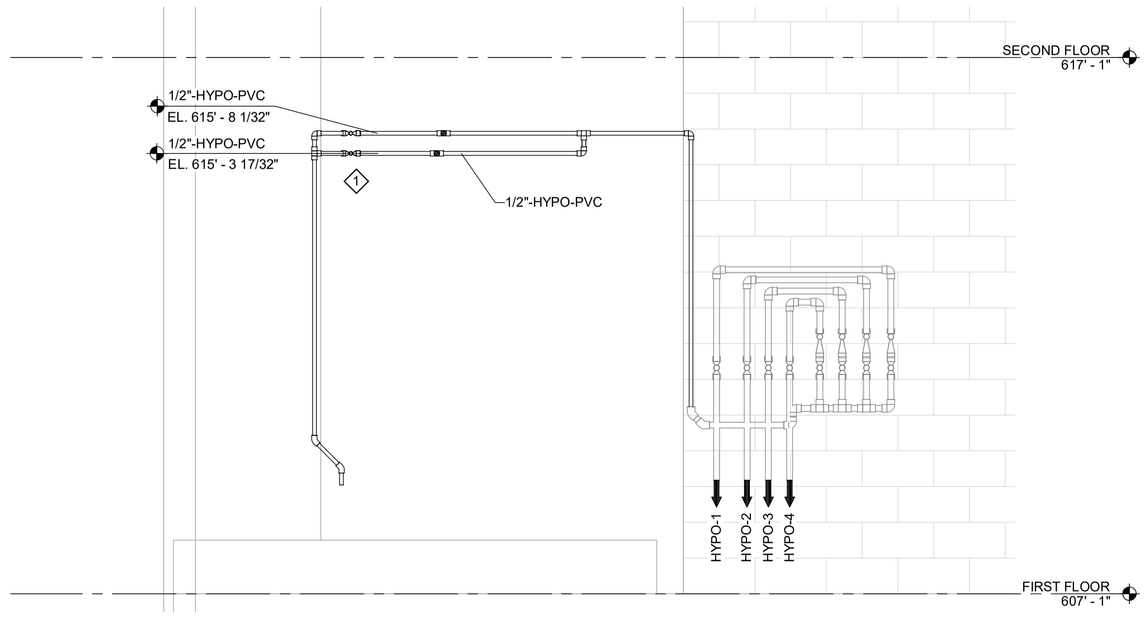


SODIUM HYPOCHLORITE DAY TANKS

3 SECTION

SCALE: 1/2" = 1'-0"



SODIUM HYPOCHLORITE DAY TANKS

2 SECTION

SCALE: 1/2" = 1'-0"

NOTES

1. CHEMICAL FEED PIPE ROUTING ON SHEET SHOWN TO INDICATE APPURTENANCES AND DIAMETERS. PIPE ROUTING MAY DEVIATE FROM SHOWN ROUTING WHERE APPROPRIATE AND WITH COORDINATION WITH OWNER.
2. CONTRACTOR TO FIELD VERIFY ALL EXISTING PIPING ELEVATIONS AND MATCH REPLACEMENT ELEVATIONS.
3. CHEMICAL FEED OPERATIONS SHALL BE MAINTAINED AT ALL EXISTING CHEMICAL FEED INJECTION LOCATIONS AT ALL TIMES DURING CONSTRUCTION. PROVIDE TEMPORARY INTERCONNECTION FROM DT-1 AND DT-2 DURING CONSTRUCTION TO MAINTAIN FEED TO SCREEN ROOM.
4. RECOAT WALLS AND CLOSURE PANEL INTERIORS AND OTHER SURFACES AS NECESSARY IN ACCORDANCE WITH SECTION 09 91 00 PAINTING.

KEY NOTES

1 INSTALL NEW 1/2-INCH SODIUM HYPOCHLORITE DISCHARGE PIPING FROM CHEMICAL FEED PUMPS TO EXISTING CHEMICAL FEED PIPING AND CONDUIT.

2 INSTALL NEW 1.5-INCH I.D. SODIUM HYPOCHLORITE DAY TANK FILL PIPING THORUGH EXISTING CONDUIT AND FEED PIPING TO NEW DAY TANKS.

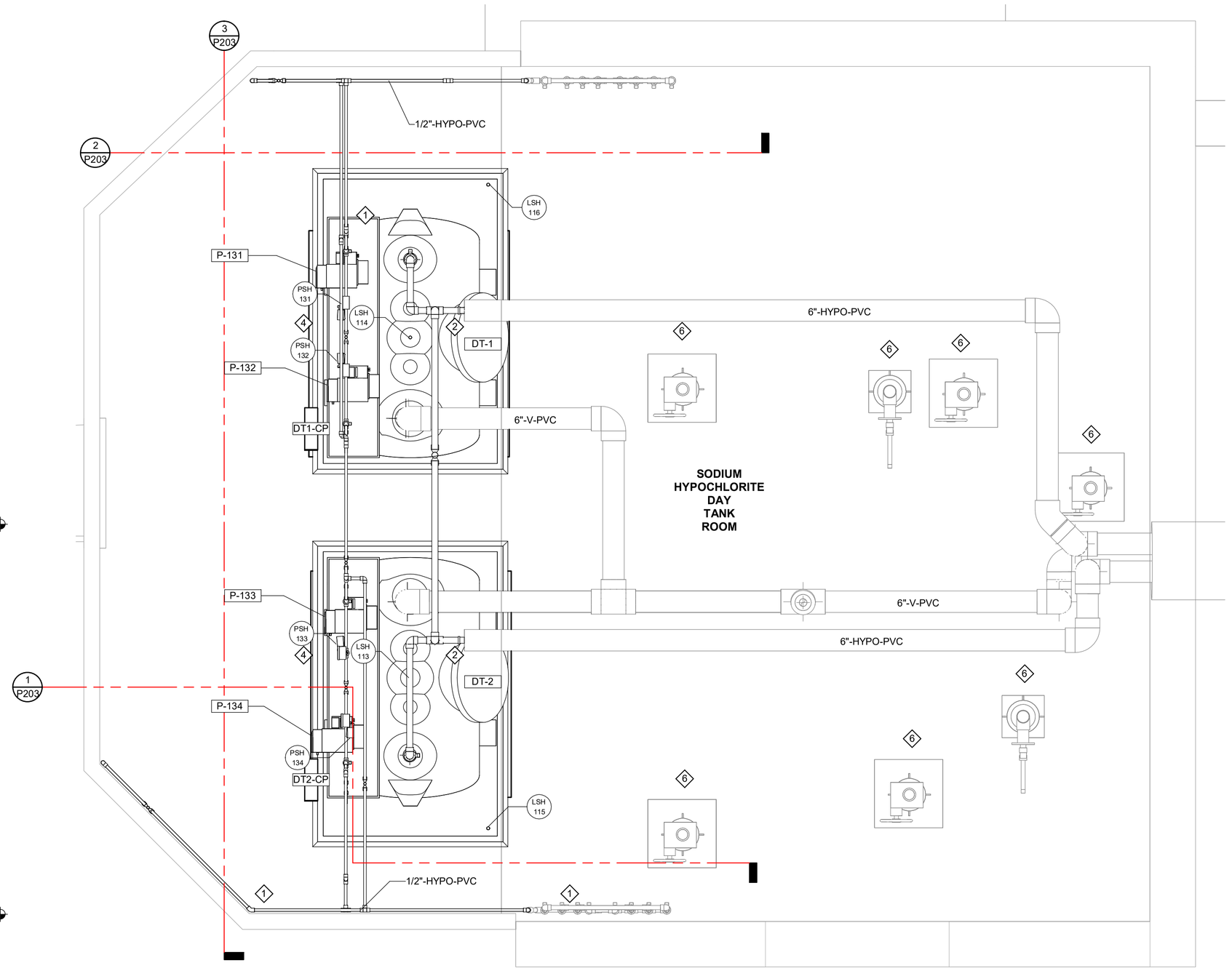
3 INSTALL NEW 6-INCH VENT AND DAY TANK OVERFLOW AND RECONNECT TO EXISTING.

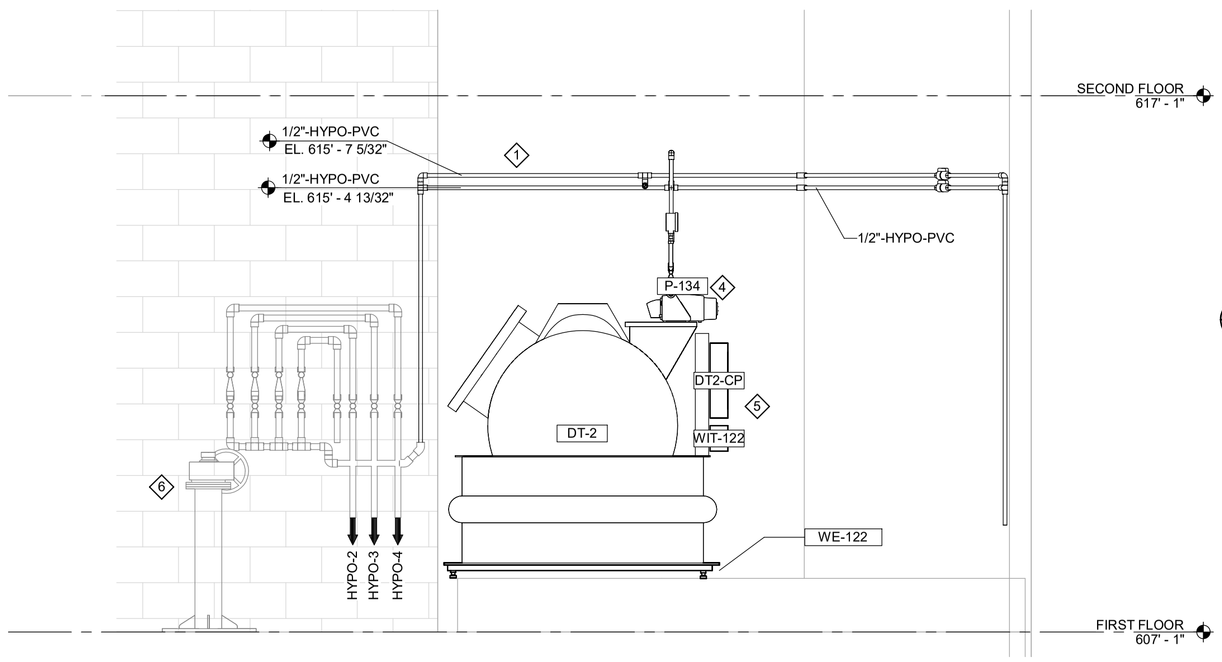
4 REINSTALL 2 EXISTING AND 2 NEW SODIUM HYPOCHLORITE CHEMICAL FEED PUMPS ON THE PUMP SHELVES INTEGRAL TO DAY TANKS. RETURN REMAINING 2 SALVAGED PUMPS TO OWNER.

5 MOUNT CONTROL PANEL AND SCALE TRANSMITTER TO METAL STRUT CHANNEL.

6 REINSTALL VALVE OPERATORS REMOVED TO FACILITATE DAY TANK OR CHEMICAL FEED PIPING INSTALLATION. COORDINATE REMOVAL AND ISOLATION REQUIREMENTS WITH OWNER.

7 INSTALL NEW 1/2-INCH HYPOCHLORITE METERING PUMP HEADER INTERCONNECTION PIPING.





SODIUM HYPOCHLORITE DAY TANKS

1 SECTION

SCALE: 1/2" = 1'-0"

SODIUM HYPOCHLORITE DAY TANKS

PIPING PLAN

SCALE: 1/2" = 1'-0"

NORTH

City of Saginaw
Saginaw County, Michigan

Lime Slaker and Sodium Hypochlorite
Feed System Improvements

REVISIONS

2/27/2026 BIDS AND CONSTRUCTION

Drawn By	BSIEFKER
Designer	BSIEFKER
Reviewer	
Manager	BVANZEE

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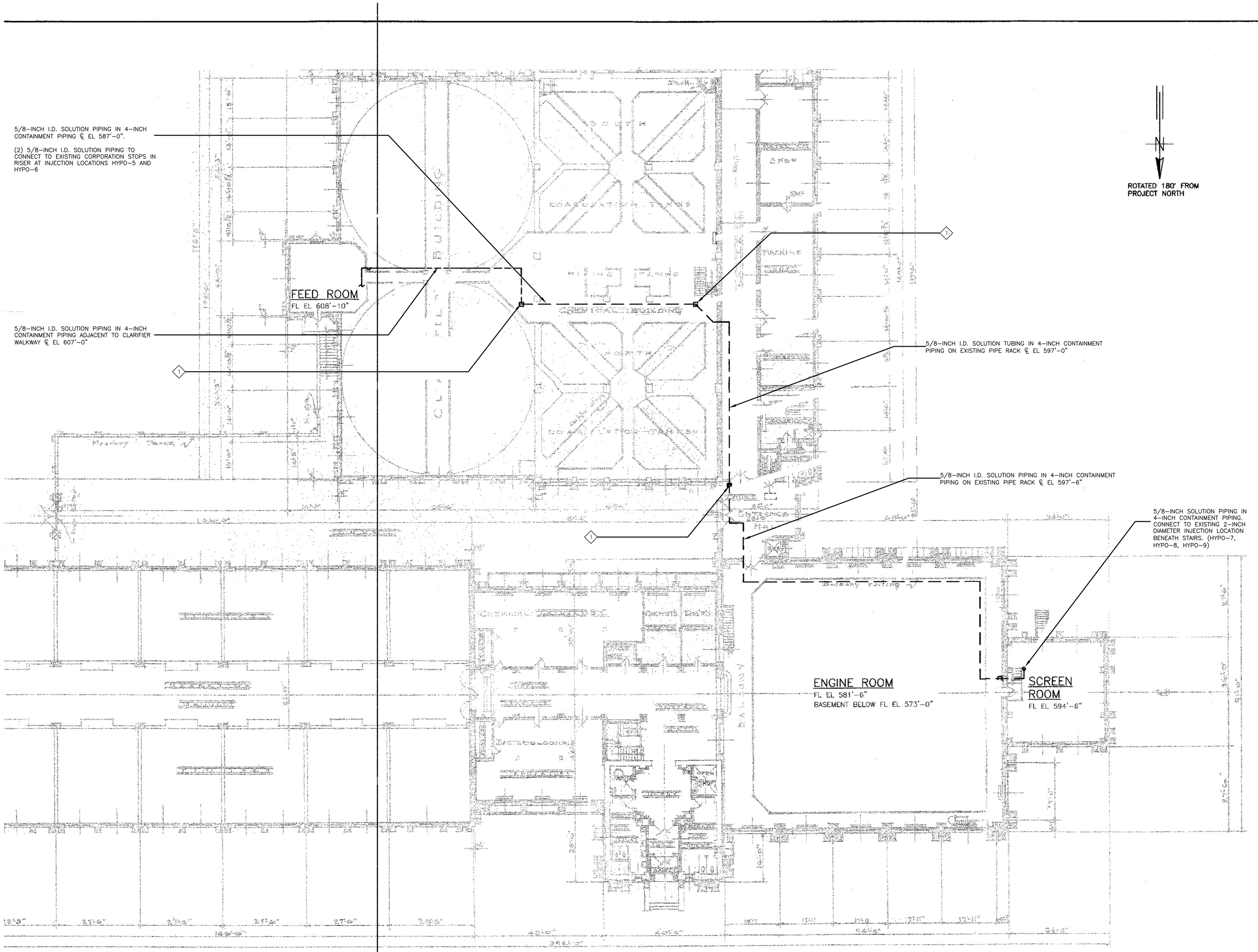

SODIUM HYPOCHLORITE FEED
PIPING PLAN
NO SCALE

KEY NOTES

1. REINSTALL PROTECTED VISUAL LEAK DETECTION EQUIPMENT AT EXISTING LOCATIONS.

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Lime Slaker and Sodium Hypochlorite Feed System Improvements

REVISIONS

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Page 209 of 217

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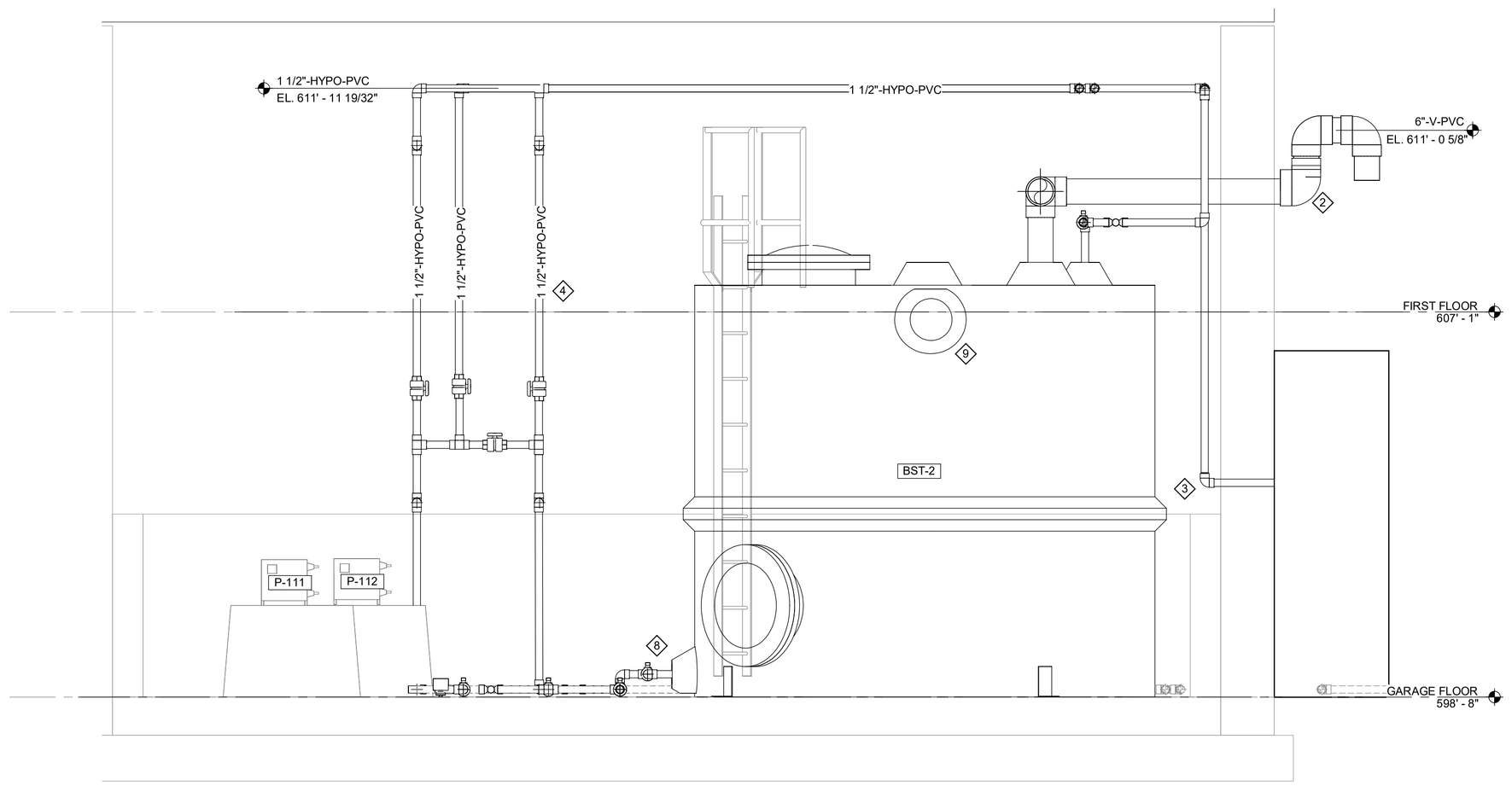
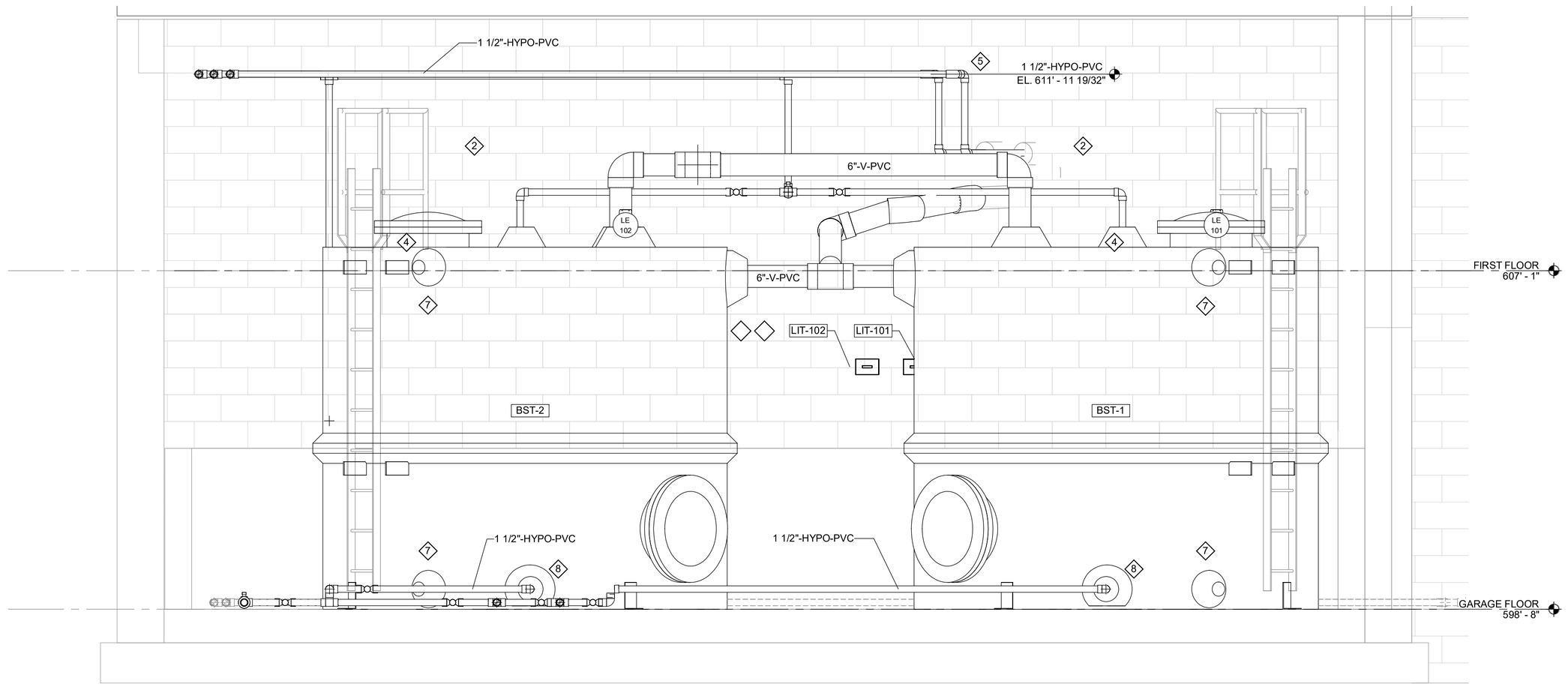


SODIUM HYPOCHLORITE BULK TANKS

2 SECTION

SCALE: 1/2" = 1'-0"



SODIUM HYPOCHLORITE BULK TANKS

1 SECTION

SCALE: 1/2" = 1'-0"

NOTES

1. CHEMICAL FEED PIPE ROUTING ON SHEET SHOWN TO INDICATE APPURTENANCES AND DIAMETERS. PIPE ROUTING MAY DEVIATE FROM SHOWN ROUTING WHERE APPROPRIATE AND WITH COORDINATION WITH OWNER.
2. TEMPORARY BULK HYPOCHLORITE TANK AND PIPE ROUTING SHOWN ON PLANS IS A SAMPLE ONLY. CONTRACTOR TO COORDINATE LOCATION AND ROUTING WITH OWNER.
3. CONTRACTOR TO FIELD VERIFY ALL EXISTING PIPING ELEVATIONS AND MATCH REPLACEMENT ELEVATIONS.
4. RECOAT WALLS AND CLOSURE PANEL INTERIORS AND OTHER SURFACES IN ACCORDANCE WITH SECTION 09 91 00 PAINTING.

KEY NOTES

1 CONNECT 6-INCH DIAMETER DAY TANK OVERFLOW AND VENT TO TANK PENETRATIONS.
2 INSTALL NEW 6-INCH BULK CHEMICAL TANK. CONNECT TO EACH BULK TANK FLANGE AND TERMINATE AT BUILDING EXTERIOR WITH A 24-MESH CORROSION RESISTANT SCREEN AND DOWNWARD FACING. REUSE EXISTING WALL PENETRATION.
3 INSTALL NEW SODIUM HYPOCHLORITE CHEMICAL UNLOADING STATION AT EXISTING LOCATION.
4 INSTALL NEW 1.5-INCH SODIUM HYPOCHLORITE BULK FILL AND TRANSFER PUMP SUCTION AND DISCHARGE PIPING.
5 INSTALL NEW 1.5-INCH I.D. SODIUM HYPOCHLORITE DAY TANK FILL PIPING THORUGH EXISTING CONDUIT AND FEED PIPING TO NEW DAY TANKS.
6 INSTALL TEMPORARY 1.5-INCH SODIUM HYPOCHLORITE TRANSFER PUMP SUCTION PIPING FROM EXTERIOR LOCATION TO EXISTING TRANSFER PUMPS. COORDINATE TEMPORARY PIPING, TANK LOCATION, AND ANY ENVIRONMENTAL PROTECTIONS WITH OWNER AND ENGINEER.
7 1-INCH DIAMETER FLANGED SIGHT GLASS CONNECTION.
8 TRANSFER PUMP SUCTION PIPING CONNECTION.
9 COMBINATION BULK TANK VENT AND DAY TANK OVERFLOW CONNECTION.

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GENERAL ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AI	ACOUSTICAL INSULATION
AL	ACOUSTICAL LINING
AP	ACCESS PANEL
BD	BALANCING DAMPER
BDD	BACKDRAFT DAMPER
BMS	BUILDING MANAGEMENT SYSTEM
CI	CAST IRON
CS	CLINIC SINK
CM	CONSTRUCTION MANAGER
CO	CLEAN OUT
DB	DRY BULB
DDC	DIRECT DIGITAL CONTROL
DF	DRINKING FOUNTAIN
DP	DIFFERENTIAL PRESSURE
DWG	DRAWING
EA	EXHAUST AIR
EF	EXHAUST FAN
EAG	EXHAUST AIR GRILLE
EC	ELECTRICAL CONTRACTOR
EM SH	EMERGENCY SHOWER
EW	EYEWASH
EWC	ELECTRIC WATER COOLER
EX	EXISTING
FC	FLEXIBLE CONNECTION
FD	FLOOR DRAIN
FS	FLOOR SINK
FT	FINNED TUBE
GC	GENERAL CONTRACTOR
HB	HOSE BIBB
HVAC	HEATING, VENTILATING, AIR CONDITIONING
HX	HEAT EXCHANGER
IE	INVERT ELEVATION
L	LOUVER
LAV	LAVATORY
MC	MECHANICAL CONTRACTOR
MD	MOTORIZED DAMPER
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NIC	NOT IN CONTRACT
OA	OUTSIDE AIR
P	PUMP
PC	PLUMBING CONTRACTOR
RA	RETURN AIR
RF	RETURN FAN
RAG	RETURN AIR GRILLE
RC	RAIN CONDUCTOR
RD	ROOF DRAIN
S	SINK
SA	SUPPLY AIR
SF	SUPPLY FAN
SH	SHOWER
SS	SERVICE SINK
TA	TRANSFER AIR
TCC	TEMPERATURE CONTROL CONTRACTOR
TU	TERMINAL UNIT
UNO	UNLESS NOTED OTHERWISE
UH	UNIT HEATER
UR	URINAL
VAV	VARIABLE AIR VOLUME
VI	VIBRATION ISOLATOR
VTR	VENT THRU ROOF
WB	WET BULB
WIC	WORK IN CONTRACT
WC	WATER CLOSET
WC	WATER COLUMN
WH	WALL HYDRANT
WS	WASTE STACK
YH	YARD HYDRANT

PIPE CONTENTS ABBREVIATIONS

AR	ARGON GAS
AWV	ACID WASTE VENT
AW	ACID WASTE
BF	BOILER FEED
CO2	CARBON DIOXIDE
CA	COMPRESSED AIR
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
COND	CONDENSATE
CR	CONDENSER WATER RETURN
CS	CONDENSER WATER SUPPLY
CW	DOMESTIC COLD WATER
DWR	DEIONIZED WATER RETURN
DWS	DEIONIZED WATER SUPPLY
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FP	FIRE PROTECTION WATER SUPPLY
FP-DRY	FIRE PROTECTION DRY
FP-PA	FIRE PROTECTION PRE-ACTION
G	GAS SUPPLY
HPS	HIGH PRESSURE STEAM
HW	DOMESTIC HOT WATER
HWR	DOMESTIC HOT WATER RETURN
HWR	HEATING WATER RETURN
HWS	HEATING WATER SUPPLY
LA	LABORATORY AIR
LPS	LOW PRESSURE STEAM
LV	LABORATORY VACUUM
MA	MEDICAL AIR
MPS	MEDIUM PRESSURE STEAM
N2	NITROGEN
N2O	NITROUS OXIDE
NPW	NON-POTABLE WATER
OSTM	OVERFLOW STORM SEWER
OXY	OXYGEN
PC	PUMPED CONDENSATE
PHWR	PRIMARY HEATING WATER RETURN
PHWS	PRIMARY HEATING WATER SUPPLY
PW	POTABLE WATER
PWS	PROCESS WATER SUPPLY
PWR	PROCESS WATER RETURN
RS	REFRIGERANT SUCTION
RL	REFRIGERANT LIQUID
ROR	REVERSE OSMOSIS WATER RETURN
ROS	REVERSE OSMOSIS WATER SUPPLY
SAN	SANITARY
SCW	SOFT COLD WATER
SODA	SODA
SM	STEAM
STM	STORM SEWER
V	SANITARY VENT
TWS	TOWER WATER SUPPLY
TWR	TOWER WATER RETURN
VAC	VACUUM
WWR	WELL WATER RETURN
WWS	WELL WATER SUPPLY

SCHEDULE ABBREVIATIONS

AHRI	AIR CONDITIONING, HEATING AND REFRIGERATION INSTITUTE
APD	AIR PRESSURE DROP
ARI	AIR CONDITIONING AND REFRIGERATION INSTITUTE
BHP	BRAKE HORSE POWER
BTUH	BRITISH THERMAL UNITS PER HOUR
CFM	CUBIC FEET PER MINUTE
COP	COEFFICIENT OF PERFORMANCE
DB	DRY BULB
DBA	COMPARATIVE NOISE LEVEL
DIA	DIAMETER
EAT	ENTERING AIR TEMPERATURE
ECM	ELECTRONICALLY COMMUTATED MOTOR
EER	ENERGY EFFICIENCY RATIO
ESP	EXTERNAL STATIC PRESSURE
EWT	ENTERING WATER TEMPERATURE
F	FAHRENHEIT
FT	FEET
F DB	FAHRENHEIT DRY BULB
F WB	FAHRENHEIT WET BULB
FLA	FULL LOAD AMPS
FPM	FEET PER MINUTE
FT HD	FEET WATER HEAD
GPM	GALLONS PER MINUTE
GRNS	GRAINS
HP	HORSE POWER
HR	HOUR
Hz	HERTZ
ID	INSIDE DIAMETER
IN	INCHES
IN WC	INCHES WATER COLUMN
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LF	LINEAL FEET
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MBH	1000 BTUH
MCA	MINIMUM CIRCUIT AMPACITY
MIN	MINIMUM
MOCP	MAXIMUM OVER-CURRENT PROTECTION
NC	NOISE CRITERION
NPLV	NON-STANDARD PART LOAD VALUE
PD	PRESSURE DROP
PH	POUNDS PER HOUR
PSIG	POUNDS PER SQUARE INCH - GAUGE
V	VOLTS
RPM	REVOLUTIONS PER MINUTE
SCCR	SHORT-CIRCUIT CURRENT RATING
TSP	TOTAL STATIC PRESSURE
VFD	VARIABLE FREQUENCY DRIVE
WPD	WATER PRESSURE DROP

LEGEND

PIPE/FITTING SYMBOLS

- EXISTING PIPE
- EXISTING PIPE TO BE REMOVED
- NEW PIPE
- ELBOW UP
- ELBOW DOWN
- TEE UP
- TEE DOWN
- UNION
- CAP
- PIPE BREAK

PIPING DESIGNATION

- –CHWS– PIPE CONTENTS, SEE ABBREVIATIONS LIST

GENERAL DESIGNATION

- (#) DEMOLITION KEY NOTE SYMBOL
- (#) KEY NOTE SYMBOL
- NEW TO EXISTING CONNECTION

VALVE SYMBOLS

- GENERIC VALVE (REFER TO SPEC FOR TYPE)
- BALL VALVE
- GLOBE VALVE
- BUTTERFLY VALVE
- PLUG VALVE
- GAS COCK
- SWING CHECK VALVE
- PRESSURE REDUCING VALVE
- PRESSURE RELIEF VALVE
- 2-WAY VALVE
- 3-WAY VALVE
- BACKFLOW PREVENTER
- RPZ VALVE
- CIRCUIT SETTER
- SOLENOID VALVE
- MIXING VALVE

MISC. PIPING SYMBOLS

- PUMP (LIQUID)
- PUMP (AIR)
- STRAINER
- EXPANSION JOINT
- FLEX CONNECTION
- (T) STEAM TRAP
- PIPE ANCHOR
- PIPE GUIDE
- MANUAL AIR VENT (MV)
- AUTOMATIC AIR VENT (AV)
- VACUUM BREAKER (VB)
- CO CLEANOUT LOCATED IN FLOOR
- CO CLEANOUT LOCATED IN WALL, PIPE COMING UP FROM BELOW
- CO HORIZONTAL CLEANOUT (LOCATED BELOW FLOOR AND ABOVE CEILING OF FLOOR BELOW)

- F.I. FLOW INDICATOR
- (P) PRESSURE GAGE
- P PRESSURE TAP WITH NEEDLE VALVE
- (T) THERMOMETER
- T THERMOWELL
- "X" WATER HAMMER ARRESTER WITH P.D.I. DESIGNATION
- (W) STATIC PRESSURE

CONTROLS

- (T) THERMOSTAT
- (H) HUMIDISTAT
- (S) SENSOR
- (CM) CARBON MONOXIDE SENSOR
- (CO_2) CARBON DIOXIDE SENSOR
- (NO_2) NITROGEN DIOXIDE SENSOR
- FS FLOW SWITCH
- (S_D) DUCT SMOKE DETECTOR
- CONTROL WIRE
- TS TAMPER SWITCH
- FS FLOW SWITCH

HVAC DUCTWORK SYMBOLS

- EXISTING DUCT
- EXISTING DUCT TO BE REMOVED
- NEW DUCT
- CAPPED DUCT
- SUPPLY AIR DUCT UP
- SUPPLY AIR DUCT DOWN
- EXHAUST OR RETURN AIR DUCT UP
- EXHAUST OR RETURN AIR DUCT DOWN
- ROUND DUCT UP
- ROUND DUCT DOWN
- FLAT OVAL DUCT DOWN
- FLAT OVAL DUCT UP

- FLEXIBLE DUCT
- BALANCING DAMPER
- MOTORIZED DAMPER (M)
- TURNING VANES
- SIDE WALL DIFFUSER/GRILLE
- S-X / XXX CFM — SUPPLY AIR DIFFUSER WITH TAG NUMBER (SEE SCHEDULE) AND CFM, ARROWS INDICATE AIR FLOW DIRECTION
- E-X / XXX CFM OR R-X / XXX CFM — EXHAUST AIR OR RETURN AIR GRILLE WITH TAG NUMBER (SEE SCHEDULE) AND CFM
- 10"ø ROUND DUCT SIZE
- 24"x10" RECTANGULAR DUCT SIZE
- 24"/10" FLAT OVAL DUCT SIZE

- EXISTING FIRE DAMPER HORIZONTAL INSTALLATION
- EXISTING FIRE DAMPER VERTICAL INSTALLATION
- FIRE DAMPER HORIZONTAL INSTALLATION
- FIRE DAMPER VERTICAL INSTALLATION
- FIRE/SMOKE DAMPER HORIZONTAL INSTALLATION
- FIRE/SMOKE DAMPER VERTICAL INSTALLATION
- SMOKE DAMPER
- SUPPLY AIR DIFFUSER WITH RADIATION DAMPER AND THERMAL BLANKET
- EXHAUST AIR OR RETURN AIR GRILLE WITH RADIATION DAMPER
- (M) MOTOR

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Saginaw County, Michigan

Lime Slaker and Sodium Hypochlorite Feed System Improvements

REVISIONS

2/27/2026	BIDS AND CONSTRUCTION

Drawn By	CEBAKER
Designer	PKOOPS
Reviewer	GLOUIS
Manager	BVANZEE

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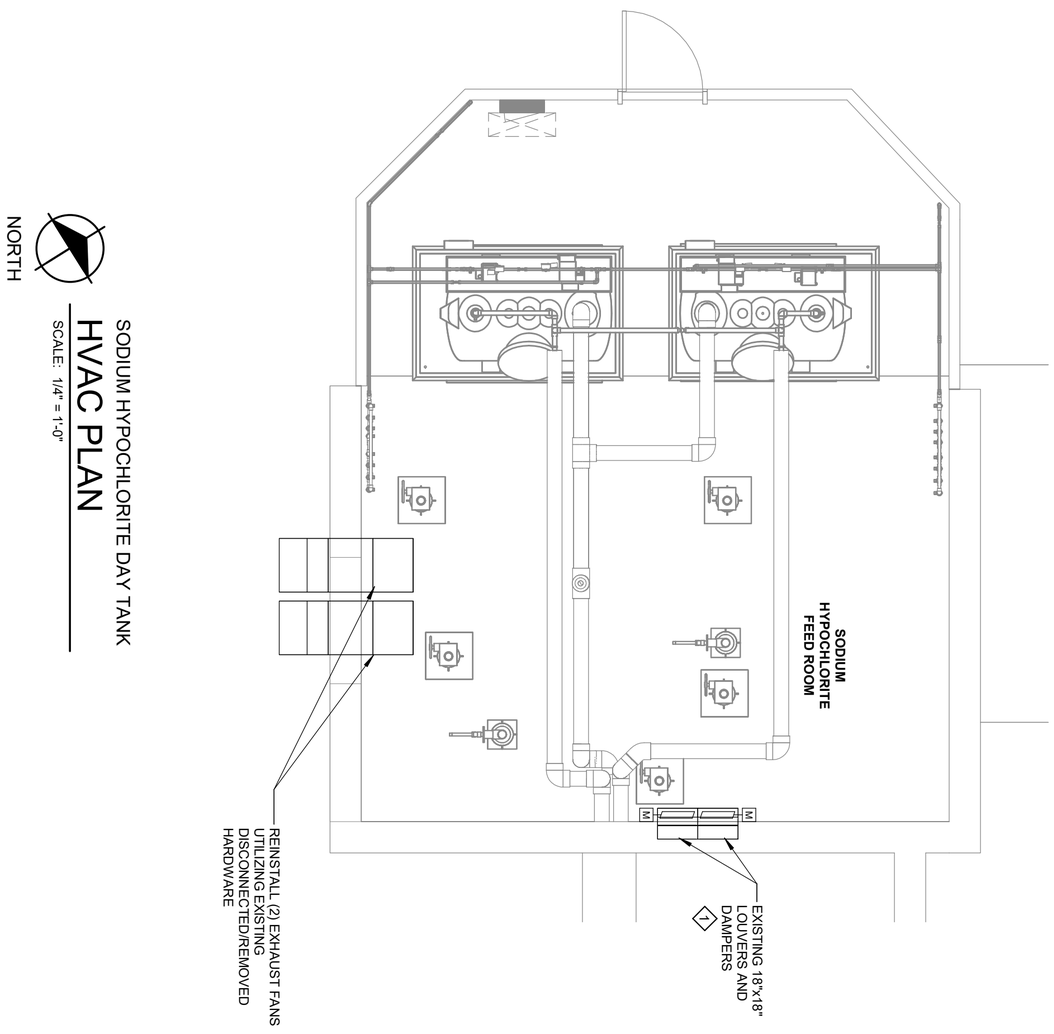
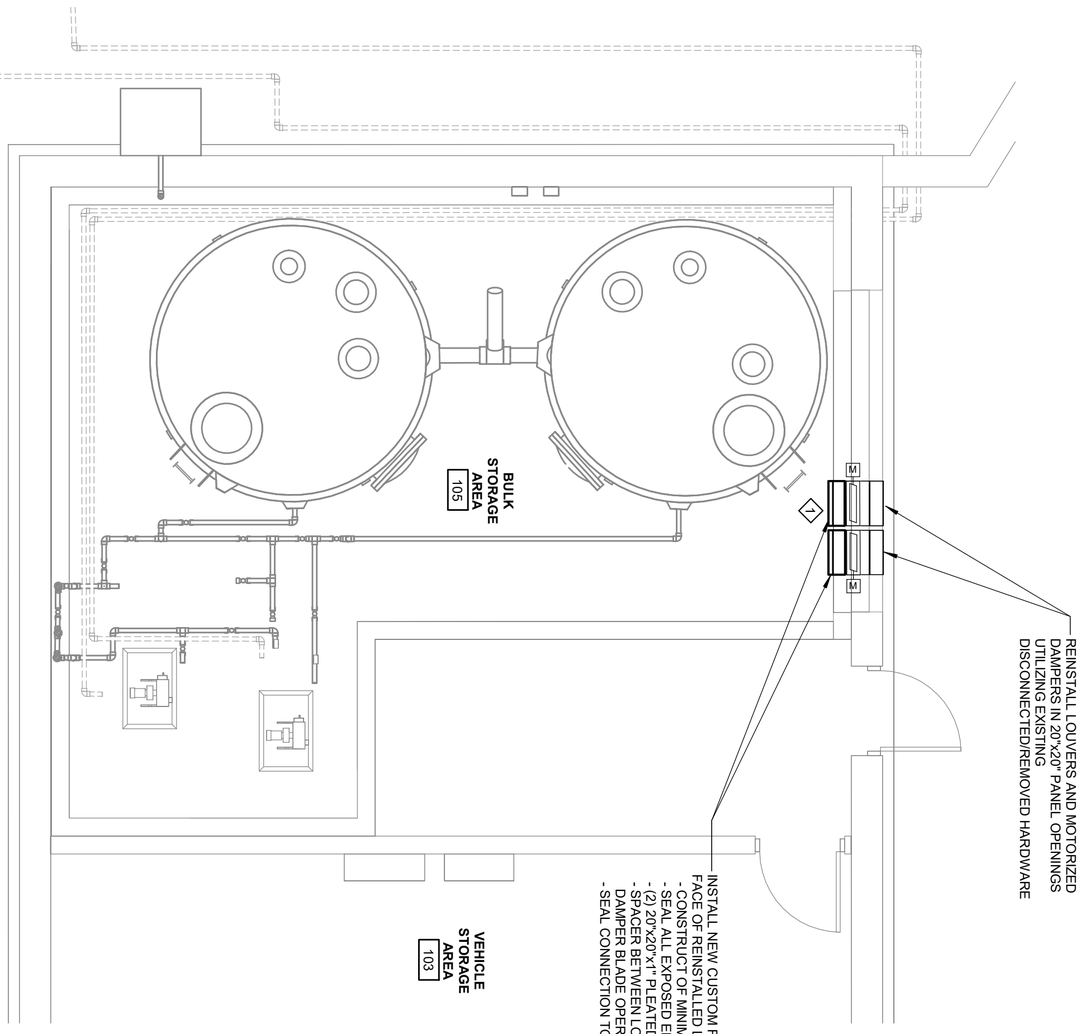


SODIUM HYPOCHLORITE DAY TANK

HVAC PLAN

SCALE: 1/4" = 1'-0"



SODIUM HYPOCHLORITE BULK STORAGE

HVAC PLAN

SCALE: 1/4" = 1'-0"

KEY NOTES

1. CONFIRM FULL TRAVEL OF AUTOMATIC DAMPERS AND PROPER OPERATION.
   A. EXHAUST FAN(S) ON - DAMPER FULLY OPEN.
   B. EXHAUST FAN(S) OFF - DAMPER FULLY CLOSED.

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ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION
S	SINGLE POLE MANUAL LIGHTING SWITCH
S_2	TWO POLE MANUAL LIGHTING SWITCH
S_3	THREE-WAY MANUAL LIGHTING SWITCH
S_{4X}	SINGLE POLE MANUAL LIGHTING SWITCH WITH NEMA 4X COVER
S_M	SINGLE POLE MANUAL MOTOR STARTER
S_{MP}	SINGLE POLE MANUAL MOTOR STARTER WITH PILOT LIGHT
	DUPLEX RECEPTACLE
J	FLOOR MOUNTED JUNCTION BOX
PB	PUSHBUTTON
T	THERMOSTAT
	SPECIAL CONNECTION (AS NOTED)
	PANELBOARD (480Y/277V) OR (480V)
	PANELBOARD (208Y/120V) OR (120/240V)
	SINGLE PHASE MOTOR CONNECTION
	THREE PHASE MOTOR CONNECTION
	NON FUSIBLE DISCONNECT SWITCH
ZPXYJ	FUSIBLE DISCONNECT SWITCH (Z=No. POLES; X=SWITCH SIZE; Y=FUSE SIZE; MOUNT AT 5'-0" AFF, UNO)
XN	MOTOR STARTER N=STARTER SIZE; X=STARTER TYPE, (RV: REDUCED VOLTAGE; BLANK: FULL VOLTAGE); MOUNT AT 5'-0" AFF, UNO
XN	COMBINATION MOTOR STARTER / DISCONNECT SWITCH N=STARTER SIZE; X=STARTER TYPE, (RV: REDUCED VOLTAGE; BLANK: FULL VOLTAGE); MOUNT AT 5'-0" AFF, UNO
	GROUND ROD
	CONDUIT UNDER FLOOR
	CONDUIT ABOVE FLOOR

GENERAL ELECTRICAL ABBREVIATIONS

ABBREVIATIONS ARE FOR REFERENCE ONLY AND MAY OR MAY NOT BE USED ELSEWHERE IN CONSTRUCTION DOCUMENTS

A, AMP	AMPERES	KW	KILOWATT
AC	ALTERNATING CURRENT	KWHR	KILOWATT-HOUR
ACP	ACOUSTICAL CEILING PANEL	LED	LIGHT-EMITTING DIODE
ADA	AMERICANS WITH DISABILITIES ACT	LS	LIGHT SWITCH OR LIMIT SWITCH
AFF	ABOVE FINISHED FLOOR	LT	LIGHT OR LEVEL TRANSDUCER
AHJ	AUTHORITY HAVING JURISDICTION	LTFMC	LIQUID-TIGHT FLEXIBLE METAL CONDUIT
AIC	AMPERE-INTERRUPTING CURRENT	LTG	LIGHTING
AL	ALUMINUM	LV	LOW VOLTAGE
ATM	AUTOMATIC TELLER MACHINE	M	METER
ATS	AUTOMATIC TRANSFER SWITCH	MANF	MANUFACTURER
BMS	BUILDING MANAGEMENT SYSTEM	MCA	MINIMUM CIRCUIT AMPACITY
BRKR	BREAKER	MCB	MAIN CIRCUIT BREAKER
C	CONDUIT OR CELSIUS	MCC	MOTOR CONTROL CENTER
CB	CIRCUIT BREAKER	MCP	MOTOR CIRCUIT PROTECTOR
CATV	CABLE TELEVISION	MH	MANHOLE
CIP	CAST-IN-PLACE	MLO	MAIN LUGS ONLY
CJ	CONTROL JOINT	MT	MOUNT
CKT	CIRCUIT	MTD	MOUNTED
CLG	CEILING	MV	MEDIUM VOLTAGE
CM	CONSTRUCTION MANAGER	N,NEUT	NEUTRAL
CMU	CONCRETE MASONRY UNIT	NC	NORMALLY CLOSED
COAX	COAXIAL	NEC	NATIONAL ELECTRICAL CODE
CONC	CONCRETE	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
CP	CONTROL PANEL	NL	NIGHT LIGHT
CT	CURRENT TRANSFORMER	NO	NORMALLY OPEN
CU	COPPER	NOM	NOMINAL
Cx	COMMISSIONING	NTS	NOT TO SCALE
CxA	COMMISSIONING AGENT	OD	OUTSIDE DIAMETER
DB	DECIBEL	OH	OVERHEAD
DC	DIRECT CURRENT	OHD	OVERHEAD DOOR
DEM	DEMOLISH	OL	OVERLOAD
DEMO	DEMOLISH OR DEMOLITION	PA	PUBLIC ADDRESS
DF	DRINKING FOUNTAIN	PB	PULL BOX OR PUSHBUTTON
DISC	DISCONNECT	PFC	POWER FACTOR CORRECTION
DPDT	DOUBLE POLE DOUBLE THROW	PH	PHASE
DPST	DOUBLE POLE SINGLE THROW	PNL	PANEL OR PANELBOARD
EC	ELECTRICAL CONTRACTOR	PT	POTENTIAL TRANSFORMER
EJ	EXPANSION JOINT	PTZ	PAN-TILT-ZOOM
ELEC	ELECTRICAL	PWR	POWER
ELEV	ELEVATOR OR ELEVATION	RCP	REFLECTED CEILING PLAN
EM	EMERGENCY	REBAR	REINFORCING BAR
EMT	ELECTRICAL METALLIC TUBING	RECEPT	RECEPTACLE
ENCL	ENCLOSURE	RM	ROOM
ETR	EXISTING TO REMAIN	RNMC	RIGID NON-METALLIC CONDUIT
EWC	ELECTRIC WATER COOLER	ROW	RIGHT-OF-WAY
EWH	ELECTRIC WATER HEATER	RMC	RIGID METAL CONDUIT
EXIST	EXISTING	SEC	SECONDARY
F	FUSE OR FAHRENHEIT	SPD	SURGE PROTECTIVE DEVICE
FA	FIRE ALARM	SPDT	SINGLE POLE DOUBLE THROW
FAAP	FIRE ALARM ANNUNCIATOR PANEL	SPECS	SPECIFICATIONS
FACP	FIRE ALARM CONTROL PANEL	SPST	SINGLE POLE SINGLE THROW
FF&E	FIXTURES, FURNISHINGS & EQUIPMENT	SQ	SQUARE
FIXT	FIXTURE	SS	STAINLESS STEEL
FLA	FULL LOAD AMPERES	SV	SOLENOID VALVE
FM	FACTORY MUTUAL	SWBD	SWITCHBOARD
FMC	FLEXIBLE METAL CONDUIT	SWGR	SWITCHGEAR
FO	FIBER OPTIC	TCC	TEMPERATURE CONTROL CONTRACTOR
FRT	FIRE RETARDANT	TCP	TEMPERATURE CONTROL PANEL
GC	GENERAL CONTRACTOR	TRANS	TRANSFORMER
GEN	GENERATOR	TS	TIME SWITCH
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	TYP	TYPICAL
GFI	GROUND FAULT INTERRUPTER	UL	UNDERWRITERS LABORATORIES
GND, G	GROUND	UNO	UNLESS NOTED OTHERWISE
GYP BD	GYPSUM BOARD	UPS	UNINTERRUPTIBLE POWER SUPPLY
HH	HANDHOLE	V	VOLTS
HOA	HAND-OFF-AUTO	VA	VOLT-AMPERE
HP	HORSE POWER	VAC	VOLTS-ALTERNATING CURRENT
HV	HIGH VOLTAGE	VDC	VOLTS-DIRECT CURRENT
ID	INSIDE DIAMETER	VFD	VARIABLE FREQUENCY DRIVE
JB	JUNCTION BOX	W	WATTS
KO	KNOCKOUT	WH	WATER HEATER
KVA	KILOVOLT AMPERE	WP	WEATHERPROOF

GENERAL NOTES

1. SYMBOLS AND GENERAL DESCRIPTIONS IN SYMBOL LEGENDS ARE INDICATED FOR GENERAL REFERENCE ONLY. NOT ALL SYMBOLS ARE USED ON THIS PROJECT. SEE SCHEDULES, SPECIFICATIONS, AND PLANS FOR ADDITIONAL INFORMATION INCLUDING MOUNTING HEIGHTS.
2. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND REPRESENT ELECTRICAL DESIGN INTENT. PROVIDE ALL WORK AND MATERIALS REQUIRED FOR COMPLETE AND FUNCTIONAL ELECTRICAL SYSTEMS THAT FULLY MEET ELECTRICAL DESIGN INTENT. ELECTRICAL WORK TO CONFORM TO LATEST EDITION OF NEC AS ADOPTED BY AUTHORITY HAVING JURISDICTION. SEE SPECIFICATIONS FOR ADDITIONAL INSTALLATION REQUIREMENTS AND ITEMS THAT MAY BE REQUIRED ABOVE AND BEYOND MINIMUM REQUIREMENTS THAT ARE OUTLINED IN NATIONAL ELECTRICAL CODE (NEC).
3. THOROUGHLY AND CAREFULLY REVIEW ALL DRAWINGS, SPECIFICATIONS, AND WORK SCOPES IN BIDDING DOCUMENTS PRIOR TO BIDS AND CONSTRUCTION. WHERE THERE ARE CONFLICTS AMONG DRAWINGS, SPECIFICATIONS, AND WORK SCOPES, MORE STRINGENT OR GREATER QUANTITY REQUIREMENTS APPLY.
4. ALL ELECTRICAL EQUIPMENT TO BE UL LISTED.
5. SEE INDIVIDUAL SPECIFICATION SECTIONS FOR SPECIFIC REQUIREMENTS RELATED TO TESTING, MANUFACTURER STARTUP, TRAINING, ETC. ALL APPLICABLE TESTING AND MANUFACTURER STARTUP REPORTS TO BE SUBMITTED AND APPROVED PRIOR TO DEVELOPMENT OF ELECTRICAL PUNCH LISTS.
6. ALL CONDUCTORS, INCLUDING GROUNDED CONDUCTORS (NEUTRALS), TO BE LABELED AT ALL ENDS AND JOINTS WITH CORRESPONDING PANELBOARD NAME AND CIRCUIT NUMBER, OR OTHERWISE IDENTIFIED TO CORRESPOND WITH ASSOCIATED EQUIPMENT MANUFACTURER'S IDENTIFICATION SYSTEM.
7. AT A MINIMUM, PROVIDE 1#12, 1#12N, 1#12G FOR 20A BRANCH CIRCUITING, UNO. MINIMUM CONDUIT SIZE IS 3/4", UNO. NO MORE THAN NINE CURRENT CARRYING CONDUCTORS ALLOWED IN A RACEWAY, UNO. EQUIPMENT GROUNDING CONDUCTORS TO BE SIZED IN ACCORDANCE WITH NEC AND MAY BE SHARED. ALL GROUNDED CONDUCTORS (NEUTRALS) TO BE TREATED AS CURRENT CARRYING CONDUCTORS.
8. PROVIDE A DEDICATED GROUNDED CONDUCTOR (NEUTRAL) FOR EACH BRANCH CIRCUIT. SHARED NEUTRALS ARE NOT ALLOWED.
9. INSTALL GREEN, INSULATED, COPPER EQUIPMENT GROUNDING CONDUCTORS IN RACEWAYS INCLUDING FLEXIBLE METAL CONDUITS AND NON-METALLIC RACEWAYS. GREEN, INSULATED, COPPER EQUIPMENT GROUNDING CONDUCTORS TO BE INSTALLED WITH ALL FEEDERS AND BRANCH CIRCUITS.
10. PROVIDE FIRESTOPPING FOR ALL CONDUIT AND OTHER ELECTRICAL EQUIPMENT PENETRATIONS THROUGH FLOORS, WALLS, AND CEILINGS TO MAINTAIN FIRE RATINGS.
11. LIMIT VOLTAGE DROP TO 2% FOR FEEDERS AND 3% FOR BRANCH CIRCUITS ASSUMING FULL LOAD CONDITIONS. VOLTAGE DROP NOT TO EXCEED 5% FROM ELECTRICAL SERVICE TO FURTHEST ELECTRICAL DEVICE.
12. CALCULATE AND APPLY APPROPRIATE NEC DERATING FACTORS FOR CONDUCTORS INSTALLED IN ROOF MOUNTED CONDUITS.
13. PROVIDE THERMAL SEALS IN ALL CONDUITS THAT RUN FROM CONDITIONED SPACES TO UNCONDITIONED SPACES.
14. ALL JUNCTION BOXES TO BE LABELED TO IDENTIFY CIRCUIT(S) ROUTED THROUGH EACH RESPECTIVE JUNCTION BOX USING BRADY LABELS.
15. COORDINATE LOCATIONS WITH OTHER TRADES TO AVOID CONFLICTS WITH OTHER EQUIPMENT AND NEED FOR EXCESSIVELY LONG LADDER REQUIREMENTS TO ACCESS EQUIPMENT AND DIFFICULT AND AWKWARD CLIMBING AND/OR UNNECESSARY BENDING DURING SERVICING OF EQUIPMENT.
16. DO NOT USE LOAD CENTERS, PANELBOARDS, SWITCHBOARDS, MOTOR CONTROL CENTERS, AND OTHER POWER DISTRIBUTION EQUIPMENT AS RACEWAYS.
17. SEE SPECIFICATION SECTION 26 05 34, RACEWAYS FOR ELECTRICAL SYSTEMS, FOR PROJECT SPECIFIC RACEWAY INSTALLATION REQUIREMENTS.
18. SEE SPECIFICATION SECTION 26 05 53, IDENTIFICATION FOR ELECTRICAL SYSTEMS, FOR PROJECT SPECIFIC IDENTIFICATION REQUIREMENTS.
19. NEMA 4X EQUIPMENT, WHERE IDENTIFIED, TO BE FIBERGLASS UNLESS NOTED OTHERWISE.

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Lime Slaker and Sodium Hypochlorite Feed System Improvements

REVISIONS

2/27/2026 BIDS AND CONSTRUCTION

Drawn By	CMACE
Designer	TDWYER
Reviewer	JACONDIE
Manager	BVANZEE

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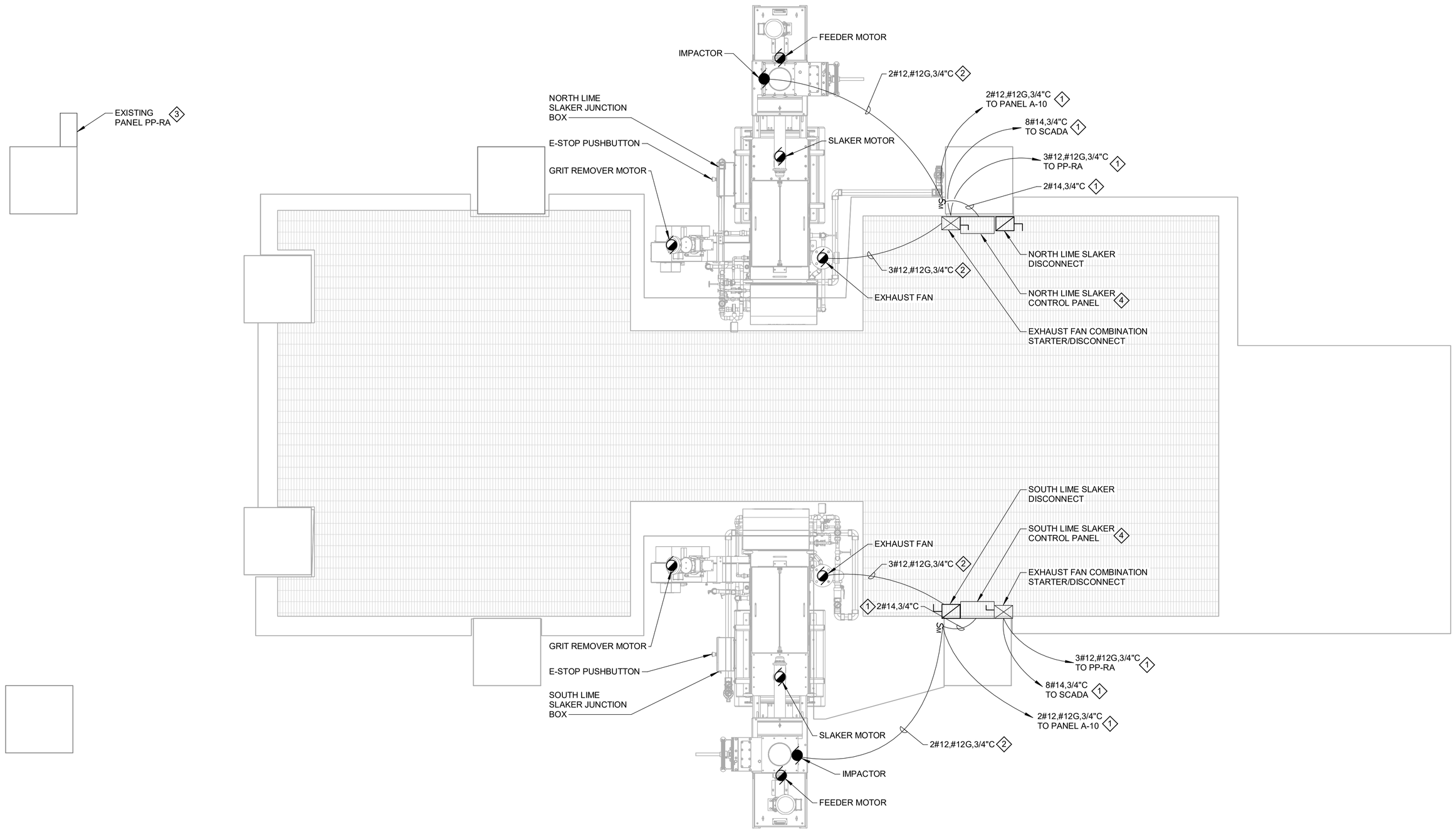

LIME SLAKER POWER AND SYSTEMS PLAN 4

SCALE: 1/2" = 1'-0"

NORTH

NOTES

1. ALL CONTROL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
2. CONTROL PANEL MODIFICATIONS SHALL BE PERFORMED BY UL LISTED PANEL SHOP PERSONNEL TO UL STANDARDS.
3. EXISTING ITEMS ARE GENERALLY DEPICTED IN LIGHT LINE WEIGHT. NEW ITEMS ARE GENERALLY DEPICTED IN DARK LINE WEIGHT. UNLESS NOTED OTHERWISE. IN CASES OF DISCREPANCIES OR WHERE NEW/EXISTING IS UNCLEAR, PROVIDE NEW.

KEY NOTES

1 REUSE EXISTING CONDUIT AND CONDUCTORS. EXTEND EXISTING CONDUIT AND CONDUCTORS AS REQUIRED.
2 PROVIDE NEW CONDUIT AND CONDUCTORS.
3 PROVIDE (2) 3-POLE 15A CIRCUIT BREAKERS IN EXISTING SPACES FOR FOR EXHAUST FANS. MATCH EXISTING CIRCUIT BREAKER MANUFACTURER, TYPE, AND INTERRUPT RATING.
4 SEE SHEET E501 NORTH LIME SLAKER RISER DIAGRAM.

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NOTES

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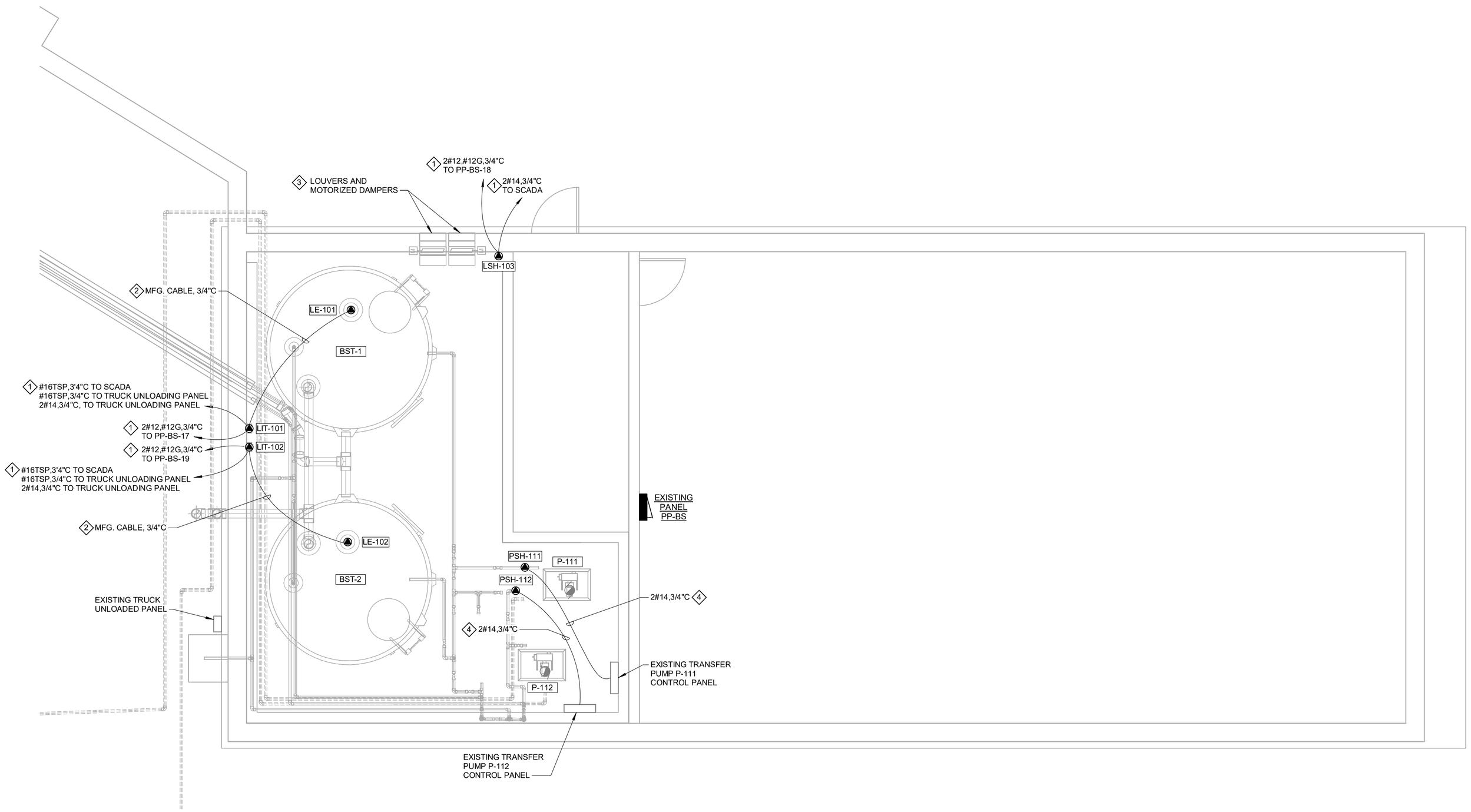
2. CONTROL PANEL MODIFICATIONS SHALL BE PERFORMED BY UL LISTED PANEL SHOP PERSONNEL TO UL STANDARDS.
3. EXISTING ITEMS ARE GENERALLY DEPICTED IN LIGHT LINE WEIGHT. NEW ITEMS ARE GENERALLY DEPICTED IN DARK LINE WEIGHT. UNLESS NOTED OTHERWISE. IN CASES OF DISCREPANCIES OR WHERE NEW/EXISTING IS UNCLEAR, PROVIDE NEW.

KEY NOTES

1 REUSE EXISTING CONDUIT AND CONDUCTORS. EXTEND EXISTING CONDUIT AND CONDUCTORS AS REQUIRED.
2 INSTALL NEW MANUFACTURER'S CABLE IN EXISTING CONDUIT. EXTEND CONDUIT AS REQUIRED.
3 REUSE LOUVER MOTORIZED DAMPERS POWER AND CONTROLS USING EXISTING CONDUIT AND CONDUCTORS. EXTEND EXISTING CONDUIT AND CONDUCTORS AS REQUIRED.
4 PROVIDE NEW CONDUIT AND CONDUCTORS.



NORTH

SODIUM HYPOCHLORITE BULK TANK

POWER AND SYSTEMS PLAN

SCALE: 1/4" = 1'-0"

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Reviewer	JACONDIE
Manager	BVANZEE

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PROJECT NO.
2501185

SHEET NO.
E202

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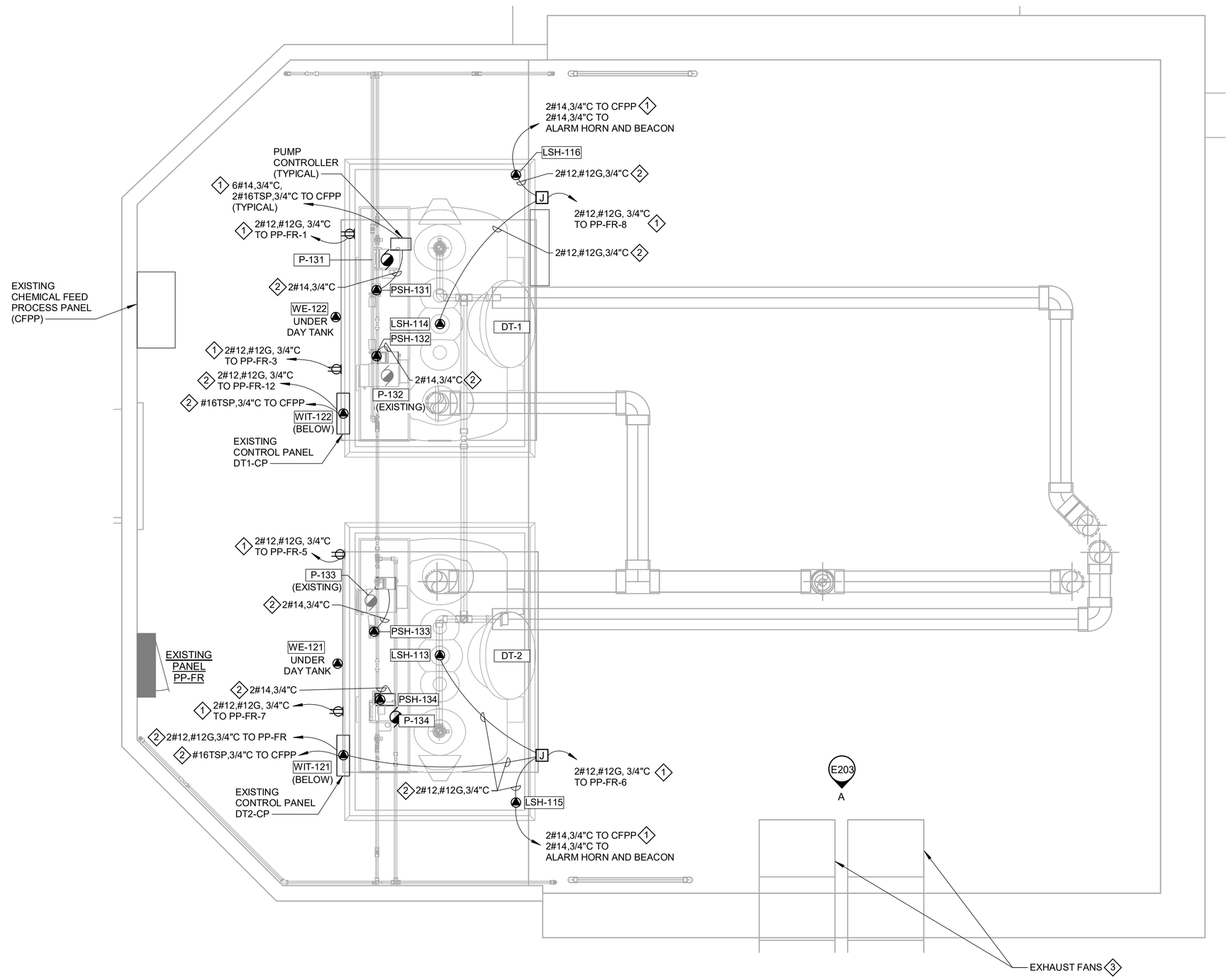
NOTES

1. ALL CONTROL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
2. CONTROL PANEL MODIFICATIONS SHALL BE PERFORMED BY UL LISTED PANEL SHOP PERSONNEL TO UL STANDARDS.
3. EXISTING ITEMS ARE GENERALLY DEPICTED IN LIGHT LINE WEIGHT. NEW ITEMS ARE GENERALLY DEPICTED IN DARK LINE WEIGHT. UNLESS NOTED OTHERWISE. IN CASES OF DISCREPANCIES OR WHERE NEW/EXISTING IS UNCLEAR, PROVIDE NEW.

KEY NOTES

1 REUSE EXISTING CONDUIT AND CONDUCTORS. EXTEND EXISTING CONDUIT AND CONDUCTORS AS REQUIRED.
2 PROVIDE NEW CONDUIT AND CONDUCTORS.
3 REUSE EXHAUST FAN POWER AND CONTROLS USING EXISTING CONDUIT AND CONDUCTORS. EXTEND EXISTING CONDUIT AND CONDUCTORS AS REQUIRED.
4 REMOVE AND REINSTALL CONDUIT, CONDUCTORS, AND SWITCHES. EXTEND CONDUIT AND CONDUCTORS AS REQUIRED.

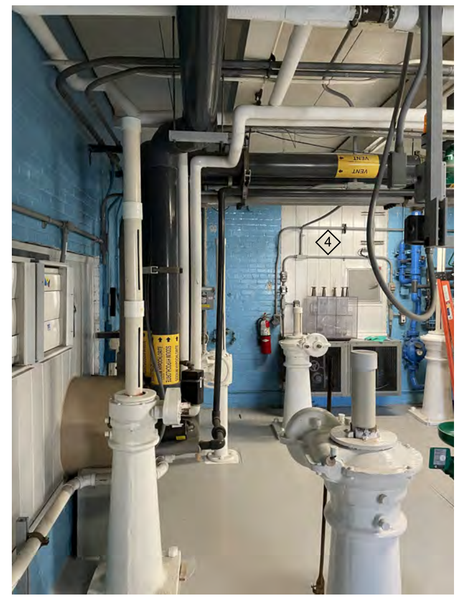


SODIUM HYPOCHLORITE DAY TANKS

POWER AND SYSTEMS PLAN

SCALE: 1/2" = 1'-0"

NORTH



SODIUM HYPOCHLORITE FEED ROOM

A INTERIOR PHOTO

SCALE: 12" = 1'-0"

fishbeck
Engineers | Architects | Scientists | Constructors

City of Saginaw
Saginaw County, Michigan

Lime Slaker and Sodium Hypochlorite
Feed System Improvements

REVISIONS

2/27/2026 BIDS AND CONSTRUCTION

Drawn By	CMACE
Designer	TDWYER
Reviewer	JACONDIE
Manager	BVANZEE

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PROJECT NO.
2501185

SHEET NO.
E203

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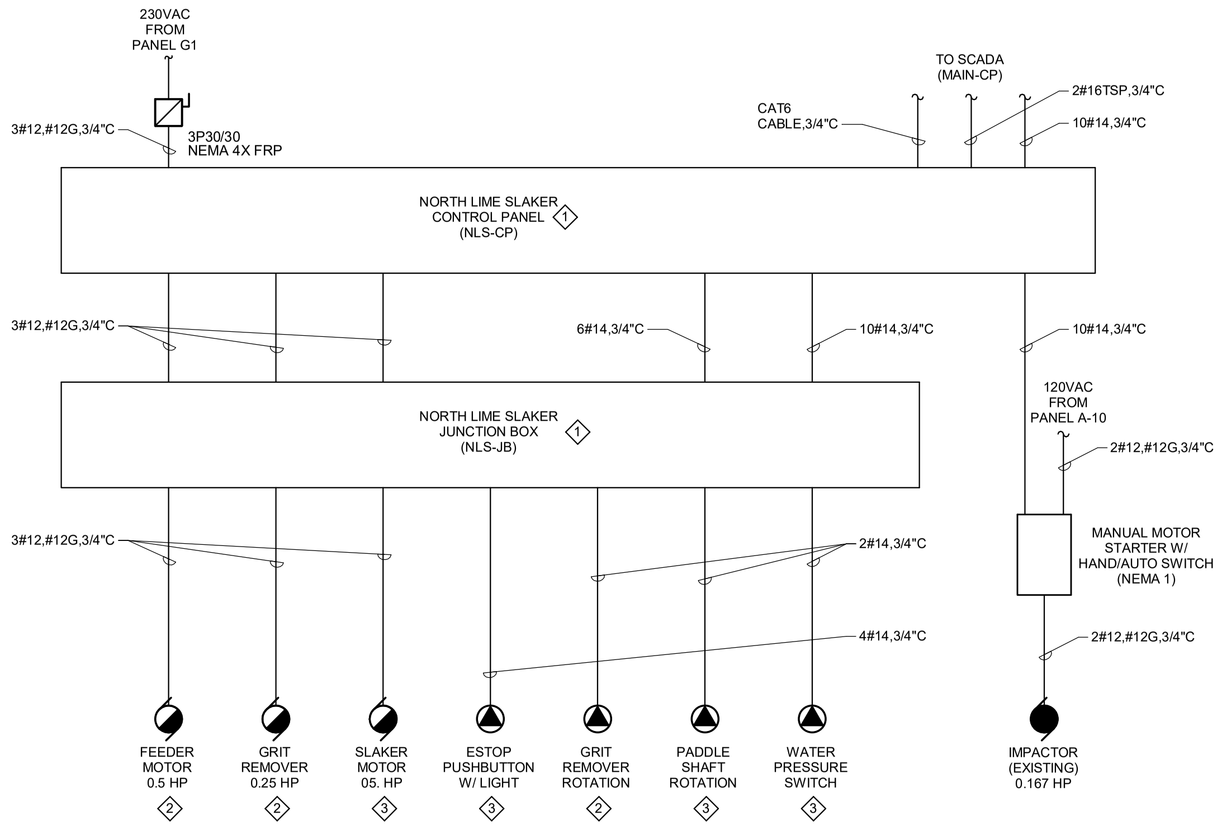
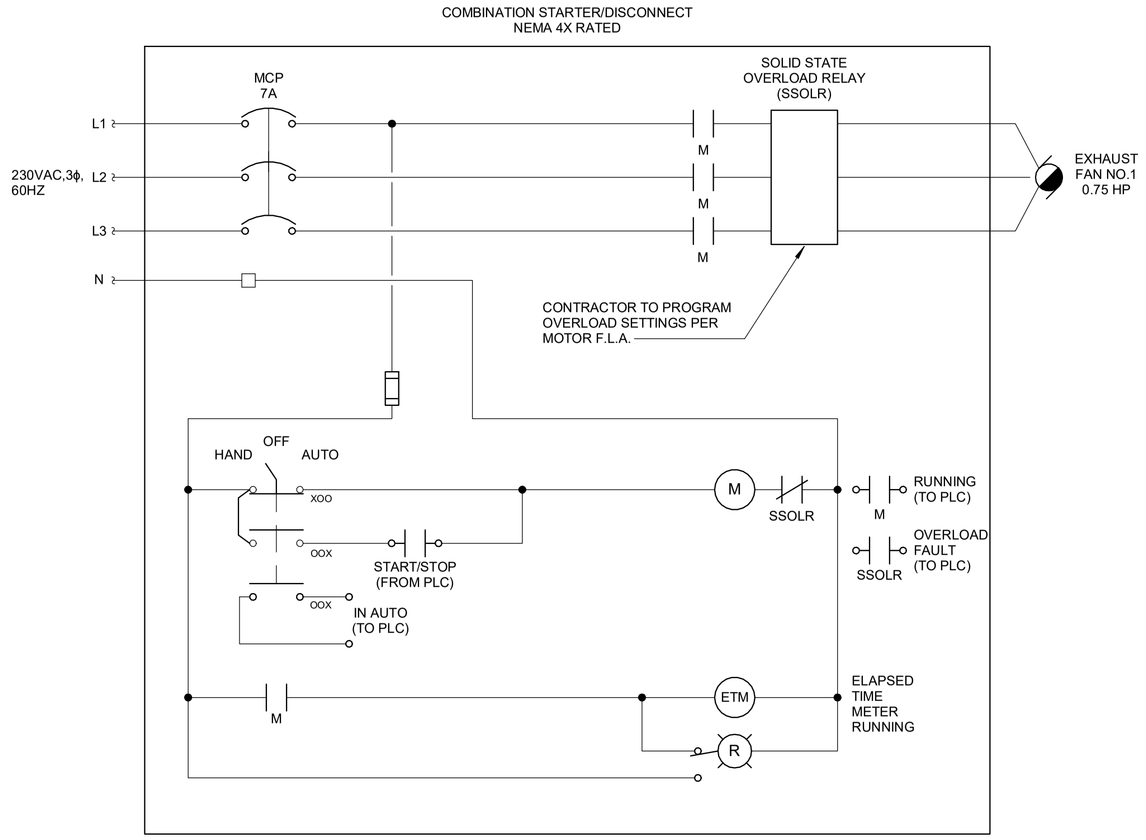
KEY NOTES

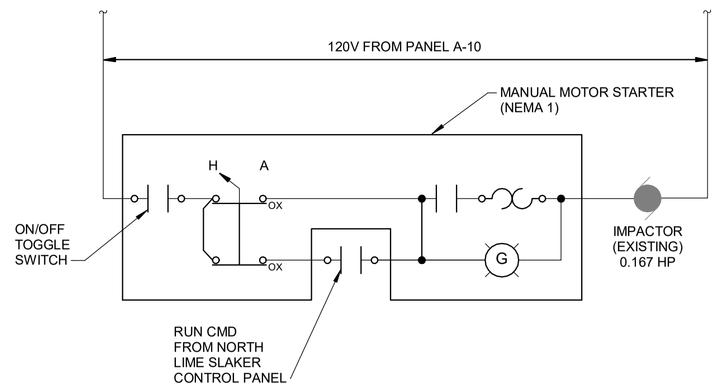
1. VERIFY CONDUIT AND WIRING REQUIREMENTS WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE CONDUIT AND WIRING REQUIRED BY PACKAGED EQUIPMENT SUPPLIER FOR A FULLY FUNCTIONAL SYSTEM.
2. PRE-WIRED AND DISASSEMBLED FOR SHIPPING BY EQUIPMENT SUPPLIER. CONTRACTOR TO RE-WIRE DURING INSTALLATION.
3. PRE-WIRED BY EQUIPMENT SUPPLIER.



NORTH LIME SLAKER RISER DIAGRAM
NO SCALE TYPICAL FOR SOUTH LIME SLAKER



EXHAUST FAN NO.1 WIRING DIAGRAM
NO SCALE TYPICAL FOR EXHAUST FAN NO.2



NORTH LIME IMPACTOR WIRING DIAGRAM
NO SCALE TYPICAL FOR SOUTH LIME IMPACTOR

fishbeck
Engineers | Architects | Scientists | Constructors

City of Saginaw
Saginaw County, Michigan

Lime Slaker and Sodium Hypochlorite Feed System Improvements

REVISIONS

2/27/2026 BIDS AND CONSTRUCTION

Drawn By	CMACE
Designer	TDWYER
Reviewer	JACONDIE
Manager	BVANZEE

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PROJECT NO.
2501185

SHEET NO.
E501

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Council Communication

Item Number: 24.

Date: May 18, 2026

From: Timothy Morales, City Manager

Subject: Blanket Purchase Orders for FY2027

Prepared By: John Frollo, Superintendent of Wastewater Treatment

Manager's Recommendation:

Approve the blanket purchase orders for the specified vendors for a total amount of $282,800 for the purchase of various parts and supplies that plant personnel need to operate and maintain the Water and Wastewater Treatment Services Department, Wastewater Treatment and Pumping and Remote Facilities Divisions, for FY 2027, pending budget approval.

Justification:

Time and experience have shown that certain vendors reliably provide the lowest price on certain parts and supplies. These include pump packing, bearings, nuts and bolts, piping, safety supplies, welding supplies, cleaning supplies, laboratory supplies, and repair parts only available from a sole source. Wastewater personnel will continue to solicit quotes for items purchased to ensure that we obtain the lowest possible price. Issuing individual purchase orders is costly and administratively time-consuming; therefore, we are requesting authorization to issue blanket purchase orders as follows:

Vendor	Amount	GL Account #
Alro Steel Corporation Bay City, MI	$2,500.00	591-542.01-742.000
Central Metalizing Saginaw, MI (out-city)	$10,000.00	591-542.01-974.000
Elevator Service LLC Greenwich, CT	$6,000.00	591-542.01-801.000
Ferguson Enterprises Saginaw, MI (out-city)	$2,500.00	591-542.01-742.000

Grainger Saginaw, MI (out-city)	$2,500.00	591-542.01-742.000
Hamilton Electric Saginaw, MI (out-city)	$10,000.00	591-542.01-974.000
J.E. Johnson, Inc. Midland, MI	$2,500.00	591-542.01-801.000
John E. Green Company Saginaw, MI (out-city)	$25,000.00	591-542.01-930.000
Kraft Power Corporation Gaylord, MI	$20,000.00	591-542.01-930.000
KSS Enterprises Midland, MI	$2,500.00	591-542.01-735.000
Lingle Equipment, Inc. Saginaw, MI (out-city)	$5,000.00	591-542.01-944.000
The Macomb Group Midland, MI	$2.500.00	591-542.01-742.000
Marshall Campbell Saginaw, MI	$5,000.00	591-542.01-742.000
Medler Electric Bay City, MI	$7,000.00	591-542.01-742.000
Michigan CAT Saginaw, MI (out-city)	$20,000.00	591-542.01-930.000
Oscar W. Larson, Co. Clarkston, MI	$15,000.00	591-542.01-801.000

Standard Electric Saginaw, MI (out-city)	$7,000.00	591-542.01-742.000
York Electric Bay City, MI	$10,000.00	591-542.01-974.000
William E. Walter, Inc. Flint, MI	$25,000.00	591-542.01-930.000

These vendors meet all requirements of §14.33, "Vendors," of "Purchasing, Contracting, and Selling Procedure," of Chapter 14, "Finance and Purchasing," of Title I, "Administrative Code," of the Saginaw Code of Ordinances, O-204.

Funds are budgeted in the Sewer Operations and Maintenance Fund, Treatment and Pumping Division's Parts and Supplies Account No. 590-542.02-742.00 $186,440.00, Laboratory Supplies Account No. 590-542.02-734.000 $40,500.00, Cleaning Supplies Account. No. 590-542.02-735.000 $8,000.00, Operating Services Acct. No. 590-542.02-805.000 $3,500.00, pending budget approval

Funds are also budgeted in the Sewer Operations and Maintenance Fund, Remote Facilities Division's Parts, and Supplies Account No. 590-548.00-742.000 $39,360.00, Cleaning Supplies Acct. No. 590-548.00-735.000 $2,000.00, Laboratory Supplies Account No. 590-548.00-734.000 $3,000.00, pending budget approval.

Council Action:

Motion to approve the recommendation of the City Manager.

Attachments:

None

Council Communication

Item Number: 25.

Date: May 18, 2026

From: Timothy Morales, City Manager

Subject: RAS Piping

Prepared By: John Frollo, Superintendent of Wastewater Treatment

Manager's Recommendation:

Approve the purchase with Monarch Welding and Engineering Inc., for $52,800 for 20” piping replacement for the Water and Wastewater Services Department, Treatment and Pumping Division.

Justification:

The return activated sludge (RAS) piping system is essential to maintaining the biological treatment process, carrying settled sludge from the clarifiers back to the aeration basins. The four 20-inch pipes have been in continuous service for roughly 55 years, and recent inspections found active leaks and major wall-thickness loss caused by long-term internal erosion from constant flow.

Given their deteriorated condition, the risk of structural failure is significant. A rupture would cause internal flooding, damage nearby equipment, and interrupt the RAS flow needed to keep the activated sludge process stable. Such a disruption would almost certainly lead to effluent quality issues and violations of the facility’s discharge permit. Repairing or replacement is therefore necessary to prevent operational and regulatory consequences.

Quotes were solicited from a variety of reputable proven contractors experienced in large-diameter process piping repairs. On May 1, 2026, Monarch Welding and Engineering, Inc. provided the lowest quote for the necessary piping replacement.

This vendor meets all requirements of §14.33, "Vendors," of "Purchasing, Contracting, and Selling Procedure," of Chapter 14, "Finance and Purchasing,” of Title I, "Administrative Code," of the Saginaw Code of Ordinances, O-204.

Funds are budgeted in the Sewer Operations and Maintenance Fund, Treatment and Pumping Division’s General Repairs Account No. 590-542.02-930.000.

Council Action:

Motion to approve the recommendation of the City Manager.

Attachments:

None

Council Communication

Item Number: 26.

Date: May 18, 2026

From: Timothy Morales, City Manager

Subject: Lead Service Line Replacement (C-1725)

Prepared By: Travis Hare, City Engineer

Manager's Recommendation:

Approve the contract with Super Construction LLC, for $1,526,335 for the Lead Service Line Replacement (C-1725) project for the Public Services Department, Engineering Division.

Justification:

On May 6, 2026, the City received 6 qualified bids for the Lead Service Line Replacement C-1725 project. The project includes replacement of lead and galvanized water connections, water extensions, water meter sets and limited indoor plumbing, along with road and turf restoration. The work is located citywide. It is estimated that about 200 water services will be replaced during this project, but as many will be replaced as possible with the funds available.

In March 2025, the City submitted an application to receive funding through the Michigan Department of Environment, Great Lakes and Energy (EGLE), for a principal forgiveness loan from the Drinking Water State Revolving Fund (DWSRF). In September 2025, the City was awarded a $2,300,000 loan for this project. $1,150,000 of the awarded amount is considered a principal forgiveness loan, meaning the City would not have to pay it back. A resolution is on the agenda for tentative award of the construction contract for these water system improvements, as required by EGLE.

The following is a tabulation of the bids received:

Vendor	Cost
Super Construction LLC Bay City, MI	$1,526,335.00
Martha Brown Custom Builders LLC Saginaw, MI (In-City)	$1,820,175.00
All Seasons Underground Construction Tipton, MI	$1,906,225.00

Five Star Energy Services Waukesha, WI	$1,922,125.00
Rohde Bros. Excavating, Inc. Saginaw, MI (Out-City)	$2,034,520.00
Eric Construction Inc. St. Charles, MI	$2,989,975.00

This vendor meets all requirements of §14.33, "Vendors," of "Purchasing, Contracting, and Selling Procedure," of Chapter 14, "Finance and Purchasing," of Title I, "Administrative Code," of the Saginaw Code of Ordinances, O-204.

Water funding contingent upon issuance of DWSRF bonds. Funds will be budgeted in the Water Operations and Maintenance Fund, Water Refunding Bonds Division, Construction Projects Account No. 591-550.00-955.003 $1,526,335.00, upon issuance of the DWSRF bonds and approval of the FY 2027 budget.

I have approved the contract as to substance and the City Attorney as to form.

Council Action:

Motion to approve the recommendation of the City Manager.

Attachments:

1. C-1725 2027 Lead Service Line Replacements DWSRF #7900.01

CITY OF SAGINAW
1315 S WASHINGTON AVE
SAGINAW MICHIGAN 48601

C-1725
2027 Lead Service Line Replacements
DWSRF #7900.01

BID OPENING WEDNESDAY, MAY 6, 2026 @ 3:00 PM

Council Meeting May 18, 2026
Super Construction LLC
$1,526,335.00

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CONTRACT

CITY OF SAGINAW, MICHIGAN

This Contract is entered into on this 18 day of May 2026, between Super Construction LLC. of 201 Morton Street Bay City, Mi 48706 (hereinafter "Contractor"), and the City of Saginaw, 1315 S. Washington Avenue, Saginaw, Michigan 48601 (hereinafter "City"), for **2027 Lead Service Line Replacements DWSRF #7900.01 (C-1725)**

WHEREAS, Contractor, at a regular meeting of the Council of the City of Saginaw, held on Month 18, 2026, was awarded the contract for furnishing the necessary labor, equipment, materials, and construction for the completion of **2027 Lead Service Line Replacements DWSRF #7900.01(C-1725)**

Contractor, in consideration of the Agreement herein made by the City, agrees with the City as follows:

Article 1. SUBJECT MATTER. Contractor shall furnish all the materials, except those specified to be furnished by the City, and perform all the work **2027 Lead Service Line Replacements DWSRF #7900.01 (C-1725)** , as listed on the Table of Contents, and as shown on the drawings prepared by the Department of Public Services, Engineering Division, and described in the specifications, and in accordance with the general conditions, the general instructions to bidders, the notice inviting sealed proposals and the proposal, all of which are hereby made a part of this Contract by reference as though fully set forth herein. The Contractor acknowledges Contractor has received a copy of all such documents.

Article 2. COMMENCEMENT OF WORK. The Contractor shall start work as specified in the Progress Clause, or as directed by the City Engineer and the work shall be carried on with due diligence, at such points and at such times and seasons, and with such force and in such manner as to secure the completion in accordance with the Progress Clause, the time of beginning, rate of progress and the time of completion being essential conditions of this Contract.

Article 3. PAYMENT. It is hereby mutually agreed that the City shall pay, and the Contractor receive, the sum of **$1,526,335.00,** same being the amount named in the Contractor's proposal or bid as full compensation for labor and materials required in executing all the work contemplated in this Contract, subject to additions and deductions, as provided in the specifications.

Article 4. ESTIMATES. The City hereby agrees to make payment under the restrictions and limitations herein contained, from time to time, on account of performance of this contract, by orders drawn upon the proper fund of the City, paying NINETY PERCENT (90%) thereof on the basis of estimates made by the Department of Public Services & Engineering semi-monthly as the work progresses, and approved by the City Engineer. Said estimates shall be made in writing and shall only include work done and material in place and shall not include completed work which, in the opinion of the City Engineer, is not advisable, for the protection of the City, at that time to

make payment on, and such estimates may be altogether withheld when, in the opinion of the City Engineer, work does not progress in accordance with the provisions of this Contract; and the making and furnishing of such estimates shall not be deemed or construed as an acceptance of any part of the work under this Contract. The City Engineer may authorize the reduction of the amount so withheld so that total payment equals NINETY-FIVE PERCENT (95%) of the estimate where the City Engineer shall find that the retention of FIVE PERCENT (5%) of the estimate is sufficient to protect the City, but the total amount so retained shall not in any event be reduced to less than FIVE PERCENT (5%) of the contract price above stated.

Article 5. RETENTION OF MONEYS. In addition to the TEN PERCENT (10%) of contract price above retained, to insure the completion of the work, the City reserves the right to retain at all times from the estimates, an amount sufficient to pay and discharge all debts incurred by Contractor, or subcontractor, for labor performed in the progress of the work, and for material purchased and used, and, at its discretion, to pay the same to the parties entitled thereto, and charge the same against the contract price.

Article 6. SEPARATE CONTRACTS. Where two or more separate proposals are grouped together herein, it is expressly agreed that each of said proposals shall constitute a separate contract and that all of the terms, conditions, and provisions of this Contract shall apply to each of said proposals to the same extent and in the same manner as though each of said proposals had been the subject of a separate contract.

Article 7. PUBLIC ACT 524 of 1980. Notwithstanding any provision herein to the contrary, this agreement is subject to 1980 PA 524, which statute is incorporated herein and made a part hereof by reference. Contractor hereby agrees that the City may, at its option, submit the following matters to dispute resolution by an agent agreed to or selected in accordance with the procedures set forth in the statute:

A. At any time during the term of the contract, to determine whether there has been a delay for reasons that were within the control of the Contractor, and the period of time that delay has been caused, continued, or aggravated by actions of the Contractor.
B. At any time after ninety-four percent (94%) of work under the Contract is in place, whether there has been an unacceptable delay by the Contractor in performance of the remaining six percent (6%) of work under the Contract. The agent shall consider the terms in the Contract and procedures normally followed in the industry and shall determine whether the delay was for failure to follow reasonable improvement practices in the industry for completion of the project.

The agent shall have all the rights, powers and duties specified in the statute.

Article 8. ACCEPTANCE AND FINAL PAYMENT. The final payment, including any retainage previously withheld, shall be payable on the approval and acceptance of the work by the City Engineer.

The payment of the final amount due under this Contract, and the adjustment and payment of all bills rendered for the work done in accordance with any alterations of same, shall release the City from any and all claims or liability on account of work performed or materials furnished under the Contract, or any alterations thereof.

The City of Saginaw has an income tax. All successful bidders will be subject to income tax withholdings and compliance is mandatory.

As part of the consideration for this Contract, the undersigned does hereby agree to have withheld from any payments due them, any amounts for taxes, fees or other charges due the City of Saginaw.

By their signatures below, the parties certify the persons signing on behalf of their respective party has the authority to do so. The parties hereto have executed this Contract the day and year first above written.

SUPER CONSTRUCTION LLC.

By: Luke Super

Name: Luke Super

Title: President

CITY OF SAGINAW

By:_____

Timothy Morales
City Manager

Super

CNA SURETY

Bid Bond

Bond No. _____

CONTRACTOR:
(Name, legal status and address)
Super Construction LLC
201 Morton Street
Bay City, MI 48706

SURETY: Western Surety Company: South Dakota Corporation
(Name, legal status and principal place of business)
151 N. Franklin Street
17th Floor
Chicago, IL 60606

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

OWNER:
(Name, legal status and address)
City of Saginaw
1315 S Washington Ave
Saginaw, MI 48601

BOND AMOUNT: 5%

PROJECT:
(Name, location or address, and Project number, if any)
C-1725 2027 Lead Service Line Replacements DWSRF #7900.01

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this 5th day of May, 2026.

Elizabeth Pool
Elizabeth Pool
(Witness)

(Witness)

Super Construction LLC
(Principal) Luke Super LUKE SUPER *(Seal)*
(Title) President

Western Surety Company
(Surety) Allison N Ditty *(Seal)*
(Title) Allison N Ditty Attorney-In-Fact

Printed in cooperation with the American Institute of Architects (AIA).
The language in this document conforms to the language used in AIA Document A310 - Bid Bond - 2010 Edition.

Western Surety Company

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That WESTERN SURETY COMPANY, a South Dakota corporation, is a duly organized and existing corporation having its principal office in the City of Sioux Falls, and State of South Dakota, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

Sheila Lemmen, Lynda J Decan, Barbara Naber, Allison N Ditty, Daniel T Malone, Individually

of Grand Rapids, MI, its true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on its behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unlimited Amounts -

and to bind it thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the corporation and all the acts of said Attorney, pursuant to the authority hereby given, are hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the Authorizing By-Laws and Resolutions printed at the bottom of this page, duly adopted, as indicated, by the shareholders of the corporation.

In Witness Whereof, WESTERN SURETY COMPANY has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed on this 13th day of January, 2026.

WESTERN SURETY COMPANY

Larry Kasten, Vice President

State of South Dakota
County of Minnehaha } ss

On this 13th day of January, 2026, before me personally came Larry Kasten, to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is a Vice President of WESTERN SURETY COMPANY described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.

My commission expires
December 4, 2031

K. WALSH
NOTARY PUBLIC
SOUTH DAKOTA

K. Walsh, Notary Public

CERTIFICATE

I, Paula Kolsrud, Assistant Secretary of WESTERN SURETY COMPANY do hereby certify that the Power of Attorney hereinabove set forth is still in force, and further certify that the By-Laws and Resolutions of the corporation printed below this certificate are still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said corporation this 5th day of May, 2026.

WESTERN SURETY COMPANY

Paula Kolsrud, Assistant Secretary

Authorizing By-Laws and Resolutions

ADOPTED BY THE SHAREHOLDERS OF WESTERN SURETY COMPANY

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the shareholders of the Company.

Section 7. All bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, and Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys in Fact or agents who shall have authority to issue bonds, policies, or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile.

This Power of Attorney is signed by Larry Kasten, Vice President, who has been authorized pursuant to the above Bylaw to execute power of attorneys on behalf of Western Surety Company.

This Power of Attorney may be signed by digital signature and sealed by a digital or otherwise electronic-formatted corporate seal under and by the authority of the following Resolution adopted by the Board of Directors of the Company by unanimous written consent dated the 27th day of April, 2022:

"RESOLVED: That it is in the best interest of the Company to periodically ratify and confirm any corporate documents signed by digital signatures and to ratify and confirm the use of a digital or otherwise electronic-formatted corporate seal, each to be considered the act and deed of the Company."

Go to www.cnasurety.com > Owner / Obligee Services > Validate Bond Coverage, if you want to verify bond authenticity.

Form F4280-6-2023

CITY OF SAGINAW, MICHIGAN
BID FORM

C-1725 2027 Lead Service Line Replacements DWSRF #7900.01

To the City of Saginaw Date: 05-06-2026

In response to your notice, the undersigned, hereinafter called the Contractor, hereby declares that the Contractor has read the "General Instruction to Bidders", "Sealed Bid Instructions" and "General Information", has examined the plans, specifications and the location of the work described herein, has reviewed the proposed Contract and its general conditions, and, is thus fully informed to the nature of the work and the conditions relating to its performance and further understands that the quantities shown hereon are approximate only and are subject to either increase or decrease.

The Contractor hereby proposes to furnish all the necessary equipment and tools, do all the work, furnish all the materials, except as otherwise specified and to complete the work herein described all in accordance with the Contract and its plans and specifications, of which this proposal is a part, for the unit prices named in the following itemized bid.

Prior to and contingent upon award of a contract of $50,000.00 or more, the undersigned further agrees to furnish a surety company performance bond in the sum of not less than 100 percent (100%) of the total amount of the contract company to secure the faithful performance of the Contract and, when required, a surety company labor and material bond in the sum of not less than 100 percent (100%) of the total amount of the Contract for the protection of subcontractors, labor and material suppliers, according to the laws of the State of Michigan at that time in effect. Said signed Contract, surety company bonds, and insurance shall be furnished within ten (10) days from date of notification by the Engineering Division of acceptance of the proposal submitted. The Contract cannot be fully awarded by City Council without the return of these executed documents.

In compliance with the requirements of said notice, this proposal is accompanied by an **original** bid bond, bank money order, certified check, or cashier's check in the sum of five percent (5%) of total bid to guarantee that a contract will be entered into if the above proposal is accepted, and the contract awarded to the undersigned.

52.222-21 Prohibition of Segregated Facilities.

As prescribed in 22.810(a)(1), insert the following clause:

Prohibition of *Segregated Facilities* (Apr 2015)

(a) *Definitions*. As used in this clause

Gender identity has the meaning given by the Department of Labor's Office of Federal Contract Compliance Programs, and is found at http://www.dol.gov/ofccp/LGBT/LGBT_FAQs.html.

Segregated facilities, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, *sexual orientation*, *gender identity*, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.

Sexual orientation has the meaning given by the Department of Labor's Office of Federal Contract Compliance Programs, and is found at http://www.dol.gov/ofccp/LGBT/LGBT_FAQs.html.

(b) The Contractor agrees that it does not and will not maintain or provide for its employees any *segregated facilities* at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where *segregated facilities* are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Opportunity clause in this contract.

(c) The Contractor *shall* include this clause in every subcontract and *purchase order* that is subject to the Equal Opportunity clause of this contract.

(End of clause)

Parent topic: 52.222 [Reserved]

	DESCRIPTION	APPX. QUANT.	UNIT	UNIT PRICE	BID AMOUNT
1	3/4" Water Service Line Connection, HDPE	2,900	LF	$195.00	$565,500.00
2	1" Water Service Line Connection, HDPE	300	LF	$195.00	$58,500.00
3	1.25" Water Service Line Connection, HDPE Water Service Line Connection, HDPE	50	LF	$200.00	$10,000.00
4	1.5" Water Service Line Connection, HDPE	50	LF	$200.00	$10,000.00
5	3/4" Water Service Line Extension, Outdoor, HDPE, including Grounding Rod	1,300	LF	$190.00	$247,000.00
6	1" Water Service Line Extension, Outdoor, HDPE, including Grounding Rod	20	LF	$190.00	$3,800.00
7	Water Service Line Extension, Indoor, HDPE	600	LF	$90.00	$54,000.00
8	Water Service Line Connection, Copper, Site-Specific	100	LF	$200.00	$20,000.00
9	Water Service Line Extension Outdoor, Copper, Site-Specific	100	LF	$205.00	$20,500.00
10	Remove and Replace 3/4" Curb Stop and Box	177	EA	$205.00	$36,285.00
11	Remove and Replace 1" Curb Stop and Box	20	EA	$600.00	$12,000.00
12	Remove Existing Meter Pit	5	EA	$500.00	$2,500.00
13	Remove and Replace Sidewalk, 4"	6,400	SF	$4.00	$25,600.00
14	Remove and Replace Sidewalk, 6"	500	SF	$5.00	$2,500.00
15	Remove and Replace Concrete Drive or Approach, 6"	6,900	SF	$5.00	$34,500.00
16	Remove and Replace HMA Driveway, 3"	1,000	SF	$5.00	$5000.00
17	Remove and Replace Gravel Driveway, 23A	750	SF	$4.00	$3,000.00
18	Remove and Replace Conc. Curb & Gutter, Det. F4	1,600	LF	$20.00	$32,000.00
19	Concrete Curb Ramp Opening	50	LF	$75.00	$3,750.00
20	Pavement Removal, Complete	4,800	SY	$5.00	$24,000.00
21	Maintenance Gravel	800	TON	$20.00	$16,000.00
22	HMA LVSP Leveling Course, 2"	550	TON	$100.00	$55,000.00
23	HMA LVSP Wearing Course, 2"	550	TON	$100.00	$55,000.00
24	Concrete Pavement	1,000	CY	$135.00	$135,000.00
25	6" 22A Aggregate Base	4,800	SY	$6.00	$28,800.00
26	Turf Establishment, Performance	1,800	SY	$12.00	$21,600.00
27	Traffic Control, Local Streets	1	LS	$10,000.00	$10,000.00
28	Traffic Control, Major Streets	1	LS	$10,000.00	$10,000.00
29	Cut and Cap Inactive Service Line at Water Main	10	EA	$2,000.00	$20,000.00
30	Bulkhead Existing Abandoned Sewer	2	EA	$2,000.00	$4,000.00
31	Private Irrigation System Repair	5	EA	$100.00	$500.00

TOTAL BID $1,526,335.00

In accordance with the provisions of "Public Act 524 of 1980".

I do hereby designate Luke Super (name of representative) to submit a written request for progress payment during the duration of this contract.

The Contractor shall start work as specified in the Progress Clause, or as directed by the City Engineer. In no case, shall any work commence prior to receipt of formal Notice to Proceed from the City.

The undersigned bidder does hereby declare that the bidder has the legal status checked below:

_____ Individual

_____ Partnership

_____ Corporation

Incorporated under the laws of the State of _____

V Limited Liability Company

Formed under the laws of the State of Michigan

The undersigned does hereby agree to honor this bid until November 6, 2026

Michigan's Iran Economic Sanctions Act:
The signature below certifies your company is in compliance with the Michigan Iran Economic Sanctions Act as identified on page #39 of this document. Further information on this Act can be viewed at (http://www.state.gov/j/ct/list/c14151.htm and https://www.legislature.mi.gov/(S(qnwpjcm0uyo1f2fhz0w1mlyq))/mileg.aspx?page=GetObject&objectname=mcl-Act-517-of-2012)

Luke Super
(Signature)

Luke Super
(Printed name)

President
(Title)

This sheet must be included, or the bid will be disqualified.

By submitting a response to this request for proposal, the Contractor agrees to the terms and conditions set forth herein. Any changes made to such terms and conditions by Contractor in its response may result, at the City's sole discretion, in the Contractor's disqualification.

The successful Contractor will conform to all Contract specifications and requirements which are attached and incorporated as part of this bid. The City reserves the right to accept or reject any and all bids, or parts thereof, and to waive any irregularities in the bid except those specifically mentioned in the sealed bid instructions. Additionally, (if applicable) we reserve the right to add or delete any items(s) and/or service from this bid to the best benefit of The City of Saginaw.

By signature, the Contractor acknowledges that the signer below has complete authority to execute the bid on behalf of the Contractor and that the bid is genuine and not collusive in any manner; and that no other bidders were improperly induced to refrain from bidding or induced to submit a sham bid; and that the Contractor agrees to have withheld from any payment due them, any amounts owed for taxes or other charges due the City of Saginaw; and that successful bidders are subject to mandatory City of Saginaw income tax withholdings.

Signed	Luke Super	Address	201 Morton St
Name	Luke Super	City, State, Zip	Bay City, MI 48706
Title	President	Telephone No:	989-684-8276
Company	Super Construction LLC	Fax No.	N/A
E-mail	Luke@superconst.com	Date:	05/06/2026

Check List

Iran Sanctions sheet Signed and included	Yes	No
Bid Form Signed and included	Yes	No
2nd Copy of Bid form included	Yes	No

Applies ONLY if an addendum(s) has been issued for this project

Addendum(s) Cover Sheet

#1 – 1st page is signed and included	Yes	No
#2 – 1st page is signed and included	Yes	No
#3 – 1st page is signed and included	Yes	No

This sheet must be included, or the bid will be disqualified.

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

Good Faith Efforts Worksheet

Bidder: Super Construction LLC

Subcontract Area of Work (one per worksheet): Super Construction Does not anticipate having any sub contractors on this project as we typically do everything in House.

Outreach Goal: Solicit a minimum of three (3) DBEs via email/letter/fax. It is recommended that various sources be used to locate the minimum number of DBEs. The Michigan Department of Transportation (MDOT) website and www.sam.gov registries may be two resources used to find a minimum of three DBEs.

List the DBEs contacted for the above area of work and complete the following information for each.

Company Name	Contact Method	Date Contacted	Price Quote Received	Accepted or Rejected	If rejected, explain why
Super Construction Does not anticipate having any sub contractors on this project as we typically do everything in House.					

Explanation for Not Achieving a Minimum of Three Contacts; you may include a printout of the MDOT and www.sam.gov search results (attach extra sheets if necessary):

MITA DBE Posting Date (if applicable): _____
(Attach a copy of the DBE advertisement)

Other Efforts (attach extra sheets if necessary):

Please include the completed worksheet and supporting documentation with the bid proposal.

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

Certification Regarding Debarment, Suspension, and Other Responsibility Matters

The prime contractor must provide a completed *Certification Regarding Debarment, Suspension, and Other Responsibility Matters Form* with its bid or proposal package to the owner.

The prospective participant certifies, to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in transactions under federal nonprocurement programs by any federal department or agency;

(2) Have not, within the three-year period preceding the proposal, had one or more public transactions (federal, state, or local) terminated for cause or default; and

(3) Are not presently indicted or otherwise criminally or civilly charged by a government entity (federal, state, or local) and have not, within the three-year period preceding the proposal, been convicted of or had a civil judgment rendered against it:

(a) For the commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public transaction (federal, state, or local) or a procurement contract under such a public transaction;

(b) For the violation of federal or state antitrust statutes, including those proscribing price fixing between competitors, the allocation of customers between competitors, or bid rigging; or

(c) For the commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false statements, or receiving stolen property.

I understand that a false statement on this certification may be grounds for the rejection of this proposal or the termination of the award. In addition, under 18 U.S.C. §1001, a false statement may result in a fine of up to $10,000 or imprisonment for up to five years, or both.

Luke Super, President

Name and Title of Authorized Representative

Super Construction LLC

Name of Participant Agency or Firm

Luke Super

Signature of Authorized Representative

05/01/2026

Date

☐ I am unable to certify to the above statement. Attached is my explanation.

If this page is not signed and included with your bid, it will be disqualified.

CITY OF SAGINAW PURCHASING OFFICE
1315 S. WASHINGTON AVENUE
SAGINAW, MICHIGAN 48601

TO: PROSPECTIVE BIDDERS
SUBJECT: ADDENDUM Form B02 #2 C-1725 2027 Lead Service Line Replacements DWSRF #7900.01

Information disclosed and/or questions raised since issuance of documents to bidders requires that a change be made in the subject bid as shown on this form:
CHANGES:

No. 1) **Removed AIS requirements from EGLE Equivalency template page 38 of 173**

No. 2) **Removed "Highway" wage rate sheets from the contract. Pages 59-85 of 173**

No. 3) **Q & A sheet attached.**

No. 4) **Added Road Repair & Watermain Details sheets to contract.**

Questions to be directed to Travis J. Hare, P.E. via email engineer@saginaw-mi.com before 3:00p.m. on April 28, 2026.

NOTE: SIGN ADDENDUM AND SUBMIT SAME WITH BID.

I Luke Super **certify that I have read this ADDENDUM and that the bid, as submitted, reflects the changes described in this addendum.**

Super Construction LLC
(Company's Name)
201 Morton St., Bay City, MI 48706
(Address)

Bidder shall sign Addendum and submit it with bid.

Luke Super
(Signature)
President
(Title)

If this page is not signed and included with your bid, it will be disqualified.

CITY OF SAGINAW PURCHASING OFFICE
1315 S. WASHINGTON AVENUE
SAGINAW, MICHIGAN 48601

TO: PROSPECTIVE BIDDERS
SUBJECT: ADDENDUM Form B02 #1 C-1725 2027 Lead Service Line Replacements DWSRF #7900.01

Information disclosed and/or questions raised since issuance of documents to bidders requires that a change be made in the subject bid as shown on this form:
CHANGES:

No. 1) Bid Opening Changed to Wednesday, May 6, 2026

Questions to be directed to Travis J. Hare, P.E. via email engineer@saginaw-mi.com before 3:00p.m. on April 29, 2026.

NOTE: SIGN ADDENDUM AND SUBMIT SAME WITH BID.

I Luke Super **certify that I have read this ADDENDUM and that the bid, as submitted, reflects the changes described in this addendum.**

Bidder shall sign Addendum and submit it with bid.

Super Construction LLC
(Company's Name)

201 Morton St., Bay City, MI 48706
(Address)

Luke Super
(Signature)

President
(Title)

If this page is not signed and included with your bid, it will be disqualified.

CITY OF SAGINAW PURCHASING OFFICE
1315 S. WASHINGTON AVENUE
SAGINAW, MICHIGAN 48601

TO: PROSPECTIVE BIDDERS
SUBJECT: ADDENDUM Form B02 #1 C-1725 2027 Lead Service Line Replacements DWSRF #7900.01

Information disclosed and/or questions raised since issuance of documents to bidders requires that a change be made in the subject bid as shown on this form:
CHANGES:

No. 1) Bid Opening Changed to Wednesday, May 6, 2026

Questions to be directed to Travis J. Hare, P.E. via email engineer@saginaw-mi.com before 3:00p.m. on April 29, 2026.

NOTE: SIGN ADDENDUM AND SUBMIT SAME WITH BID.

I _____ certify that I have read this ADDENDUM and that the bid, as submitted, reflects the changes described in this addendum.

_____
(Company's Name)

_____
(Address)

Bidder shall sign Addendum and submit it with bid.

_____
(Signature)

_____
(Title)

NOTICE INVITING SEALED BIDS

Bid/Contract Number – C-1725
2027 Lead Service Line Replacement DWSRF #7900.01
FOR THE DEPARTMENT OF PUBLIC SERVICES, ENGINEERING DIVISION, CITY OF SAGINAW, MICHIGAN. Sealed bids will be received by the City of Saginaw Purchasing Office, 1315 S. Washington Avenue, Saginaw, Michigan 48601, **until 3:00 p.m., Wednesday, May 6, 2026**, and then publicly opened for the DEPARTMENT OF PUBLIC SERVICES, ENGINEERING DIVISION – (C-1725) 2027 Lead Service Line Replacement DWSRF #7900.01

Furnish labor, tools, equipment, and materials as required to perform the work as specified in the contract documents.

Direct any questions to Travis Hare, City Engineer, via email at engineer@saginaw-mi.com, before 3:00p.m. on April 29, 2026.

To access downloadable contract documents, go to the City of Saginaw's website at https://www.saginaw-mi.com/Bids.aspx. There is **no charge** for these downloadable documents. For a hard copy of the contract documents, call the City Engineer's office at 989-759-1410. The office is in the lower level of the Public Works Service Center building, 1435 S. Washington Avenue, Saginaw, Michigan 48601. There is a **$125.00 non-refundable** charge for a hard copy of the contract book and drawings with an additional charge of **$25.00** to cover the mailing. Checks must be made payable to "Treasurer, City of Saginaw" and mailed to the City Engineer, 1315 South Washington Avenue, Saginaw, Michigan 48601.

All vendors are subject to the provisions of the City's Purchasing, Contracting, and Selling Procedure Ordinance, Title I, Chapter 14, §14.30-14.45, of the Saginaw Code of Ordinances. For disability accommodation, please call 989-759-1410.

As part of the consideration for this bid, the vendor doing business with the City of Saginaw agrees to have withheld from any payments due them, any amounts for taxes, fees, or other charges due the City of Saginaw.

The City of Saginaw has an income tax. All successful bidders will be subject to income tax withholdings; compliance is mandatory.

Contract amounts totaling $100,000 or more will require a certified check, cashier's check, or surety company bid bond in an amount of five percent **(5%)** of the total bid to be submitted with the bid as security for the acceptance and execution of the contract.

The successful bidder on a contract of $50,000.00 or more will be required to furnish surety company bonds as follows:
First - A bond in the sum of one hundred percent (100%) of the contract price running to the City of Saginaw to insure the construction and completion of the entire work according to the proposal and contract.
Second - A bond in the sum of one hundred percent (100%) of the contract price running to the City of Saginaw for the protection of the subcontractors and labor and material suppliers, according to the statute of the State of Michigan at that time in effect.

The City of Saginaw reserves the right to accept or reject any and all bids, or parts thereof, and to waive any irregularities in the bid except those specifically mentioned in the Sealed Bid Instructions. Bidders are required by the City's Purchasing, Contracting, and Selling Procedure Ordinance to submit documentation concerning their current work force and past employment practices and to subscribe to a statement furnished by the City indicating compliance with the Ordinance.

Kim Jaime, Purchasing Officer

If this page is not signed and included with your bid, it will be disqualified.

CITY OF SAGINAW PURCHASING OFFICE
1315 S. WASHINGTON AVENUE
SAGINAW, MICHIGAN 48601

TO: PROSPECTIVE BIDDERS
SUBJECT: ADDENDUM Form B02 #2 C-1725 2027 Lead Service Line Replacements DWSRF #7900.01

Information disclosed and/or questions raised since issuance of documents to bidders requires that a change be made in the subject bid as shown on this form:
CHANGES:

No. 1) **Removed AIS requirements from EGLE Equivalency template page 38 of 173**

No. 2) **Removed "Highway" wage rate sheets from the contract. Pages 59-85 of 173**

No. 3) **Q & A sheet attached.**

No. 4) **Added Road Repair & Watermain Details sheets to contract.**

Questions to be directed to Travis J. Hare, P.E. via email engineer@saginaw-mi.com before 3:00p.m. on April 28, 2026.

NOTE: SIGN ADDENDUM AND SUBMIT SAME WITH BID.

I _____ certify that I have read this ADDENDUM and that the bid, as submitted, reflects the changes described in this addendum.

_____
(Company's Name)

_____
(Address)

Bidder shall sign Addendum and submit it with bid.

_____
(Signature)

_____
(Title)

Page 1 of 1

X-REMOVE-X

American Iron and Steel Contract Language

The Contractor acknowledges to and for the benefit of the City of Saginaw ("Purchaser") and the Michigan Department of Environment, Great Lakes, and Energy (the "State") that it understands the goods and services under this Agreement are being funded with monies made available by the Clean Water State Revolving Fund and/or the Drinking Water State Revolving Fund and such laws contain provisions commonly known as "American Iron and Steel (AIS);" that requires all iron and steel products used in the project be produced in the United States ("AIS Requirements") including iron and steel provided by the Contractor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Purchaser and the State that (a) the Contractor has reviewed and understands the AIS Requirements, (b) all iron and steel used in the project will be and/or have been produced in the United States in a manner that complies with the AIS Requirements, unless a waiver of the requirements is approved or the State made the determination in writing that the AIS Requirements do not apply to the project, and (c) the Contractor will provide any further verified information, certification, or assurance of compliance with this paragraph, or information necessary to support a waiver of the AIS requirements, as may be requested by the Purchaser.

Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or State to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Purchaser or State resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Purchaser). While the Contractor has no direct contractual privity with the State, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State.

"General ecision Number: MI20260001 01/09/2026

Superseded General Decision Number: MI20250001

State: Michigan

Construction Types: Highway (Highway, Airport & Bridge xxxxx
and Sewer/Incid. to Hwy.)

Counties: Michigan Statewide.

Modification Number	Publication Date
0	01/02/2026
1	01/09/2026

* CARP0004-004 06/01/2025

REMAINDER OF STATE

	Rates	Fringes
CARPENTER (Piledriver)	$ 35.57	21.54

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* CARP0004-005 06/01/2025

LIVINGSTON (Townships of Brighton, Deerfield, Genoa, Hartland, Oceola & Tyrone), MACOMB, MONROE, OAKLAND, SANILAC, ST. CLAIR AND WAYNE COUNTIES

	Rates	Fringes
CARPENTER (Piledriver)	$ 41.37	28.69

ELEC0017-005 06/01/2025

STATEWIDE

	Rates	Fringes
Line Construction		
Groundman/Driver	$ 33.32	33%+7.40
Journeyman Signal Tech, Communications Tech, Tower Tech & Fiber Optic Splicers	$ 49.26	33%+7.40
Journeyman Specialist	$ 56.65	33%+7.40
Operator A	$ 41.71	33%+7.40
Operator B	$ 38.98	33%+7.40

Classifications

Journeyman Specialist: Refers to a crew of only one person working alone.
Operator A: Shall be proficient in operating all power equipment including: Backhoe, Excavator, Directional Bore and Boom/Digger truck.
Operator B: Shall be proficient in operating any 2 of the above mentioned pieces of equipment listed under Operator A.

ENGI0324-003 06/01/2025

LCONA, ALPENA, A NAC, BAY, CH OYG N, CLAR , CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LENAWEE, LIVINGSTON, MACOMB, MIDLAND, MONROE, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLAIR, SANILAC, SHIAWASSEE, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:

	Rates	Fringes
OPERATOR: Power Equipment (Steel Erection)		
GROUP 1	$ 55.42	28.25
GROUP 2	$ 56.42	28.25
GROUP 3	$ 53.92	28.25
GROUP 4	$ 54.92	28.25
GROUP 5	$ 52.42	28.25
GROUP 6	$ 53.42	28.25
GROUP 7	$ 52.15	28.25
GROUP 8	$ 53.15	28.25
GROUP 9	$ 51.70	28.25
GROUP 10	$ 52.70	28.25
GROUP 11	$ 50.97	28.25
GROUP 12	$ 51.97	28.25
GROUP 13	$ 50.61	28.25
GROUP 14	$ 51.61	28.25
GROUP 15	$ 49.97	28.25
GROUP 16	$ 46.77	28.25
GROUP 17	$ 32.29	15.40
GROUP 18	$ 35.78	28.25

FOOTNOTE:

Paid Holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Engineer when operating combination of boom and jib 400' or longer

GROUP 2: Engineer when operating combination of boom and jib 400' or longer on a crane that requires an oiler

GROUP 3: Engineer when operating combination of boom and jib 300' or longer

GROUP 4: Engineer when operating combination of boom and jib 300' or longer on a crane that requires an oiler

GROUP 5: Engineer when operating combination of boom and jib 220' or longer

GROUP 6: Engineer when operating combination of boom and jib 220' or longer on a crane that requires an oiler

GROUP 7: Engineer when operating combination of boom and jib 140' or longer

GROUP 8: Engineer when operating combination of boom and jib 140' or longer on a crane that requires an oiler

GROUP 9: Tower crane & derrick operator (where operator's work station is 50 ft. or more above first sub-level)

GROUP 10: wer crane & der ick operato (wher perato 's work station is 50 ft. or more above first sub-level) on a crane that requires an oiler

GROUP 11: Engineer when operating combination of boom and jib 120' or longer

GROUP 12: Engineer when operating combination of boom and jib 120' or longer on a crane that requires an oiler

GROUP 13: Crane operator; job mechanic and 3 drum hoist and excavator

GROUP 14: Crane operator on a crane that requires an oiler

GROUP 15: Hoisting operator; 2 drum hoist and rubber tired backhoe

GROUP 16: Forklift and 1 drum hoist

GROUP 17: Compressor or welder operator

GROUP 18: Oiler

ENGI0324-004 06/01/2025

AREA 1: ALLEGAN, BARRY, BERRIEN, BRANCH, CALHOUN, CASS, EATON, HILLSDALE, IONIA, KALAMAZOO, KENT, LAKE, MANISTEE, MASON, MECOSTA, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH, VAN BUREN

AREA 2: ANTRIM, BENZIE, CHARLEVOIX, EMMET, GRAND TRAVERSE, KALKASKA, LEELANAU, MISSAUKEE AND WEXFORD COUNTIES:

	Rates	Fringes
OPERATOR: Power Equipment (Steel Erection)		
AREA 1		
GROUP 1	$ 55.02	28.25
GROUP 2	$ 52.15	28.25
GROUP 3	$ 50.61	28.25
GROUP 4	$ 46.77	28.25
GROUP 5	$ 32.29	15.40
GROUP 6	$ 35.78	28.25
AREA 2		
GROUP 1	$ 55.02	28.25
GROUP 2	$ 52.15	28.25
GROUP 3	$ 50.61	28.25
GROUP 4	$ 46.77	28.25
GROUP 5	$ 32.29	15.40
GROUP 6	$ 35.78	28.25

FOOTNOTES:

Crane operator with main boom and jib 300' or longer: $1.50 additional to the group 1 rate. Crane operator with main boom and jib 400' or longer: $3.00 additional to the group 1 rate.
PAID HOLIDAYS: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS:

GROUP 1: ne Ope tor with main boom & jib 400', 300', or 220' or longer.

GROUP 2: Crane Operator with main boom & jib 140' or longer, Tower Crane; Gantry Crane; Whirley Derrick.

GROUP 3: Regular Equipment Operator, Crane, Dozer, Loader, Hoist, Straddle Wagon, Mechanic, Grader and Hydro Excavator.

GROUP 4: Air Tugger (single drum), Material Hoist Pump 6"" or over, Elevators, Brokk Concrete Breaker.

GROUP 5: Air Compressor, Welder, Generators, Conveyors

GROUP 6: Oiler and fire tender

ENGI0324-005 09/01/2025

AREA 1: GENESEE, LAPEER, LIVINGSTON, MACOMB, MONROE, OAKLAND, ST. CLAIR, WASHTENAW AND WAYNE COUNTIES

AREA 2: ALCONA, ALLEGAN, ALGER, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KWEENAW, LAKE, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SCHOOLCRAFT, SHIAWASSEE, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

	Rates	Fringes
OPERATOR: Power Equipment (Underground construction (including sewer))		
AREA 1:		
GROUP 1	$ 45.98	25.25
GROUP 2	$ 41.25	25.25
GROUP 3	$ 40.52	25.25
GROUP 4	$ 39.95	25.25
GROUP 5	$ 30.35	12.10
AREA 2:		
GROUP 1	$ 45.98	25.25
GROUP 2	$ 41.25	25.25
GROUP 3	$ 40.52	25.25
GROUP 4	$ 39.95	25.25
GROUP 5	$ 30.35	12.10

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Backfiller tamper; Backhoe; Batch plant operator (concrete); Clamshell; Concrete paver (2 drums or larger); Conveyor loader (Euclid type); Crane (crawler, truck type or pile driving); Dozer; Dragline; Elevating grader; Endloader; Gradall (and similar type machine); Grader; Mechanic; Power shovel; Roller (asphalt); Scraper (self-propelled or tractor drawn); Side boom tractor (type D-4 or equivalent and larger); Slip form paver; Slope

paver; Trenc er (over 8 ft. digging capacity); Well drilling rig; Concrete pump with boom operator; Hydro Excavator

GROUP 2: Boom truck (power swing type boom); Crusher; Hoist; Pump (1 or more - 6-in. discharge or larger - gas or diesel- powered or powered by generator of 300 amperes or more - inclusive of generator); Side boom tractor (smaller than type D-4 or equivalent); Tractor (pneu-tired, other than backhoe or front end loader); Trencher (8-ft. digging capacity and smaller);Vac Truck and End dump operator;

GROUP 3: Air compressors (600 cfm or larger); Air compressors (2 or more-less than 600 cfm); Boom truck (non-swinging, non- powered type boom); Concrete breaker (self-propelled or truck mounted - includes compressor); Concrete paver (1 drum-l/2 yd. or larger); Elevator (other than passenger); Maintenance person; Pump (2 or more-4-in. up to 6-in. discharge-gas or diesel powered - excluding submersible pumps); Pumpcrete machine (and similar equipment); Wagon drill (multiple); Welding machine or generator (2 or more-300 amp. or larger - gas or diesel powered)

GROUP 4: Boiler; Concrete saw (40 hp or over); Curing machine (self-propelled); Farm tractor (with attachment); Finishing machine (concrete); Hydraulic pipe pushing machine; Mulching equipment; Pumps (2 or more up to 4-in. discharge, if used 3 hours or more a day, gas or diesel powered - excluding submersible pumps); Roller (other than asphalt); Stump remover; Trencher (service); Vibrating compaction equipment, self-propelled (6 ft. wide or over); Sweeper (Wayne type); Water wagon and Extend-a boom forklift

Group 5: Fire Person, Oiler

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* ENGI0324-006 06/01/2025

GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW, WAYNE, ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

	Rates	Fringes
Power equipment operators: (AIRPORT, BRIDGE & HIGHWAY CONSTRUCTION)		
GROUP 1	$ 46.21	25.25
GROUP 2	$ 45.06	25.25
GROUP 3	$ 38.33	25.25
GROUP 4	$ 37.77	25.25

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Pav r Operator (5 bags or more); Slip Form Pav r; Asphalt Paver (self propelled); Shovel (Excavator) installing utilities over 20 feet in depth.

Group 2: Asphalt plant operator; crane operator (does not include work on bridge construction projects when the crane operator is erecting structural components); Dragline operator; Shovel (Excavator) operator; Locomotive operator; Elevating grader operator; Pile driving operator; Roller operator (asphalt); Blade grader operator; Trenching machine operator (ladder or wheel type); Auto-grader; Self-propelled or tractor-drawn scraper; Conveyor loader operator (Euclid type); Bulldozer; Hoisting engineer; Tractor operator; Finishing machine operator (asphalt); Mechanic; Pump operator (6-in. discharge or over, gas, diesel powered or generator of 300 amp. or larger); Shouldering or gravel distributing machine operator (self-propelled); Backhoe (with over 3/8 yd. bucket); Side boom tractor (type D-4 or equivalent or larger); Tube finisher (slip form paving); Gradall (and similar type machine); Asphalt planner (self- propelled); Batch plant (concrete-central mix); Slurry machine (asphalt); Concrete pump (3 in. and over); Roto-mill; Swinging boom truck (over 12 ton capacity); Hydro demolisher (water blaster); Farm-type tractor with attached pan; Vacuum truck operator; Batch Plant (concrete dry batch); Concrete Saw Operator (40h.p. or over; Tractor Operator (farm type); Finishing Machine Operator (concrete); Grader Operator (self-propelled fine grade or form (concrete); tractor operator (farm type with attachment); Wagon Drill operator; Boom or winch hoist truck operator.

GROUP 3: Screening plant operator; Washing plant operator; Crusher operator; Backhoe (with 3/8 yd. bucket or less); Side boom tractor (smaller than D-4 type or equivalent); Sweeper (Wayne type and similar equipment); Greese Truck; Air Compressor Operator (600 cu.ft. per min or more); Air Compressor Operator (two or more, less than 600 cfm); End Loader operator (1 yard Capacity and over); Side boom tractor (type D or equivalent or larger; Endloader operator *under 1 yard capacity; Trencher (service).

GROUP 4: Boiler fire tender; Concrete Breaker; Oiler; Fire tender; Trencher (service); Flexplane operator; Cleftplane operator; Roller operator (other than asphalt); Curing equipment operator (self-propelled); Power bin operator; Plant drier operator (asphalt); Vibratory compaction equipment operator (6 ft. wide or over); Guard post driver operator (power driven); All mulching equipment; Stump remover; Concrete pump (under 3-in.); Mesh installer (self-propelled); End dump;Skid steer.

ENGI0324-007 05/01/2025

ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:

	Rates	Fringes
OPERATOR: Power Equipment (Steel Erection)		
Compressor, welder and		

forklift.	3.30	5.0
Crane operator, main boom & jib 120' or longer.....	49.77	25.0
Crane operator, main boom & jib 140' or longer.....	50.07	24.60
Crane operator, main boom & jib 220' or longer.....	50.66	25.00
Mechanic with truck and tools.....	48.90	25.00
Oiler and fireman.....	41.76	25.00
Regular operator.....	47.12	25.00

ENGI0324-008 10/01/2023

ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MACOMB, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MONROE, MUSKEGON, NEWAYGO, OAKLAND, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN, WASHTENAW, WAYNE AND WEXFORD COUNTIES

	Rates	Fringes
OPERATOR: Power Equipment (Sewer Relining)		
GROUP 1.....	$ 37.37	15.44
GROUP 2.....	$ 35.33	15.44

SEWER RELINING CLASSIFICATIONS

GROUP 1: Operation of audio-visual closed circuit TV system, including remote in-ground cutter and other equipment used in connection with the CCTV system

GROUP 2: Operation of hot water heaters and circulation systems, water jetters and vacuum and mechanical debris removal systems

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ENGI0325-012 05/01/2025

	Rates	Fringes
Power equipment operators - gas distribution and duct installation work:		
GROUP 1.....	$ 39.78	25.25
GROUP 2.....	$ 36.05	25.25

SCOPE OF WORK: The construction, installation, treating and reconditioning of pipelines transporting gas vapors within cities, towns, subdivisions, suburban areas, or within private property boundaries, up to and including private meter settings of private industrial, governmental or other premises, more commonly referred to as ""distribution work,"" starting from the first metering station, connection, similar or related facility, of the main or cross country

pipeline and including duct installation.

Group 1: Backhoe, crane, grader, mechanic, dozer (D-6 equivalent or larger), side boom (D-4 equivalent or larger), trencher(except service), endloader (2 yd. capacity or greater).

GROUP 2: Dozer (less than D-6 equivalent), endloader (under 2 yd. capacity), side boom (under D-4 capacity), backfiller, pumps (1 or 2 of 6-inch discharge or greater), boom truck (with powered boom), tractor (wheel type other than backhoe or front endloader). Tamper (self-propelled), boom truck (with non-powered boom), concrete saw (20 hp or larger), pumps (2 to 4 under 6-inch discharge), compressor (2 or more or when one is used continuously into the second day) and trencher(service). Oiler, hydraulic pipe pushing machine, grease person and hydrostatic testing operator.

IRON0008-007 06/01/2024

ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:

	Rates	Fringes
Ironworker - pre-engineered metal building erector	$ 23.70	6.95
IRONWORKER		
General contracts $10,000,000 or greater	$ 39.91	32.32
General contracts less than $10,000,000	$ 39.91	32.32

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0025-002 06/01/2025

ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LIVINGSTON, MACOMB, MIDLAND, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SHIAWASSEE, ST. CLAIR, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:

	Rates	Fringes
Ironworker - pre-engineered metal building erector		
ALLEGAN, ANTRIM, BARRY, BENZIE, BRANCH, CALHOUN, CHARLEVOIX, EATON, EMMET, GRAND TRAVERSE, HILLSDALE, IONIA, KALAMAZOO, KALKASKA, KENT, LAKE, LEELANAU, MANISTEE, MASON, MECOSTA, MISSAUKEE, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH, VAN		

BUREN AND WEXFORD COUNTIES:.$ 28.80 27.43
Bay, Genesee, Lapeer,
Livingston (east of
Burkhardt Road), Macomb,
Midland, Oakland, Saginaw,
St. Clair, The University
of Michigan, Washtenaw
(east of U.S. 23) & Wayne...$ 30.02 28.13
IRONWORKER
Ornamental and Structural...$ 36.55 35.93
Reinforcing.....$ 36.55 32.87

IRON0055-005 07/01/2022

LENAWEE AND MONROE COUNTIES:

	Rates	Fringes
IRONWORKER		
Pre-engineered metal buildings	$ 23.59	19.35
All other work	$ 33.00	27.20

IRON0292-003 06/01/2020

BERRIEN AND CASS COUNTIES:

	Rates	Fringes
IRONWORKER (Including pre-engineered metal building erector)	$ 31.75	22.84

LABO0005-006 10/01/2022

	Rates	Fringes
Laborers - hazardous waste abatement: (ALCONA, ALPENA, ANTRIM, BENZIE, CHARLEVOIX, CHEBOYGAN, CRAWFORD, EMMET, GRAND TRAVERSE, IOSCO, KALKASKA, LEELANAU, MISSAUKEE, MONTMORENCY, OSCODA, OTSEGO, PRESQUE ISLE AND WEXFORD COUNTIES - Zone 10)		
Levels A, B or C	$ 17.45	12.75
class b	$ 18.64	12.90
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D	$ 16.45	12.75
class a	$ 17.64	12.90
Zone 10		
Laborers - hazardous waste abatement: (ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES - Zone 11)		

Levels A, C.. 25.18 12.90
Work perfo med in conjunction with site preparation not requiring the use of personal protective equipment;
Also, Level D..... $ 22.58 12.90

Laborers - hazardous waste abatement: (ALLEGAN, BARRY, BERRIEN, BRANCH, CALHOUN, CASS, IONIA COUNTY (except the city of Portland); KALAMAZOO, KENT, LAKE, MANISTEE, MASON, MECOSTA, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH AND VAN BUREN COUNTIES - Zone 9)

Levels A, B or C..... $ 21.88 13.26
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;
Also, Level D..... $ 20.80 12.90

Laborers - hazardous waste abatement: (ARENAC, BAY, CLARE, GLADWIN, GRATIOT, HURON, ISABELLA, MIDLAND, OGEMAW, ROSCOMMON, SAGINAW AND TUSCOLA COUNTIES - Zone 8)

Levels A, B or C..... $ 23.74 12.95
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;
Also, Level D..... $ 20.80 12.90

Laborers - hazardous waste abatement: (CLINTON, EATON AND INGHAM COUNTIES; IONIA COUNTY (City of Portland); LIVINGSTON COUNTY (west of Oak Grove Rd., including the City of Howell) - Zone 6)

Levels A, B or C..... $ 26.33 12.95
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;
Also, Level D..... $ 24.64 12.90

Laborers - hazardous waste abatement: (GENESEE, LAPEER AND SHIAWASSEE COUNTIES - Zone 7)

Levels A, B or C..... $ 24.20 13.80
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;
Also, Level D..... $ 23.20 13.80

Laborers - hazardous waste abatement: (HILLSDALE,

ACKSON AND LENAWEE COUNTIES - Zone 4)
Levels A, B or C.....$ 27.13 14.95
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;
Also, Level D.....$ 24.17 12.90

Laborers - hazardous waste abatement: (LIVINGSTON COUNTY (east of Oak Grove Rd. and south of M-59, excluding the city of Howell); AND WASHTENAW COUNTY - Zone 3)
Levels A, B or C.....$ 29.93 14.20
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;
Also, Level D.....$ 28.93 14.20

Laborers - hazardous waste abatement: (MACOMB AND WAYNE COUNTIES - Zone 1)
Levels A, B or C.....$ 29.93 16.90
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;
Also, Level D.....$ 28.93 16.90

Laborers - hazardous waste abatement: (MONROE COUNTY - Zone 4)
Levels A, B or C.....$ 31.75 14.90
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;
Also, Level D.....$ 31.75 14.90

Laborers - hazardous waste abatement: (OAKLAND COUNTY and the Northeast portion of LIVINGSTON COUNTY bordered by Oak Grove Road on the West and M-59 on the South - Zone 2)
Level A, B, C.....$ 29.93 16.90
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;
Also, Level D.....$ 28.93 16.90

Laborers - hazardous waste abatement: (SANILAC AND ST. CLAIR COUNTIES - Zone 5)
Levels A, B or C.....$ 26.21 16.62
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;

Also, Level	$ 2 75	16.35

LABO0259-001 09/01/2025

AREA 1: MACOMB, OAKLAND AND WAYNE COUNTIES
AREA 2: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONROE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN, WASHTENAW AND WEXFORD COUNTIES

	Rates	Fringes
Laborers - tunnel, shaft and caisson:		
AREA 1		
GROUP 1	$ 30.13	22.75
GROUP 2	$ 32.13	22.75
GROUP 3	$ 28.13	22.75
GROUP 4	$ 23.97	16.93
GROUP 5	$ 24.22	16.93
GROUP 6	$ 24.55	16.93
GROUP 7	$ 17.83	16.93
AREA 2		
GROUP 1	$ 32.13	17.95
GROUP 2	$ 34.40	17.95
GROUP 3	$ 28.00	17.45
GROUP 4	$ 29.57	16.93
GROUP 5	$ 25.76	16.93
GROUP 6	$ 26.07	16.93
GROUP 7	$ 25.57	16.93

SCOPE OF WORK: Tunnel, shaft and caisson work of every type and description and all operations incidental thereto, including, but not limited to, shafts and tunnels for sewers, water, subways, transportation, diversion, sewerage, caverns, shelters, aquafers, reservoirs, missile silos and steel sheeting for underground construction.

TUNNEL LABORER CLASSIFICATIONS

GROUP 1: Tunnel, shaft and caisson laborer, dump, shanty, hog house tender, testing (on gas) and watchman

GROUP 2: Manhole, headwall, catch basin builder, bricklayer tender, mortar machine and material mixer

GROUP 3: Air tool operator (jackhammer, bush hammer and grinder), first bottom, second bottom, cage tender, car pusher, carrier, concrete, concrete form, concrete repair, cement invert laborer, cement finisher, concrete shoveler, conveyor, floor, gasoline and electric tool operator, gunite, grout operator, welder, heading dinky person, inside lock tender, pea gravel operator, pump, outside lock tender, scaffold, top signal person, switch person, track, tugger, utility person, vibrator, winch operator, pipe

jacking, agon drill and air track operato and concrete saw operator (under 40 h.p.)

GROUP 4: Tunnel, shaft and caisson mucker, bracer, liner plate, long haul dinky driver and well point

GROUP 5: Tunnel, shaft and caisson miner, drill runner, key board operator, power knife operator, reinforced steel or mesh (e.g. wire mesh, steel mats, dowel bars, etc.)

GROUP 6: Dynamite and powder

GROUP 7: Restoration laborer, seeding, sodding, planting, cutting, mulching and top soil grading; and the restoration of property such as replacing mailboxes, wood chips, planter boxes, flagstones, etc.

LABO0334-001 09/01/2025

	Rates	Fringes
Laborers - open cut:		
ZONE 1 - MACOMB, OAKLAND AND WAYNE COUNTIES:		
GROUP 1	$ 29.98	22.75
GROUP 2	$ 31.98	22.75
GROUP 3	$ 28.14	22.75
GROUP 4	$ 23.71	16.72
GROUP 5	$ 24.17	16.72
GROUP 6	$ 22.00	16.72
GROUP 7	$ 17.84	16.72
ZONE 2 - LIVINGSTON COUNTY (east of M-151 (Oak Grove Rd.)); MONROE AND WASHTENAW COUNTIES:		
GROUP 1	$ 32.10	17.45
GROUP 2	$ 34.10	17.45
GROUP 3	$ 30.10	17.45
GROUP 4	$ 25.10	16.72
GROUP 5	$ 25.25	16.72
GROUP 6	$ 22.55	16.72
GROUP 7	$ 22.11	16.72
ZONE 3 - CLINTON, EATON, GENESEE, HILLSDALE AND INGHAM COUNTIES; IONIA COUNTY (City of Portland); JACKSON, LAPEER AND LENAWEE COUNTIES; LIVINGSTON COUNTY (west of M-151 Oak Grove Rd.); SANILAC, ST. CLAIR AND SHIAWASSEE COUNTIES:		
GROUP 1	$ 30.29	17.45
GROUP 2	$ 32.29	17.45
GROUP 3	$ 28.29	17.45
GROUP 4	$ 23.30	16.72
GROUP 5	$ 23.44	16.72
GROUP 6	$ 20.74	16.72
GROUP 7	$ 22.23	16.72
ZONE 4 - ALCONA, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX,		

CHEBOYGAN CLA E,
CRAWFORD, EMMET,
GLADWIN, GRAND TRAVERSE,
GRATIOT AND HURON
COUNTIES; IONIA COUNTY
(EXCEPT THE CITY OF
PORTLAND); IOSCO,
ISABELLA, KALAMAZOO,
KALKASKA, KENT,
LAKE,LEELANAU, MANISTEE,
MASON, MECOSTA, MIDLAND,
MISSAUKEE, MONTCALM,
MONTMORENCY, MUSKEGON,
NEWAYGO, OCEANA, OGEMAW,
OSCEOLA, OSCODA, OTSEGO,
OTTAWA, PRESQUE ISLE,
ROSCOMMON, SAGINAW, ST.
JOSEPH, TUSCOLA, VAN BUREN
AND WEXFORD COUNTIES:

GROUP 1	$ 28.72	18.45
GROUP 2	$ 30.72	18.45
GROUP 3	$ 26.72	18.45
GROUP 4	$ 22.33	16.72
GROUP 5	$ 22.45	16.72
GROUP 6	$ 19.67	16.72
GROUP 7	$ 22.30	16.72

ZONE 5 - ALGER, BARAGA,
CHIPPEWA, DELTA,
DICKINSON, GOGEBIC,
HOUGHTON, IRON,
KEWEENAW, LUCE, MACKINAC,
MARQUETTE, MENOMINEE,
ONTONAGON AND SCHOOLCRAFT
COUNTIES:

GROUP 1	$ 29.98	22.75
GROUP 2	$ 30.09	19.45
GROUP 3	$ 26.09	19.45
GROUP 4	$ 22.56	16.72
GROUP 5	$ 22.64	16.72
GROUP 6	$ 19.99	16.72
GROUP 7	$ 22.45	16.72

SCOPE OF WORK:

Open cut construction work shall be construed to mean work which requires the excavation of earth including industrial, commercial and residential building site excavation and preparation, land balancing, demolition and removal of concrete and underground appurtenances, grading, paving, sewers, utilities and improvements; retention, oxidation, flocculation and irrigation facilities, and also including but not limited to underground piping, conduits, steel sheeting for underground construction, and all work incidental thereto, and general excavation. For all areas except the Upper Peninsula, open cut construction work shall also be construed to mean waterfront work, piers, docks, seawalls, breakwalls, marinas and all incidental work. Open cut construction work shall not include any structural modifications, alterations, additions and repairs to buildings, or highway work, including roads, streets, bridge construction and parking lots or steel erection work and excavation for the building itself and back filling inside of and within 5 ft. of the building and foundations, footings and piers for the building. Open cut construction work shall not include any work covered under

Tunnel, Sha t and isson work.

OPEN CUT LABORER CLASSIFICATIONS

GROUP 1: Construction laborer

GROUP 2: Mortar and material mixer, concrete orm person, signal person, well point person, manhole, headwall and catch basin builder, headwall, seawall, breakwall and dock builder

GROUP 3: Air, gasoline and electric tool operator, vibrator operator, driller, pump person, tar kettle operator, bracer, rodder, reinforced steel or mesh person (e.g., wire mesh, steel mats, dowel bars, etc.), welder, pipe jacking and boring person, wagon drill and air track operator and concrete saw operator (under 40 h.p.), windlass and tugger person and directional boring person

GROUP 4: Trench or excavating grade person

GROUP 5: Pipe layer (including crock, metal pipe, multi-plate or other conduits)

GROUP 6: Grouting man, audio-visual television operations and all other operations in connection with closed circuit television inspection, pipe cleaning and pipe relining work and the installation and repair of water service pipe and appurtenances

GROUP 7: Restoration laborer, seeding, sodding, planting, cutting, mulching and top soil grading; and the restoration of property such as replacing mailboxes, wood chips, planter boxes, flagstones, etc.

LABO0465-001 06/01/2025

LABORER: Highway, Bridge and Airport Construction

AREA 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES

AREA 2: ALLEGAN, BARRY, BAY, BERRIEN, BRANCH, CALHOUN, CASS, CLINTON, EATON, GRATIOT, HILLSDALE, HURON, INGHAM, JACKSON, KALAMAZOO, LAPEER, LENAWEE, LIVINGSTON, MIDLAND, MUSKEGON, SAGINAW, SANILAC, SHIAWASSEE, ST. CLAIR, ST. JOSEPH, TUSCOLA AND VAN BUREN COUNTIES

AREA 3: ALCONA, ALPENA, ANTRIM, ARENAC, BENZIE, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, IONIA, IOSCO, ISABELLA, KALKASKA, KENT, LAKE, LEELANAU, MANISTEE, MASON, MECOSTA, MISSAUKEE, MONTCALM, MONTMORENCY, NEWAYGO, OCEANA, OGEMAW, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON AND WEXFORD COUNTIES

AREA 4: ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES

	Rates	Fringes
LABORER (AREA 1)		
GROUP 1	$ 35.51	14.45

GROUP 2	$ .96	.45
GROUP 3	$ 35.82	14.45
GROUP 4	$ 35.90	14.45
GROUP 5	$ 36.11	14.45
GROUP 6	$ 36.41	14.45
LABORER (AREA 2)		
GROUP 1	$ 33.37	14.45
GROUP 2	$ 30.03	14.45
GROUP 3	$ 33.81	14.45
GROUP 4	$ 34.16	14.45
GROUP 5	$ 34.03	14.45
GROUP 6	$ 34.37	14.45
LABORER (AREA 3)		
GROUP 1	$ 32.62	14.45
GROUP 2	$ 33.83	14.45
GROUP 3	$ 33.12	14.45
GROUP 4	$ 33.56	14.45
GROUP 5	$ 33.18	14.45
GROUP 6	$ 33.61	14.45
LABORER (AREA 4)		
GROUP 1	$ 33.52	13.45
GROUP 2	$ 33.73	13.45
GROUP 3	$ 34.02	13.45
GROUP 4	$ 34.46	13.45
GROUP 5	$ 34.08	13.45
GROUP 6	$ 34.51	13.45

LABORER CLASSIFICATIONS

GROUP 1: Asphalt shoveler or loader; asphalt lant misc.; burlap person; yard person; dumper (wagon, truck, etc.); joint filling laborer; miscellaneous laborer; unskilled laborer; sprinkler laborer; form setting laborer; form stripper; pavement reinforcing; handling and placing (e.g., wire mesh, steel mats, dowel bars); mason's tender or bricklayer's tender on manholes; manhole builder; headwalls, etc.; waterproofing,(other than buildings) seal coating and slurry mix, shoring, underpinning; pressure grouting; bridge pin and hanger removal; material recycling laborer; horizontal paver laborer (brick, concrete, clay, stone and asphalt); ground stabilization and modification laborer; grouting; waterblasting; top person; railroad track and trestle laborer; carpenters' tender; guard rail builders' tender; earth retention barrier and wall and M.S.E. wall installer's tender; highway and median installer's tender(including sound, retaining, and crash barriers); fence erector's tender; asphalt raker tender; sign installer; remote control operated equipment.

GROUP 2: Mixer operator (less than 5 sacks); air or electric tool operator (jackhammer, etc.); spreader; boxperson (asphalt, stone, gravel); concrete paddler; power chain saw operator; paving batch truck dumper; tunnel mucker (highway work only); concrete saw (under 40 h.p.) and dry pack machine; roto-mill grounds person.

GROUP 3: Tunnel miner (highway work only); finishers tenders; guard rail builders; highway and median barrier installer; earth retention barrier and wall and M.S.E. wall installer's (including sound, retaining and crash barriers); fence erector; bottom person; powder person; wagon drill and air track operator; diamond and core drills; grade checker; certified welders; curb and side rail setter's tender.

ROUP 4: A halt raker

GROUP 5: Pipe layers, oxy-gun

GROUP 6: Line-form setter for curb or pavement; a halt screed checker/screw man on asphalt paving machines.

LABO1076-005 04/01/2025

MICHIGAN STATEWIDE

	Rates	Fringes
LABORER (DISTRIBUTION WORK)		
Zone 1	$ 28.41	13.45
Zone 2	$ 24.55	13.45
Zone 3	$ 23.55	13.45
Zone 4	$ 22.92	13.45
Zone 5	$ 22.95	13.45

DISTRIBUTION WORK - The construction, installation, treating and reconditioning of distribution pipelines transporting coal, oil, gas or other similar materials, vapors or liquids, including pipelines within private property boundaries, up to and including the meter settings on residential, commercial, industrial, institutional, private and public structures. All work covering pumping stations and tank farms not covered by the Building Trades Agreement. Other distribution lines with the exception of sewer, water and cable television are included.

Underground Duct Layer Pay: $.40 per hour above the base pay rate.

Zone 1 - Macomb, Oakland and Wayne
Zone 2 - Monroe and Washtenaw
Zone 3 - Bay, Genesee, Lapeer, Midland, Saginaw, Sanilac, Shiawassee and St. Clair
Zone 4 - Alger, Baraga, Chippewa, Delta, Dickinson, Gogebic, Houghton, Iron, Keweenaw, Luce, Mackinac, Marquette, Menominee, Ontonagon and Schoolcraft
Zone 5 - Remaining Counties in Michigan

PAIN0022-002 07/01/2008

HILLSDALE, JACKSON AND LENAWEE COUNTIES; LIVINGSTON COUNTY (east of the eastern city limits of Howell, not including the city of Howell, north to the Genesee County line and south to the Washtenaw County line); MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES:

	Rates	Fringes
PAINTER	$ 25.06	14.75

FOOTNOTES: For all spray work and journeyman rigging for spray work, also blowing off, $0.80 per hour additional (applies only to workers doing rigging for spray work on off the floor work. Does not include setting up or moving rigging on floor surfaces, nor does it apply to workers engaged in covering up or tending spray equipment. For all sandblasting and spray work performed on highway bridges,

overpasses, anks or steel 0.80 per hour additional. For all brushing, cleaning and other preparatory work (other than spraying or steeplejack work) at scaffold heights of fifty (50) feet from the ground or higher, $0.50 per hour additional. For all preparatorial work and painting performed on open steel under forty (40) feet when no scaffolding is involved, $0.50 per hour additional. For all swing stage work-window jacks and window belts-exterior and interior, $0.50 per hour additional. For all spray work and sandblaster work to a scaffold height of forty (40) feet above the floor level, $0.80 per hour additional. For all preparatorial work and painting on all highway bridges or overpasses up to forty (40) feet in height, $0.50 per hour additional. For all steeplejack work performed where the elevation is forty (40) feet or more, $1.25 per hour additional.

PAIN0312-001 06/01/2018

EXCLUDES: ALLEGAN COUNTY (Townships of Dorr, Fillmore, Heath, Hopkins, Laketown, Leighton, Manlius, Monterey, Overisel, Salem, Saugatuck and Wayland); INCLUDES: Barry, Berrien, Branch, Calhoun, Cass, Hillsdale, Kalamazoo, St. Joseph, Van Buren

	Rates	Fringes
PAINTER		
Brush and roller	$ 23.74	13.35
Spray, Sandblast, Sign Painting	$ 24.94	13.35

PAIN0845-003 05/10/2018

CLINTON COUNTY; EATON COUNTY (does not include the townships of Bellevue and Olivet); INGHAM COUNTY; IONIA COUNTY (east of Hwy. M 66); LIVINGSTON COUNTY (west of the eastern city limits of Howell, including the city of Howell, north to the Genesee County line and south to the Washtenaw County line); AND SHIAWASSEE COUNTY (Townships of Bennington, Laingsbury and Perry):

	Rates	Fringes
PAINTER	$ 25.49	13.74

PAIN0845-015 05/10/2018

MUSKEGON COUNTY; NEWAYGO COUNTY (except the Townships of Barton, Big Prairie, Brooks, Croton, Ensley, Everett, Goodwell, Grant, Home, Monroe, Norwich and Wilcox); OCEANA COUNTY; OTTAWA COUNTY (except the townships of Allendale, Blendone, Chester, Georgetown, Holland, Jamestown, Olive, Park, Polkton, Port Sheldon, Tallmadge, Wright and Zeeland):

	Rates	Fringes
PAINTER	$ 25.49	13.74

PAIN0845-018 05/10/2018

LLEGAN COUNTY (T nships of Dorr, Fillmore, Heath, Hopkins, Laketown, Leighton, Manlius, Monterey, Overisel, Salem, Saugatuck and Wayland); IONIA COUNTY (west of Hwy. M-66); KENT, MECOSTA AND MONTCALM COUNTIES; NEWAYGO COUNTY (Townships of Barton, Big Prairie, Brooks, Croton, Ensley, Everett, Goodwell, Grant, Home, Monroe, Norwich and Wilcox); OSCEOLA COUNTY (south of Hwy. #10); OTTAWA COUNTY (Townships of Allendale, Blendone, Chester, Georgetown, Holland, Jamestown, Olive, Park, Polkton, Port Sheldon, Tallmadge, Wright and Zeeland):

	Rates	Fringes
PAINTER	$ 25.49	13.74

FOOTNOTES: Lead abatement work: $1.00 per hour additional.

PAIN1011-003 06/02/2022

ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:

	Rates	Fringes
PAINTER	$ 24.66	14.99

FOOTNOTES: High pay (bridges, overpasses, watertower): 30 to 80 ft.: $.65 per hour additional. 80 ft. and over: $1.30 per hour additional.

PAIN1474-002 06/01/2010

HURON COUNTY; LAPEER COUNTY (east of Hwy. M-53); ST. CLAIR, SANILAC AND TUSCOLA COUNTIES:

	Rates	Fringes
PAINTER	$ 23.79	12.02

FOOTNOTES: Lead abatement work: $1.00 per hour additional. Work with any hazardous material: $1.00 per hour additional. Sandblasting, steam cleaning and acid cleaning: $1.00 per hour additional. Ladder work at or above 40 ft., scaffold work at or above 40 ft., swing stage, boatswain chair, window jacks and all work performed over a falling height of 40 ft.: $1.00 per hour additional. Spray gun work, pick pullers and those handling needles, blowing off by air pressure, and any person rigging (setting up and moving off the ground): $1.00 per hour additional. Steeplejack, tanks, gas holders, stacks, flag poles, radio towers and beacons, power line towers, bridges, etc.: $1.00 per hour additional, paid from the ground up.

PAIN1803-003 06/01/2025

ALCONA, ALPENA, ANTRIM, ARENAC, BAY, BENZIE, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, GRATIOT, IOSCO, ISABELLA, KALKASKA, LAKE, LEELANAU, MANISTEE, MASON, MIDLAND, MISSAUKEE, MONTMORENCY AND OGEMAW COUNTIES; OSCEOLA COUNTY (north of Hwy. #10); OSCODA, OTSEGO, PRESQUE

SLE, ROSCOMMON, SAG AW AND WEXFORD COUNTIES:

	Rates	Fringes
PAINTER		
Work performed on water, bridges over water or moving traffic, radio and powerline towers, elevated tanks, steeples, smoke stacks over 40 ft. of falling heights, recovery of lead-based paints and any work associated with industrial plants, except maintenance of industrial plants	$ 29.23	19.11
All other work, including maintenance of industrial plant	$ 29.35	19.05

FOOTNOTES: Spray painting, sandblasting, blowdown associated with spraying and blasting, water blasting and work involving a swing stage, boatswain chair or spider: $1.00 per hour additional. All work performed inside tanks, vessels, tank trailers, railroad cars, sewers, smoke stacks, boilers or other spaces having limited egress not including buildings, opentop tanks, pits, etc.: $1.25 per hour additional.

PLAS0514-001 06/01/2023

ZONE 1: GENESEE, LIVINGSTON, MACOMB, MONROE, OAKLAND, SAGINAW, WASHTENAW AND WAYNE COUNTIES

ZONE 2: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SANILAC, SCHOOLCRAFT, SHIAWASSEE, ST. CLAIR, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
ZONE 1	$ 33.00	18.51
ZONE 2	$ 31.50	18.51

PLUM0190-003 05/01/2015

ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT,

EWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MACOMB, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MONROE, MUSKEGON, NEWAYGO, OAKLAND, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN, WASHTENAW, WAYNE AND WEXFORD COUNTIES

	Rates	Fringes
Plumber/Pipefitter - gas distribution pipeline:		
Welding in conjunction with gas distribution pipeline work	$ 33.03	20.19
All other work:	$ 24.19	12.28

TEAM0007-004 06/01/2025

AREA 1: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SCHOOLCRAFT, SHIAWASSEE, ST. CLAIR, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

AREA 2: GENESEE, LIVINGSTON, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES

	Rates	Fringes
TRUCK DRIVER		
AREA 1		
Euclids, double bottoms and lowboys	$ 33.55	.75 + a+b
Trucks under 8 cu. yds.	$ 33.40	.75 + a+b
Trucks, 8 cu. yds. and over	$ 33.40	.75 + a+b
AREA 2		
Euclids, double bottoms and lowboys	$ 33.65	.75 + a+b
Trucks under 8 cu. yds.	$ 33.50	.75 + a+b
Trucks, 8 cu. yds. and over	$ 33.50	.75 + a+b

Footnote:
a. $470.70 per week
b. $68.70 daily

TEAM0247-004 04/01/2013

AREA 1: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW,

AKE, LAPEER, LEELANAU, LENAWEE, L CE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SANILAC, SCHOOLCRAFT, SHIAWASSEE, SAGINAW, ST. CLAIR, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

AREA 2: GENESEE, LIVINGSTON, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES

	Rates	Fringes
Sign Installer		
AREA 1		
GROUP 1	$ 21.78	11.83
GROUP 2	$ 25.27	11.8375
AREA 2		
GROUP 1	$ 22.03	11.83
GROUP 2	$ 25.02	11.8375

FOOTNOTE:

a. $132.70 per week, plus $17.80 per day.

SIGN INSTALLER CLASSIFICATIONS:

GROUP 1: performs all necessary labor and uses all tools required to construct and set concrete forms required in the installation of highway and street signs

GROUP 2: performs all miscellaneous labor, uses all hand and power tools, and operates all other equipment, mobile or otherwise, required for the installation of highway and street signs

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TEAM0247-010 04/01/2018

AREA 1: LAPEER AND SHIAWASSEE COUNTIES

AREA 2: GENESEE, MACOMB, MONROE, OAKLAND, ST. CLAIR, WASHTENAW AND WAYNE COUNTIES

	Rates	Fringes
TRUCK DRIVER (Underground construction)		
AREA 1		
GROUP 1	$ 23.82	19.04
GROUP 2	$ 23.91	19.04
GROUP 3	$ 24.12	19.04
AREA 2		
GROUP 1	$ 24.12	19.04
GROUP 2	$ 24.26	19.04
GROUP 3	$ 24.45	19.04

PAID HOLIDAYS: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

SCOPE OF WORK: Excavation, site preparation, land balancing, grading, sewers, utilities and improvements; also including but not limited to, tunnels, underground piping, retention,

oxidation, occulation facilities, conduits, general excavation and steel sheeting for underground construction. Underground construction work shall not include any structural modifications, alterations, additions and repairs to buildings or highway work, including roads, streets, bridge construction and parking lots or steel erection.

TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Truck driver on all trucks (EXCEPT dump trucks of 8 cubic yards capacity or over, pole trailers, semis, low boys, Euclid, double bottom and fuel trucks)

GROUP 2: Truck driver on dump trucks of 8 cubic yards capacity or over, pole trailers, semis and fuel trucks

GROUP 3: Truck driver on low boy, Euclid and double bottom

SUMI2002-001 05/01/2002

	Rates	Fringes
FLAG PERSON	$ 10.10	0.00
LINE PROTECTOR (ZONE 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE)	$ 26.63	14.45
LINE PROTECTOR (ZONE 2: STATEWIDE (EXCLUDING GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE)	$ 25.03	14.45
Pavement Marking Machine (ZONE 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES) Group 1	$ 35.51	14.45
Pavement Marking Machine (ZONE 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE) Group 2	$ 31.96	14.45
Pavement Marking Machine (ZONE 2: STATEWIDE (EXCLUDING GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES) Group 1	$ 33.37	14.45
Pavement Marking Machine (ZONE 2: STATEWIDE (EXCLUDING GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE) Group 2	$ 30.03	14.45

WORK CLASSIFICATIONS:

PAVEMENT MARKER GROUP 1: Drives or operates a truck mounted striper, grinder, blaster, groover, or thermoplastic melter for the placement or removal of temporary or permanent

pavement mar ngs mar ers.

PAVEMENT MARKER GROUP 2: Performs all functions nvolved for the placement or removal of temporary or permanent pavement markings or markers not covered by the classification of Pavement Marker Group 1 or Line Protector.

LINE PROTECTOR: Performs all operations for the protection o removal of temporary or permanent pavement markings or markers in a moving convoy operation not performed by the classification of Pavement Marker Group 1. A moving convoy operation is comprised of only Pavement Markers Group 1 and Line Protectors.

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least $13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications

nd wage ra es th have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

tate Adopted Rate Identi ers

The ""SA"" identifier indicates that the classif cations and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

he request should be accompanied by a full st ement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION"

C-1725 2027 LEAD SERVICE LINE REPLACEMENTS

Questions/Answers

1. Good faith efforts worksheet and debarment certificate are not on the check list does this mean I'm not required to turn in with the bid?

   Good faith efforts worksheet and debarment certificate are required to be turned in with your Bid, please refer to page 93.

2. Roads have to be opened within 72 hours of removals. So, does this mean I have to have them paved right away within 72 hours and what about the concrete patches that take a week to set up?

   The intent of this requirement is to have the patch completed as soon as possible after removals. Some situations will not allow for this requirement to be met, specifically when placing and curing concrete.

3. Are most of the city's water mains located in asphalt or concrete roads?

   There is a good split between asphalt and concrete roads in the City, many areas are also concrete base with an asphalt overlay, which is the reason we have pay items to handle the many different scenarios. Road repair and watermain details sheets are included in Addendum #1.

4. What is the requirement for the grounding rod and is there one for each service that is a full connection and one for each that is an extension?

   Please see page 2 of standard details included in Addendum #1 for the detail regarding grounding rod requirements.

5. The bid item for 1600 foot of curb replacement. Is this 199 - 8' locations and depending on where the water main is located couldn't the curb be bored under instead of removing and replacing?

   Curb replacement is assumed at all locations, but some curb replacement could be eliminated if the water service boring allows, based on location of the existing watermain. MissDIG Law still applies, so removal of curb for windowing of existing utilities may still be required in some cases.

6. The bid item for 1000 cyd of concrete paving. Is this for concrete road patches when the main is in the road and typically how thick are the concrete roads in the city?

   Yes, this item is for repair of existing concrete roads. Most City concrete roads are 6-8” in thickness.

7. The spec says all utilities need to be windowed. Are there typically a lot of other utilities in the roads in the city where this will be required?

   Yes, there are various other underground utilities throughout the City, either owned by the City or other public/private utility companies.

8. Do final connections in the house require a licensed plumber?

   Yes, per City standards, a licensed plumber is required to be on staff for in-house connections.

C-1725 2027 LEAD SERVICE LINE REPLACEMENTS

9. There are 177 curb boxes on the proposal. There are 199 locations. Does this mean 20 don't get curb boxes and curb stops? Just trying to figure how to bid by making sure we get paid enough at each location.

   Every location will more than likely require a new curb box. There are more locations than quantity for curb stops because we may come upon service lines that have been replaced already and want to have a list of additional service lines to choose from.

10. Is the maintenance gravel paid at each location to temporarily fill the hole to the level surface until the asphalt or concrete is placed?

    Yes, that is the intent of the Maintenance Gravel item.

11. Is your sewer system combined or separated? Can you provide average depths?

    Our sewer system is combined. The depth varies.

12. Do you have a GIS map or map showing the locations of water mains?

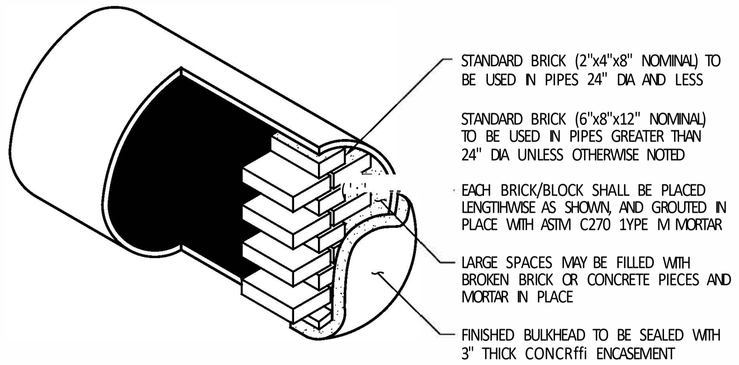
    Yes, the city possesses a GIS that shows the sewer system and water system. The access will be provided to awarded bidder.

13. Do you have a HMA paving detail drawing you can provide?

    Yes, will be included in addendum number 2

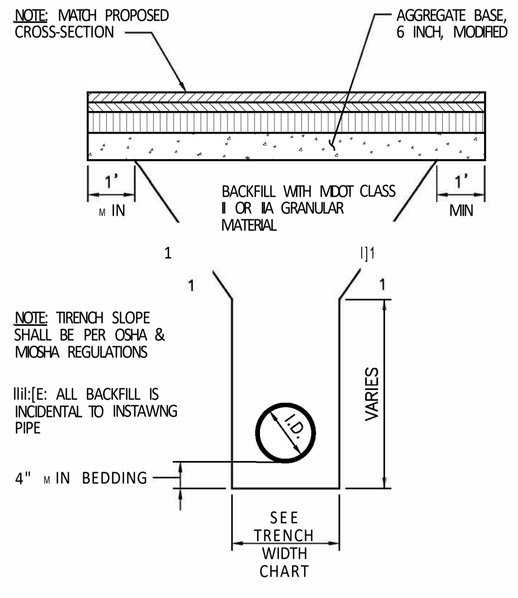
14. Do you have a concrete pavement detail drawing you can provide?

    Yes, will be included in addendum number 2



STANDARD BULKHEAD/PLUG DETAIL

NO SCALE STDBLU.DWG

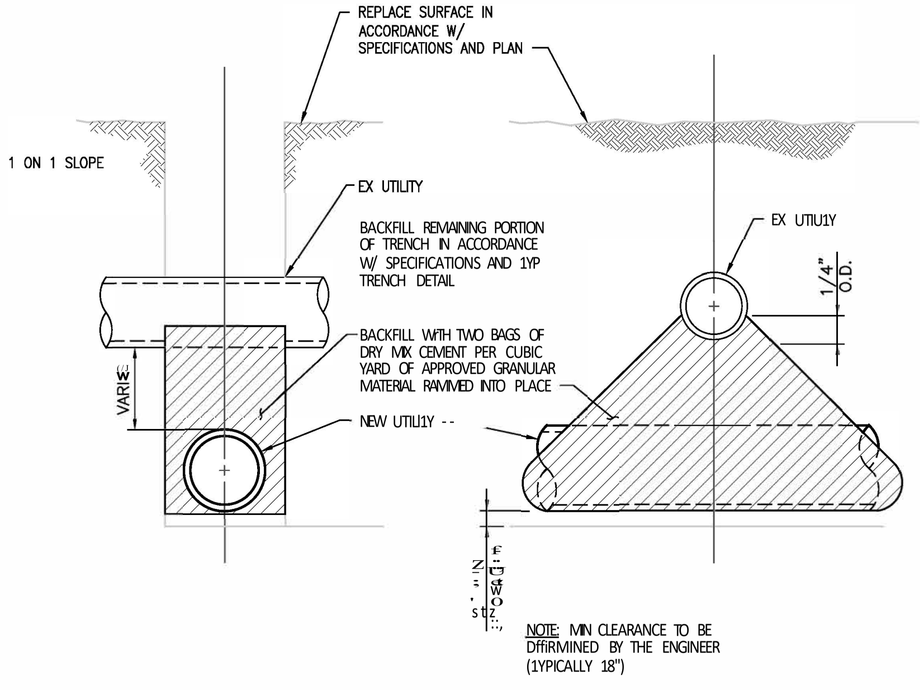


NOTE: EXISTING SURFACE CONDITIONS ON THE PROPOSED TRENCH CENTERLINE SHALL GOVERN THE TYPE OF SURFACE RESTORATION THE CONTRACTOR SHALL PERFORM. THE TYPE OF PIPE BACKFILL AND BEDDING SHALL BE AS STATED IN THE PLANS AND SPECIFICATIONS AND APPROPRIATE BID UNITS SHOWN IN THE PROPOSAL.

IREH II _WIDII!_ HARi.		
PIPE SIZE	MINIMUM	MMMUM
S', B'\ 10"	24"	30"
12" & 15'	30"	36'
18"	34"	40"
21"	38"	42"
24"	42"	46"
27"	45•	49•
30"	49"	53•
36"	56"	60"
LARGER THAN 36'	I.D. +20"	I.D. +24"

TYP TRENCH DETAIL DUCTILE OR C9O9 IRON PIPE

NO SCALE TYPTRENCH.DWG



NOTE: MIN CLEARANCE TO BE DffiRMINED BY THE ENGINEER (1YPICALLY 18")

CROSSING EXISTING UTILITY

NO SCALE CRSEXT.DWG

(FOR WATER MAIN & SEWER)

NO.TD.:

ANY AND ALL EXISTING WATER CONNECTIONS AND SERV.ICES THAT NEED TEMPORARILY RELOCATED TO ALLOW FOR THE INSTALLATION OF NEW WATER MAIN WILL BE DONE SO BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER. WORK WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE INCLUDED IN UNIT PRICE BID PER FOOT OF WATER MAIN.

ALL DUCTILE IRON PIPE SHALL BE DOUBUE WRAPPED WITH POLYETHYLENE IN ACCORDANCE WITH ANSI/AWWA C105/A 21.5.

THE CONCRffi USED FOR BLOCKING SHALL CONFORM TO P-1 CONCRETE MIXTURE.

THE CONTRACTOR SHALL SECURE ALL VERTICAL BENDS WITH A MINMUM OF 2-3/4" ANCHOR RODS FOR 10" AND SMALLER WATER MAIN AND 3-3/4" ANCHOR RODS FOR 12" WATER MAIN AND LARGER, PER FITTING, EITHER TO CONCRETE BLOCK, WELDED STEEL PIPE SLEEVE OR COLLARS: METHOD USED SHALL BE APPROVED BY THE ENGINEER. ALL BENDS SHALL BE MECHANICAL JOINT. ALL FERROUS PARTS SHALL RECEIVE A 10 MIL (DTM) COATING OF COAL TAR EPOXY.

DOUBLE WRAP All FITTINGS, VALVES AND HYDRANTS IN 8 MIL POLYETHYLENE SHEET TO WITHIN 12" OF FINISH GRADE.

ALL HYDRANTS SHALL BE RODDED. THREADED RESTRAINING RODS SHALL BE REQUIRED AT AILL HYDRANTS IN ADDITION TO All BLOCKING. RODS SHALL RECEIVE A MINMUM DRY FILM OF 15 MILS (DTM) OF COAL TAR EPOXY. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID PER EACH HYDRANT INSTALLED.

CONTRACTOR WILL USE A JOINT RESTRAINT SYSTEM, SUCH AS MEGA-LUG BY EBAA IRON, OR APPROVED EQUAL. RESTRAINT LENGTHS SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS AND PER DIPPRA RECOMMENDATIONS.

THIS RESTRAINT SYSTEM WILL BE USED IN CONJUNCTION WITH STANDARD RODDING AND BLOCKING, AS DffiRMINED BY THE ENGINEER.

SAGINAW
DEPARTMENT OF PUBLIC SERVICES
-ENGINEERING DIVISION-

WATERMAIN DETAILS 1
2027 LEAD SERVICE LINE REPLACEMENTS

DESIGNED BY JWG
DRAWN BY KWA
CHECKED BY JWG
APPROVED BY DWH

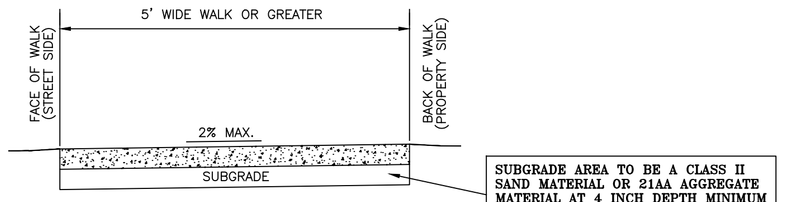
CONSTRUCTED
DATE OF PLAN APRIL 2025
SCALE NOTTOSCALE
SHEET 34 OF 37 SHEETS

REVISION: DATE / INITIALS

BID NUMBER	JOB NO.	FEDERAL DWSRF PROJECT	ITEM	SHEET NO.
C-1725				01

PLOT DATE: April 29, 2025
DRAWING PATH: PLANS\ALL"SHEETS.DGN

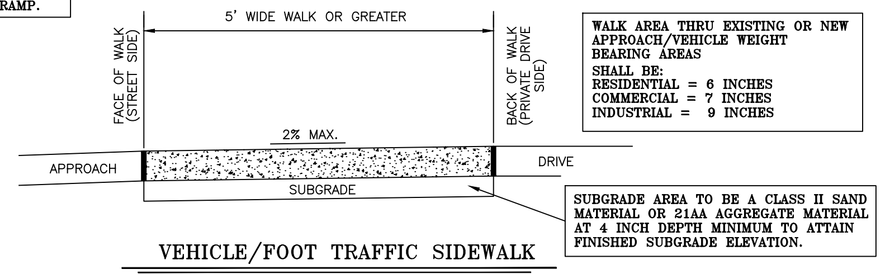
SIDEWALK CONSTRUCTION DETAIL



FOOT TRAFFIC SIDEWALK (4")

(NON-WEIGHT BEARING)

NOTE:
ALL AREAS WHERE TREE ROOTS HAVE ALTERED THE STATE OF THE WALK AND OR RAMP SHALL HAVE SAID ROOTS REMOVED TO A DEPTH OF 4 INCHES BELOW THE FINISHED SUBGRADE OF WALK AND OR RAMP.

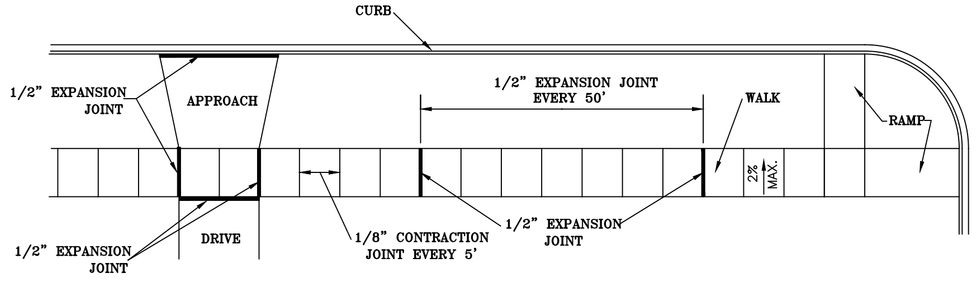


VEHICLE/FOOT TRAFFIC SIDEWALK

(WEIGHT BEARING)

NOTE:

- ALL SIDEWALK AND APPROACH AREAS ARE TO BE A MDOT P1/S2 GRADE, 6 FULL SACK, CONCRETE WITH A 3500 P.S.I. STRENGTH.
- ALL RAMP AREAS ARE TO BE CONSTRUCTED IN ACCORDANCE TO THE MDOT STANDARD R-28-J FOR SIDEWALK RAMP AND DETECTABLE WARNING DETAIL. RAMP AREA CURB MUST BE REPLACED TO CONFORM TO SAID STANDARD. CITY OF SAGINAW CURB REPLACEMENT AND PAVEMENT SECTION REPAIRS ALSO APPLY. STANDARDS AVAILABLE UPON REQUEST FROM THE CITY OF SAGINAW ENGINEERING DIVISION.
- NO REINFORCEMENT IS ALLOWED IN THE CONCRETE WITHIN THE ROAD RIGHT OF WAY
- PRIOR TO SIDEWALK CONSTRUCTION, A SIDEWALK AND RIGHT-OF-WAY PERMIT MUST BE PURCHASED FROM THE CITY OF SAGINAW ENGINEERING DIVISION.
- CONCRETE MUST BE REPLACED 72 HOURS FROM THE TIME OF REMOVAL. NO AREAS ARE TO BE VOID OF WALK OVER THE WEEKEND.
- ALL SIDEWALK CONSTRUCTION FORMS MUST BE INSPECTED BY A REPRESENTATIVE OF THE CITY OF SAGINAW AT LEAST 24 HOURS PRIOR TO THE ORDER OF CONCRETE. INSPECTIONS ARE DONE MONDAY THRU FRIDAY FROM 7:30 A.M. TO 4:00 P.M. CALL 989-759-1410 FOR FORM INSPECTION 24 HOURS PRIOR TO ORDER OF CONCRETE.



CONCRETE SIDEWALK CONSTRUCTION REQUIREMENTS

Concrete Use Grade P1 or Grade S2, six full sack concrete.

Removal. In areas where existing walk must be removed, the remaining walk must be left with a clean and precise edge for proposed walk to be poured against. Saw cutting may be needed. Subbase must be removed to a minimum of 4" below the depth of the sidewalk to be poured, based on weight bearing. This area must be free of infiltration of roots and other impurities that may cause deformities in the walk base.

Preparation of Base. Remove unsuitable material below the required depth and replace with 4 inches of class II granular material (sand) or 21AA aggregate. Shape and compact the base so that is it level and ready to accept concrete at the proposed depth.

Forms. Provide straight, full depth, un-warped forms that will resist movement during concrete placement. Firmly stake fixed forms. Depth of forms varies, 4" for non-weight bearing public walk, a minimum of 6" concrete will be needed for weight bearing walk. Weight bearing walk depth is based on its usage. A 6" concrete depth is required for residential, 7" concrete depth is required for commercial, and 9" concrete depth is required for industrial walk. A one half inch expansion joint will be placed on each adjacent side of driveway walk.

Placing and Finishing Concrete. Moisten the base before placing concrete. Do not place concrete on a frozen base, or base that is unstable from excessive moisture. Place the concrete and consolidate before finishing, ensuring the area along the surfaces of the forms is also consolidated. Place and finish in a continuous operation.

- Float the surface, but do not over-float, to produce a smooth surface, free from irregularities.
- Round the edges and joints with an Engineer- approved finishing tool.
- Texture the surface of sidewalks, sidewalk ramps, driveways and steps, with a coarse broom transverse to the direction of travel.

Note: Use the 2020 MDOT Standard Specifications for Construction Manual for guidelines on hot/cold temperature pouring.

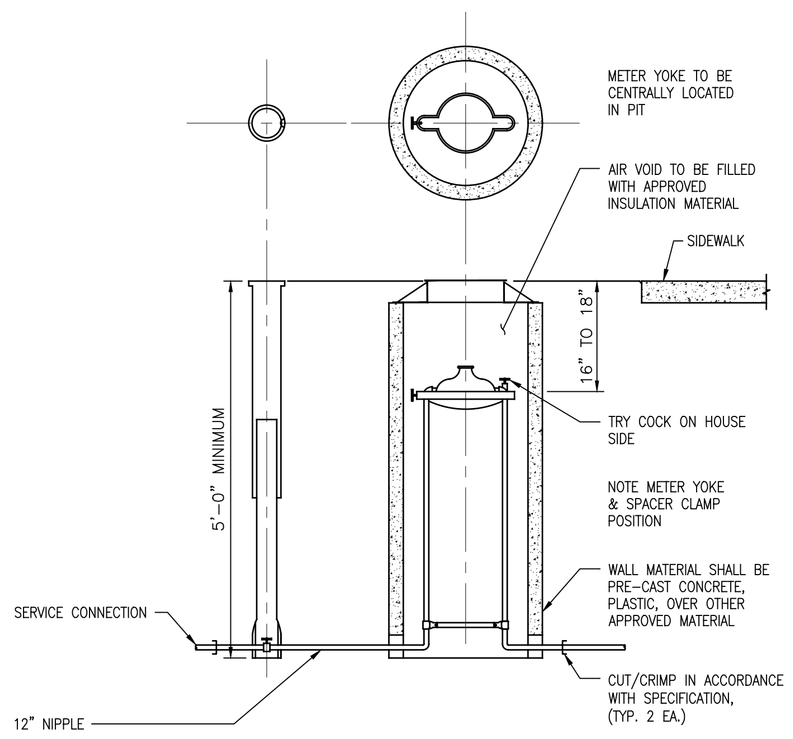
Sidewalk Joints. Construct transverse and plane-of-weakness joints at intervals of five feet or spaced at equal spacing of the constructed area. Joints are not to be spaced at more than five feet. (Place one half inch expansion fabric every fifty feet when constructed area is over fifty feet in length.)

Place expansion joint filler the full depth of the joint, top of the expansion is to be one eighth of an inch below the finished surface of the sidewalk.

Construct/cut transverse or plane-of-weakness joints into the concrete after floating. Construct/cut plane-of-weakness joints to at least ¼ the thickness of the sidewalk and from ⅛ inch to ¼ inch wide. Saw cutting is permitted but must be done before 24 hours of placement. Do not seal the joints.

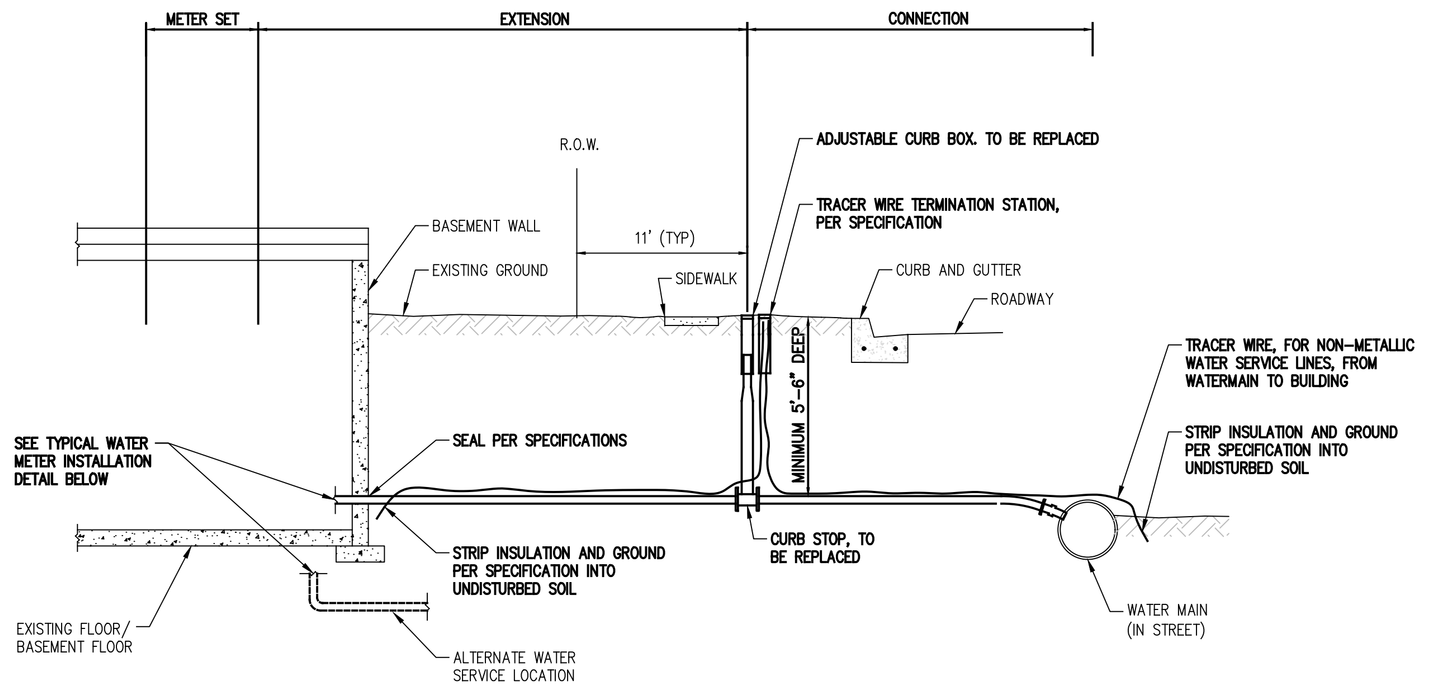
Curing and Protection. Cure and protect the concrete per Engineering specifications.

Backfilling. After the concrete gains required strength, remove fixed forms and backfill with sound earth. Compact, level the backfill, and seed.



METER PIT (TO BE REMOVED)

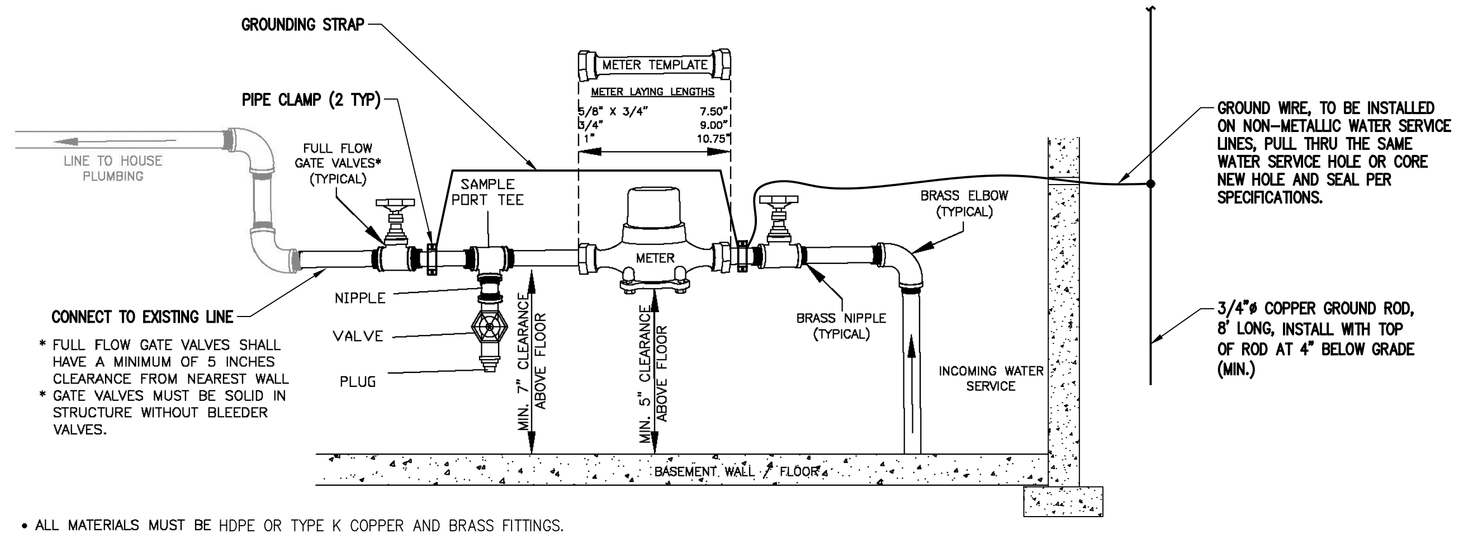
NO SCALE



NOTES:
1. NEW SERVICE LINE AND CURB STOP SHALL BE SIZED TO MATCH EXISTING.
2. NON-METALLIC SERVICE LINE EXTENSIONS SHALL BE INSTALLED WITH GROUNDING ROD PER DETAIL BELOW.

PRIVATE WATER SERVICE LINE DETAIL

NO SCALE



- ALL MATERIALS MUST BE HDPE OR TYPE K COPPER AND BRASS FITTINGS.
- VALVES MUST BE FULL FLOW GATE TYPE ONLY, AND ARE TO BE INSTALLED ON THE INLET AND OUTLET SIDES OF THE METER LOCATED NO MORE THAN TWELVE INCHES (12") UPSTREAM AND DOWNSTREAM, AND MUST BE ACCESSIBLE.
- ABSOLUTELY NO SOLDER TYPE JOINTS, INCLUDING SILVER SOLDER, ALLOWED UNTIL AFTER SECOND GATE VALVE OR ENTIRE METER SET.
- SERVICE LINE MUST BE AT LEAST FIVE FEET (5') DEEP THE ENTIRE LENGTH FROM CURB-STOP TO INSIDE OF BASEMENT WALL UNLESS THERE IS NO BASEMENT; THEN IT MUST MAINTAIN A DEPTH OF FIVE FEET (5') TO A POINT EIGHTEEN INCHES (18") INSIDE OF FOOTING.
- ALL REPAIRS MUST BE INSPECTED BEFORE BACKFILLING.
- METERS WILL BE SET WHERE THE SERVICE LINE FIRST ENTERS THE BUILDING. METERS ARE NOT ALLOWED UNDER HOMES OR OTHER INACCESSIBLE AREAS. AT LEAST EIGHTEEN INCHES (18") OF CLEARANCE ABOVE METER MUST BE MAINTAINED AND IT CANNOT BE OVER FOUR FEET (4') ABOVE THE FLOOR, BUT MUST BE AT LEAST FIVE INCHES (5") ABOVE FLOOR.
- METER TEMPLATE SHALL BE PROVIDED BY THE CITY.
- METER SHALL BE INSTALLED BY AUTHORIZED MAINTENANCE AND SERVICE PERSONNEL ONLY.

TYPICAL WATER METER INSTALLATION DETAIL AND METER GROUNDING DETAIL @ NON-METALLIC WATER SERVICE LINE

NO SCALE

CITY OF SAGINAW
DEPARTMENT OF PUBLIC SERVICES
-ENGINEERING DIVISION-

WATERMAIN DETAILS 2
2027 LEAD SERVICE LINE REPLACEMENTS

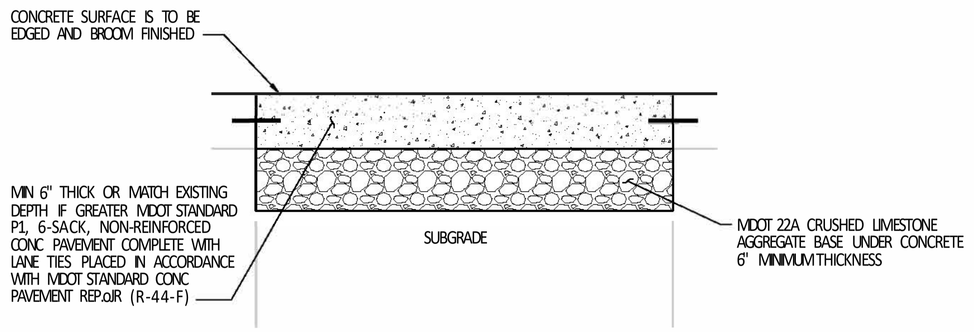
DESIGNED BY JMG
DRAWN BY KMA
CHECKED BY JMG
APPROVED BY DWH

CONSTRUCTED
DATE OF PLAN APRIL 2025
SCALE NOT TO SCALE
SHEET 35 OF 37 SHEETS

REVISION: DATE / INITIALS

BID NUMBER	JOB NO.	FEDERAL DWSRF PROJECT	ITEM	SHEET NO.
C-1725				02

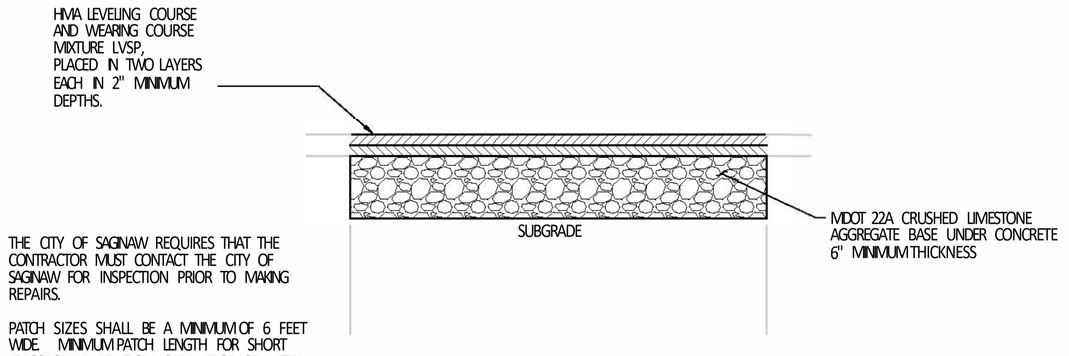
PLOT DATE: April 29, 2025
DRAWING PATH: P:\PROJ2025\13814750202S_C05_DWSRF_LSL_REPLACEMENTS_2026\2_AUTOCAD_GIS



THE CITY OF SAGINAW REQUIRES THAT THE CONTRACTOR MUST CONTACT THE CITY OF SAGINAW FOR INSPECTION PRIOR TO MAKING REPAIRS.

PATCH SIZES SHALL BE A MINIMUM OF 6 FEET WIDE. MINIMUM PATCH LENGTH SHALL BE BETWEEN NEAREST LONGITUDINAL JOINTS.

CONCRETE PATCH
NO SCALE

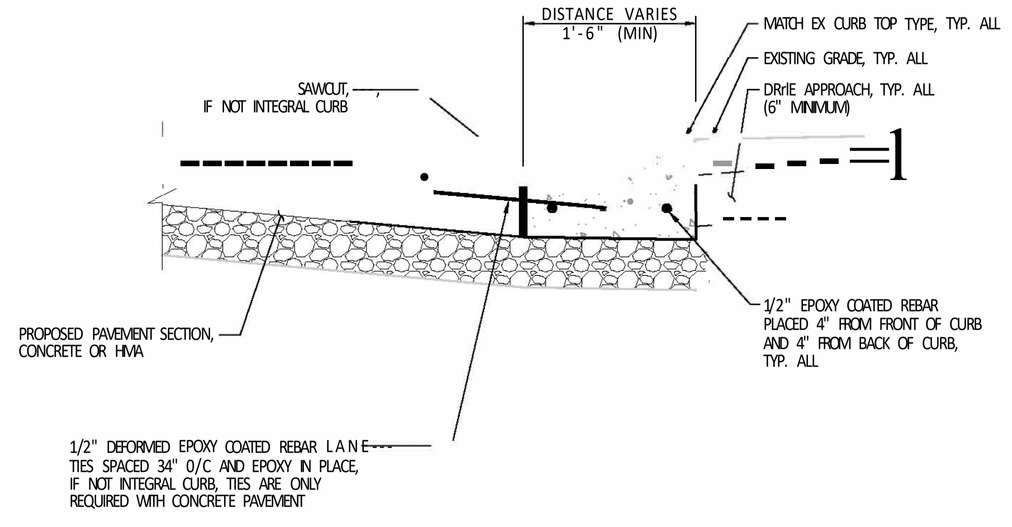


THE CITY OF SAGINAW REQUIRES THAT THE CONTRACTOR MUST CONTACT THE CITY OF SAGINAW FOR INSPECTION PRIOR TO MAKING REPAIRS.

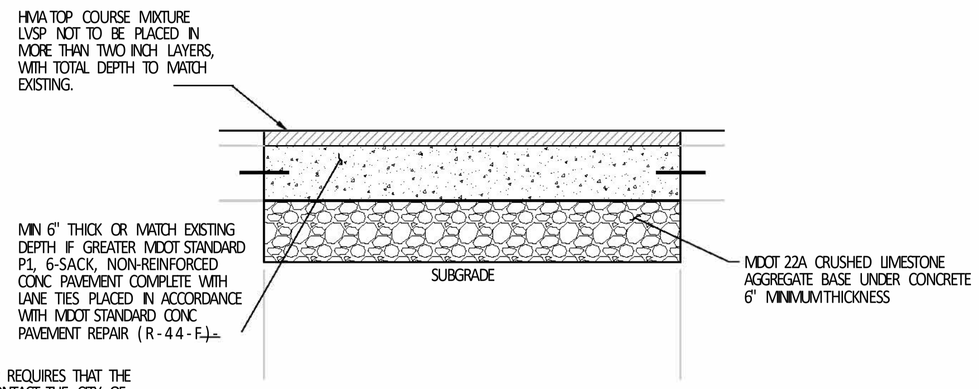
PATCH SIZES SHALL BE A MINIMUM OF 6 FEET WIDE. MINIMUM PATCH LENGTH FOR SHORT LEADS SHALL BE FROM CURB EDGE OF METAL TO ROAD CENTERLINE. MINIMUM PATCH LENGTH FOR LONG LEADS SHALL BE FROM CURB EDGE OF METAL TO OPPOSITE CURB EDGE OF METAL.

TACK COAT BETWEEN ALL COARSES (BOND COAT SHALL BE PER M.D.O.T. STANDARDS)

HMA PATCH
NO SCALE



TYPICAL CONCRETE OR HMA PAVEMENT AND CURB DETAIL
NO SCALE

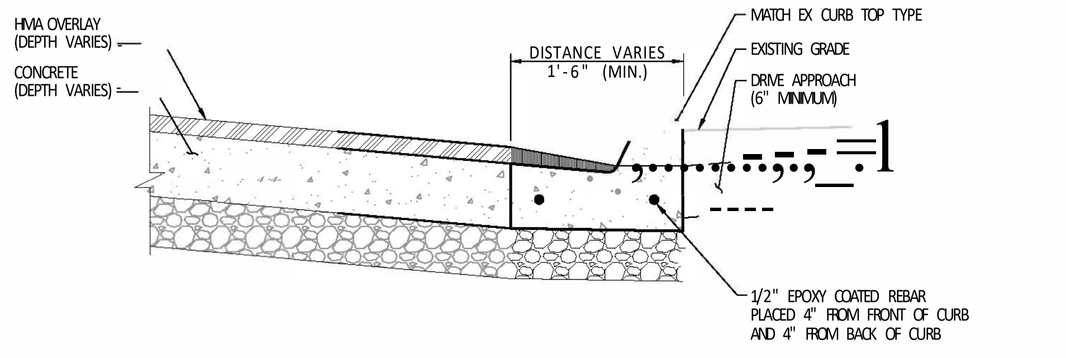


THE CITY OF SAGINAW REQUIRES THAT THE CONTRACTOR MUST CONTACT THE CITY OF SAGINAW FOR INSPECTION PRIOR TO MAKING REPAIRS.

PATCH SIZES SHALL BE A MINIMUM OF 6 FEET WIDE. MINIMUM PATCH LENGTH SHALL BE BETWEEN NEAREST LONGITUDINAL JOINTS.

TACK COAT BETWEEN ALL COARSES (BOND COAT SHALL BE PER M.D.O.T. STANDARDS)

COMPOSITE PAVEMENT PATCH (CONCRETE BASE WITH HMA OVERLAY)
NO SCALE



• EXISTING COMPOSITE PAVEMENT (CONCRETE BASE WITH HMA OVERLAY) MUST BE REPLACED WITH CONCRETE TO A DEPTH OF NO MORE THAN 2" FROM THE FINISHED GRADE AND WILL NOT HAVE A FINISHED SURFACE. THEN PLACE ASPHALT TO MATCH PAVEMENT GRADE AND OVERLAY EXISTING GUTTER AND COMPACT WITH A PLATE COMPACTOR.

TYPICAL COMPOSITE PAVEMENT WITH INTEGRAL CURB DETAIL (OVERLAYED GUTTER PAN)
NO SCALE

SAGINAW
DEPARTMENT OF PUBLIC SERVICES
-ENGINEERING DIVISION-

PAVEMENT
2027 LEAD SERVICE LINE REPLACEMENTS

DESIGNED BY JMG
DRAWN BY KMA
CHECKED BY JMG
APPROVED BY DWH

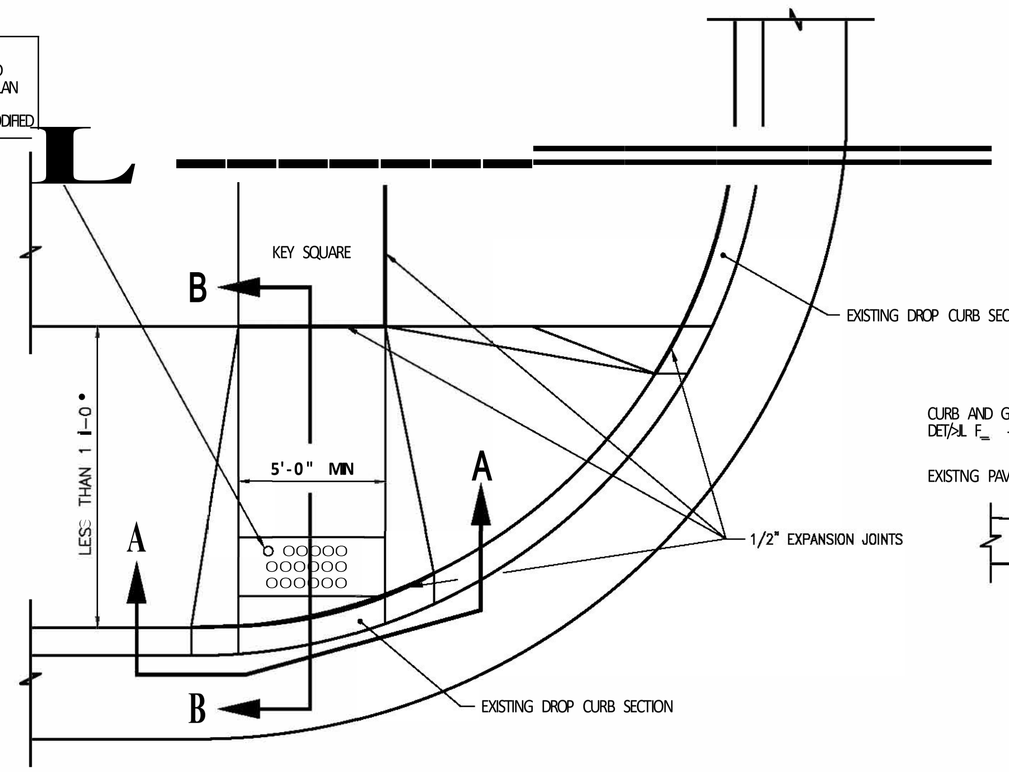
CONSTRUCTED
DATE OF PLAN APRIL 2025
SCALE NOTTOSCALE
SHEET 36 OF 37 SHEETS

REVISION: DATE / INITIALS

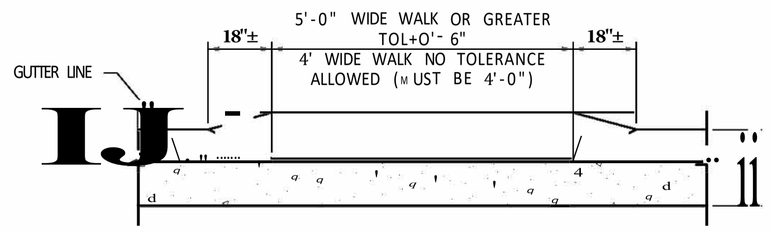
BID NUMBER	JOB NO.	FEDERAL DWSRF PROJECT	ITEM	SHEET NO.
C-1725				03

PLOT DATE: April 29, 2025
DRAWING PATH: P:\PROJ\2022.5\1JB147582025.D03.JW\SRF_1.5LR\EPLACEMENTS-2122w2 ...AUTOCAD\JB3

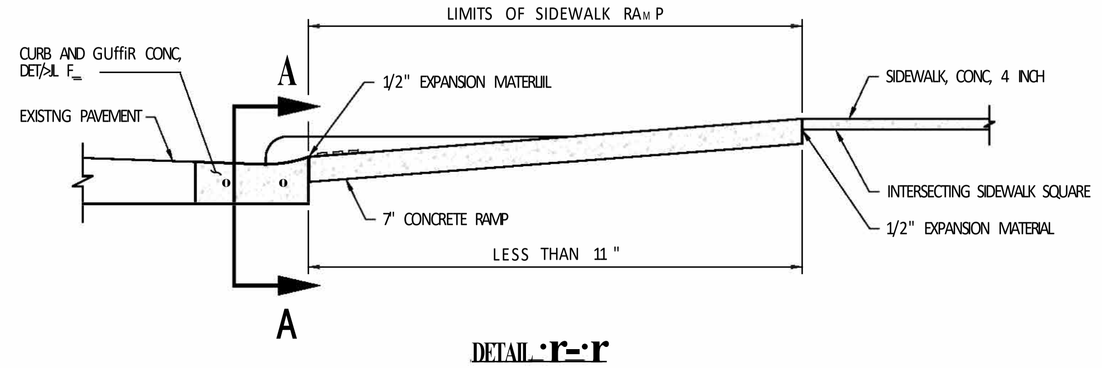
NOTE:
ALL SIDEWALK RAMPS REQUIRE TRUNCATED DOMES AS SHOWN ON MDOT STANDARD PLAN R-28 SERIES AND AS STATED IN SPECIAL PROVISION FOR SIDEWALK RAMP, ADA, MODIFIED.



PLAN VIEW



DETAIL "A"-"A"

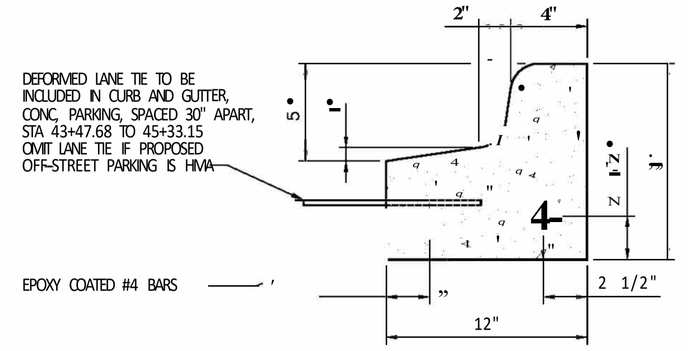


DETAIL "B"-"B"

NOTE:
ALL GRADING AND EXCAVATION NECESSARY TO CONSTRUCT SIDEWALK AS SHOWN, WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED AS PART OF SIDEWALK AND RAMP PAY ITEMS.

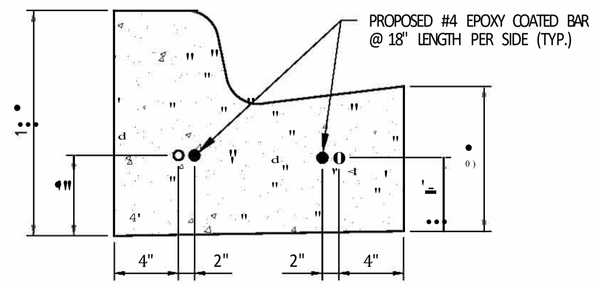
ADA HANDICAP RAMP DETAILS

NO SCALE ADADWG



CURB AND GUTTER, CONC, PARKING

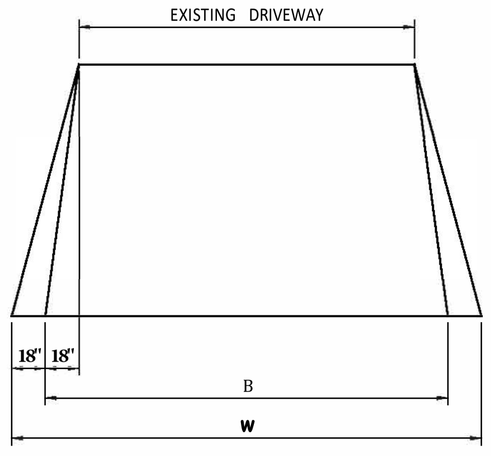
NO SCALE CURBGUT.DWG



NOTE: IN AREAS WHERE CONTRACTOR IS REPLACING EXISTING CURB WITH NEW CURB, CONTRACTOR SHALL DRILL EXISTING CURB AND INSTALL 2-#4 EPOXY COATED BARS PER EACH SIDE OF NEW CURB AS DIRECTED BY THE ENGINEER. COST TO PERFORM THIS WORK SHALL BE INCLUDED IN CURB AND GUTTER, CONC, DETAIL F2.

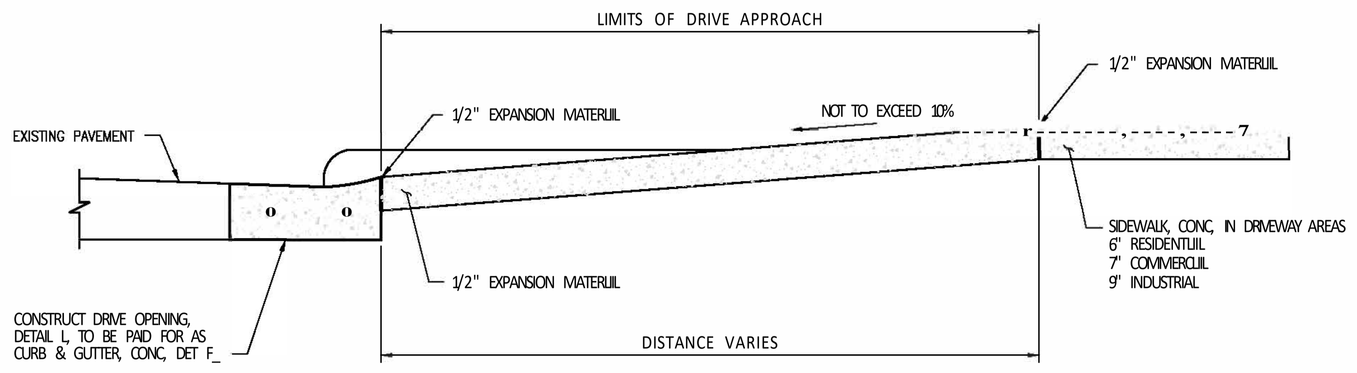
CURB REPLACEMENT DETAIL

NO SCALE CURBREP.DWG



DRIVEWAY APPROACH PLAN

NO SCALE DRVAPP.DWG



DRIVEWAY APPROACH CROSS SECTION

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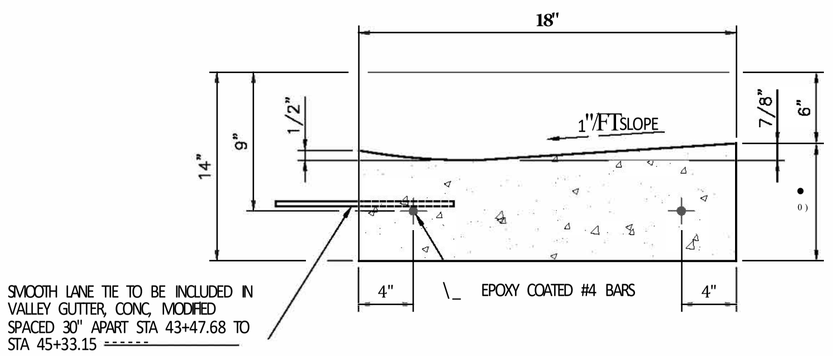

VALLEY GUTTER, CONC, MODIFIED

NO SCALE VALGUT.DWG

SAGINAW
DEPARTMENT OF PUBLIC SERVICES
-ENGINEERING DIVISION-

PAVEMENT AND CURBS
2027 LEAD SERVICE LINE REPLACEMENTS

DESIGNED BY J M G
DRAWN BY K M A
CHECKED BY J M G
APPROVED BY DWH

CONSTRUCTED
DATE OF PLAN APRIL 2025
SCALE NOT TO SCALE
SHEET 37 OF 37 SHEETS

REVISION: DATE / INITIALS

CONTROL SECTION	JOB NO.	FEDERAL PROJECT	ITEM	SHEET NO.
	C-1725	DWSRF		04

PLOT DATE: April 29, 2025
DRAWING PATH: P:\PRO\2022.01\JB147582025.20S.JW\SRF_1.5LR\EPLACEMENTS-212\dr2 ...AUTOC\LWS

CITY OF SAGINAW
1315 S WASHINGTON AVE
SAGINAW MICHIGAN 48601

C-1725

2027 Lead Service Line Replacements
DWSRF #7900.01

BID OPENING
Tuesday May 5, 2026
3:00 PM

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C-1725
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City of Saginaw, Michigan
Purchasing Division
(989) 759-1430

SEALED BID INSTRUCTIONS

SEALED BIDS MUST BE SUBMITTED ACCORDING TO THE FOLLOWING INSTRUCTIONS OR YOUR BID WILL BE DISQUALIFIED

1. Bids must be submitted on printed forms furnished by the City Purchasing Office. Voluntary alternates may be attached to bid form, if necessary.
2. Bids must be in ink or typewritten.
3. Bids must contain bidder's complete name, address, and telephone number.
4. Bids must be signed in ink and dated.
5. Bids must include delivery or completion time.
6. If an addendum is issued by the City, it must be signed, dated, and returned with bid.
7. An **original** bid bond, bank money order, certified check, or cashier's check in the amount of five percent (5%) of the total amount bid must be submitted with any bid in excess of $100,000. The AIA Document A310 – 2010 bid bond is the preferred format. If the agreement is for multiple years, each year should be combined to get your total cost. **Facsimiles or copies of bid bond will not be accepted, and bid will be disqualified if submitted.**
8. All erasures or corrections to pricing information must be initialed in ink.
9. If this is a Davis-Bacon Prevailing Wage Project, it will include a wage decision and Division 2. The City of Saginaw does not have a Prevailing Wage ordinance.
10. In case of a discrepancy between a unit price and its extension, the unit price will be considered correct, and the bid will be recalculated to determine the amount bid. All addition errors will be corrected, and the total bid will be adjusted to reflect the corrections.
11. All bids must be in the City Purchasing Office, 1315 S. Washington Ave. Saginaw, MI 48601 by the date and time specified on bid forms. The Purchasing Office is located at Saginaw City Hall in room #105.
12. Each bidder's envelope, FED EX box/letter, UPS box/letter, or any other method of sealed delivery must have the bid number or contract number on the outside of the container. **UNMARKED BIDS WILL BE DISQUALIFIED.**
13. EACH BID MUST BE ENCLOSED IN A SEPARATE SEALED ENVELOPE WITH **SEALED BID AND THE BID NUMBER** MARKED ON THE FRONT. A COPY OF THE ORIGINAL BID MUST ALSO BE INCLUDED IN THE BID.

RIGHT OF CITY TO ACCEPT OR REJECT BIDS

THE CITY RESERVES THE RIGHT TO ACCEPT OR REJECT ANY AND ALL BIDS, OR PARTS THEREOF, AND TO WAIVE ANY IRREGULARITIES WHICH DO NOT MATERIALLY AFFECT THE BID DOCUMENT OR OTHERWISE CONFLICT WITH STATUTE OR ORDINANCE. ANY REJECTION OF BIDS SHALL BE MADE ONLY IF THERE IS A SOUND DOCUMENTED REASON FOR SAME.

REV 9-2021

GENERAL INFORMATION

MAIL OR DELIVER ALL SEALED BIDS TO THE FOLLOWING ADDRESS BY THE DATE AND TIME SPECIFIED ON BID FORM

CITY OF SAGINAW PURCHASING OFFICE – ROOM #105
1315 S. WASHINGTON AVENUE, SAGINAW, MICHIGAN 48601

SEALED BID DOCUMENTS

EFFECTIVE IMMEDIATELY: All interested bidders may obtain bid document forms, proposal instructions, general specifications, and bid results from the City of Saginaw website **(www.saginaw-mi.com).**

NO CONTRACT SHALL BE VALID UNLESS APPROVED BY CITY COUNCIL

Pursuant to the Charter of the City of Saginaw, written contracts involving the Expenditure of $2,000 or more shall require the approval of City Council. No City Employee has the authority to bind the City to such a contract.

ALTERATION OF BID BY BIDDER

After bids have been opened, the bidder will not be allowed to withdraw, modify or correct any bid. Substitutions and alternates: If a document is issued with the language "No Substitutions, then none will be considered. If a document does not include this language the respective bidder can include a substitution and/or alternate of which the Cit reserves the right to determine equivalent.

EVIDENCE OF BIDDER'S QUALIFICATIONS

Bidders may be required to give some satisfactory evidence that they have been regularly engaged in the business or are reasonably familiar therewith, and that they are fully prepared with the necessary capital, materials, and machinery to complete the work or to furnish the material contracted for the satisfaction of the city.

FAMILIARITY OF BIDDER WITH CONTRACT REQUIREMENTS

Bidders are warned that they must inform themselves of the character and amount of work, labor, or material to be furnished under the contract.

CONTRACT ASSIGNMENTS OR TRANSFERS PROHIBITED

The assignment or transfer of a contract or of interest in the contract are prohibited unless approved by the proper City department and City Council.

CITY INCOME TAX COMPLIANCE

Bidders are hereby notified that the City of Saginaw has an income tax. All successful bidders will be subject to income tax withholding and compliance is mandatory. Per section 14 of the City of Saginaw uniform income tax ordinance, the tax percentage is 1.5% on income earned from the City. The tax shall apply on the taxable net profits of a corporation doing business within the City, being levied on such part of the taxable net profits as is earned by the corporation as a result of work done, services rendered and other business activities conducted with the City as determined in accordance with this ordinance.

WITHHOLDING FROM PAYMENTS

As part of the consideration for any bid/contract, all bidders agree to have withheld from any payment due them, any amounts for taxes, fees, or other charges due the City of Saginaw.

CONTRACT COMPLIANCE ORDINANCE

The City of Saginaw has a Contract Compliance Ordinance, which requires bidders to submit documentation furnished by the City indicating compliance with the Ordinance. Contract compliance forms must be sent to the City Purchasing Office; 1315 S. Washington Avenue; Saginaw, Michigan 48601. Forms may be obtained by calling (989) 759-1430.

BID FORMS

A copy of the original bid form is to be enclosed in the bid envelope (original plus a complete copy). "All or None" means bidders are required to submit pricing for all years and/or all items requested. Any proposal received that does not meet this requirement will be disqualified. If said bid is not listed as "All or None" the City reserves the right to split said bid to our best benefit. If you receive a bid copy from our website and have never conducted business with us you can also complete a copy of the "Vender Compliance From" are return it to us or contact our Purchasing Office so you can be formally added to the respective bidder list for that good or service. (989) 759-1430.

BID RESULTS

A bid tabulation sheet showing the initial results will be posted on our website within 48 hours of the bid opening date. Once the respective department reviews the bids, they will make a recommendation on who our City Council should award the bid to. At that time, the recommendation will also be posted on the tabulation sheet as a secondary notice.

INSTRUCTIONS AS PART OF CONTRACT

These instructions are to be construed with and made part of the contract or purchase order.

GENERAL INSTRUCTION TO BIDDERS

1. INTENT

It is the intent of the City, unless otherwise specified, that work on any contract awarded under the advertisement, to be started no later than Thirty (30) calendar days after award of the contract or the date specified in the contract documents, and that the work shall be carried on with due diligence, at such points and at such times and seasons, and with such force and in such manner as to secure its completion on or before the completion date as specified in the advertisement or as determined by the proposal or construction schedule, submitted by the Contractor.

2. INTERPRETATIONS OR ADDENDA

No oral interpretation will be made to any bidder *as* to the meaning of the contract documents or any part thereof. Every request for such an interpretation shall be made in writing to the City Engineer. Any inquiry received seven (7) or more days prior to the date fixed for the opening of bids will be given consideration. Every interpretation made to a bidder will be in the form of an addendum to the contract documents and when issued will be on file in the office of the City Purchasing Officer and the office of the City Engineer. In addition, it shall be *the* bidder's responsibility to make inquiry as to the addenda issued. All such addenda shall become part of the contract documents and all bidders shall be bound by such addenda, whether or not received by the bidder.

3. INSPECTION OF SITE

Each bidder should visit the site of the proposed work and fully acquaint themselves with the existing conditions there relating to the work and should inform themselves as to the facilities involved, the difficulties and the restrictions attending the performance of the contract. The bidder shall thoroughly examine and familiarize themselves with the drawings, specifications, and all other contract documents. The Contractor by the execution of the contract shall in no way be relieved of any obligation under it due to their failure to receive or examine any form or legal instrument or to visit the site and acquaint themselves with the conditions there existing. The City of Saginaw will be justified in rejecting any claim based on facts regarding which he should have been on notice *as* a result thereof.

4. BIDS ON MORE THAN ONE CONTRACT

Any bidder may **submit** a proposal on any single contract, or on any number of contracts, or on all the contracts included in the advertisement. Bidders are cautioned to give full consideration to other commitments which might effect the starting date, schedule of progress, or completion date for any contracts awarded hereunder.

5. DEFINITIONS

The term "City Engineer" shall mean the Director of Public Service, or the City Engineer of the City of Saginaw.

The term "Department of Engineering" shall mean the Department of Public Services and Engineering of the City of Saginaw.

6. CORRECTIONS

All erasures or corrections to pricing information must be initialed in ink.

7. COLLUSIVE AGREEMENT (SEE PROPOSAL)

Each bidder submitting a bid to the City of Saginaw for any portion of the work contemplated by the documents on which bidding is based shall by signing the proposal form sheet agree that the bid is genuine and not sham or collusive or made in the interests or on behalf of any person not therein named. That the bidder has not directly or indirectly induced or solicited any bidder to put in a sham bid or any other person or corporation to refrain from bidding, and that the bidder has not in any manner sought by collusion to secure himself an advantage over other bidders.

8. STATEMENT OF BIDDER'S QUALIFICATIONS

Each bidder shall, upon request of the City of Saginaw, submit a statement of the bidder's qualifications, their construction experience, and their organization and equipment available for the work contemplated, and when specifically requested by the City of Saginaw, a detailed financial statement. The City of Saginaw shall have the right to take such steps as it deems necessary to determine the ability of the bidder to perform their obligations under the contract, and the bidder shall furnish the City of Saginaw all such information and data for this purpose as it may request. The right is reserved to reject any bid where an investigation of the available evidence or information does not satisfy the City of Saginaw that the bidder is qualified to carry out properly the terms of the contract.

9. ALTERNATIVE BIDS

No alternative bids will be considered unless specifically requested.

10. BIDS

a. Bidders are warned that they must inform themselves of the character and amount of work, labor, or material to be furnished under the contract. All bids must be submitted on forms supplied by the City of Saginaw and shall be subject to all requirements of the contract documents, including the drawings and these INSTRUCTIONS TO BIDDERS. All bids must be regular in every respect and no interlineations, excisions or special conditions shall be made or included in the Bid Form by the bidder. After bids have been opened, permission will not, in any case, be given for the withdrawal, modification or correction of any bid.

b. Bid documents, which are mailed shall include the bid, the bid guaranty (when required), the non-collusion affidavit, and the statement of bidder's qualification (if requested) and shall be enclosed in envelopes (outer and inner) both of which shall be sealed and clearly labeled "Sealed

Bid", (outer envelope properly addressed to "City of Saginaw Purchasing Office, 1315 S. Washington Avenue, Saginaw, Michigan 48601") project name and number, name of bidder, and date and time of bid opening, in order to guard against premature opening of the bid. All proposals must be either filled out in ink or typewritten; typewritten is preferred. Bids to include a copy along with the original.

c. The City of Saginaw may consider as irregular any bid on which there is an alteration of the bid form hereto attached and at its option may reject the same.

d. If the contract is awarded, it will be awarded by the City of Saginaw to a responsible bidder on the basis of the bid most favorable to the City of Saginaw. The contract will require the completion of work according to the contract documents. Transfer of contract or of interests in contract are prohibited unless approved by the proper City agency.

e. Each bidder shall include in his bid the following information:

I. Bidder Name
II. Address
III. City, State, Zip Code
IV. Telephone Number
V. E-mail
VI. Status

11. BID GUARANTY (When Applicable) (Effective February 16, 1984)

a. Bids of $100,000 or more must be accompanied by a bid guaranty which shall not be less than five percent (5%) of the total contract cost of construction including all overhead items. The bid bond shall be secured by a guaranty, or a surety company listed in the latest issue of U.S. Treasury Circular 570 and authorized to transact surety business in the State of Michigan. The amount of such bid bond shall be within the maximum amount specified for such company in said Circular 570. At the option of the bidder, the guaranty may be a certified check, cashier's check, bank money order or a bid bond in the amount specified. The AIA document A310 – 2010 bid bond is the preferred format. No bid will be considered unless it is accompanied by the required guaranty. The certified check, cashier's check, bank money order or a bid bond must be payable to the order of the City of Saginaw. The bid guaranty shall insure the execution of the agreement and the furnishing of the surety bond or bonds by the successful bidder, as required by the contract documents.

b. Revised bids submitted before the opening of bids, representing an increase in excess of two percent (2%) of the original bid, must have the bid guaranty adjusted accordingly, otherwise the bid will not be considered.

c. Certified checks or cashier's check, bid bonds, and bank money orders of unsuccessful bidders, will be returned as soon as practicable after award of a contract.

12. UNIT PRICE BIDS

The unit price for each of the several items in the proposal of each bidder shall include its pro-rata share of overhead so that the sum of the products obtained by multiplying the quantity shown for each item by the unit price bid represents the total bid. In case of a discrepancy between a unit price and its extension, the unit price will be considered correct, and the bid will be recalculated to determine the amount bid. All addition errors will be corrected, and the total bid will be adjusted to reflect the corrections. Special attention of all bidders is called to this provision, should conditions make it necessary to revise the quantities. No limit will be fixed for such increased or decreased quantities nor extra compensation allowed, provided the net monetary value of all such additive and subtractive changes in quantities or such items or work shall not increase or decrease the original contract prices by more than twenty percent (20%) unless mutually agreed upon in writing by the City Engineer and Contractor, that extra work, that is work not covered in the drawings and specifications, shall not increase the original contract by more than twenty percent (20%).

13. PUBLIC ACT 524 OF 1980 (When Applicable)

Sec.2 (1) 1980 P.A. 524 states as follows:

The construction contract shall designate a person representing the Contractor who will submit written requests for progress payments, and a person representing the public agency to whom request for progress payments are to be submitted. The written requests for progress payments shall be submitted to the designated person in a manner and at such times as provided in the construction contract.

Therefore, the Contractor shall state on “Bid Proposal” the name of the person who will be submitting request for progress payment and the request shall be made to the City Engineer.

14. TIME FOR RECEIVING BIDS

Bids received prior to the time of opening will be securely kept unopened. The Purchasing officer will decide when the specified time has arrived. No bid received thereafter will be considered, except that when a bid arrives by mail after the time fixed for opening, but before the reading of other bids is completed, and it is shown to the satisfaction of the City of Saginaw that the non-arrival on time was due solely to delay in the mails for which the bidder was not responsible, then such bid will be received and considered.

15. OPENING OF BIDS

At the time and place fixed for the opening of bids, the City of Saginaw open and publicly read aloud every bid received within the time set for receiving bids, irrespective of any irregularities therein. Bidders and other persons properly interested may be present, in person or by representative.

d

16. WITHDRAWAL OF BIDS

Bids may be withdrawn on written or telegraphic request dispatched by the bidder in time for delivery in the normal course of business prior to the time fixed for opening, provided that written confirmation or any telegraphic withdrawal over the signature of the bidder is placed in the mail and postmarked prior to the time set for bid opening. The bid guaranty of any bidder withdrawing his bid in accordance with the foregoing conditions will be returned promptly.

17. AWARD OF CONTRACTS: REJECTION OF BIDS

a. The contract will be awarded to the lowest responsible bidder complying with the conditions of the SEALED BID INFORMATION, provided such bid is reasonable and it is to the interest of the City of Saginaw to accept it. The City of Saginaw, however, reserves the right to accept or reject any and all bids or parts thereof, and to waive any irregularities in a bid except those specific any mentioned in the "Sealed Bid Instructions".

b. The City of Saginaw reserves the right to consider as unqualified to perform the contract, any bidder who does not habitually perform with his own forces, the major portions of the work involved.

c. On contracts of $50,000 or more, the bidder to whom the Purchasing Committee recommends for award will be required to provide bonds prior to award as outlined in Division 1, Section 121.

18. CONSTRUCTION SCHEDULE

In addition to the progress clause incorporated in the proposal, the successful bidder on any single contract, when so requested by the City Engineer, shall submit a schedule of the maximum number of calendar days required for the completion of the contract. The number of calendar days so stated, when approved by the City Engineer, shall be added to the starting date specified in Paragraph 1, and the date thus determined shall become the completion date of such contract unless otherwise specified in the contract.

The successful bidder on any two or more contracts, or the successful bidder on any single contract who also has uncompleted work on other City of Saginaw construction contracts previously awarded, shall prepare a Construction Schedule for submission to and approval by the City Engineer. When so requested by the City Engineer, the Construction Schedule shall be submitted immediately after the tabulation of bids in order that the information therein contained may be considered in the recommendation as to award of contracts. In any case, the Construction Schedule shall be submitted prior to the preparation of contract documents and not later than five (5) days after the tabulation of bids.

The Construction Schedule shall indicate the proposed sequence of operations, including any previously awarded City of Saginaw construction contracts not completed. The schedule shall show the total calendar days required for each contract and the date for starting and completion in each instance.

e

The schedule shall show whether or not the Contractor proposes to use more than one construction crew and, if requested, shall itemize the types and quantities of machinery and equipment available for the work.

19. SUBCONTRACTS

The Contractor's attention is directed to the requirements as outlined in Section 103, "SUBCONTRACTS", under Division 1, "General Conditions".

20. PRE-CONSTRUCTION MEETING

If so requested by the City Engineer, the Contractor shall make themselves available for a pre-construction meeting. The time and place of the meeting to be designated by the City Engineer.

21. PURCHASING ORDINANCE

The Purchasing Ordinance of the City of Saginaw, §14.30-14.45, applies to all contracts, sub-contractors, or purchase orders except where portions of the Ordinance may be preempted by law:

22. CONTRACT COMPLIANCE DOCUMENTATION

The following documents are to be filled out “Contract Compliance Agreement” and the “City of Saginaw Vendor Information” which are provided by the Purchasing Department.

23. MICHIGAN’S ELLIOTT-LARSEN CIVIL RIGHTS ACT, PUBLIC ACT 453 of 1976, as amended

All contracts in which the City of Saginaw is a party shall contain a covenant by the Contractor and any subcontractors not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment because of race, color, religion, national origin, age, sex, height, weight, sexual orientation, gender identity, marital status, or membership in another class of persons protected by law. Breach of this covenant may be regarded as a material breach of the contract.

24. MICHIGAN’S PERSONS WITH DISABILITIES CIVIL RIGHTS ACT, PUBLIC ACT 220 of 1976, as amended

All contractors and subcontractors shall be subject to and comply with the Michigan Persons with Disabilities Civil Rights Act which prohibits discriminatory practices, policies, and customs in the exercise of the civil rights of individuals with disabilities. A violation of the act may be regarded as a material breach of the contract.

f

25. AMERICANS WITH DISABILITIES ACT (ADA) of 1990, as amended

All contractors and subcontractors shall be subject to and comply with all the provisions of the Americans with Disabilities Act (ADA) of 1990. A violation of the Act may be regarded as a material breach of this contract.

26. CIVIL RIGHTS ACT OF 1964, as amended

All contractors and subcontractors shall be subject to and comply with all the provisions of the Civil Rights Act of 1964 which prohibits discrimination based on race, color, religion, sex, and national origin. A violation of the act may be regarded as a material breach of the contract.

27. GENETIC INFORMATION NONDISCRIMINATION ACT OF 2008 (GINA), as amended

All contractors and subcontractors shall be subject to and comply with all of provisions of the Genetic Information Nondiscrimination Act of 2008 which prohibits the use of genetic information in making employment decisions. A violation of the act may be regarded as a material breach of the contract.

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Division I
General Conditions

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101. Definitions

Wherever used in any of the Contract Documents, the following meanings shall be given to the terms herein defined:

a. The term "Contract" is defined as the Contract executed by the City of Saginaw and the Contractor, of which these General Conditions, Specifications and Divisions are incorporated into by reference.

b. The term "Contractor" is defined as the person(s), firm, partnership, company, sole proprietorship, or corporation entering into the Contract with the City of Saginaw to construct and install the improvements, or otherwise undertake the activities, embraced in this Contract.

c. The term "City Engineer" is defined as the City Engineer of the City of Saginaw acting personally or, in the absence of the City Engineer, through their designee.

d. The term "Engineer" is defined as the City engineer acting directly or indirectly through their authorized representatives acting within the limits of the respective authority delegated to them. Any determination, directions, or approval of such authorized representatives shall be subject to review by the City Engineer.

e. The term "Contract Documents" is defined as and shall include the following: Executed Agreement, Addenda (if any), Invitation for Bids, Instructions to Bidders, Signed Copy of Bid, Specifications, Divisions, Special Conditions, Technical Specifications and Drawings

f. The term "Technical Specifications" is defined as that part of the Contract Documents which describes, outlines, and stipulates the quality of the materials to be furnished; the quality of the workmanship required; and the methods to be used in carrying out the construction work to be performed under this Contract.

g. The term "Addendum" or "Addenda" is defined as any changes, revisions or clarifications of the Contract Documents which have been duly issued by the City of Saginaw to prospective Bidders prior to the time of receiving Bids.

102. Application of Conditions

These conditions and the clauses on the following pages, printed as well as written, shall apply to all branches of the work with equal force, whether the work is done under one entire Contract or under several separate Contracts.

Division I
General Conditions

103. Subcontracts

The Contractor shall, as soon as practicable after signing the Contracts, but in any event prior to the performance of any work by any subcontractor, notify the City in writing of the names of subcontractors proposed for the work, designating the portions of work to be performed by each. The Contractor is as fully responsible to the City for the acts and omissions of the Subcontractors and of persons either directly or indirectly employed by them as for the acts and omissions of persons directly employed by the Contractor.

Nothing contained in the Contract Documents shall create any contractual relationship between any subcontractor and the City.

104. Assignment of Contract

a. It is agreed that the Contractor shall not assign or transfer this Contract, or any part of the work embraced in it, except with the written consent of the City to do so.

b. It is further agreed that all parts of the work which may be performed by a subcontractor shall conform to the Plans and Specifications and be subject to all the provisions of this Agreement exactly as if performed by the Contractor and the Contractor's immediate employees. No subcontracting of the work shall in any way diminish or weaken the responsibility of the Contractor for all parts of the work or lessen the obligations and liabilities of the Contractor under this Agreement.

c. It is likewise agreed that the Contractor shall not assign, either legally or equitably, any of the monies payable to the Contractor under this Agreement, or the Contractor's claim thereto, except with the written consent of the City.

105. Responsibilities of Contractor

a. The Contractor shall be held to have examined the premises and line of work and shall take the whole responsibility of the work. Should any unforeseen difficulty or obstruction be encountered in the prosecution of the same, involving a greater expenditure of money than expected at the time of bidding, the Contractor shall proceed, nevertheless, with the work, and no allowance will be made therefore.

b. It shall not be incumbent upon the City to notify the Contractor when to begin, to cease or to resume work, nor in any way to manage the work so as to release the Contractor of responsibility, or of any consequence of neglect or carelessness by the Contractor or anu subordinates.

c. The Contractor shall devote time and management/superintendence to the fulfillment of this Contract and shall keep the same under the Contractor's control.

d. The Contractor shall assume and have sole charge and possession of all work included in this contract, until the termination thereof, unless otherwise specified in this contract, and shall be solely liable for all damages to persons or property occasioned in any way by the

Contractor's acts or omissions, or that of the Contractor's agents, employees, subcontractors, or any persons in and about the work embraced in this Contract.

e. Prior to the start of construction in the public right-of-way, it shall be the responsibility of the Contractor to notify the TRAFFIC ENGINEERING DIVISION of said work. In the case where complete street closure is necessary, it shall be the responsibility of the Contractor to notify the TRAFFIC ENGINEERING DIVISION, FIRE DEPARTMENT AND POLICE DEPARTMENT at least forty-eight (48) hours prior to the start of said work.

106. City Engineer's Power

All work and material furnished under this contract shall be furnished under the direction of and to the satisfaction and approval of the City Engineer. Should any dispute arise as to quality or fitness of the materials or workmanship, the decision shall rest strictly with the City Engineer and shall be based upon the requirements that all work done and materials furnished shall be performed in a good and workmanlike manner, conform to all Technical Specifications and Drawings and other requirements of the Contract in every respect, and what is useable and customary shall in no way enter into any consideration or decision whatsoever. The City Engineer shall have power to condemn all work and reject all material which, in his or her opinion, is not done or furnished in accordance with this Contract. However, this power and authority shall be confined to the direction or specification of what is to be done under this Contract and shall not extend to the actual execution of the work which shall be under the control of the Contractor, and for which the Contractor alone shall be responsible.

107. Contracts for Other Work

a. In case any additional work shall be required in connection with the work contemplated under this Contract, the City shall have the right to have such additional work done by any person other than the Contractor, and the Contractor shall in no way interfere with the work of such person(s), and shall suspend such part of the work herein specified, or will carry on the same in such manner as ordered by the City Engineer, so as to afford all reasonable facilities for doing such additional work, and the Contractor shall make no claims for damages or for privileges or rights by reason of the suspension and the doing of such additional work, except for such extension of time to perform this Contract as may be certified by the City Engineer.

b. The City reserves the right to lay or relay, construct or repair any water mains, gas mains, sewers, conduits and all other pipes and any connections thereto, or to grant permits to those having franchise rights from the City to install or reinstall, construct or repair such water mains, gas mains, sewers or conduits and other pipes and connections thereto at any time, and to do such other underground work in the street or streets, easements or vacated Right of Way, along the line of work as shall be necessary, or grant permits for same, at any time prior to the completion of the foundation for the paving material within the limits of this improvement, and to that end shall have the right to suspend the work on the said improvement, or any part thereof, and the Contractor shall not interfere with

or place any obstruction in the way of any person or persons who may be engaged in doing any of the work herein specified, and shall not be entitled to damages because of such work or any delay caused thereby.

108. Progress

In addition to the progress clause incorporated in the Contractor's proposal/response, the Contractor shall be required to submit, on demand of the City Engineer, an outline of the proposed order of work and to indicate the dates of completion of the major items of the work. This outline, when approved by the City Engineer, may be incorporated in, and become a part of the Contract.

109. Contractor's Employees

a. The Contractor shall employ suitable superintendents and forepersons, who, in the absence of the Contractor, shall be present while any work is being done under this Contract, and who shall follow, without delay, all orders and instructions of the City Engineer. Any notice given to a superintendent or foreperson relative to deviation from any of the requirements of this Contract shall be equivalent to a notice to the Contractor.

b. The superintendents, forepersons, employees, mechanics, and others employed by the Contractor shall be skilled in the assignment of work given them to do. Any employee of the Contractor who uses profane or abusive language to the Engineer or any Inspector, or otherwise impedes or embarrasses him in the performance of his duties, or who obstructs the progress of the work shall upon the request of the City Engineer be immediately removed from the project/worksite and not again employed at same without the consent of the City Engineer.

c. In doing any work contemplated by this Contract, eight (8) hours shall constitute a legal day's work by any laborer or worker employed by the Contractor.

d. Residents of the City of Saginaw shall be employed upon the work of this Contract as far as possible to do so.

110. Drawings

a. These Specifications and accompanying Drawings are intended to be cooperative, and what is called for by either shall be as binding as if called for by both. Should it appear that the work hereby intended to be done, or any of the materials or matters relative thereto, are not sufficiently detailed or explained on said Drawings or in said Specifications, or should any error, discrepancy or inconsistency appear between any of the Drawings and Specifications, or between any of the several Drawings, or should any doubt or misunderstanding arise as to the meaning of said Drawings or Specifications, the City Engineer shall furnish such additional drawings, detail or explanation, and he shall have power to interpret, correct, adjust and explain all errors, omissions, discrepancies, doubts and misunderstandings between such Drawings and Specifications, or between several Drawings, and the decision of the City Engineer therein shall be final and conclusive.

Explanations received from officers and employees other than the City Engineer will be considered of no avail in a case of dispute.

b. Preference shall be given to the figured dimensions on the Drawings rather than to scale measurements. Figures, unless witnessed by lines and points, are approximate only, and shall not be taken to regulate the dimensions of the structure of improvement. The figures, when so witnessed, are intended to show the exact dimension for the construction of the structure or improvement, but the Contractor, without extra charge, shall make such slight alterations as may be necessary to make adaptable parts fit to fixed parts, leaving all complete and in proper shape when done. It shall be the duty of the Contractor to verify all dimensions given on the Drawings, and to report any error or inconsistency to the City Engineer before commencing work.

111. Changes in the Work

a. No deviation from the Drawings and Specifications shall be made in the execution of the work without the written order and approval of the City Engineer, nor shall any work in the nature of additional work, or any work not contemplated by the Specifications or Drawings, be performed, except on written order of the City Engineer, and if any extra work be proceeded with or executed by the Contractor without previous order given in writing under the hand of the City Engineer as herein provided, no compensation for the same will be allowed. Extra work shall be defined as work not contemplated in the Contract, not covered in the Drawings and Specifications, and for which no unit prices have been stipulated.

b. Should it be deemed expedient by the City Engineer, at any time previous to commencing work, or while the work is in progress, to increase or diminish the dimensions, quantities of material or work, or alter the situation or levels, or vary from the form or dimensions of any part of said work, or vary in any other way the work herein contracted for, the City Engineer shall have full power to do so and to order and direct any such increase, diminution, alteration, or extra work to be made or performed, and without in any way deviating or affecting this Contract; and the Contractor hereby waives any claim to right to damages that the Contractor may be entitled to by reason of such changes. The Contractor shall, in pursuance of such order and directions received in writing from the City Engineer, execute the work thereby ordered and directed, and the difference in expense occasioned by such increase, diminution or alteration, shall be added to or deducted from the amount payable under this Contract.

c. The Contractor shall perform any extra work (work in connection with the Contract but not provided for herein as defined in subparagraph a. of his section) when and as ordered in writing by the City Engineer, either (a) at the price agreed upon before such work is commenced and named in the written order for such work, or (b) if the City Engineer so elects, for the reasonable cost of such work, as determined by the Contractor and approved by the City Engineer, plus a percentage of such cost, as set forth below. No extra work shall be paid for unless specifically ordered as such in writing by the City Engineer.

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The cost of extra work done under subparagraph b. of this section shall include the reasonable cost to the Contractor of materials used and equipment installed, common and skilled labor, and forepersons, and the fair rental for all machinery and equipment used on the extra work for the period of such use.

At the request of the Engineer, the Contractor shall furnish itemized statements of the cost of the extra work ordered as above and give the Engineer access to all records, accounts, bills and vouchers and correspondence relating thereto.

The fair rental of all machinery and equipment shall be based upon the most recent edition of the Michigan Department of Transportation Equipment Rental Rates (Schedule C), or a similar publication approved by the City Engineer. Rental for machinery and equipment shall be based upon an appropriate fraction of the approved monthly rate schedule. If said extra work requires the use of machinery or equipment not already on the site of the work, the cost of transportation, not exceeding a distance of 100 miles, of such machinery or equipment to and from the Job Site or Work Location shall be added to the fair monthly rental; provided, however, that this shall not apply to machinery or equipment already required to be furnished under the terms of the Contract.

The Contractor shall not include in the cost of extra work any cost or rental of small tools, buildings, or any portion of the time of the Contractor, the superintendent, or the office and engineering staff.

To the cost of extra work done by the Contractor's own forces under (b) above (determined as stated above), the contractor shall add 15 percent to cover the overhead, use of capital, the premium on the bonds as assessed upon the amount of this extra work, and profit.

If extra work is done under subparagraph b. of this section, the Contractor and/or subcontractor shall keep daily records of such extra work. The daily record shall include the names of people employed; the nature of the work performed, and hours worked, materials and equipment incorporated, and machinery or equipment used, if any, in the execution of such extra work. This daily record, to constitute verification that the work was done, must be signed both by the Contractor's authorized representative and by the Engineer. A separate set of daily records shall be submitted for each extra work order.

d. The City Engineer may order the Contractor to proceed with desired changes in work provided that the net value of all such changes does not increase or decrease the original total amount shown in the Contract by more than twenty percent (20%) unless mutually agreed upon in writing by the City Engineer and the Contractor and further, that "extra work" shall not increase the original Contract by more than twenty percent (20%) in accordance with the section entitled "Unit Price Bids" under "General Instructions to Bidders."

112. Right of City to Take Over Contract

If the work to be done under this Contract shall be abandoned, or if the Contractor shall become insolvent or shall assign this Contract or subcontract the work hereunder without the written consent of the City Engineer, or if at any time the City Engineer shall be convinced

that the work is unnecessarily or unreasonably delayed, or that the Contractor is not making such progress in the execution of the work as to indicate its completion within the required time, or that the conditions or agreements of the Contract are being willfully violated or executed carelessly or in bad faith, the City Engineer shall provide the Contractor with a 24-hour notice, in writing, and, after the delivery thereof to the Contractor, the City Engineer shall then have the power and right to place additional laborers and equipment on said work and supply additional material, if necessary, and do such work as deemed advisable for the completion of this Contract, and may use any materials or implements belonging to the Contractor, or the City Engineer shall have the power and right to notify the Contractor to discontinue all work, or any part thereof, under this Contract, and upon such notifications, the Contractor shall discontinue said work, or such parts thereof, as the City Engineer may designate, and the City shall thereupon have the right and power to re-let this Contract, or any part thereof, or to employ, by contract or otherwise, and in such manner and at such prices as it may determine, any person or persons, and obtain any vehicles, applications, machinery, tools, another means of construction, and to procure all proper materials which it may deem necessary to work at and to be used to complete the work herein described; also the power to use such appliances, tools, and materials and means of construction of every description as may be found upon the line of work, both such as entered into the completed work and such as are necessarily used in and about the same in the course of construction, and to procure other proper materials for the completion of the same; and it shall charge the expense of all such labor, materials, vehicles, appliances, machinery, tools and other means of construction, and all expense of inspection and engineering and all other expenses, to said Contractor, and the Contractor shall be liable to the City for the amount of the whole cost of accomplishing the object contemplated by this Contract in excess, if any, of the amount herein agreed upon, together with such other elements of damage as may have been sustained by the City by reason of said Contractor's failure to complete and perform this Contract. In determining the liability of the Contractor hereunder, the City shall not be required to obtain the lowest figures for the work of completing the contract, but all sums actually paid for such completion shall be credited to the City, together with other elements of damage above mentioned, and the certificate of the City Engineer as to the amount of such liability shall be final and conclusive.

113. Extension of Time

a. An extension of time for completion of the work under the Contract may be granted by the City Engineer, subject to the conditions of this paragraph, but only upon the written application of the Contractor. In general, an extension of time will be granted by the City Engineer only if the delay is unavoidable and substantial, not the fault of the Contractor, and could not be reasonably anticipated or adequately guarded against. The Contractor will not be liable for liquidated damages during the period for which time of completion is extended by the City. The Contractor shall be entitled to a reasonable extension of time for unavoidable delay in completion caused solely by the following:

   I. Any act or omission of the City, its officer or employees;

   II. Any act of other public authorities;

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III. Causes not reasonably foreseeable by the parties at the time of the execution of this Contract and which are entirely beyond the control and without the fault or negligence of the Contractor, including, but not limited to, act of God, or the public enemy, war or other national emergency making performance temporarily impossible or illegal, acts or omissions of other contractors (but not the Contractors subcontractors), strikes and labor disputes not brought on by any act or omission of the Contractor, fires, floods, epidemics, quarantine restrictions, freight embargoes, weather of unusual severity such as cyclones or tornadoes, or excessively abnormal weather such as would interfere with the work.

b. The City Engineer will make a determination, based on the ascertained facts and the terms of this Contract, if an extension of time is justified, and, if so, will extend the time for completing the work for a period commensurate with the period of excusable delay. The determination made by the City Engineer shall be binding and conclusive on the Contractor.

114. Liquidated Damages

In the event of delay in the completion of the entire work beyond the period herein prescribed or beyond the period to which such time may be extended by the City, the City of Saginaw shall be paid the sum that is listed on the "Special Provision For Liquidated Damages." for each and every calendar day that the time consumed in said performance and completion extends beyond the final date herein specified, and this sum will be considered liquidated damages that the City will suffer by reason of said delay and default. As indicated in Article 6 of this Contract, this provision for liquidated damages applies separately to each proposal contained in the Contract.

115. Disputes

a. All disputes arising under this Contract or its interpretation, whether involving law or fact or both, or extra work, and all claims for alleged breach of contract shall within ten (10) days of commencement of the dispute, be presented by the Contractor to the City Engineer for decision. All papers pertaining to claims shall be filed in quadruplicate. Such notice need not detail the amount of the claim but shall state the facts surrounding the claim in sufficient detail to identify the claim, together with its character and scope. In the meantime, the Contractor shall proceed with the work as directed. Any claim not presented within the time limit specified within this subparagraph all be deemed to have been waived, except that if the claim is of a continuing character and notice of the claim is not given within ten (10) days of its commencement, the claim will be considered only for a period commencing ten (10) days prior to the receipt by the City Engineer of notice thereof.

b. The Contractor shall submit in detail the claim and the proof thereof. Each decision by the City Engineer will be in writing and will be mailed to the Contractor by both regular mail, email, and/or certified mail, return receipt requested.

c. If the Contractor does not agree with any decision of the City Engineer, the Contractor shall not allow the dispute to delay the work but shall notify the City Engineer promptly

that the Contractor is proceeding with the work under protest and may then accept the manner in question from final release.

116. Service of Notice

Service of notice by the City upon the Contractor may be made by service upon the Contractor, the superintendent, foreman, agent or representative personally or by certified mail, return receipt requested, sent by the City Engineer to the Contractor, and the receipt of such notice by said Contractor, superintendent, foreman, agent or representative, shall constitute full and legal notice within the meaning of this Contract.

117. Qualifications of Contractor

The Contractor must be capable of performing the various items of work bid upon. The Contractor shall furnish on demand of the City Engineer a list of the Contractor's qualifications covering experience on similar work, a list of machinery, plants, and other equipment available for the proposed work, and such statements of any financial resources as may be deemed necessary.

118. Indemnity

The Contractor shall, at the Contractor's own expense, protect, defend, indemnify and hold harmless the City, and its officers, employees, agents, or representatives, from and against all claims, damages, liabilities, losses and expenses, including reasonable attorney's fees, resulting from the acts, omissions, or negligence of the Contractor, or any of the Contractor's officers, employees, agents, representatives, or subcontractors, in any way connected or otherwise related to their performance or nonperformance of this Contract.

119. Insurance

During the life of the Contract, the Contractor shall obtain and maintain the required insurance and bonds as shown on the "Notice to Bidders: Consultants – Bonds – Insurance". The Contractor shall neither be awarded this contract nor commence work under this contract until he has obtained all required documents and evidence of such has been reviewed and approved by the City of Saginaw. The insurance and bond requirements set forth herein are mandatory and not subject to negotiation.

120. Patents, Royalties, Trademarks, Etc.

All fees for claims and royalties for any patented inventions, materials, articles, methods, arrangements, or processes of manufacture that may be used on or in any way connected with the construction, erection or maintenance of this work, or any part thereof, embraced in this Contract, shall be included in the price stipulated and mentioned in the proposal to contract for said work. The City of Saginaw shall be the owner of any such work produced and paid for in connection with this Contract.

121. Performance Bonds and Payment Bonds

a. Prior to the award and within ten (10) days after the prescribed forms are presented for

signature, the successful bidder shall execute and deliver to the City of Saginaw an Agreement in the form included in the Contract Documents in such number of copies as the City of Saginaw may require.

b. Unless otherwise specified in the notice to bidders, the contractor shall furnish a performance and a payment bond. The bonds shall be required as provided by Act 213, Public Acts 1963, as amended. Performance bonds and payment bonds shall be in an amount not less than 100 percent (100%) of the total amount of the Contract, shall be executed by a corporate surety prior to award of Contract, and shall be subject to approval by the City Manager as to substance and by the City Attorney as to form. Irrespective of the provisions of Article 2 of this Contract, the Contractor shall not commence work hereunder until policies of the insurance required by Section 119 of General Conditions and the bonds required by this section shall have been furnished and approved by the City. Upon failure of the Contractor to furnish said insurance policies or bonds within ten (10) days prior to the award of the Contract by the Council, all of the Contractor's rights to the award of the Contract shall terminate unless the time for furnishing any of said instruments shall have been extended by the City Engineer; such extension shall be for good cause shown by the Contractor. Such termination shall not relieve the Contractor of his liability under his bid bond, and failure to provide the necessary surety bonds and insurance policies shall be treated as the failure of the Contractor to enter into the Contract pursuant to the Contractor's bid.

   Bid Bonds, Performance Bonds and Payment Bonds will be written with companies named in the Federal Register as published by the Department of the Treasury or acceptable to the City. Surety shall have a rating of no lower than an A- as rated by A.M. Best Key Rating Guide or acceptable to the City.

c. The failure of the successful bidder to execute this Contract and to supply the required bond or bonds within ten (10) days after the prescribed forms are presented for signature, or within such extended period as the City Engineer may grant, based upon reasons determined sufficient by the City Engineer as good cause shown by Contractor, shall constitute a default, and the City of Saginaw may either award the contract to the next best responsible bidder or re-advertise for bids, and may charge against the bidder the difference between the amount for which a contract for the work is subsequently executed, irrespective of whether the amount thus due exceeds the amount of the bid bond. If a more favorable bid is received by re-advertising the defaulting bidder shall have no claim against the City of Saginaw for a refund.

122. Facilities and Notices for Inspection

The City Engineer and duly authorized inspectors shall at all times have the right to enter the premises upon which said work is being done, or upon which material is manufactured, prepared or stored, for work under this Contract, and to inspect said work and materials, and to ascertain whether or not the construction is carried out in accordance with this Contract; and the Contractor shall render all necessary assistance and provide all reasonable facilities and give ample time for such inspection. When any work or material is being executed or prepared away from the line of work, the City Engineer shall be notified in reasonable time

where such work is being executed and such material prepared and when it will be ready for inspection so that inspection may be made from time to time before delivery. Failure or neglect on the part of the City Engineer or any inspector to condemn any material at the time of its being supplied or furnished shall not be construed to imply an acceptance thereof.

The Contractor shall notify the Engineer sufficiently in advance of backfilling or concealing any facilities to permit proper inspection. If any facilities are concealed without approval or consent of the Engineer, the Contractor shall uncover for inspection and recover such facilities, at the Contractor's own expense, when so requested by the Engineer.

123. Materials and Workmanship

a. Unless otherwise specifically provided for in the Technical Specifications, all workmanship, equipment, materials, and articles incorporated in the work shall be new and the best grade of the respective kinds for the purpose. Where equipment, materials, articles, or workmanship are referred to in the Technical Specifications as “equal to” any particular standard, the City Engineer shall decide the question of equality.

b. The Contractor shall furnish to the City Engineer for approval the manufacturer's detailed specifications for all machinery, mechanical and other special equipment which the Contractor contemplates installing, together with full information as to type, performance characteristics, and all other pertinent information as required, and shall likewise submit for approval as required full information concerning all other materials or articles which the Contractor proposes to incorporate in the work (see paragraph 124: “Samples Certificates and Tests”, of Division 1, General Conditions).

c. Machinery, mechanical and other equipment, materials, or articles installed or used without such prior approval shall bear the risk of subsequent rejection.

d. Materials specified by reference to the number or symbol of a specific standard, such as an ASTM Standard, a Federal Specification or other similar standard, shall comply with requirements in the latest revision thereof and any amendment or supplement thereto in effect on the date of the Notice Inviting Sealed Proposals, except as limited to type, class, or grade, or modified in such reference. The standards referred to, except as modified in the Technical Specifications, shall have full force and effect as though printed therein.

e. When any material has been furnished by the City, the Contractor, or the Contractor’s authorized agent, shall sign a receipt therefore, stating that the material has been received in good condition; and, after receiving such material, the Contractor shall be responsible for the material and shall protect it from the weather and from all other causes which might damage the same, in order to keep the material in as good condition as when it was received. All material broken, damaged or stolen when in the care of the Contractor shall be charged against the Contractor and the value thereof deducted from any monies that may become due the Contractor. All materials furnished by the City shall be loaded and hauled from locations as directed by the City Engineer or Employee.

124. Samples, Certificates and Tests

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a. The Contractor shall submit all material and equipment samples, certificates, affidavits, etc., as called for in the Contract Documents or required by the Engineer. No such material or equipment shall be manufactured or delivered to the site except at the Contractor's own risk, until the Engineer has approved the required samples or certificates. Any delay in the work caused by late or improper submission of samples or certificates for approval shall not be considered just cause for an extension of the Contract time.

   Each sample submitted by the Contractor shall carry a label giving the name of the Contractor, the project for which it is intended, and the name of the producer. The accompanying certificates or letters from the Contractor shall state that the sample complies with Contract requirements, shall give the name and brand of the product, its place of origin, the name and address of the producer, and all specifications or other detailed information which will assist the Engineer in passing upon the acceptability of the sample promptly. Such certificate or letter shall also include the statement that all materials or equipment furnished for use in the project will comply with the samples and/or certified statements.

b. Approval of any materials shall be general only and shall not constitute a waiver of the City of Saginaw's right to demand full compliance with Contract requirements. After actual deliveries, the Engineer will have such check tests made, as deemed necessary in each instance, and may reject materials and equipment and accessories for cause, even though such materials and articles have been given general approval. If materials, equipment, or accessories, which fail to meet check tests, have been incorporated in the work, the Engineer will have the right to cause their removal and replacement by proper materials or to demand and secure such reparation by the Contractor as is equitable.

c. Except as otherwise specifically stated in the Contract, the costs of sampling and testing will be divided as follows:

   I. The Contractor shall furnish, without extra cost, all samples required for testing purposes; furnishing shall include packing and delivery charges, except for those samples taken on the project by the Engineer;

   II. The Contractor shall assume all costs of retesting materials which fail to meet Contract requirements;

   III. The Contractor shall assume all costs of testing materials offered in substitution for those found deficient; and

   IV. The City of Saginaw will pay all other expenses.

125. Permits and Codes

The Contractor shall keep fully informed of and shall at all times observe and comply with all existing or future Federal, State, or local laws or regulations, all requirements and provisions of the Charter of the City of Saginaw, and all municipal ordinances, prohibitions, rules, and regulations in any manner affecting the conduct of the work, and shall protect and indemnify

the City against any and all claims arising from or based on any violations of such laws, Charter, ordinances, prohibitions, rules, regulations, orders, or decrees and against all violations of same by the Contractor or the Contractor's officers, employees, agents, representatives, or subcontractors.

126. Care of Work

a. The Contractor shall be responsible for all damages to persons or property that occur as a result of the Contractor's fault or negligence, or the fault or negligence of the Contractor's officers, employees, agents, representatives or subcontractors, in connection with the execution of the work and shall be responsible for the proper care and protection of all work performed until completion and final acceptance, whether or not the same has been covered in whole or in part by payments made by the City of Saginaw.

b. In an emergency affecting the safety of life or property on or adjoining the site, the Contractor shall act, either at the Contractor's own discretion or as instructed by the City of Saginaw, to prevent such threatened loss or injury. Any compensation claimed by the Contractor on account of such emergency work will be determined by the City of Saginaw as provided in the section entitled "Changes in the Work", in Section 111, Division I, General Conditions. In no instance shall the Contractor be paid for such emergency work where the emergency work was necessitated by the acts or omissions of the Contractor, or its officers, employees, agents, representatives, or subcontractors.

c. The Contractor shall avoid damaging sidewalks, streets, curbs, pavements, utilities, structures, or any other property (except that which is to be replaced or removed) either on or adjacent to the site. The Contractor shall repair at the Contractor's own expense and in manner satisfactory to the City of Saginaw, any damage thereto caused by the Contractor's operations, or the operations of the Contractor's officers, employees, agents, representatives, or subcontractors.

d. All water and gas mains, all sewer and other pipes, and all conduits and other underground work of any nature, crossing or projecting into any trench or excavation and all appurtenances thereto, such as Cast Iron Valve Boxes, curb boxes, manhole casting, etc. shall be sufficiently and adequately shored and supported by timber and planking, as required per contract specifications, and protected by the Contractor from injury, and any damage or injury thereto shall be repaired by the Contractor at the Contractor's own expense to the satisfaction of the City Engineer.

e. The Contractor shall at all times keep excavated areas, trenches, and holes free of water during the progress of the work. All costs for the installation and operating of pumps and other necessary equipment to keep excavated areas, trenches, and holes free of water shall be borne by the Contractor.

127. Review by the City of Saginaw

The City of Saginaw, its authorized representatives and agents, shall, at all times, have access to and be permitted to observe and review all work, materials, equipment, payrolls, personnel records, employment conditions, and other relevant data and records pertaining to this

contract, provided, however, that all instructions and approvals with respect to the work will be given to the Contractor only by the City of Saginaw through its authorized representatives or agents.

128. Sanitary Facilities

The Contractor shall furnish, install, and maintain ample sanitary facilities for employees and sub-contractors. As the need arises, a sufficient number of enclosed temporary toilets shall be conveniently placed as required by federal, state or local law or regulation.

Drinking water shall be provided from an approved source, so piped or transported as to keep it safe and fresh and served from single service containers or satisfactory types of sanitary drinking stands or fountains. All such facilities and services shall be furnished in strict accordance with existing federal, state, or local law or regulation.

129. Water

Water for use on improvements may be procured from the nearest hydrant. Permission to open and use hydrants and water shall, however, first be obtained from the City of Saginaw or other proper jurisdiction, subject to rules and regulations of said jurisdiction; the Contractor shall furnish all necessary piping, hose and accessories and pay all water taxes, fees, and charges incidental to the opening and closing of hydrants and the use of water. Before the allowance of the final estimates, the Contractor shall present to the City Engineer a receipt from the authorizing jurisdiction's treasurer, showing that all water taxes and charges for the use of water under this Contract have been paid.

130. Stoppage of Work and Crossings

Upon any stoppage of work, all materials are to be piled up neatly so as not to impede travel upon the sidewalks or roadway, or the use of fire hydrants, and all rubbish and surplus material shall be removed immediately thereafter from the street or avenue by the Contractor. During rainy weather, the Contractor shall lay a temporary plank crosswalk across the street from sidewalk to sidewalk, such as will provide safe and dry footing for pedestrians. When so ordered by the City Engineer, the Contractor shall lay a temporary roadway or bridge sixteen (16) feet in width across the entire intersection or excavation or trench such as will provide a safe and satisfactory roadway for vehicular travel. All the aforesaid work shall be done without cost to the City other than the price paid for excavation.

131. Privileges of Contractor in the Street

a. The Contractor may occupy the whole width of the roadway between the sidewalks or the street lines. The Contractor shall not close more than three (3) blocks at one time without permission from the City Engineer. Each block of pavement or improvement shall be finished and opened to public travel as soon as practicable after the commencement of work thereon, but the use of any portion of the pavement or improvement by the public shall not be construed as an acceptance of the work, nor shall the Contractor be entitled to any damages thereby. No more than two consecutive street intersections shall be closed to public traffic at the same time, and each alternate intersection shall be opened for traffic,

unless otherwise ordered by the City Engineer.

b. All sidewalk approaches and the crossings at street intersections shall be kept open and always made safe and passable at all times by the Contractor for both pedestrian and vehicular travel, except at such times as the Engineer may direct otherwise.

c. The Contractor shall provide and maintain a safe and satisfactory roadway across all railway tracks at such places as required. Unless authority is otherwise given, the Contractor shall complete one side of the street before closing the other side, keeping the street open for travel and the fire department as much as possible.

132. Excavations Under Railroads

In excavating under or adjacent to any railroad tracks, the running of trains or cars must not be interrupted or interfered with, and the Contractor shall conduct this work so as not to cause injury to such tracks. The Contractor shall notify the railroad company owning said tracks to support and protect same and shall arrange with such company for any construction and for any expense incurred thereby, without cost to the City.

133. Barricades and Traffic Controls

All barricades and traffic controls for the work shall be in conformance with the 2011 Michigan Manual of Uniform Traffic Control Devices (hereafter referred to as the Manual). The Contractor shall barricade or fence the work as outlined in the Manual or as directed by the Engineer.

In addition to the requirements of the Manual, the Contractor shall maintain at all times a good and sufficient fence, railing or barrier around all exposed portions of said work in such a manner as to warn vehicular and pedestrian traffic of hazardous conditions. This shall apply to all construction projects either within street right-of-way or off-street right-of-way.

It shall also be the duty of the Contractor to place upon such barriers, fences, or railings, at evening twilight on each day, the required colored lights, and to keep them lighted during the night.

The Contractor shall put up and maintain barricades and traffic controls as required by the Manual for any stored materials the Contractor may have placed in the street.

Should the Contractor fail to properly barricade the work or stored material sites in the manner outlined above, the City may have the necessary barricading done, and all costs incurred for said barricading shall be charged to the Contractor.

All costs incurred for barricading or fencing shall be incidental to the work items in the Contract unless otherwise stated. In addition, all costs incurred by the City for placing barricading or fencing on the work site when the Contractor has failed to do so, or when the Contractor has failed to properly maintain those barricades or fencing the Contractor has placed, shall be charged to the Contractor, who shall promptly pay all charges. Should the Contractor fail to pay for the barricading placed by the City, the City may deduct the amount

owing from the final payment.

134. Grade Stakes

Grade or line stakes will be given by the City and must be protected and preserved and strictly followed, but the Contractor shall note any irregularities in such stakes and have the same checked before proceeding. The Tops of all stakes must be uncovered and kept exposed by the Contractor at any and all times so as to be accessible to the Engineer on demand.

135. Street Monuments

The Contractor shall not disturb any street monuments unless authorized to do so by the City Engineer.

136. Sunday and Night Work

No Sunday or night work shall be done except in case of emergency, and then only with the written consent of the Engineer. If, for any reason, it is necessary to do any work after twilight and permission is granted, the Contractor shall furnish suitable lighting without cost to the City other than the price paid for the work being done.

137. Test Borings, Test Holes, or Test Pits

All data on plans relative to test borings, test holes or test pits made by the City for the purpose of determining soil conditions in, alongside of, or in close proximity to the line of work, shall in no way be construed by the Contractor as a guarantee of soil conditions as will be encountered in the line of the work, but will be understood to be nothing more than data which the Contractor may or may not use in forecasting soil conditions.

138. Cleaning Up

Upon completion of the actual work of construction, the Contractor shall clean up and leave in a neat condition all the premises, which the Contractor has occupied during the construction period. Before the time for the final estimate, the Contractor shall remove from the premises all surplus excavation, debris, rubbish, and all unused materials, together with all tools and equipment. Should the Contractor fail to properly clean the premises within fourteen (14) days of completion of the work, the City of Saginaw, in its sole discretion, may exercise the right to clean same, and shall charge the costs of any such clean up against the final payment to the Contractor.

139. Correcting Work

Any unfaithful work or imperfect work or material that may be discovered before the final acceptance of the work shall be corrected and replaced immediately on the order of the City Engineer. In case any material is rejected, it shall be immediately removed from the line of work and not again brought thereon. In case the order for removal and replacing as specified above is not promptly complied with after written notice, the City Engineer shall be at liberty to remove and replace the same with proper materials, at the expense of the Contractor, and

the cost thereof shall be deducted from the amount due the Contractor. Any failure of the City to disapprove the work or material at the time of the inspection, or at the time of any semi-monthly or other estimate, shall not relieve the Contractor of any obligations. All work or material of whatever kind, which, during the progress of construction and before its final acceptance, may become damaged from any cause and shall be removed and replaced by the Contractor with good and satisfactory work or material; the Contractor shall bear the cost of such replacement where the replacement was necessitated by the act or omission of the Contractor or the Contractor's officers, employees, agents, representatives or subcontractors. Should it become necessary to retain any faulty or imperfect work or material which, if corrected or replaced would cause undue risk, injury or delay, a sum to be adjusted by the City Engineer, not exceeding the whole value of such work or material if the same were correct, shall be deducted from the Contract price.

140. Accident Prevention

a. The Contractor shall always exercise proper precaution at all times for the protection of persons and property and shall be responsible for all damages to persons and property, either on or off the site, which occur as a result of the Contractor's fault or negligence, or the fault or negligence of the Contractor's officers, employees, agents, representatives or subcontractors, in connection with the execution of the work. The safety provisions of applicable laws and building and construction codes shall be observed, and the Contractor shall take or cause to be taken such additional safety and health measures as the City of Saginaw may determine to be reasonably necessary. Machinery, equipment, and all hazards shall be guarded in accordance with the safety provisions of the "Manual of Accident Prevention in Construction" published by the Associated General Contractors of America, Inc., to the extent that such provisions are not in conflict with applicable local laws.

b. The Contractor shall maintain an accurate record of all cases of death, occupational disease, and injury requiring medical attention or causing loss of time from work, arising out of and in the course of employment or work under the Contract. The Contractor shall promptly furnish the City of Saginaw with reports concerning these matters.

c. The Contractor shall indemnify and save harmless the City of Saginaw from any claims from damages resulting from personal injury and/or death suffered or alleged to have been suffered by any person as a result of any work conducted under this Contract.

141. Requests for Supplementary Information

It shall be the responsibility of the Contractor o make timely requests of the City Engineer for any additional information not already in the Contractor's possession which should be furnished by the City of Saginaw under the terms of this Contract, and which will be required in the planning and execution of the work. Such requests may be submitted in writing from time to time as the need arises, but each shall be filed in ample time to permit appropriate action to be taken by all parties involved so as to avoid delay. The Contractor shall be fully responsible for any delay in the work or to others arising from the Contractor's failure to comply fully with the provisions of this section.

Division I
General Conditions

142. Warranty of Title

No material, supplies, or equipment for the work shall be purchased subject to any chattel mortgage or under a conditional sale or other agreement by which an interest therein or in any part thereof is retained by the seller or supplier. The Contractor shall warrant good title to all materials, supplies, and equipment installed or incorporated in the work and upon completion of all work, shall deliver the same together with all improvements and appurtenances constructed or placed thereon to the City of Saginaw free from any claims, liens, or charges. Neither the Contractor, nor any person, firm or corporation furnishing any material or labor for any work covered by this Contract, shall have any right to a lien upon any improvement of appurtenance thereon. Nothing contained in this paragraph, however, shall defeat or impair the right of persons furnishing materials or labor to recover under any bond given by the Contractor for their protection or any rights under any law permitting such persons to look to funds due the Contractor in the hands of the City of Saginaw. The provisions of this paragraph shall be inserted in all subcontracts and material contracts and notice of its provisions shall be given to all persons furnishing materials for the work when no formal contract is entered into for such materials.

143. Fair Employment Practices

a. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, national origin, age, sex, height, weight, sexual orientation, gender identity, marital status, or membership in another class of persons protected by federal, state, or local law. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, national origin, age, sex, height, weight, sexual orientation, gender identity, marital status, or membership in another class of persons protected by federal, state, or local law. Such action shall include but not be limited to the following: employment, upgrading, demotion, termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices describing the federal, state, or local law prohibiting job discrimination.

b. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age, national origin or inclusion in other class of persons protected by federal, state, or local law.

c. The Contractor will send to each labor union or representative of workers with which the Contractor has a collective bargaining agreement or other contract or understanding, a notice, to be provided, advising the labor union or worker's representative of the Contractor's commitments under this section.

d. The Contractor will furnish all information and reports required by the City of Saginaw, and will permit the City access to any books, records, and accounts for purposes of investigation to ascertain compliance with this section.

e. The Contractor shall comply with the provisions of the federal Civil Rights Act of 1964, as amended, Michigan's Elliott-Larsen Civil Rights Act, P.A. 453 of 1976, as amended, and any such other nondiscrimination law as may apply to Contractor and its activities hereunder.

f. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this Contract, this Contract may be immediately cancelled, terminated, or suspended by the City, in whole or in part, and the Contractor may be declared ineligible for further contracts.

g. The Contractor will include the provisions of paragraphs (a) through (f) in every subcontract, so that such provisions will be binding upon each such subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the City of Saginaw may direct as a means of enforcing such provisions, including sanctions for noncompliance.

144. Acceptance

No estimate given or payment made under the Contract, or the occupancy of the work herein required, either partial or entire by the City, shall be evidence of the performance of the Contract either in whole or in part, nor an acceptance of imperfect or faulty work or material.

145. Guarantee

The Contractor shall be responsible for and must make good any defects arising or discovered in the work or material required hereunder within one (1) year from the completion and final acceptance of such work and material, except for concrete sidewalks, new or repaired, and paving between the curb and sidewalk (driveway approaches), which shall be guaranteed for a period of five (5) years from the completion and final acceptance of such work and material. No payment, final or otherwise, shall be construed to relieve the Contractor from the obligation to make good any defect arising or discovered within such period, nor as a waiver of any specific obligation which the Contractor may assume as to the durability of the work. Nothing in this section, or elsewhere in this Contract, shall be construed as a waiver or diminishment of any statute of limitations or other time period in which the City is allowed to raise a claim against the Contractor relating to the work to be performed herein.

146. Michigan Sales & Use Tax

The Contractor shall include and be deemed to have included in the bid and contract price all Michigan Sales and Use Taxes currently imposed by legislative enactment and as administered by the Michigan Department of Treasury on the bid date.

If the Contractor is not required to pay or bear the burden, or obtain a refund or drawback, in whole or in part, of any Michigan Sales or Use Tax, interest or penalty thereon, which was required to be and was deemed to have been included in the bid and contract price, the contract price shall be reduced by the amount thereof, and the amount of such reduction whether as a refund or otherwise shall ensure solely to the benefit of the City of Saginaw.

147. Final Inspection

Division I
General Conditions

When the improvements embraced in this Contract are substantially completed, the Contractor shall notify the City Engineer in writing that the work will be ready for final inspection on a definite date, which shall be stated in the notice. The notice will be given at least ten (10) days prior to the date stated for final inspection and bear the signed concurrence of the representative of the City Engineer having charge of inspection. If the City Engineer determines that the status of the improvements is as represented, he or she will make the arrangements necessary to have final inspection commenced on the date stated in the notice, or as soon thereafter as is practicable.

NOTICE TO BIDDERS

Consultants - Insurance - Bonds

In case of a conflict between the City's documents and the documents provided by the consultant the City's shall prevail,

The City of Saginaw shall not be a party to any arbitration proceeding.

Provide Engineering with a copy of this endorsement with all other insurances and bonds.

REQUIRED/APPLICABLE INSURANCE – NO EXCEPTIONS

COMMERCIAL GENERAL LIABILITY (C.G.L.)

OWNER'S AND CONTRACTOR'S PROTECTIVE LIABILITY (O.C.P.)

UMBRELLA LIABILITY

AUTOMOBILE - WORKMAN'S COMPENSATION

REQUIRED BONDS – Over $50,000 - NO EXCEPTIONS

PAYMENT BOND – S-215-AIA-A312 (11/10), S-215-AIA-A312 (11/10) or current version is required, no substitutions allowed.

PERFORMANCE BOND - A-2100-AIA-A312 (11/10) or current version is required, no substitutions allowed.

MAINTENANCE BOND – IF REQUIRED (See Individual contract)

The City of Saginaw does not provide the required bond forms.

Additional information:

Upon failure of the Contractor to furnish said insurance policies or bonds within ten (10) days prior to the award of the Contract by the Council, all the Contractor's rights to the award of the Contract shall terminate unless the time for furnishing any of said instruments shall have been extended by the City Engineer; such extension shall only be for good cause shown by Contractor.

The Contractor must have all copies the Contract signed, insurances, bonds and all required documents returned and approved by City of Saginaw (Engineering, Attorney, and Insurance/Bond Reviews) prior to the contract going to Council for approval and award.

The Contractor will not be allowed to start work until all City of Saginaw signatures are obtained. Contract Books are **not always** signed at the City Council Meeting when the contract is approved.

INSURANCES REQUIRED

INDEMNITY

The Contractor shall, at the Contractor's own expense, protect, defend, indemnify and hold harmless the City, and its officers, employees, agents, or representatives, from and against all claims, damages, liabilities, losses and expenses, including reasonable attorney's fees, resulting from the acts, omissions, or negligence of the Contractor, or any of the Contractor's officers, employees, agents, representatives, or subcontractors, in any way connected or otherwise related to their performance or nonperformance of this Contract.

INSURANCE

a. During the life of the contract, the Contractor shall effect and maintain the following types of insurance:

Commercial General Liability (cgl)
Automobile
Workman's Compensation
Umbrella Liability
Owner's and Contractor's Protective Liability (ocp)
*Builder's Risk (when applicable)
*Pollution Coverage (when applicable)
*The City will specify when such coverage is applicable.

All insurers shall have at least an A- (excellent) rating by A.M. Best or acceptable to the City and be written on an occurrence basis.

Contractor agrees to name and require its subcontractors to name the City of Saginaw, its officers, employees, agents, or representatives, as additional insureds on Contractor's and its subcontractors' general liability and umbrella/excess insurance policies, with primary, non-contributory coverages, and including coverage for products-completed operations hazards and for ongoing work. The policy shall include a per project aggregate. The Additional Insured endorsement shall be as broad as ISO's (CG 20 10 11/85) or a combination of ISO's Scheduled Ongoing Operations (CG 20 10 10/01) and Scheduled Completed Operations (CG 20 37 10/01). All of Contractor's insurance policies shall contain terms waiving subrogation rights against the City of Saginaw its officers and employees. Proof of the waiver of subrogation for each insurance policy shall be by endorsement. The Contractor shall include this waiver of subrogation in contracts with its Subordinate Parties.

For General Liability and Umbrella Coverage
Contractor shall maintain, for a period of six years after completion of all Work on the project General Liability and Umbrella coverage.

The Contractor shall not commence work under this contract until he has obtained all required insurance and evidence of such insurance has been reviewed and approved by the City Engineer.

b. All certificates of insurance issued for this contract shall contain the following information in addition to stating the type of insurance and the amount of coverage.

I. The Contract number and description of work covered by the insurance.

II. The insurance must be in a form acceptable to the City and the deductible shall not exceed $5,000.00, unless otherwise approved by the City.

III. Thirty (30) days' notice in writing of any cancellation, termination or change of condition of the policy.

c. Certificates of Insurance must be presented prior to commencing any work under this contract, as well as upon request by the City during or after the Project; however, Contractor's failure to submit the required Certificate of Insurance, or failure to have the Certificates of Insurance identify the required coverage, does not excuse Contractor from procuring the required insurance. The Contractor shall be responsible for and pay any deductibles or self-insured retention amounts. The Contractor's insurance policies shall provide for 30 days written notice to the City for cancelation or any change in coverage. Not less than two weeks prior to the expiration, cancellation, or termination of any such policy, Contractor shall supply the City with new and replacement certificate(s) of insurance as proof of renewal of said original policy showing compliance with minimum insurance requirements below.

d. Commercial General Liability and Owner's and Contractor's Protective Liability. The Contractor shall procure and shall maintain during the life of this contract Commercial General Liability, and Owner's and Contractor's Protective Liability insurance with limits of liability not less than the amounts listed on the following page.

e. Automobile Insurance: The Contractor shall procure and maintain during the life of this contract Automobile Insurance with limits of liability not less than the amounts listed on the following page.

f. Workman's Compensation: The Contractor shall procure and maintain during the life of this contract Worker's Compensation Insurance, including Employers Liability Coverage, in accordance with all applicable statutes of the State of Michigan.

g. Umbrella and/or Excess Liability: The Contractor shall procure and maintain during the life of this contract Umbrella and/or Excess Liability with limits of liability not less than the amounts listed on the following page.

h. Builder's Risk: (when applicable). The Contractor shall procure and maintain during the life of this contract Builder's Risk Insurance equal to one hundred percent of the completed value of the structures.

i. Pollution Coverage: The Contractor or the Subcontractor who actually performs the work shall carry pollution insurance in the amount of $1,000,000.00 (or such other limit as may be determined in the sole discretion of the City Engineer) where the project involves Asbestos, Environmental or Lead abatement or such other work where the City specifies that pollution insurance is necessary.

INSURANCE LIMITS

General Liability Limits	
$1,000,000	Each Occurrence
$1,000,000	Personal and Advertising Injury
$2,000,000	General Aggregate
$2,000,000	Products and Completed Operations Aggregate
Automobile	
$1,000,000	Each Accident
Umbrella and/or Excess Liability	
$5,000,000	Occurrence/Aggregate
Owner's and Contractor's Protective Liability	
$1,000,000	Occurrence
$2,000,000	Aggregate

The following language applies as it pertains to limits:

Should the Contractor have an insurance policy with limits of liability or coverage greater than or in addition to those required by the contract, then those higher limits of liability and coverage in the Contractor's policy shall apply.

The Contractor is responsible for USHL coverage for workers compensation if required by law.

The umbrella/excess policy can be used to meet underlying requirements and must follow form.

NOTICE TO BIDDERS

IRAN ECONOMIC SANCTIONS ACT:

The act provides that Iran linked businesses are ineligible from submitting a bid on the City's requests for proposals. The Act further provides that the City shall require all bidders to certify that they are not Iran linked businesses.

Definition: Iran linked businesses are those linked to the Iranian energy sector. An Iran linked business is specifically defined as:

i. A person engaging in investment activities in the energy sector of Iran, including a person that provides oil or liquefied natural gas tankers or products used to construct or maintain pipelines used to transport oil or liquefied natural gas for the energy sector of Iran.

ii. A financial institution that extends credit to another person, if that person will use the credit to engage in investment activities in the energy sector of Iran.

The provisions of the Act are only in effect if a country is a state sponsor of terror. A state sponsor of terror is defined as any country determined by the United States secretary of state to have repeatedly provided support for acts of international terrorism. Iran is currently on the US SOS state sponsor of terrorism list (http://www.state.gov/j/ct/list/c14151.htm), along with Cuba, Sudan, and Syria.

NOTICE TO BIDDERS

§ 14.36 PREFERENCE FOR LOCAL BIDDERS.

(A) (1) If the lowest bidder is not a Saginaw-based bidder, as defined above, any Saginaw-based bidder with a bid within 5% of the lowest bid shall be deemed the lowest bidder if it agrees to reduce its bid to match the bid of the lowest bidder. Such a bidder will remain bound to all terms of their original bid.

(2) A lowered bid by a Saginaw-based business which is premised upon, in whole or in part, changes to or variances to the bid specifications, contract requirements, or scope of work, shall be considered non-responsive and will not be considered.

(B) If such a Saginaw-based business refuses to reduce its bid to match the lowest bid, then the next lowest responsive and responsible Saginaw-based business with a bid within 5% of the lowest bid shall be deemed the lowest bidder, if it agrees to reduce its bid to match the bid of the lowest bidder. Such a bidder will remain bound to all other terms of their original bid.

(C) If no responsive and responsible Saginaw-based businesses within 5% of the lowest bid agree to reduce their bids, then the contract shall be awarded to the person or business with the lowest, most responsive and responsible bid.

(D) In the event of a tie between two or more Saginaw-based businesses, where all other factors are equal, the award of the bid shall be by coin toss conducted by the Purchasing Officer or his or her designee.

(E) No contract awarded pursuant to this ordinance shall be sublet in any manner that permits 50% or more of the dollar value of the contract to be performed by a subcontractor or subcontractors who do not meet the definition of “Saginaw-based.”

(F) The section shall not waive or constrain, in any manner, the right and prerogative of the City to reject any and all bids or proposals from any Saginaw-based business which fails to meet the requirements of any other section of this ordinance, or to reject a bid which is in any way incomplete, irregular, not responsive or not responsible.

(G) Local preferences shall not be applied in cases of procurements funded, even in part, with federal dollars, unless such procurement is for architectural and engineering services. When contracting for architectural and engineering services, local preference may be a selection criterion provided its application leaves an appropriate number of qualified vendors, given the nature and size of the project, to complete the contract.

See Title 1: Administrative Code - Chapter 14: Finance and Purchasing

X-REMOVE-X

American Iron and Steel Contract Language

The Contractor acknowledges to and for the benefit of the City of Saginaw ("Purchaser") and the Michigan Department of Environment, Great Lakes, and Energy (the "State") that it understands the goods and services under this Agreement are being funded with monies made available by the Clean Water State Revolving Fund and/or the Drinking Water State Revolving Fund and such laws contain provisions commonly known as "American Iron and Steel (AIS);" that requires all iron and steel products used in the project be produced in the United States ("AIS Requirements") including iron and steel provided by the Contractor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Purchaser and the State that (a) the Contractor has reviewed and understands the AIS Requirements, (b) all iron and steel used in the project will be and/or have been produced in the United States in a manner that complies with the AIS Requirements, unless a waiver of the requirements is approved or the State made the determination in writing that the AIS Requirements do not apply to the project, and (c) the Contractor will provide any further verified information, certification, or assurance of compliance with this paragraph, or information necessary to support a waiver of the AIS requirements, as may be requested by the Purchaser.

Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or State to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Purchaser or State resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Purchaser). While the Contractor has no direct contractual privity with the State, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State.

Build America, Buy America Contract Language

The Contractor acknowledges to and for the benefit of the City of Saginaw ("Owner") and the Michigan Department of Environment, Great Lakes, and Energy (the "Funding Authority") that it understands the goods and services under this Agreement are being funded with federal monies and have statutory requirements commonly known as "Build America, Buy America;" that requires all of the iron and steel, manufactured products, and construction materials used in the project to be produced in the United States ("Build America, Buy America Requirements") including iron and steel, manufactured products, and construction materials provided by the Contactor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Owner and Funding Authority (a) the Contractor has reviewed and understands the Build America, Buy America Requirements, (b) all of the iron and steel, manufactured products, and construction materials used in the project will be and/or have been produced in the United States in a manner that complies with the Build America, Buy America Requirements, unless a waiver of the requirements is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the Build America, Buy America Requirements, as may be requested by the Owner or the Funding Authority. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Owner or Funding Authority to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Owner or Funding Authority resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the Funding Authority or any damages owed to the Funding Authority by the Owner). If the Contractor has no direct contractual privity with the Funding Authority, as a lender or awardee to the Owner for the funding of its project, the Owner and the Contractor agree that the Funding Authority is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the Funding Authority.

Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment

The Contractor acknowledges to and for the benefit of the City of Saginaw ("Owner") and the Michigan Department of Environment, Great Lakes, and Energy (the "Funding Authority") that it understands:

This term and condition implements 2 CFR 200.216 and is effective for obligations and expenditures of the U.S. Environmental Protection Agency (or EPA)'s financial assistance funding on or after 8/13/2020.

As required by 2 CFR 200.216, EPA recipients and subrecipients, including borrowers under EPA funded revolving loan fund programs, are prohibited from obligating or expending loan or grant funds to procure or obtain; extend or renew a contract to procure or obtain; or enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that use covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115-232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities). Recipients, subrecipients, and borrowers also may not use EPA funds to purchase:

a. For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).

b. Telecommunications or video surveillance services provided by such entities or using such equipment.

c. Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

Consistent with 2 CFR 200.471, costs incurred for telecommunications and video surveillance services or equipment such as phones, internet, video surveillance, and cloud servers are allowable except for the following circumstances:

a. Obligating or expending EPA funds for covered telecommunications and video surveillance services or equipment or services as described in 2 CFR 200.216 to:

    (1) Procure or obtain, extend or renew a contract to procure or obtain;

    (2) Enter into a contract (or extend or renew a contract) to procure; or

    (3) Obtain the equipment, services, or systems. Certain prohibited equipment, systems, or services, including equipment, systems, or services produced or provided by entities identified in section 889, are recorded in the System for Award Management exclusion list.

Davis-Bacon and Related Acts/Prevailing Federal Wages

P.L. 111-88 requires compliance with the Davis Bacon Act and adherence to the current U.S. Department of Labor Wage Decision. Attention is called to the fact that not less than the minimum salaries and wages as set forth in the Contract Documents (see Wage Decision included herein) must be paid on this project. The Wage Decision, including modifications, must be posted by the Contractor on the job site. The “Contracting Agency” or “Contracting Officer” for Davis-Bacon Wage Decision posters on jobsites is the loan applicant/bond issuer. A copy of the Labor Standards Provisions for Federally Assisted Projects is included and is hereby a part of this contract.

GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
MICHIGAN STRATEGIC FUND
STATE HISTORIC PRESERVATION OFFICE

QUENTIN L. MESSER, JR.
PRESIDENT

March 13, 2026

JONATHAN BERMAN
MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
STATE REVOLVING FUND COMPLIANCE SPECIALIST
CONSTITUTION HALL, PO BOX 30457
LANSING, MI 48909

RE: ER26-333 Lead Service Line Replacement Project, City of Saginaw, T11N/R04E/S01 and 02, T11N/R05E/S06, T12N/R04E/S13, 24, 25, 26, 35, and 36, T12N/R05E/S05, 07, 08, 17 – 20, 29-32, City of Saginaw, Saginaw County, (EPA)

Dear Jonathan Berman:

Under the authority of Section 106 of the National Historic Preservation Act of 1966, as amended, we have reviewed the above-referenced undertaking. The information provided for our review indicated a heightened potential for archaeological resources at certain locales for the undertaking, therefore, SHPO agrees with the recommendation for archaeological monitoring during specific portions of the undertaking.

Based on the information provided for our review, it is the opinion of the State Historic Preservation Officer (SHPO) that the proposed undertaking will have **no adverse effect** [36 CFR § 800.5(b)] on historic properties within the area of potential effects for the above-cited undertaking **provided the following conditions are met:**

- Archaeological monitoring during any ground disturbing activities for the following locations (please refer to Table 6 and Figure 32 and 33 in the archaeological assessment):
    - South Water Street – Hayden Street to Emerson Street
    - South Washington Avenue (west side) - Hayden Street to Emerson Street
    - Thompson Street - South Water Street to South Washington Avenue
    - Hoyt Avenue - South Water Street to South Washington Avenue
    - Emerson Street - South Water Street to South Washington Avenue
    - South Washington Street - East Remington Street to Rust Avenue/MI 46
    - South Water Street - East Remington Street to Rust Avenue/MI 46
    - East Remington Street - Saginaw River to railroad east of South Washington Avenue
    - East Holland Street - Saginaw River to railroad east of South Washington Avenue
    - Ezra Rust Drive - Forney Street to South Washington Avenue
    - Ojibway Island Drive - Ojibway Island/Rust Park
    - Hoyt Park Upper and Lower Drives - Hoyt Park, east of South Washington Avenue
    - Wickes Park Drive - Fordney Street to Ketcham Street
    - Fordney Street - Wickes Park Drive to Ketcham Street
    - Webber Street - River Street to Fordney Street
    - Ketcham Street (north side) - River Street to Fordney Street
    - South Washington Avenue - Nimons Street to Albany Street
    - East Street - South Washington Avenue to Albany Street
    - Albany Street - South Washington Avenue to East Street
- Monitoring must be conducted by a professional archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards (48 FR 44738-9).
- Additionally, an Unanticipated Discoveries Plan (UDP) must be submitted to the State Historic Preservation Office prior to project-related activities. The UDP is to be used throughout the entirety of the project. Please refer to the enclosed *Unanticipated Discoveries Plan Template* and create a UDP for the project.
- Any archaeological resources identified during monitoring must be evaluated and impacts to resources eligible for the

National Register of Historic Places must be avoided, minimized, or mitigated. Monitoring results must be reported to SHPO for review and comment, and the monitoring report must meet the Secretary of the Interior's Standards for Archaeological Documentation and state archaeology guidelines.

If you concur, the accompanying form must be signed by an agency official with legal authority to act on behalf of the agency [36 CFR § 800.2(a)]. Please return the signed original to us. Please note that the Section 106 review process will not be complete and FTA's responsibility to comply with 36 CFR § 800.4, "Identification of historic properties," and 36 CFR § 800.5, "Assessment of adverse effects," will not be fulfilled until we have received this letter with the original signature of the agency official. **If the agency official disagrees with these conditions, then consultation with this office shall be reopened per 36 CFR § 800.5(a).**

The National Historic Preservation Act requires that federal agencies consult with any Native American Tribe and/or Tribal Historic Preservation Officer (THPO) that attach religious and cultural significance to historic properties that may be affected by the agency's undertakings per 36 CFR § 800.2(c)(2)(ii). We remind you that federal agency officials or their delegated authorities are required to involve the public in a manner that reflects the nature and complexity of the undertaking and its effects on historic properties per 36 CFR § 800.2(d).

Subsequent project material can be submitted online through our Additional Information Portal.

The State Historic Preservation Office is not the office of record for this undertaking. You are therefore asked to maintain a copy of this letter with your environmental review record for this undertaking. If the scope of work changes in any way, please notify this office immediately.

If you have any questions, please contact Kathryn Frederick, Archaeologist at 517-855-0082 or by email at frederickk1@michigan.gov. Please reference our project number in all communication with this office regarding this undertaking. Thank you for your cooperation.

Sincerely,

Ryan Schumaker
State Historic Preservation Officer

Copy: Valorie White, EGLE
Meghana Kamath, Fishbeck
Jason Lewis, Chronicle Heritage

RMS:CLN:KMF

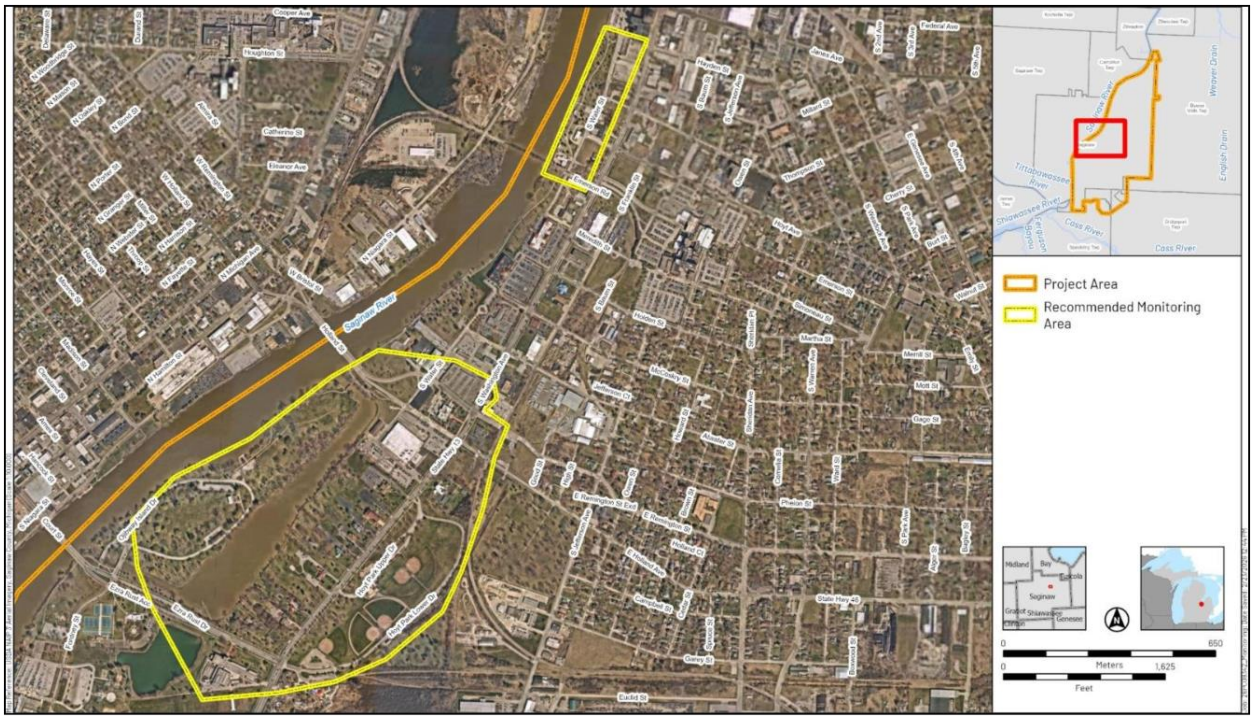

Figure 32. Proposed archaeological monitoring areas (Map 1 of 2)

Figure 33. Proposed archaeological monitoring areas (Map 2 of 2)

March 12, 2026

JONATHAN BERMAN
MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
STATE REVOLVING FUND COMPLIANCE SPECIALIST
CONSTITUTION HALL, PO BOX 30457
LANSING, MI 48909

RE: ER26-333 Lead Service Line Replacement Project, City of Saginaw, T11N/R04E/S01 and 02, T11N/R05E/S06, T12N/R04E/S13, 24, 25, 26, 35, and 36, T12N/R05E/S05, 07, 08, 17 – 20, 29-32, City of Saginaw, Saginaw County, (EPA)

RE: Acceptance Letter

We have received comments from the State Historic Preservation Office (SHPO) regarding the above-cited undertaking at the location noted above. We intend to follow the conditions as specified by the SHPO.

I concur: _____ Date: _____

Printed name and title of agency official: _____

Unanticipated Discoveries Plan

Purpose

This document outlines the procedures to prepare for and address the unanticipated discovery of historic properties or human remains. It provides direction regarding the proper procedures to follow in the event that unanticipated cultural materials or human remains are encountered during construction. An unanticipated discovery can result when previously undocumented or unknown historic properties are discovered during the course of projects.

Historic structures or buildings can be districts, sites, buildings, structures, or objects significant in American history, architecture, engineering, archaeology, or culture at the national, State, or local level. Sometimes elements of historic buildings or structures may be hidden by recent additions or alterations. For example, siding may obscure the historic character of a historic home or log cabin.

Cultural materials include human-made objects (both pre-contact and historic period) and features (e.g., foundation walls, hearths, middens, or other remnants of cultural activity) that are part of an archaeological site. Examples of cultural materials include:

An accumulation of shell, burned rocks, or other food related materials,
Bones or small pieces of bone,
An area of charcoal or very dark stained soil with artifacts,
Stone tools or waste flakes (i.e., an arrowhead, or stone chips),
Clusters of tin cans or bottles,
Logging or agricultural equipment that appears to be older than 50 years,
Buried railroad tracks, decking, or other industrial materials.

Human remains are physical remains of a human body or bodies, including, but not limited to, bones, teeth, hair, ashes, and preserved soft tissues (mummified or otherwise preserved) of an individual. Remains may be articulated or disarticulated bones or teeth. Any human skeletal remains, regardless of antiquity or ethnic origin, will at all times be treated with dignity and respect.

Procedures for Historic Structures & Buildings or Archaeological Discoveries

1) STOP WORK. If any employee, contractor, or subcontractor believes that he or she has uncovered cultural materials relating to an archaeological site or historic structure or building at any point in the project, all work at and adjacent to the discovery must stop. The discovery location should be secured at all times. Minimize movement of vehicles and equipment in area immediately surrounding the discovery.

2) CONTACT. If the discovery does not appear to be human remains, the applicant will contact AGENCY and AGENCY will notify the SHPO/THPO of the discovery and the possible actions within two business days of discovery if the discovery occurs Monday through Friday. If the discovery occurs during a weekend or Federal holiday, AGENCY will notify the SHPO/THPO on the first working day after the weekend and/or holiday. The SHPO/THPO will respond within 48 hours of the notification or on the first working day if preceded by a weekend or holiday. AGENCY will take into account the SHPO's/THPO's recommendations and advise the Applicant to carry out appropriate and specific actions.

3) EVALUATE.

Historic buildings and structures will be identified and evaluated by qualified professional who shall meet, at a minimum, the Secretary of Interior's Professional Qualification Standards (44 FR 44738-9) in History or Architectural History.

a) If the historian determines that the discovery is not a cultural resource, they will immediately advise AGENCY in writing and will notify the SHPO/THPO of their findings.
b) If the historian determines that the discovery is a cultural resource, they will immediately advise AGENCY and AGENCY will notify the SHPO/THPO. and complete Architectural Properties Identification Forms for each newly identified cultural resource.
    i) If the resource is not significant, the historian will document the discovery in a report (including photographs of the discovery site). The report must also include the completed identification forms and an explanation of why they believe the resource is not significant. The historian will formally request permission from AGENCY and SHPO/THPO for construction to recommence.
    ii) SHPO and identified tribal representatives will be invited to observe the implementation of any proposed work.
    iii) If the resource is believed to be significant, the historian will document the discovery in a report (including photographs of the discovery site). The report must also include the completed identification forms and an explanation of why they believe the resource is significant and a proposal for mitigation or data recovery. Then based on this information, AGENCY and SHPO/THPO will consider mitigation efforts.

Archaeological discoveries will be identified and evaluated by a qualified professional who shall meet, at a minimum, the Secretary of Interior's Professional Qualification Standards (44 FR 44738-9) for archeologists. The professional archaeologist will examine the location of the discovery. All work to evaluate significance and Project effects will be confined to the Project's potential area of impact. The costs of such professional services will generally be the responsibility of the Applicant.

a) If the archaeologist determines that the discovery is not a cultural resource, the archaeologist will immediately advise AGENCY in writing and will notify the SHPO/THPO of their findings.
b) If the archaeologist determines that the discovery is a cultural resource, the archaeologist will immediately advise AGENCY and AGENCY will notify the SHPO/THPO. The SHPO will assign an Archaeological Site Number to the discovery.
    iv) If the resource is not significant, the archaeologist will document the discovery in a report (including photographs of the discovery site). The report must also include a completed site form for the discovery and an explanation of why they believe the resource is not significant. The archaeologist will formally request permission from AGENCY and SHPO/THPO for construction to recommence.
    v) SHPO and identified tribal representatives will be invited to observe the implementation of any proposed work.

vi) If the resource is believed to be significant, the archaeologist will document the discovery in a report (including photographs of the discovery site). The report must also include a completed site form for the discovery and an explanation of why they believe the resource is significant and a proposal for mitigation or data recovery. Then based on this information, AGENCY and SHPO/THPO will consider mitigation efforts.

4) MITIGATE. For resources that are deemed significant, AGENCY and its Applicant will consult with the SHPO/THPO on measures to avoid further impacts to the discovery. If the SHPO/THPO does not object to AGENCY's recommendations, AGENCY will require the Applicant to modify the project design plans to implement any recommendations. If the SHPO/THPO objects to the recommendations, AGENCY and the SHPO/THPO will consult further to resolve the objection through actions including, but not limited to, identifying project alternatives that may result in the undertaking having no adverse effect on historic properties. The costs of such recovery and recordation will generally be the responsibility of the Applicant.
    a) When an Applicant's project cannot be modified and will have adverse effects on an archaeological property, AGENCY may treat the adverse effect by providing for the recovery of significant information through archaeological data recovery or other scientific means. To accomplish this objective, AGENCY will follow the Council's "Recommended Approach for Consultation on Recovery of Significant Information from Archaeological Sites" published in the Federal Register (64 FR 27085, May 18, 1999); and consult with the other consulting parties to prepare a data recovery plan, including material and record curation provisions. A report of data recovery efforts must be completed and submitted to the SHPO/THPO for review.
    b) For sites where AGENCY determines other treatment measures are appropriate, AGENCY will consult further with the other consulting parties to develop an appropriate approach to resolving the adverse effects.

Procedures for the discovery of human skeletal materials and associated funerary items

1. STOP WORK. If any employee, contractor, or subcontractor believes that he or she has uncovered skeletal remains at any point in the project, all work adjacent to the discovery must stop. The discovery location should be secured at all times. Minimize movement of vehicles and equipment in area immediately surrounding the discovery.

2. CONTACT. Notify the appropriate local law enforcement agency and AGENCY immediately. Law enforcement will then determine if the remains are human, and whether the discovery constitutes a crime scene.
    a. If the police determine that human remains represent evidence of a crime or missing person, they will complete their investigation.
    b. If skeletal remains are determined to be non-human and there is no archaeological association, then AGENCY will notify SHPO/THPO and work can proceed.
    c. If the police determine that human remains do not represent evidence of a crime or missing person, but an archaeological burial site, then AGENCY will notify SHPO/THPO and in consultation with the SHPO/THPO a recovery plan will be developed. In most cases, it is preferred that burial sites be preserved, adequately

documented, and maintained in place. If this is not possible, the remains and any associated materials would need to be moved for their protection. The following sequence of steps will be employed if it is not possible to preserve and maintain an inadvertently discovered burial in place:

3. DOCUMENT. A qualified archaeologist experienced in human remains recovery shall document and recover the remains and any related materials that may be present. Archaeological expertise is important in documenting the discovery context and evaluating whether the remains are isolated or if additional remains may be immediately present. Archaeological recovery may be done under the auspices of law enforcement. If law enforcement chooses not to be involved, a permit for disinterment must be obtained from the local Department of Public Health, or through a court order.
    a. Documentation and recovery shall be respectful and conducted out of public view, to the extent possible.
    b. As soon as possible, the remains shall be examined by a physical anthropologist using standard non-invasive methods and procedures to create a basic biological profile and estimate ethnicity. Known or suspected Native American Ancestors or other materials subject to NAGPRA will not be moved, touched, or further disturbed after discovery until completion of Tribal consultation or emergent circumstances arise.
    c. If it can be determined immediately that a discovery is, or has the potential to be, a Native American Ancestor and/or other materials subject to NAGPRA (i.e., associated or unassociated funerary objects, sacred objects, and objects of cultural patrimony), the THPOs will be notified within 48 hours of discovery and potential identification. Tribal notification and consultation will be coordinated by AGENCY and SHPO.
    d. After notification and initial consultation, consulting Tribes may request that all federally recognized Tribes likely to be culturally affiliated with the discovery be notified in writing by mail or email and further consultation initiated regarding the cultural affiliation, care, handling, excavation (if necessary), and/or disposition per NAGPRA.
    e. Accommodations will be made for traditional or ceremonial practices in association with discoveries. Consulting Tribes will be afforded opportunities to employ proper traditional cultural practices and treatments during periods of non-Tribal holding of discoveries.
    f. Photographs shall not be taken, except when necessary for identification and documentation. Tribes may request that any photographs of Native American Ancestors or other materials subject to NAGPRA be destroyed or repatriated at the end of the project.
    g. Pending consultations, documentation of the discovery will include a written description, mapping and sketching, and precise GPS coordinates. This documentation will be curated with other project records and not be published or made publicly available in any way.
    h. To ensure the protection, preservation, and proper respectful treatment of any discovered materials, pursuant to applicable law, the nature and location of any discovery shall remain confidential as best as reasonably possible given the circumstances and location. Only those persons and entities identified in this plan shall be notified of the discovery or given information about the discovery. AGENCY and

related contractors will ensure all staff and consulting personnel are appropriately trained for their respective roles in implementing this plan.

i. The permanent care of Native American Ancestors and materials subject to NAGPRA will be determined by the appropriate Tribe or Tribes in consultation with the SHPO.

4. REPORTING. Draft and final archaeological reports, with related physical anthropological reports and law enforcement case documentation appended, will be submitted to AGENCY, SHPO, and consulting THPOs.

Contact Information

STATE HISTORIC PRESERVATION OFFICE
Scott Slagor
Cultural Resource Protection Manager
(517)285-5120
slagors2@michigan.gov

Sarah Surface-Evans, Ph.D., RPA
Senior Archaeologist
(517)282-7959
surfaceevanss1@michigan.gov

March 12, 2026

JONATHAN BERMAN
MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
STATE REVOLVING FUND COMPLIANCE SPECIALIST
CONSTITUTION HALL, PO BOX 30457
LANSING, MI 48909

RE: ER26-333 Lead Service Line Replacement Project, City of Saginaw, T11N/R04E/S01 and 02, T11N/R05E/S06, T12N/R04E/S13, 24, 25, 26, 35, and 36, T12N/R05E/S05, 07, 08, 17 – 20, 29-32, City of Saginaw, Saginaw County, (EPA)

RE: Acceptance Letter

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I concur: _____ Date: _____

Printed name and title of agency official: _____

"General Decision Number: MI20260071 01/02/2026

Superseded General Decision Number: MI20250071

State: Michigan

Construction Type: Heavy

County: Saginaw County in Michigan.

Heavy, Includes Water, Sewer Lines and Excavation (Excludes Hazardous Waste Removal; Coal, Oil, Gas, Duct and other similar Pipeline Construction)

Modification Number	Publication Date
0	01/02/2026

CARP0706-009 06/01/2025

	Rates	Fringes
CARPENTER, Includes Form Work	$ 35.86	23.69

ELEC0557-002 06/01/2025

	Rates	Fringes
ELECTRICIAN	$ 40.00	29.95

ENGI0325-009 09/01/2025

POWER EQUIPMENT OPERATORS: Underground Construction (Including Sewer)

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1	$ 45.98	25.25
GROUP 2	$ 41.25	25.25
GROUP 3	$ 40.52	25.25
GROUP 4	$ 39.95	25.25

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Backhoe/ Excavator, Boring Machine, Bulldozer, Crane, Grader/ Blade, Loader, Roller, Scraper, Trencher (over 8 ft. digging capacity)

GROUP 2: Trencher (8-ft digging capacity and smaller)

GROUP 3: Boom Truck (non-swinging, non- powered type boom)

GROUP 4: Broom/ Sweeper, Fork Truck, Tractor, Bobcat/ Skid Steer /Skid Loader

ENGI0326-011 06/01/2025

EXCLUDES UNDERGROUND CONSTRUCTION

	Rates	Fringes

OPERATOR: Power Equipment

Group 1	$ 48.98	25.25
Group 2	$ 45.68	25.25
Group 3	$ 44.00	25.25
Group 4	$ 41.32	25.25
Group 5	$ 41.32	25.25
Group 6	$ 35.46	25.25

FOOTNOTES:

Crane operator with main boom and jib 300' or longer: $1.50 per hour above the group 1 rate.
Crane operator with main boom and jib 400' or longer: $3.00 per hour above the group 1 rate.

PAID HOLIDAYS: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Crane operator with main boom and jib 400', 300', or 220' or longer.

GROUP 2: Crane operator with main boom and jib 140' or longer, tower crane, gantry crane, whirley derrick

GROUP 3: Backhoe/Excavator; Boring Machine; Bulldozer; Crane; Grader/Blade; Loader; Roller; Scraper; Tractor; Trencher

GROUP 4: Bobcat/Skid Loader; Broom/Sweeper; Fork Truck (over 20' lift)

GROUP 5: Boom truck (non-swinging)

GROUP 6: Fork Truck (20' lift and under for masonry work)

IRON0025-006 06/01/2025

	Rates	Fringes
IRONWORKER		
Reinforcing	$ 36.55	33.37
Structural	$ 36.55	35.93

LABO0334-007 09/01/2022

SCOPE OF WORK:
OPEN CUT CONSTRUCTION: Excavation of earth and sewer, utilities, and improvements, including underground piping/conduit (including inspection, cleaning, restoration, and relining)

	Rates	Fringes
LABORER		
(1) Common or General	$ 22.42	12.95
(2) Mason Tender-Cement/Concrete	$ 22.55	12.95
(4) Grade Checker	$ 22.73	12.55
(5) Pipelayer	$ 22.85	12.95
(7) Landscaper	$ 18.41	12.95

LABO0334-012 06/01/2025

EXCLUDES OPEN CUT CONSTRUCTION

	Rates	Fringes
Landscape Laborer		
GROUP 1	$ 29.93	9.10
GROUP 2	$ 27.71	9.10

LANDSCAPE LABORER CLASSIFICATIONS

GROUP 1: Landscape specialist, including air, gas and diesel equipment operator, lawn sprinkler installer and skidsteer (or equivalent)

GROUP 2: Landscape laborer: small power tool operator, material mover, truck driver and lawn sprinkler installer tender

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LABO1098-007 07/01/2025

EXCLUDES OPEN CUT CONSTRUCTION

	Rates	Fringes
LABORER		
Common or General; Grade Checker; Mason Tender - Cement/Concrete; Pipelayer..	$ 27.68	13.45

PAIN1803-005 06/01/2014

	Rates	Fringes
PAINTER		
Brush & Roller	$ 22.58	12.80
Spray	$ 23.58	12.80

PLAS0016-030 04/01/2014

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 25.47	12.38

PLUM0085-005 05/04/2020

	Rates	Fringes
PLUMBER	$ 38.25	21.07

TEAM0007-008 06/01/2025

	Rates	Fringes
TRUCK DRIVER		
Dump Truck under 8 cu. yds.; Tractor Haul Truck....	$ 33.30	.75 + a+b
Dump Truck, 8 cu. yds. and over	$ 33.40	.75 + a+b
Lowboy/Semi-Trailer Truck...	$ 33.55	.75 + a+b

FOOTNOTE:
a. $470.70 per week.
b. $68.70 daily.

SUMI2010-069 11/09/2010

	Rates	Fringes
TRUCK DRIVER: Off the Road Truck	$ 20.82	3.69

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least $13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME

refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative

Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION
"

"General ecision Number: MI20260001 01/09/2026

Superseded General Decision Number: MI20250001

State: Michigan

Construction Types: Highway (Highway, Airport & Bridge xxxxx
and Sewer/Incid. to Hwy.)

Counties: Michigan Statewide.

Modification Number	Publication Date
0	01/02/2026
1	01/09/2026

* CARP0004-004 06/01/2025

REMAINDER OF STATE

	Rates	Fringes
CARPENTER (Piledriver)	$ 35.57	21.54

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* CARP0004-005 06/01/2025

LIVINGSTON (Townships of Brighton, Deerfield, Genoa, Hartland,
Oceola & Tyrone), MACOMB, MONROE, OAKLAND, SANILAC, ST. CLAIR
AND WAYNE COUNTIES

	Rates	Fringes
CARPENTER (Piledriver)	$ 41.37	28.69

ELEC0017-005 06/01/2025

STATEWIDE

	Rates	Fringes
Line Construction		
Groundman/Driver	$ 33.32	33%+7.40
Journeyman Signal Tech, Communications Tech, Tower Tech & Fiber Optic Splicers	$ 49.26	33%+7.40
Journeyman Specialist	$ 56.65	33%+7.40
Operator A	$ 41.71	33%+7.40
Operator B	$ 38.98	33%+7.40

Classifications

Journeyman Specialist: Refers to a crew of only one person working alone.
Operator A: Shall be proficient in operating all power equipment including: Backhoe, Excavator, Directional Bore and Boom/Digger truck.
Operator B: Shall be proficient in operating any 2 of the above mentioned pieces of equipment listed under Operator A.

ENGI0324-003 06/01/2025

LCONA, ALPENA, A NAC, BAY, CH OYG N, CLAR , CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LENAWEE, LIVINGSTON, MACOMB, MIDLAND, MONROE, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLAIR, SANILAC, SHIAWASSEE, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:

	Rates	Fringes
OPERATOR: Power Equipment (Steel Erection)		
GROUP 1	$ 55.42	28.25
GROUP 2	$ 56.42	28.25
GROUP 3	$ 53.92	28.25
GROUP 4	$ 54.92	28.25
GROUP 5	$ 52.42	28.25
GROUP 6	$ 53.42	28.25
GROUP 7	$ 52.15	28.25
GROUP 8	$ 53.15	28.25
GROUP 9	$ 51.70	28.25
GROUP 10	$ 52.70	28.25
GROUP 11	$ 50.97	28.25
GROUP 12	$ 51.97	28.25
GROUP 13	$ 50.61	28.25
GROUP 14	$ 51.61	28.25
GROUP 15	$ 49.97	28.25
GROUP 16	$ 46.77	28.25
GROUP 17	$ 32.29	15.40
GROUP 18	$ 35.78	28.25

FOOTNOTE:

Paid Holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Engineer when operating combination of boom and jib 400' or longer

GROUP 2: Engineer when operating combination of boom and jib 400' or longer on a crane that requires an oiler

GROUP 3: Engineer when operating combination of boom and jib 300' or longer

GROUP 4: Engineer when operating combination of boom and jib 300' or longer on a crane that requires an oiler

GROUP 5: Engineer when operating combination of boom and jib 220' or longer

GROUP 6: Engineer when operating combination of boom and jib 220' or longer on a crane that requires an oiler

GROUP 7: Engineer when operating combination of boom and jib 140' or longer

GROUP 8: Engineer when operating combination of boom and jib 140' or longer on a crane that requires an oiler

GROUP 9: Tower crane & derrick operator (where operator's work station is 50 ft. or more above first sub-level)

GROUP 10: wer crane & der ick operato (wher perato 's work station is 50 ft. or more above first sub-level) on a crane that requires an oiler

GROUP 11: Engineer when operating combination of boom and jib 120' or longer

GROUP 12: Engineer when operating combination of boom and jib 120' or longer on a crane that requires an oiler

GROUP 13: Crane operator; job mechanic and 3 drum hoist and excavator

GROUP 14: Crane operator on a crane that requires an oiler

GROUP 15: Hoisting operator; 2 drum hoist and rubber tired backhoe

GROUP 16: Forklift and 1 drum hoist

GROUP 17: Compressor or welder operator

GROUP 18: Oiler

ENGI0324-004 06/01/2025

AREA 1: ALLEGAN, BARRY, BERRIEN, BRANCH, CALHOUN, CASS, EATON, HILLSDALE, IONIA, KALAMAZOO, KENT, LAKE, MANISTEE, MASON, MECOSTA, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH, VAN BUREN

AREA 2: ANTRIM, BENZIE, CHARLEVOIX, EMMET, GRAND TRAVERSE, KALKASKA, LEELANAU, MISSAUKEE AND WEXFORD COUNTIES:

	Rates	Fringes
OPERATOR: Power Equipment (Steel Erection)		
AREA 1		
GROUP 1	$ 55.02	28.25
GROUP 2	$ 52.15	28.25
GROUP 3	$ 50.61	28.25
GROUP 4	$ 46.77	28.25
GROUP 5	$ 32.29	15.40
GROUP 6	$ 35.78	28.25
AREA 2		
GROUP 1	$ 55.02	28.25
GROUP 2	$ 52.15	28.25
GROUP 3	$ 50.61	28.25
GROUP 4	$ 46.77	28.25
GROUP 5	$ 32.29	15.40
GROUP 6	$ 35.78	28.25

FOOTNOTES:

Crane operator with main boom and jib 300' or longer: $1.50 additional to the group 1 rate. Crane operator with main boom and jib 400' or longer: $3.00 additional to the group 1 rate.
PAID HOLIDAYS: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS:

GROUP 1: ne Ope tor with main boom & jib 400', 300', or 220' or longer.

GROUP 2: Crane Operator with main boom & jib 140' or longer, Tower Crane; Gantry Crane; Whirley Derrick.

GROUP 3: Regular Equipment Operator, Crane, Dozer, Loader, Hoist, Straddle Wagon, Mechanic, Grader and Hydro Excavator.

GROUP 4: Air Tugger (single drum), Material Hoist Pump 6"" or over, Elevators, Brokk Concrete Breaker.

GROUP 5: Air Compressor, Welder, Generators, Conveyors

GROUP 6: Oiler and fire tender

ENGI0324-005 09/01/2025

AREA 1: GENESEE, LAPEER, LIVINGSTON, MACOMB, MONROE, OAKLAND, ST. CLAIR, WASHTENAW AND WAYNE COUNTIES

AREA 2: ALCONA, ALLEGAN, ALGER, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KWEENAW, LAKE, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SCHOOLCRAFT, SHIAWASSEE, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

	Rates	Fringes
OPERATOR: Power Equipment (Underground construction (including sewer))		
AREA 1:		
GROUP 1	$ 45.98	25.25
GROUP 2	$ 41.25	25.25
GROUP 3	$ 40.52	25.25
GROUP 4	$ 39.95	25.25
GROUP 5	$ 30.35	12.10
AREA 2:		
GROUP 1	$ 45.98	25.25
GROUP 2	$ 41.25	25.25
GROUP 3	$ 40.52	25.25
GROUP 4	$ 39.95	25.25
GROUP 5	$ 30.35	12.10

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Backfiller tamper; Backhoe; Batch plant operator (concrete); Clamshell; Concrete paver (2 drums or larger); Conveyor loader (Euclid type); Crane (crawler, truck type or pile driving); Dozer; Dragline; Elevating grader; Endloader; Gradall (and similar type machine); Grader; Mechanic; Power shovel; Roller (asphalt); Scraper (self-propelled or tractor drawn); Side boom tractor (type D-4 or equivalent and larger); Slip form paver; Slope

paver; Trenc er (over 8 ft. digging capacity); Well drilling rig; Concrete pump with boom operator; Hydro Excavator

GROUP 2: Boom truck (power swing type boom); Crusher; Hoist; Pump (1 or more - 6-in. discharge or larger - gas or diesel- powered or powered by generator of 300 amperes or more - inclusive of generator); Side boom tractor (smaller than type D-4 or equivalent); Tractor (pneu-tired, other than backhoe or front end loader); Trencher (8-ft. digging capacity and smaller);Vac Truck and End dump operator;

GROUP 3: Air compressors (600 cfm or larger); Air compressors (2 or more-less than 600 cfm); Boom truck (non-swinging, non- powered type boom); Concrete breaker (self-propelled or truck mounted - includes compressor); Concrete paver (1 drum-l/2 yd. or larger); Elevator (other than passenger); Maintenance person; Pump (2 or more-4-in. up to 6-in. discharge-gas or diesel powered - excluding submersible pumps); Pumpcrete machine (and similar equipment); Wagon drill (multiple); Welding machine or generator (2 or more-300 amp. or larger - gas or diesel powered)

GROUP 4: Boiler; Concrete saw (40 hp or over); Curing machine (self-propelled); Farm tractor (with attachment); Finishing machine (concrete); Hydraulic pipe pushing machine; Mulching equipment; Pumps (2 or more up to 4-in. discharge, if used 3 hours or more a day, gas or diesel powered - excluding submersible pumps); Roller (other than asphalt); Stump remover; Trencher (service); Vibrating compaction equipment, self-propelled (6 ft. wide or over); Sweeper (Wayne type); Water wagon and Extend-a boom forklift

Group 5: Fire Person, Oiler

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* ENGI0324-006 06/01/2025

GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW, WAYNE, ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

	Rates	Fringes
Power equipment operators: (AIRPORT, BRIDGE & HIGHWAY CONSTRUCTION)		
GROUP 1	$ 46.21	25.25
GROUP 2	$ 45.06	25.25
GROUP 3	$ 38.33	25.25
GROUP 4	$ 37.77	25.25

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Pav r Operator (5 bags or more); Slip Form Pav r; Asphalt Paver (self propelled); Shovel (Excavator) installing utilities over 20 feet in depth.

Group 2: Asphalt plant operator; crane operator (does not include work on bridge construction projects when the crane operator is erecting structural components); Dragline operator; Shovel (Excavator) operator; Locomotive operator; Elevating grader operator; Pile driving operator; Roller operator (asphalt); Blade grader operator; Trenching machine operator (ladder or wheel type); Auto-grader; Self-propelled or tractor-drawn scraper; Conveyor loader operator (Euclid type); Bulldozer; Hoisting engineer; Tractor operator; Finishing machine operator (asphalt); Mechanic; Pump operator (6-in. discharge or over, gas, diesel powered or generator of 300 amp. or larger); Shouldering or gravel distributing machine operator (self-propelled); Backhoe (with over 3/8 yd. bucket); Side boom tractor (type D-4 or equivalent or larger); Tube finisher (slip form paving); Gradall (and similar type machine); Asphalt planner (self- propelled); Batch plant (concrete-central mix); Slurry machine (asphalt); Concrete pump (3 in. and over); Roto-mill; Swinging boom truck (over 12 ton capacity); Hydro demolisher (water blaster); Farm-type tractor with attached pan; Vacuum truck operator; Batch Plant (concrete dry batch); Concrete Saw Operator (40h.p. or over; Tractor Operator (farm type); Finishing Machine Operator (concrete); Grader Operator (self-propelled fine grade or form (concrete); tractor operator (farm type with attachment); Wagon Drill operator; Boom or winch hoist truck operator.

GROUP 3: Screening plant operator; Washing plant operator; Crusher operator; Backhoe (with 3/8 yd. bucket or less); Side boom tractor (smaller than D-4 type or equivalent); Sweeper (Wayne type and similar equipment); Greese Truck; Air Compressor Operator (600 cu.ft. per min or more); Air Compressor Operator (two or more, less than 600 cfm); End Loader operator (1 yard Capacity and over); Side boom tractor (type D or equivalent or larger; Endloader operator *under 1 yard capacity; Trencher (service).

GROUP 4: Boiler fire tender; Concrete Breaker; Oiler; Fire tender; Trencher (service); Flexplane operator; Cleftplane operator; Roller operator (other than asphalt); Curing equipment operator (self-propelled); Power bin operator; Plant drier operator (asphalt); Vibratory compaction equipment operator (6 ft. wide or over); Guard post driver operator (power driven); All mulching equipment; Stump remover; Concrete pump (under 3-in.); Mesh installer (self-propelled); End dump;Skid steer.

ENGI0324-007 05/01/2025

ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:

	Rates	Fringes
OPERATOR: Power Equipment (Steel Erection)		
Compressor, welder and		

forklift.	3.30	5.0
Crane operator, main boom & jib 120' or longer.....	49.77	25.0
Crane operator, main boom & jib 140' or longer.....	50.07	24.60
Crane operator, main boom & jib 220' or longer.....	50.66	25.00
Mechanic with truck and tools.....	48.90	25.00
Oiler and fireman.....	41.76	25.00
Regular operator.....	47.12	25.00

ENGI0324-008 10/01/2023

ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MACOMB, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MONROE, MUSKEGON, NEWAYGO, OAKLAND, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN, WASHTENAW, WAYNE AND WEXFORD COUNTIES

	Rates	Fringes
OPERATOR: Power Equipment (Sewer Relining)		
GROUP 1.....	$ 37.37	15.44
GROUP 2.....	$ 35.33	15.44

SEWER RELINING CLASSIFICATIONS

GROUP 1: Operation of audio-visual closed circuit TV system, including remote in-ground cutter and other equipment used in connection with the CCTV system

GROUP 2: Operation of hot water heaters and circulation systems, water jetters and vacuum and mechanical debris removal systems

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ENGI0325-012 05/01/2025

	Rates	Fringes
Power equipment operators - gas distribution and duct installation work:		
GROUP 1.....	$ 39.78	25.25
GROUP 2.....	$ 36.05	25.25

SCOPE OF WORK: The construction, installation, treating and reconditioning of pipelines transporting gas vapors within cities, towns, subdivisions, suburban areas, or within private property boundaries, up to and including private meter settings of private industrial, governmental or other premises, more commonly referred to as ""distribution work,"" starting from the first metering station, connection, similar or related facility, of the main or cross country

pipeline and including duct installation.

Group 1: Backhoe, crane, grader, mechanic, dozer (D-6 equivalent or larger), side boom (D-4 equivalent or larger), trencher(except service), endloader (2 yd. capacity or greater).

GROUP 2: Dozer (less than D-6 equivalent), endloader (under 2 yd. capacity), side boom (under D-4 capacity), backfiller, pumps (1 or 2 of 6-inch discharge or greater), boom truck (with powered boom), tractor (wheel type other than backhoe or front endloader). Tamper (self-propelled), boom truck (with non-powered boom), concrete saw (20 hp or larger), pumps (2 to 4 under 6-inch discharge), compressor (2 or more or when one is used continuously into the second day) and trencher(service). Oiler, hydraulic pipe pushing machine, grease person and hydrostatic testing operator.

IRON0008-007 06/01/2024

ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:

	Rates	Fringes
Ironworker - pre-engineered metal building erector	$ 23.70	6.95
IRONWORKER		
General contracts $10,000,000 or greater	$ 39.91	32.32
General contracts less than $10,000,000	$ 39.91	32.32

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0025-002 06/01/2025

ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LIVINGSTON, MACOMB, MIDLAND, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SHIAWASSEE, ST. CLAIR, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:

	Rates	Fringes
Ironworker - pre-engineered metal building erector		
ALLEGAN, ANTRIM, BARRY, BENZIE, BRANCH, CALHOUN, CHARLEVOIX, EATON, EMMET, GRAND TRAVERSE, HILLSDALE, IONIA, KALAMAZOO, KALKASKA, KENT, LAKE, LEELANAU, MANISTEE, MASON, MECOSTA, MISSAUKEE, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH, VAN		

BUREN AND WEXFORD COUNTIES:..$ 28.80 27.43
Bay, Genesee, Lapeer, Livingston (east of Burkhardt Road), Macomb, Midland, Oakland, Saginaw, St. Clair, The University of Michigan, Washtenaw (east of U.S. 23) & Wayne...$ 30.02 28.13
IRONWORKER
Ornamental and Structural...$ 36.55 35.93
Reinforcing.....$ 36.55 32.87

IRON0055-005 07/01/2022

LENAWEE AND MONROE COUNTIES:

	Rates	Fringes
IRONWORKER		
Pre-engineered metal buildings	$ 23.59	19.35
All other work	$ 33.00	27.20

IRON0292-003 06/01/2020

BERRIEN AND CASS COUNTIES:

	Rates	Fringes
IRONWORKER (Including pre-engineered metal building erector)	$ 31.75	22.84

LABO0005-006 10/01/2022

	Rates	Fringes
Laborers - hazardous waste abatement: (ALCONA, ALPENA, ANTRIM, BENZIE, CHARLEVOIX, CHEBOYGAN, CRAWFORD, EMMET, GRAND TRAVERSE, IOSCO, KALKASKA, LEELANAU, MISSAUKEE, MONTMORENCY, OSCODA, OTSEGO, PRESQUE ISLE AND WEXFORD COUNTIES - Zone 10)		
Levels A, B or C	$ 17.45	12.75
class b	$ 18.64	12.90
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D	$ 16.45	12.75
class a	$ 17.64	12.90
Zone 10		
Laborers - hazardous waste abatement: (ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES - Zone 11)		

Levels A, C..	25.18	12.90
Work perfo med in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D.....	$ 22.58	12.90
Laborers - hazardous waste abatement: (ALLEGAN, BARRY, BERRIEN, BRANCH, CALHOUN, CASS, IONIA COUNTY (except the city of Portland); KALAMAZOO, KENT, LAKE, MANISTEE, MASON, MECOSTA, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH AND VAN BUREN COUNTIES - Zone 9)		
Levels A, B or C.....	$ 21.88	13.26
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D.....	$ 20.80	12.90
Laborers - hazardous waste abatement: (ARENAC, BAY, CLARE, GLADWIN, GRATIOT, HURON, ISABELLA, MIDLAND, OGEMAW, ROSCOMMON, SAGINAW AND TUSCOLA COUNTIES - Zone 8)		
Levels A, B or C.....	$ 23.74	12.95
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D.....	$ 20.80	12.90
Laborers - hazardous waste abatement: (CLINTON, EATON AND INGHAM COUNTIES; IONIA COUNTY (City of Portland); LIVINGSTON COUNTY (west of Oak Grove Rd., including the City of Howell) - Zone 6)		
Levels A, B or C.....	$ 26.33	12.95
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D.....	$ 24.64	12.90
Laborers - hazardous waste abatement: (GENESEE, LAPEER AND SHIAWASSEE COUNTIES - Zone 7)		
Levels A, B or C.....	$ 24.20	13.80
Work performed in conjunction with site preparation not requiring the use of personal protective equipment;		
Also, Level D.....	$ 23.20	13.80
Laborers - hazardous waste abatement: (HILLSDALE,		

ACKSON AND LENAWEE COUNTIES
- Zone 4)
Levels A, B or C.....$ 27.13 14.95
Work performed in
conjunction with site
preparation not requiring
the use of personal
protective equipment;
Also, Level D.....$ 24.17 12.90
Laborers - hazardous waste
abatement: (LIVINGSTON COUNTY
(east of Oak Grove Rd. and
south of M-59, excluding the
city of Howell); AND
WASHTENAW COUNTY - Zone 3)
Levels A, B or C.....$ 29.93 14.20
Work performed in
conjunction with site
preparation not requiring
the use of personal
protective equipment;
Also, Level D.....$ 28.93 14.20
Laborers - hazardous waste
abatement: (MACOMB AND WAYNE
COUNTIES - Zone 1)
Levels A, B or C.....$ 29.93 16.90
Work performed in
conjunction with site
preparation not requiring
the use of personal
protective equipment;
Also, Level D.....$ 28.93 16.90
Laborers - hazardous waste
abatement: (MONROE COUNTY -
Zone 4)
Levels A, B or C.....$ 31.75 14.90
Work performed in
conjunction with site
preparation not requiring
the use of personal
protective equipment;
Also, Level D.....$ 31.75 14.90
Laborers - hazardous waste
abatement: (OAKLAND COUNTY
and the Northeast portion of
LIVINGSTON COUNTY bordered by
Oak Grove Road on the West
and M-59 on the South - Zone
2)
Level A, B, C.....$ 29.93 16.90
Work performed in
conjunction with site
preparation not requiring
the use of personal
protective equipment;
Also, Level D.....$ 28.93 16.90
Laborers - hazardous waste
abatement: (SANILAC AND ST.
CLAIR COUNTIES - Zone 5)
Levels A, B or C.....$ 26.21 16.62
Work performed in
conjunction with site
preparation not requiring
the use of personal
protective equipment;

Also, Level	$ 2	75	16.35

LABO0259-001 09/01/2025

AREA 1: MACOMB, OAKLAND AND WAYNE COUNTIES
AREA 2: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONROE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN, WASHTENAW AND WEXFORD COUNTIES

	Rates	Fringes
Laborers - tunnel, shaft and caisson:		
AREA 1		
GROUP 1	$ 30.13	22.75
GROUP 2	$ 32.13	22.75
GROUP 3	$ 28.13	22.75
GROUP 4	$ 23.97	16.93
GROUP 5	$ 24.22	16.93
GROUP 6	$ 24.55	16.93
GROUP 7	$ 17.83	16.93
AREA 2		
GROUP 1	$ 32.13	17.95
GROUP 2	$ 34.40	17.95
GROUP 3	$ 28.00	17.45
GROUP 4	$ 29.57	16.93
GROUP 5	$ 25.76	16.93
GROUP 6	$ 26.07	16.93
GROUP 7	$ 25.57	16.93

SCOPE OF WORK: Tunnel, shaft and caisson work of every type and description and all operations incidental thereto, including, but not limited to, shafts and tunnels for sewers, water, subways, transportation, diversion, sewerage, caverns, shelters, aquafers, reservoirs, missile silos and steel sheeting for underground construction.

TUNNEL LABORER CLASSIFICATIONS

GROUP 1: Tunnel, shaft and caisson laborer, dump, shanty, hog house tender, testing (on gas) and watchman

GROUP 2: Manhole, headwall, catch basin builder, bricklayer tender, mortar machine and material mixer

GROUP 3: Air tool operator (jackhammer, bush hammer and grinder), first bottom, second bottom, cage tender, car pusher, carrier, concrete, concrete form, concrete repair, cement invert laborer, cement finisher, concrete shoveler, conveyor, floor, gasoline and electric tool operator, gunite, grout operator, welder, heading dinky person, inside lock tender, pea gravel operator, pump, outside lock tender, scaffold, top signal person, switch person, track, tugger, utility person, vibrator, winch operator, pipe

jacking, agon drill and air track operato and concrete saw operator (under 40 h.p.)

GROUP 4: Tunnel, shaft and caisson mucker, bracer, liner plate, long haul dinky driver and well point

GROUP 5: Tunnel, shaft and caisson miner, drill runner, key board operator, power knife operator, reinforced steel or mesh (e.g. wire mesh, steel mats, dowel bars, etc.)

GROUP 6: Dynamite and powder

GROUP 7: Restoration laborer, seeding, sodding, planting, cutting, mulching and top soil grading; and the restoration of property such as replacing mailboxes, wood chips, planter boxes, flagstones, etc.

LABO0334-001 09/01/2025

	Rates	Fringes
Laborers - open cut:		
ZONE 1 - MACOMB, OAKLAND AND WAYNE COUNTIES:		
GROUP 1	$ 29.98	22.75
GROUP 2	$ 31.98	22.75
GROUP 3	$ 28.14	22.75
GROUP 4	$ 23.71	16.72
GROUP 5	$ 24.17	16.72
GROUP 6	$ 22.00	16.72
GROUP 7	$ 17.84	16.72
ZONE 2 - LIVINGSTON COUNTY (east of M-151 (Oak Grove Rd.)); MONROE AND WASHTENAW COUNTIES:		
GROUP 1	$ 32.10	17.45
GROUP 2	$ 34.10	17.45
GROUP 3	$ 30.10	17.45
GROUP 4	$ 25.10	16.72
GROUP 5	$ 25.25	16.72
GROUP 6	$ 22.55	16.72
GROUP 7	$ 22.11	16.72
ZONE 3 - CLINTON, EATON, GENESEE, HILLSDALE AND INGHAM COUNTIES; IONIA COUNTY (City of Portland); JACKSON, LAPEER AND LENAWEE COUNTIES; LIVINGSTON COUNTY (west of M-151 Oak Grove Rd.); SANILAC, ST. CLAIR AND SHIAWASSEE COUNTIES:		
GROUP 1	$ 30.29	17.45
GROUP 2	$ 32.29	17.45
GROUP 3	$ 28.29	17.45
GROUP 4	$ 23.30	16.72
GROUP 5	$ 23.44	16.72
GROUP 6	$ 20.74	16.72
GROUP 7	$ 22.23	16.72
ZONE 4 - ALCONA, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX,		

CHEBOYGAN CLA E,
CRAWFORD, EMMET,
GLADWIN, GRAND TRAVERSE,
GRATIOT AND HURON
COUNTIES; IONIA COUNTY
(EXCEPT THE CITY OF
PORTLAND); IOSCO,
ISABELLA, KALAMAZOO,
KALKASKA, KENT,
LAKE,LEELANAU, MANISTEE,
MASON, MECOSTA, MIDLAND,
MISSAUKEE, MONTCALM,
MONTMORENCY, MUSKEGON,
NEWAYGO, OCEANA, OGEMAW,
OSCEOLA, OSCODA, OTSEGO,
OTTAWA, PRESQUE ISLE,
ROSCOMMON, SAGINAW, ST.
JOSEPH, TUSCOLA, VAN BUREN
AND WEXFORD COUNTIES:

GROUP 1	$ 28.72	18.45
GROUP 2	$ 30.72	18.45
GROUP 3	$ 26.72	18.45
GROUP 4	$ 22.33	16.72
GROUP 5	$ 22.45	16.72
GROUP 6	$ 19.67	16.72
GROUP 7	$ 22.30	16.72

ZONE 5 - ALGER, BARAGA,
CHIPPEWA, DELTA,
DICKINSON, GOGEBIC,
HOUGHTON, IRON,
KEWEENAW, LUCE, MACKINAC,
MARQUETTE, MENOMINEE,
ONTONAGON AND SCHOOLCRAFT
COUNTIES:

GROUP 1	$ 29.98	22.75
GROUP 2	$ 30.09	19.45
GROUP 3	$ 26.09	19.45
GROUP 4	$ 22.56	16.72
GROUP 5	$ 22.64	16.72
GROUP 6	$ 19.99	16.72
GROUP 7	$ 22.45	16.72

SCOPE OF WORK:

Open cut construction work shall be construed to mean work which requires the excavation of earth including industrial, commercial and residential building site excavation and preparation, land balancing, demolition and removal of concrete and underground appurtenances, grading, paving, sewers, utilities and improvements; retention, oxidation, flocculation and irrigation facilities, and also including but not limited to underground piping, conduits, steel sheeting for underground construction, and all work incidental thereto, and general excavation. For all areas except the Upper Peninsula, open cut construction work shall also be construed to mean waterfront work, piers, docks, seawalls, breakwalls, marinas and all incidental work. Open cut construction work shall not include any structural modifications, alterations, additions and repairs to buildings, or highway work, including roads, streets, bridge construction and parking lots or steel erection work and excavation for the building itself and back filling inside of and within 5 ft. of the building and foundations, footings and piers for the building. Open cut construction work shall not include any work covered under

Tunnel, Sha t and isson work.

OPEN CUT LABORER CLASSIFICATIONS

GROUP 1: Construction laborer

GROUP 2: Mortar and material mixer, concrete orm person, signal person, well point person, manhole, headwall and catch basin builder, headwall, seawall, breakwall and dock builder

GROUP 3: Air, gasoline and electric tool operator, vibrator operator, driller, pump person, tar kettle operator, bracer, rodder, reinforced steel or mesh person (e.g., wire mesh, steel mats, dowel bars, etc.), welder, pipe jacking and boring person, wagon drill and air track operator and concrete saw operator (under 40 h.p.), windlass and tugger person and directional boring person

GROUP 4: Trench or excavating grade person

GROUP 5: Pipe layer (including crock, metal pipe, multi-plate or other conduits)

GROUP 6: Grouting man, audio-visual television operations and all other operations in connection with closed circuit television inspection, pipe cleaning and pipe relining work and the installation and repair of water service pipe and appurtenances

GROUP 7: Restoration laborer, seeding, sodding, planting, cutting, mulching and top soil grading; and the restoration of property such as replacing mailboxes, wood chips, planter boxes, flagstones, etc.

LABO0465-001 06/01/2025

LABORER: Highway, Bridge and Airport Construction

AREA 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES

AREA 2: ALLEGAN, BARRY, BAY, BERRIEN, BRANCH, CALHOUN, CASS, CLINTON, EATON, GRATIOT, HILLSDALE, HURON, INGHAM, JACKSON, KALAMAZOO, LAPEER, LENAWEE, LIVINGSTON, MIDLAND, MUSKEGON, SAGINAW, SANILAC, SHIAWASSEE, ST. CLAIR, ST. JOSEPH, TUSCOLA AND VAN BUREN COUNTIES

AREA 3: ALCONA, ALPENA, ANTRIM, ARENAC, BENZIE, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, IONIA, IOSCO, ISABELLA, KALKASKA, KENT, LAKE, LEELANAU, MANISTEE, MASON, MECOSTA, MISSAUKEE, MONTCALM, MONTMORENCY, NEWAYGO, OCEANA, OGEMAW, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON AND WEXFORD COUNTIES

AREA 4: ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES

	Rates	Fringes
LABORER (AREA 1)		
GROUP 1	$ 35.51	14.45

GROUP 2	$ .96	.45
GROUP 3	$ 35.82	14.45
GROUP 4	$ 35.90	14.45
GROUP 5	$ 36.11	14.45
GROUP 6	$ 36.41	14.45
LABORER (AREA 2)		
GROUP 1	$ 33.37	14.45
GROUP 2	$ 30.03	14.45
GROUP 3	$ 33.81	14.45
GROUP 4	$ 34.16	14.45
GROUP 5	$ 34.03	14.45
GROUP 6	$ 34.37	14.45
LABORER (AREA 3)		
GROUP 1	$ 32.62	14.45
GROUP 2	$ 33.83	14.45
GROUP 3	$ 33.12	14.45
GROUP 4	$ 33.56	14.45
GROUP 5	$ 33.18	14.45
GROUP 6	$ 33.61	14.45
LABORER (AREA 4)		
GROUP 1	$ 33.52	13.45
GROUP 2	$ 33.73	13.45
GROUP 3	$ 34.02	13.45
GROUP 4	$ 34.46	13.45
GROUP 5	$ 34.08	13.45
GROUP 6	$ 34.51	13.45

LABORER CLASSIFICATIONS

GROUP 1: Asphalt shoveler or loader; asphalt lant misc.; burlap person; yard person; dumper (wagon, truck, etc.); joint filling laborer; miscellaneous laborer; unskilled laborer; sprinkler laborer; form setting laborer; form stripper; pavement reinforcing; handling and placing (e.g., wire mesh, steel mats, dowel bars); mason's tender or bricklayer's tender on manholes; manhole builder; headwalls, etc.; waterproofing,(other than buildings) seal coating and slurry mix, shoring, underpinning; pressure grouting; bridge pin and hanger removal; material recycling laborer; horizontal paver laborer (brick, concrete, clay, stone and asphalt); ground stabilization and modification laborer; grouting; waterblasting; top person; railroad track and trestle laborer; carpenters' tender; guard rail builders' tender; earth retention barrier and wall and M.S.E. wall installer's tender; highway and median installer's tender(including sound, retaining, and crash barriers); fence erector's tender; asphalt raker tender; sign installer; remote control operated equipment.

GROUP 2: Mixer operator (less than 5 sacks); air or electric tool operator (jackhammer, etc.); spreader; boxperson (asphalt, stone, gravel); concrete paddler; power chain saw operator; paving batch truck dumper; tunnel mucker (highway work only); concrete saw (under 40 h.p.) and dry pack machine; roto-mill grounds person.

GROUP 3: Tunnel miner (highway work only); finishers tenders; guard rail builders; highway and median barrier installer; earth retention barrier and wall and M.S.E. wall installer's (including sound, retaining and crash barriers); fence erector; bottom person; powder person; wagon drill and air track operator; diamond and core drills; grade checker; certified welders; curb and side rail setter's tender.

ROUP 4: A halt raker

GROUP 5: Pipe layers, oxy-gun

GROUP 6: Line-form setter for curb or pavement; a halt screed checker/screw man on asphalt paving machines.

LABO1076-005 04/01/2025

MICHIGAN STATEWIDE

	Rates	Fringes
LABORER (DISTRIBUTION WORK)		
Zone 1	$ 28.41	13.45
Zone 2	$ 24.55	13.45
Zone 3	$ 23.55	13.45
Zone 4	$ 22.92	13.45
Zone 5	$ 22.95	13.45

DISTRIBUTION WORK - The construction, installation, treating and reconditioning of distribution pipelines transporting coal, oil, gas or other similar materials, vapors or liquids, including pipelines within private property boundaries, up to and including the meter settings on residential, commercial, industrial, institutional, private and public structures. All work covering pumping stations and tank farms not covered by the Building Trades Agreement. Other distribution lines with the exception of sewer, water and cable television are included.

Underground Duct Layer Pay: $.40 per hour above the base pay rate.

Zone 1 - Macomb, Oakland and Wayne
Zone 2 - Monroe and Washtenaw
Zone 3 - Bay, Genesee, Lapeer, Midland, Saginaw, Sanilac, Shiawassee and St. Clair
Zone 4 - Alger, Baraga, Chippewa, Delta, Dickinson, Gogebic, Houghton, Iron, Keweenaw, Luce, Mackinac, Marquette, Menominee, Ontonagon and Schoolcraft
Zone 5 - Remaining Counties in Michigan

PAIN0022-002 07/01/2008

HILLSDALE, JACKSON AND LENAWEE COUNTIES; LIVINGSTON COUNTY (east of the eastern city limits of Howell, not including the city of Howell, north to the Genesee County line and south to the Washtenaw County line); MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES:

	Rates	Fringes
PAINTER	$ 25.06	14.75

FOOTNOTES: For all spray work and journeyman rigging for spray work, also blowing off, $0.80 per hour additional (applies only to workers doing rigging for spray work on off the floor work. Does not include setting up or moving rigging on floor surfaces, nor does it apply to workers engaged in covering up or tending spray equipment. For all sandblasting and spray work performed on highway bridges,

overpasses, anks or steel 0.80 per hour additional. For all brushing, cleaning and other preparatory work (other than spraying or steeplejack work) at scaffold heights of fifty (50) feet from the ground or higher, $0.50 per hour additional. For all preparatorial work and painting performed on open steel under forty (40) feet when no scaffolding is involved, $0.50 per hour additional. For all swing stage work-window jacks and window belts-exterior and interior, $0.50 per hour additional. For all spray work and sandblaster work to a scaffold height of forty (40) feet above the floor level, $0.80 per hour additional. For all preparatorial work and painting on all highway bridges or overpasses up to forty (40) feet in height, $0.50 per hour additional. For all steeplejack work performed where the elevation is forty (40) feet or more, $1.25 per hour additional.

PAIN0312-001 06/01/2018

EXCLUDES: ALLEGAN COUNTY (Townships of Dorr, Fillmore, Heath, Hopkins, Laketown, Leighton, Manlius, Monterey, Overisel, Salem, Saugatuck and Wayland); INCLUDES: Barry, Berrien, Branch, Calhoun, Cass, Hillsdale, Kalamazoo, St. Joseph, Van Buren

	Rates	Fringes
PAINTER		
Brush and roller	$ 23.74	13.35
Spray, Sandblast, Sign Painting	$ 24.94	13.35

PAIN0845-003 05/10/2018

CLINTON COUNTY; EATON COUNTY (does not include the townships of Bellevue and Olivet); INGHAM COUNTY; IONIA COUNTY (east of Hwy. M 66); LIVINGSTON COUNTY (west of the eastern city limits of Howell, including the city of Howell, north to the Genesee County line and south to the Washtenaw County line); AND SHIAWASSEE COUNTY (Townships of Bennington, Laingsbury and Perry):

	Rates	Fringes
PAINTER	$ 25.49	13.74

PAIN0845-015 05/10/2018

MUSKEGON COUNTY; NEWAYGO COUNTY (except the Townships of Barton, Big Prairie, Brooks, Croton, Ensley, Everett, Goodwell, Grant, Home, Monroe, Norwich and Wilcox); OCEANA COUNTY; OTTAWA COUNTY (except the townships of Allendale, Blendone, Chester, Georgetown, Holland, Jamestown, Olive, Park, Polkton, Port Sheldon, Tallmadge, Wright and Zeeland):

	Rates	Fringes
PAINTER	$ 25.49	13.74

PAIN0845-018 05/10/2018

LLEGAN COUNTY (T nships of Dorr, Fillmore, Heath, Hopkins, Laketown, Leighton, Manlius, Monterey, Overisel, Salem, Saugatuck and Wayland); IONIA COUNTY (west of Hwy. M-66); KENT, MECOSTA AND MONTCALM COUNTIES; NEWAYGO COUNTY (Townships of Barton, Big Prairie, Brooks, Croton, Ensley, Everett, Goodwell, Grant, Home, Monroe, Norwich and Wilcox); OSCEOLA COUNTY (south of Hwy. #10); OTTAWA COUNTY (Townships of Allendale, Blendone, Chester, Georgetown, Holland, Jamestown, Olive, Park, Polkton, Port Sheldon, Tallmadge, Wright and Zeeland):

	Rates	Fringes
PAINTER	$ 25.49	13.74

FOOTNOTES: Lead abatement work: $1.00 per hour additional.

PAIN1011-003 06/02/2022

ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:

	Rates	Fringes
PAINTER	$ 24.66	14.99

FOOTNOTES: High pay (bridges, overpasses, watertower): 30 to 80 ft.: $.65 per hour additional. 80 ft. and over: $1.30 per hour additional.

PAIN1474-002 06/01/2010

HURON COUNTY; LAPEER COUNTY (east of Hwy. M-53); ST. CLAIR, SANILAC AND TUSCOLA COUNTIES:

	Rates	Fringes
PAINTER	$ 23.79	12.02

FOOTNOTES: Lead abatement work: $1.00 per hour additional. Work with any hazardous material: $1.00 per hour additional. Sandblasting, steam cleaning and acid cleaning: $1.00 per hour additional. Ladder work at or above 40 ft., scaffold work at or above 40 ft., swing stage, boatswain chair, window jacks and all work performed over a falling height of 40 ft.: $1.00 per hour additional. Spray gun work, pick pullers and those handling needles, blowing off by air pressure, and any person rigging (setting up and moving off the ground): $1.00 per hour additional. Steeplejack, tanks, gas holders, stacks, flag poles, radio towers and beacons, power line towers, bridges, etc.: $1.00 per hour additional, paid from the ground up.

PAIN1803-003 06/01/2025

ALCONA, ALPENA, ANTRIM, ARENAC, BAY, BENZIE, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, GRATIOT, IOSCO, ISABELLA, KALKASKA, LAKE, LEELANAU, MANISTEE, MASON, MIDLAND, MISSAUKEE, MONTMORENCY AND OGEMAW COUNTIES; OSCEOLA COUNTY (north of Hwy. #10); OSCODA, OTSEGO, PRESQUE

SLE, ROSCOMMON, SAG AW AND WEXFORD COUNTIES:

	Rates	Fringes
PAINTER		
Work performed on water, bridges over water or moving traffic, radio and powerline towers, elevated tanks, steeples, smoke stacks over 40 ft. of falling heights, recovery of lead-based paints and any work associated with industrial plants, except maintenance of industrial plants	$ 29.23	19.11
All other work, including maintenance of industrial plant	$ 29.35	19.05

FOOTNOTES: Spray painting, sandblasting, blowdown associated with spraying and blasting, water blasting and work involving a swing stage, boatswain chair or spider: $1.00 per hour additional. All work performed inside tanks, vessels, tank trailers, railroad cars, sewers, smoke stacks, boilers or other spaces having limited egress not including buildings, opentop tanks, pits, etc.: $1.25 per hour additional.

PLAS0514-001 06/01/2023

ZONE 1: GENESEE, LIVINGSTON, MACOMB, MONROE, OAKLAND, SAGINAW, WASHTENAW AND WAYNE COUNTIES

ZONE 2: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SANILAC, SCHOOLCRAFT, SHIAWASSEE, ST. CLAIR, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
ZONE 1	$ 33.00	18.51
ZONE 2	$ 31.50	18.51

PLUM0190-003 05/01/2015

ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT,

EWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MACOMB, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MONROE, MUSKEGON, NEWAYGO, OAKLAND, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLARE, ST. JOSEPH, SANILAC, SCHOOLCRAFT, SHIAWASSEE, TUSCOLA, VAN BUREN, WASHTENAW, WAYNE AND WEXFORD COUNTIES

	Rates	Fringes
Plumber/Pipefitter - gas distribution pipeline:		
Welding in conjunction with gas distribution pipeline work	$ 33.03	20.19
All other work:	$ 24.19	12.28

TEAM0007-004 06/01/2025

AREA 1: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SCHOOLCRAFT, SHIAWASSEE, ST. CLAIR, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

AREA 2: GENESEE, LIVINGSTON, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES

	Rates	Fringes
TRUCK DRIVER		
AREA 1		
Euclids, double bottoms and lowboys	$ 33.55	.75 + a+b
Trucks under 8 cu. yds.	$ 33.40	.75 + a+b
Trucks, 8 cu. yds. and over	$ 33.40	.75 + a+b
AREA 2		
Euclids, double bottoms and lowboys	$ 33.65	.75 + a+b
Trucks under 8 cu. yds.	$ 33.50	.75 + a+b
Trucks, 8 cu. yds. and over	$ 33.50	.75 + a+b

Footnote:
a. $470.70 per week
b. $68.70 daily

TEAM0247-004 04/01/2013

AREA 1: ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW,

AKE, LAPEER, LEELANAU, LENAWEE, L CE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SANILAC, SCHOOLCRAFT, SHIAWASSEE, SAGINAW, ST. CLAIR, ST. JOSEPH, TUSCOLA, VAN BUREN AND WEXFORD COUNTIES

AREA 2: GENESEE, LIVINGSTON, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES

	Rates	Fringes
Sign Installer		
AREA 1		
GROUP 1	$ 21.78	11.83
GROUP 2	$ 25.27	11.8375
AREA 2		
GROUP 1	$ 22.03	11.83
GROUP 2	$ 25.02	11.8375

FOOTNOTE:

a. $132.70 per week, plus $17.80 per day.

SIGN INSTALLER CLASSIFICATIONS:

GROUP 1: performs all necessary labor and uses all tools required to construct and set concrete forms required in the installation of highway and street signs

GROUP 2: performs all miscellaneous labor, uses all hand and power tools, and operates all other equipment, mobile or otherwise, required for the installation of highway and street signs

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TEAM0247-010 04/01/2018

AREA 1: LAPEER AND SHIAWASSEE COUNTIES

AREA 2: GENESEE, MACOMB, MONROE, OAKLAND, ST. CLAIR, WASHTENAW AND WAYNE COUNTIES

	Rates	Fringes
TRUCK DRIVER (Underground construction)		
AREA 1		
GROUP 1	$ 23.82	19.04
GROUP 2	$ 23.91	19.04
GROUP 3	$ 24.12	19.04
AREA 2		
GROUP 1	$ 24.12	19.04
GROUP 2	$ 24.26	19.04
GROUP 3	$ 24.45	19.04

PAID HOLIDAYS: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

SCOPE OF WORK: Excavation, site preparation, land balancing, grading, sewers, utilities and improvements; also including but not limited to, tunnels, underground piping, retention,

oxidation, occulation facilities, conduits, general excavation and steel sheeting for underground construction. Underground construction work shall not include any structural modifications, alterations, additions and repairs to buildings or highway work, including roads, streets, bridge construction and parking lots or steel erection.

TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Truck driver on all trucks (EXCEPT dump trucks of 8 cubic yards capacity or over, pole trailers, semis, low boys, Euclid, double bottom and fuel trucks)

GROUP 2: Truck driver on dump trucks of 8 cubic yards capacity or over, pole trailers, semis and fuel trucks

GROUP 3: Truck driver on low boy, Euclid and double bottom

SUMI2002-001 05/01/2002

	Rates	Fringes
FLAG PERSON	$ 10.10	0.00
LINE PROTECTOR (ZONE 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE)	$ 26.63	14.45
LINE PROTECTOR (ZONE 2: STATEWIDE (EXCLUDING GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE)	$ 25.03	14.45
Pavement Marking Machine (ZONE 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES) Group 1	$ 35.51	14.45
Pavement Marking Machine (ZONE 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE) Group 2	$ 31.96	14.45
Pavement Marking Machine (ZONE 2: STATEWIDE (EXCLUDING GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES) Group 1	$ 33.37	14.45
Pavement Marking Machine (ZONE 2: STATEWIDE (EXCLUDING GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE) Group 2	$ 30.03	14.45

WORK CLASSIFICATIONS:

PAVEMENT MARKER GROUP 1: Drives or operates a truck mounted striper, grinder, blaster, groover, or thermoplastic melter for the placement or removal of temporary or permanent

pavement mar ngs mar ers.

PAVEMENT MARKER GROUP 2: Performs all functions nvolved for the placement or removal of temporary or permanent pavement markings or markers not covered by the classification of Pavement Marker Group 1 or Line Protector.

LINE PROTECTOR: Performs all operations for the protection o removal of temporary or permanent pavement markings or markers in a moving convoy operation not performed by the classification of Pavement Marker Group 1. A moving convoy operation is comprised of only Pavement Markers Group 1 and Line Protectors.

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least $13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications

nd wage ra es th have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

tate Adopted Rate Identi ers

The ""SA"" identifier indicates that the classif cations and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

he request should be accompanied by a full st ement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION"

Labor Standards Provisions for Federally Assisted Projects - *29 CFR Part 5*

§5.5 Contract provisions and related matters.

(a) The Agency head shall cause or require the contracting officer to insert in full in any contract in excess of $2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a public building or public work, or building or work financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated),and which is subject to the labor standards provisions of any of the acts listed in Sec. 5.1, the following clauses (or any modifications thereof to meet the particular needs of the agency, *Provided,* That such modifications are first approved by the Department of Labor):

(1) Minimum wages. (i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in Sec. 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination, and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers, or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-dayperiod that additional time is necessary.

(D The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii) (B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fid fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside, in a separate account, assets for the meeting of obligations under the plan or program.

(2) *Withholding.* The ***(write in name of Federal Agency or the loan or grant recipient)*** shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the

work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) *Payrolls and basic records.* (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made, and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the (write in name of appropriate federal agency) if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant, sponsor, or owner, as the case may be, for transmission to the (write in name of agency). The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead, the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at dol.gov/agencies/whd/government-contracts/construction/forms or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the (write in name of appropriate federal agency) if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit them to the applicant, sponsor, or owner, as the case may be, for transmission to the (write in name of agency), the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the applicant, sponsor, or owner).

(B) Each payroll submitted shall be accompanied by a “Statement of Compliance”, signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under Sec. 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under Sec. 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete.

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the “Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the Michigan Department of Environment, Great Lakes, and Energy or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the contractor, sponsor, applicant, or owner, take such action as maybe necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) *Apprentices and trainees*- (i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the

applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the jobsite in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) *Compliance with Copeland Act requirements.* The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) *Subcontracts*. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the (write in the name of the Federal agency) may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) *Contract termination: debarment*. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) *Compliance with Davis-Bacon and Related Act requirements.* All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) *Disputes concerning labor standards.* Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(10) *Certification of eligibility.* (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C.1001.

(b) Contract Work Hours and Safety Standards Act. The Agency Head shall cause or require the contracting officer to insert the following clauses set forth in paragraphs (b)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Sec. 5.5(a) or 4.6 of part 4 of this title. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible there for shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be

liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The ***(write in the name of the Federal agency or the loan or grant recipient)*** shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.

(c) In addition to the clauses contained in paragraph (b), in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in Sec.5.1, the Agency Head shall cause or require the contracting officer to insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Agency Head shall cause or require the contracting officer to insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the Michigan Department of Environment, Great Lakes, and Energy and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

Disadvantaged Business Enterprises (DBE) Requirements

Prime contractors bidding on this project must follow, document, and maintain documentation of their Good Faith Efforts (GFE), as listed below, to ensure that Disadvantaged Business Enterprises (DBEs) have the opportunity to participate in the project by increasing DBE awareness of procurement efforts and outreach. Bidders must make the following Good Faith Efforts for any work that will be subcontracted.

1. Ensure DBEs are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. Place DBEs on solicitation lists and solicit DBEs whenever they are potential sources.

2. Make information on forthcoming opportunities available to DBEs. Arrange timeframes for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. Whenever possible, post solicitation for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date. The DBEs should be given a minimum of 5 days to respond to the posting.

3. Consider in the contracting process whether firms competing for large contracts can be subcontracted with DBEs. Divide total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.

4. Encourage contracting with a consortium of DBEs when a contract is too large for one DBE firm to handle individually.

5. Use the services and assistance of the Small Business Administration and the Minority Business Development Agency of the U.S. Department of Commerce.

Subsequent to compliance with the Good Faith Efforts, the following conditions also apply under the DBE requirements. Completed Good Faith Efforts Worksheets, along with the required supporting documentation outlined in the instructions, must be submitted with your bid proposal. EPA form 6100-2 must also be provided at the pre-bid meeting. A copy of this form is available on the Forms and Guidance page of the EGLE Water Infrastructure Financing Section website.

1. The prime contractor must pay its subcontractor for work that has been satisfactorily completed no more than 30 days from the prime contractor’s receipt of payment from the owner.

2. The prime contractor must notify the owner in writing prior to the termination of any DBE subcontractor for convenience by the prime contractor and employ the Good Faith Efforts if soliciting a replacement contractor.

3. If a DBE contractor fails to complete work under the subcontract for any reason, the prime contractor must employ the Good Faith Efforts if soliciting a replacement contractor.

4. The prime contractor must employ the Good Faith Efforts.

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

Good Faith Efforts Worksheet

Bidder: _____

Subcontract Area of Work (one per worksheet): _____

Outreach Goal: Solicit a minimum of three (3) DBEs via email/letter/fax. It is recommended that various sources be used to locate the minimum number of DBEs. The Michigan Department of Transportation (MDOT) website and www.sam.gov registries may be two resources used to find a minimum of three DBEs.

List the DBEs contacted for the above area of work and complete the following information for each.

Company Name	Contact Method	Date Contacted	Price Quote Received	Accepted or Rejected	If rejected, explain why

Explanation for Not Achieving a Minimum of Three Contacts; you may include a printout of the MDOT and www.sam.gov search results (attach extra sheets if necessary):

MITA DBE Posting Date (if applicable): _____
(Attach a copy of the DBE advertisement)

Other Efforts (attach extra sheets if necessary):

Please include the completed worksheet and supporting documentation with the bid proposal.

Instructions to Bidders for the Completion of the Good Faith Efforts Worksheet

1. Separate worksheets must be provided for each area of work to be subcontracted out. This includes both major and minor subcontracts.

2. A minimum of three (3) DBEs must be contacted by a verifiable means of communication such as email, letter, or fax for each area of work to be subcontracted out. Copies of the solicitation letters/emails and fax confirmation sheets must be provided with the worksheet.

3. If less than three (3) DBEs exist statewide for the area of work, then provide documentation that other DBE resources were consulted. This may include the MDOT and www.sam.gov registries and an advertisement in a publication. A printout of the website searched (conducted prior to the end of the bid period) must be submitted.

4. Posting solicitations for quotes/proposals from DBEs on the MITA website (www.mitadbe.com) is highly recommended to facilitate participation in the competitive process whenever possible. The solicitation needs to identify the project and the areas of work to be subcontracted out. A copy of the MITA DBE advertisement must be submitted with the Good Faith Efforts worksheet, if used, or a printout of the resulting quotes posted to the MITA website can be submitted with this form as supporting documentation.

5. If the area of work is so specialized that no DBEs exist, then an explanation is required to support that conclusion, including the documentation required in number 3 above.

6. The date of the DBE contact must be identified, as it is important to document that the DBE solicitation was made during the bid period and that sufficient time was given for the DBE to return a quote.

7. Each DBE firm's price quote must be identified if one was received, or N/A entered on the worksheet if a quote was not received. Copies of all quotes must be submitted with the worksheet.

8. If a quote was received, indicate if it was accepted or rejected. Justification for not accepting a quote and not using the DBE subcontractor must be provided.

9. Under Other Efforts, please indicate additional steps you have taken to obtain DBE contractors and provide the appropriate supporting documentation such as:

    - Follow-up emails, faxes, or letters.
    - Copies of announcements/postings in newspapers, trade publications, or minority media that target DBE firms.

Disadvantaged Business Enterprise (DBE) and Good Faith Efforts (GFE) Requirements Frequently Asked Questions Regarding Contractor Compliance

Q: What is the Good Faith Efforts Worksheet and how is it completed?
A: The worksheet captures efforts by the prime contractor to solicit DBEs for each area of work type that will be subcontracted out. A separate GFE Worksheet must be provided by the prime contractor for each area of work type to be subcontracted out. There are specific instructions that accompany the worksheet that prescribe minimum efforts which bidders must make in order to be in compliance with the DBE requirements.

Q: Can non-certified DBEs be used?
A: While non-certified DBEs can be used, only DBEs, MBEs, and WBEs that are certified by EPA, SBA, or MDOT (or by tribal, state and local governments, as long as their standards for certification meet or exceed the standards in EPA policy) can be counted toward the fair share goal. Proof of certification by one of these recognized and approved agencies should be sought from each DBE.

Q: How does a DBE get certified?
A: Applications to be certified by MDOT can be found at mdotjboss.state.mi.us/MUCPWeb/eligibilityRequirements.htm
To register with the U.S. Small Business Association visit sba.gov/federal-contracting/contracting-assistance-programs/small-disadvantaged-business
To be certified by EPA, a DBE must first have sought certification through SBA, MDOT, or a tribal, state, or local organization and be unsuccessful in that attempt.

Q: If a bidder follows the MDOT DBE requirements, will the bidder comply with the SRF DBE requirements?
A: No. Federally funded highway projects utilize DBE goals, which require a certain percentage of work be performed by DBE subcontractors. For SRF projects, there is no financial goal. However, there is a solicitation effort goal. Bidders must use Good Faith Efforts for each and every area of work to be subcontracted out to obtain DBEs. The bidders are not required to use DBEs if the quotes are higher than non-DBE subcontractors. There is no required DBE participation percentage contract goal for the SRF. However, if the SRF project is part of a joint project with MDOT, the project can be excluded from SRF DBE requirements (i.e., the Good Faith Efforts Worksheet is not required) as it would be difficult to comply with both programs' requirements.

Q: Should the Good Faith Efforts Worksheet and supporting documentation be submitted with bid proposals?
A: Yes. This is a requirement to document that the contractor has complied with the DBE requirements and GFE. These compliance efforts must be done during the bidding phase and not after-the-fact. It is highly recommended that the need for these efforts and the submittal of the forms with the bid proposals be emphasized at the pre-bid meeting. Failure to show that the Good Faith Efforts were complied with during the bidding process can lead to a prime contractor being found non-responsive.

Q: What kinds of documentation should a contractor provide to document solicitation efforts?
A: Documentation can include fax confirmation sheets, copies of solicitation letters/emails, printouts of online solicitations, printouts of online search results, affidavits of publication in newspapers, etc.

Q: What if no forms are turned in with the bid proposal or forms are blank or incomplete? Should this be cause to determine that the bidder is non-responsive?
A: While the Good Faith Efforts Worksheet is important, it is more critical to confirm that the contractor complied with the DBE requirements prior to bid opening. The owner should contact the bidder as soon as deficiencies are noted for documentation of efforts taken to comply with the DBE requirements. Immediate submittal of the completed forms will be acceptable provided the Good Faith Efforts were made and it is just a matter of transferring information to the forms.

Q: How much time will compliance with GFE require in terms of structuring an adequate bidding period?
A: Due to the extent of the efforts required, a minimum of 30 calendar days is recommended between bid posting and bid opening to ensure adequate time for contractors to locate certified DBEs and solicit quotes.

Q: How does a contractor locate certified DBEs?
A: MDOT has a directory of all Michigan certified entities located at mdotjboss.state.mi.us/MUCPWeb/. Additionally, the federal System for Award Management (SAM) is another place to search and can be found at sam.gov. SAM contains information from the former Central Contractor Registration (CCR) database.

Q: If the bidder does not intend to subcontract any work, what forms, if any, must be provided with the bid proposal?
A: The bidder should complete the Good Faith Efforts Worksheet with a notation that no subcontracting will be done. However, if the bidder is awarded the contract and then decides to subcontract work at any point, then the Good Faith Efforts must be made to solicit DBEs.

Q: If the prime contractor is a DBE, does he have to solicit DBE subcontractors?
A: Yes, the DBE requirements still apply if the prime intends to subcontract work out. GFE must be used to solicit DBEs.

Q: If the area of work is one where there are less than three DBE contractors, how is the contractor to document this?
A: Copies of printouts from MDOT and SAM showing no DBEs and advertisements soliciting quotes for all subcontract areas, including the questionable areas, will be adequate if the dates on the printouts are prior to the bid or proposal closing date.

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

Certification Regarding Debarment, Suspension, and Other Responsibility Matters

The prime contractor must provide a completed *Certification Regarding Debarment, Suspension, and Other Responsibility Matters Form* with its bid or proposal package to the owner.

The prospective participant certifies, to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in transactions under federal nonprocurement programs by any federal department or agency;

(2) Have not, within the three-year period preceding the proposal, had one or more public transactions (federal, state, or local) terminated for cause or default; and

(3) Are not presently indicted or otherwise criminally or civilly charged by a government entity (federal, state, or local) and have not, within the three-year period preceding the proposal, been convicted of or had a civil judgment rendered against it:

(a) For the commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public transaction (federal, state, or local) or a procurement contract under such a public transaction;

(b) For the violation of federal or state antitrust statutes, including those proscribing price fixing between competitors, the allocation of customers between competitors, or bid rigging; or

(c) For the commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false statements, or receiving stolen property.

I understand that a false statement on this certification may be grounds for the rejection of this proposal or the termination of the award. In addition, under 18 U.S.C. §1001, a false statement may result in a fine of up to $10,000 or imprisonment for up to five years, or both.

_____
Name and Title of Authorized Representative

_____
Name of Participant Agency or Firm

_____
Signature of Authorized Representative Date

☐ I am unable to certify to the above statement. Attached is my explanation.

NOTICE INVITING SEALED BIDS

Bid/Contract Number – C-1725
2027 Lead Service Line Replacement DWSRF #7900.01
FOR THE DEPARTMENT OF PUBLIC SERVICES, ENGINEERING DIVISION, CITY OF SAGINAW, MICHIGAN. Sealed bids will be received by the City of Saginaw Purchasing Office, 1315 S. Washington Avenue, Saginaw, Michigan 48601, **until 3:00 p.m., Tuesday, May 5, 2026**, and then publicly opened for the DEPARTMENT OF PUBLIC SERVICES, ENGINEERING DIVISION – (C-1725) 2027 Lead Service Line Replacement DWSRF #7900.01

Furnish labor, tools, equipment, and materials as required to perform the work as specified in the contract documents.

Direct any questions to Travis Hare, City Engineer, via email at engineer@saginaw-mi.com, before 3:00p.m. on April 28, 2026.

To access downloadable contract documents, go to the City of Saginaw's website at https://www.saginaw-mi.com/Bids.aspx. There is **no charge** for these downloadable documents. For a hard copy of the contract documents, call the City Engineer's office at 989-759-1410. The office is in the lower level of the Public Works Service Center building, 1435 S. Washington Avenue, Saginaw, Michigan 48601. There is a **$125.00 non-refundable** charge for a hard copy of the contract book and drawings with an additional charge of **$25.00** to cover the mailing. Checks must be made payable to "Treasurer, City of Saginaw" and mailed to the City Engineer, 1315 South Washington Avenue, Saginaw, Michigan 48601.

All vendors are subject to the provisions of the City's Purchasing, Contracting, and Selling Procedure Ordinance, Title I, Chapter 14, §14.30-14.45, of the Saginaw Code of Ordinances. For disability accommodation, please call 989-759-1410.

As part of the consideration for this bid, the vendor doing business with the City of Saginaw agrees to have withheld from any payments due them, any amounts for taxes, fees, or other charges due the City of Saginaw.

The City of Saginaw has an income tax. All successful bidders will be subject to income tax withholdings; compliance is mandatory.

Contract amounts totaling $100,000 or more will require a certified check, cashier's check, or surety company bid bond in an amount of five percent **(5%)** of the total bid to be submitted with the bid as security for the acceptance and execution of the contract.

The successful bidder on a contract of $50,000.00 or more will be required to furnish surety company bonds as follows:
First - A bond in the sum of one hundred percent (100%) of the contract price running to the City of Saginaw to insure the construction and completion of the entire work according to the proposal and contract.
Second - A bond in the sum of one hundred percent (100%) of the contract price running to the City of Saginaw for the protection of the subcontractors and labor and material suppliers, according to the statute of the State of Michigan at that time in effect.

The City of Saginaw reserves the right to accept or reject any and all bids, or parts thereof, and to waive any irregularities in the bid except those specifically mentioned in the Sealed Bid Instructions. Bidders are required by the City's Purchasing, Contracting, and Selling Procedure Ordinance to submit documentation concerning their current work force and past employment practices and to subscribe to a statement furnished by the City indicating compliance with the Ordinance.

Kim Jaime, Purchasing Officer

CITY OF SAGINAW, MICHIGAN
BID FORM

C-1725 2027 Lead Service Line Replacements DWSRF #7900.01

To the City of Saginaw Date:_____

In response to your notice, the undersigned, hereinafter called the Contractor, hereby declares that the Contractor has read the "General Instruction to Bidders", "Sealed Bid Instructions" and "General Information", has examined the plans, specifications and the location of the work described herein, has reviewed the proposed Contract and its general conditions, and, is thus fully informed to the nature of the work and the conditions relating to its performance and further understands that the quantities shown hereon are approximate only and are subject to either increase or decrease.

The Contractor hereby proposes to furnish all the necessary equipment and tools, do all the work, furnish all the materials, except as otherwise specified and to complete the work herein described all in accordance with the Contract and its plans and specifications, of which this proposal is a part, for the unit prices named in the following itemized bid.

Prior to and contingent upon award of a contract of $50,000.00 or more, the undersigned further agrees to furnish a surety company performance bond in the sum of not less than 100 percent (100%) of the total amount of the contract company to secure the faithful performance of the Contract and, when required, a surety company labor and material bond in the sum of not less than 100 percent (100%) of the total amount of the Contract for the protection of subcontractors, labor and material suppliers, according to the laws of the State of Michigan at that time in effect. Said signed Contract, surety company bonds, and insurance shall be furnished within ten (10) days from date of notification by the Engineering Division of acceptance of the proposal submitted. The Contract cannot be fully awarded by City Council without the return of these executed documents.

In compliance with the requirements of said notice, this proposal is accompanied by an **original** bid bond, bank money order, certified check, or cashier's check in the sum of five percent (5%) of total bid to guarantee that a contract will be entered into if the above proposal is accepted, and the contract awarded to the undersigned.

52.222-21 Prohibition of Segregated Facilities.

As prescribed in 22.810(a)(1), insert the following clause:

Prohibition of *Segregated Facilities* (Apr 2015)

(a) *Definitions*. As used in this clause

Gender identity has the meaning given by the Department of Labor's Office of Federal Contract Compliance Programs, and is found at http://www.dol.gov/ofccp/LGBT/LGBT_FAQs.html.

Segregated facilities, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, *sexual orientation*, *gender identity*, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.

Sexual orientation has the meaning given by the Department of Labor's Office of Federal Contract Compliance Programs, and is found at http://www.dol.gov/ofccp/LGBT/LGBT_FAQs.html.

(b) The Contractor agrees that it does not and will not maintain or provide for its employees any *segregated facilities* at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where *segregated facilities* are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Opportunity clause in this contract.

(c) The Contractor *shall* include this clause in every subcontract and *purchase order* that is subject to the Equal Opportunity clause of this contract.

(End of clause)

Parent topic: 52.222 [Reserved]

	DESCRIPTION	APPX. QUANT.	UNIT	UNIT PRICE	BID AMOUNT
1	3/4" Water Service Line Connection, HDPE	2,900	LF		
2	1" Water Service Line Connection, HDPE	300	LF		
3	1.25" Water Service Line Connection, HDPE Water Service Line Connection, HDPE	50	LF		
4	1.5" Water Service Line Connection, HDPE	50	LF		
5	3/4" Water Service Line Extension, Outdoor, HDPE, including Grounding Rod	1,300	LF		
6	1" Water Service Line Extension, Outdoor, HDPE, including Grounding Rod	20	LF		
7	Water Service Line Extension, Indoor, HDPE	600	LF		
8	Water Service Line Connection, Copper, Site-Specific	100	LF		
9	Water Service Line Extension Outdoor, Copper, Site-Specific	100	LF		
10	Remove and Replace 3/4" Curb Stop and Box	177	EA		
11	Remove and Replace 1" Curb Stop and Box	20	EA		
12	Remove Existing Meter Pit	5	EA		
13	Remove and Replace Sidewalk, 4"	6,400	SF		
14	Remove and Replace Sidewalk, 6"	500	SF		
15	Remove and Replace Concrete Drive or Approach, 6"	6,900	SF		
16	Remove and Replace HMA Driveway, 3"	1,000	SF		
17	Remove and Replace Gravel Driveway, 23A	750	SF		
18	Remove and Replace Conc. Curb & Gutter, Det. F4	1,600	LF		
19	Concrete Curb Ramp Opening	50	LF		
20	Pavement Removal, Complete	4,800	SY		
21	Maintenance Gravel	800	TON		
22	HMA LVSP Leveling Course, 2"	550	TON		
23	HMA LVSP Wearing Course, 2"	550	TON		
24	Concrete Pavement	1,000	CY		
25	6" 22A Aggregate Base	4,800	SY		
26	Turf Establishment, Performance	1,800	SY		
27	Traffic Control, Local Streets	1	LS		
28	Traffic Control, Major Streets	1	LS		
29	Cut and Cap Inactive Service Line at Water Main	10	EA		
30	Bulkhead Existing Abandoned Sewer	2	EA		
31	Private Irrigation System Repair	5	EA		

TOTAL BID _____

In accordance with the provisions of "Public Act 524 of 1980".

I do hereby designate _____ (name of representative) to submit a written request for progress payment during the duration of this contract.

The Contractor shall start work as specified in the Progress Clause, or as directed by the City Engineer. In no case, shall any work commence prior to receipt of formal Notice to Proceed from the City.

The undersigned bidder does hereby declare that the bidder has the legal status checked below:

_____ Individual

_____ Partnership

_____ Corporation

Incorporated under the laws of the State of _____

_____ Limited Liability Company

Formed under the laws of the State of _____

The undersigned does hereby agree to honor this bid until November 6, 2026

Michigan's Iran Economic Sanctions Act:
The signature below certifies your company is in compliance with the Michigan Iran Economic Sanctions Act as identified on page #39 of this document. Further information on this Act can be viewed at (http://www.state.gov/j/ct/list/c14151.htm and https://www.legislature.mi.gov/(S(qnwpjcm0uyo1f2fhz0w1mlyq))/mileg.aspx?page=GetObject&objectname=mcl-Act-517-of-2012)

_____
(Signature)

_____
(Printed name)

_____
(Title)

This sheet must be included, or the bid will be disqualified.

By submitting a response to this request for proposal, the Contractor agrees to the terms and conditions set forth herein. Any changes made to such terms and conditions by Contractor in its response may result, at the City's sole discretion, in the Contractor's disqualification.

The successful Contractor will conform to all Contract specifications and requirements which are attached and incorporated as part of this bid. The City reserves the right to accept or reject any and all bids, or parts thereof, and to waive any irregularities in the bid except those specifically mentioned in the sealed bid instructions. Additionally, (if applicable) we reserve the right to add or delete any items(s) and/or service from this bid to the best benefit of The City of Saginaw.

By signature, the Contractor acknowledges that the signer below has complete authority to execute the bid on behalf of the Contractor and that the bid is genuine and not collusive in any manner; and that no other bidders were improperly induced to refrain from bidding or induced to submit a sham bid; and that the Contractor agrees to have withheld from any payment due them, any amounts owed for taxes or other charges due the City of Saginaw; and that successful bidders are subject to mandatory City of Saginaw income tax withholdings.

Signed	_____	Address	_____
Name	_____	City, State, Zip	_____
Title	_____	Telephone No:	_____
Company	_____	Fax No.	_____
E-mail	_____	Date:	_____

Check List

Iran Sanctions sheet Signed and included	Yes	No
Bid Form Signed and included	Yes	No
2nd Copy of Bid form included	Yes	No

Applies ONLY if an addendum(s) has been issued for this project

Addendum(s) Cover Sheet		
#1 – 1st page is signed and included	Yes	No
#2 – 1st page is signed and included	Yes	No
#3 – 1st page is signed and included	Yes	No

This sheet must be included, or the bid will be disqualified.

CONTRACT

CITY OF SAGINAW, MICHIGAN

This Contract is entered into on this _ day of _____, 2026, between **(name of contractor),** of _____ (hereinafter "Contractor"), and the City of Saginaw, 1315 S. Washington Avenue, Saginaw, Michigan 48601 (hereinafter "City"), for **2027 Lead Service Line Replacements DWSRF #7900.01 (C-1725)**

WHEREAS, Contractor, at a regular meeting of the Council of the City of Saginaw, held on Month 5, 2026, was awarded the contract for furnishing the necessary labor, equipment, materials, and construction for the completion of 2027 Lead Service Line Replacements DWSRF #7900.01(C-1725)

Contractor, in consideration of the Agreement herein made by the City, agrees with the City as follows:

Article 1. SUBJECT MATTER. Contractor shall furnish all the materials, except those specified to be furnished by the City, and perform all the work 2027 Lead Service Line Replacements DWSRF #7900.01 (C-1725) , as listed on the Table of Contents, and as shown on the drawings prepared by the Department of Public Services, Engineering Division, and described in the specifications, and in accordance with the general conditions, the general instructions to bidders, the notice inviting sealed proposals and the proposal, all of which are hereby made a part of this Contract by reference as though fully set forth herein. The Contractor acknowledges Contractor has received a copy of all such documents.

Article 2. COMMENCEMENT OF WORK. The Contractor shall start work as specified in the Progress Clause**,** or as directed by the City Engineer and the work shall be carried on with due diligence, at such points and at such times and seasons, and with such force and in such manner as to secure the completion in accordance with the Progress Clause, the time of beginning, rate of progress and the time of completion being essential conditions of this Contract.

Article 3. PAYMENT. It is hereby mutually agreed that the City shall pay, and the Contractor receive, the sum of **$Numerical amount,** same being the amount named in the Contractor's proposal or bid as full compensation for labor and materials required in executing all the work contemplated in this Contract, subject to additions and deductions, as provided in the specifications.

Article 4. ESTIMATES. The City hereby agrees to make payment under the restrictions and limitations herein contained, from time to time, on account of performance of this contract, by orders drawn upon the proper fund of the City, paying NINETY PERCENT (90%) thereof on the basis of estimates made by the Department of Public Services & Engineering semi-monthly as the work progresses, and approved by the City Engineer. Said estimates shall be made in writing and shall only include work done and material in place and shall not include completed work which, in the opinion of the City Engineer, is not advisable, for the protection of the City, at that time to

make payment on, and such estimates may be altogether withheld when, in the opinion of the City Engineer, work does not progress in accordance with the provisions of this Contract; and the making and furnishing of such estimates shall not be deemed or construed as an acceptance of any part of the work under this Contract. The City Engineer may authorize the reduction of the amount so withheld so that total payment equals NINETY-FIVE PERCENT (95%) of the estimate where the City Engineer shall find that the retention of FIVE PERCENT (5%) of the estimate is sufficient to protect the City, but the total amount so retained shall not in any event be reduced to less than FIVE PERCENT (5%) of the contract price above stated.

Article 5. RETENTION OF MONEYS. In addition to the TEN PERCENT (10%) of contract price above retained, to insure the completion of the work, the City reserves the right to retain at all times from the estimates, an amount sufficient to pay and discharge all debts incurred by Contractor, or subcontractor, for labor performed in the progress of the work, and for material purchased and used, and, at its discretion, to pay the same to the parties entitled thereto, and charge the same against the contract price.

Article 6. SEPARATE CONTRACTS. Where two or more separate proposals are grouped together herein, it is expressly agreed that each of said proposals shall constitute a separate contract and that all of the terms, conditions, and provisions of this Contract shall apply to each of said proposals to the same extent and in the same manner as though each of said proposals had been the subject of a separate contract.

Article 7. PUBLIC ACT 524 of 1980. Notwithstanding any provision herein to the contrary, this agreement is subject to 1980 PA 524, which statute is incorporated herein and made a part hereof by reference. Contractor hereby agrees that the City may, at its option, submit the following matters to dispute resolution by an agent agreed to or selected in accordance with the procedures set forth in the statute:

A. At any time during the term of the contract, to determine whether there has been a delay for reasons that were within the control of the Contractor, and the period of time that delay has been caused, continued, or aggravated by actions of the Contractor.
B. At any time after ninety-four percent (94%) of work under the Contract is in place, whether there has been an unacceptable delay by the Contractor in performance of the remaining six percent (6%) of work under the Contract. The agent shall consider the terms in the Contract and procedures normally followed in the industry and shall determine whether the delay was for failure to follow reasonable improvement practices in the industry for completion of the project.

The agent shall have all the rights, powers and duties specified in the statute.

Article 8. ACCEPTANCE AND FINAL PAYMENT. The final payment, including any retainage previously withheld, shall be payable on the approval and acceptance of the work by the City Engineer.

The payment of the final amount due under this Contract, and the adjustment and payment of all bills rendered for the work done in accordance with any alterations of same, shall release the City from any and all claims or liability on account of work performed or materials furnished under the Contract, or any alterations thereof.

The City of Saginaw has an income tax. All successful bidders will be subject to income tax withholdings and compliance is mandatory.

As part of the consideration for this Contract, the undersigned does hereby agree to have withheld from any payments due them, any amounts for taxes, fees or other charges due the City of Saginaw.

By their signatures below, the parties certify the persons signing on behalf of their respective party has the authority to do so. The parties hereto have executed this Contract the day and year first above written.

CONTRACTOR	**CITY OF SAGINAW**
	By:_____
	Timothy Morales
By:_____	**City Manager**
Name: _____	
Title: _____	

CITY OF SAGINAW

SCOPE OF WORK

COS: TJH APRIL 2026

C-1725 2027 Lead Service Line Replacements DWSRF #7900.01

Rehabilitation of various maintenance and service repair patches with pavement removal, concrete work, earthwork, subbase, aggregate base, curb and gutter, sidewalks, ADA sidewalk ramps.

Traffic control will be the responsibility of the Contractor. All major roads listed will be closed to through traffic with posted detour, while maintaining local access. 48-hour notice to the City is required for all closures. All local roads listed will be closed to through traffic with no posted detour required, while maintaining local access. Patches must be completed and the roadway open to traffic within 72 hours of removals. The contractor shall place temporary pavement markings until permanent pavement markings are placed.

CITY OF SAGINAW

PROGRESS CLAUSE

(TJH) 1 of 2 APRIL 2026

Start work on or after September 14, 2026 or as directed by City Engineer. All work must be completed on or before October 30, 2027 as shown on the Notice to Proceed, with the exception of seeding, to be completed by November 15, 2027 and turf establishment which shall be completed by May 1, 2028. In no case, shall any work commence prior to receipt of formal notice of award by the City.

Work is prohibited on City of Saginaw holidays and between the hours of 3 PM the day prior to the holiday and 7 AM the day after the holiday. Unauthorized work performed during prohibited time shall not be paid for.

December 30, 2026	New Year's Day
January 15, 2027	Martin Luther King Day
March 26,2027	Good Friday
May 31, 2027	Memorial Day
July 5, 2027	Independence Day
September 6, 2027	Labor Day
November 11, 2026	Veterans' Day
	Thanksgiving
	Black Friday
	Christmas Eve
	Christmas Day
	New Year's Eve

Submit a complete, detailed, and signed MDOT Form 1130, Progress Clause. The Progress Schedule shall be submitted to the City of Saginaw five (5) days prior to the meeting.

The progress schedule submittal shall include, at a minimum, the controlling work items for the completion of the project and the planned dates or work days that these work items will be the controlling operations. All contract dates including opened to traffic, the final project completion dates, and any other controlling dates must be included in the project schedule.

Failure by the Contractor to meet interim, final, and/or any stage completion dates will result in the assessment of liquidated damages in accordance with subsection 108.10 of the Standard Specifications for Construction, and the special provisions included in the proposal.

After award and prior to the start of work, the Contractor must attend a pre-construction meeting with the Engineer. The schedule for this meeting will be determined by the Engineer after submittal of MDOT Form 1130. The project Engineer will arrange the day, time, and place for the pre-construction meeting. The meeting will be conducted after project award and may be rescheduled if there are delays in the award of the project.

CITY OF SAGINAW

PROGRESS CLAUSE

(TJH) 2 of 2 April 2026

The named subcontractor(s) for designated and/or specialty items, as shown in the proposal, is recommended to be at the pre-construction meeting if such items materially affect the work schedule.

No unnecessary stoppages in work will be allowed once work has begun at the site.

Failure on the part of the contractor to carry out the provisions of the Progress Schedule, as established, may be considered sufficient cause to prevent bidding future projects until a satisfactory rate of progress is again established.

CITY OF SAGINAW

SPECIAL PROVISION

FOR

TECHNICAL SPECIFICATIONS

TJH **1 of 1** **APRIL 2026**

The technical specifications for this project shall be in accordance with the 2020 Standard Specifications for Construction of the Michigan Department of Transportation, hereinafter referred to as the "STANDARD SPECIFICATIONS", the latest MDOT standard road plans, and Traffic and Safety standard plans.

The placement of permanent and temporary pavement markings, and temporary signing for work zones shall be in accordance with the Michigan Manual of Uniform Traffic Control Devices, 2011 Edition.

In case of discrepancy, figured dimensions shall govern over scaled dimensions and the parts of the contract will prevail over all other parts in the following order:

1. City, Spicer Group Inc. and MDOT Special provisions
2. MDOT Supplemental specifications
3. Project plans and drawings
4. MDOT Standard plans
5. MDOT Standard specifications

CITY OF SAGINAW
NOTICE TO BIDDERS
FOR
UTILITY COORDINATION

1 of 2

LSLR: TLLF **March 2026**

The contractor shall cooperate and coordinate activities with the owners of utilities as stated in section 104 of the Standard Specifications for Construction. In addition, for the protection of underground utilities, the Contractor shall follow the requirements in section 107.12 of the Standard Specifications for Construction. Contractor delay claims, resulting from a utility, will be determined based upon section 109.05.E of the Standard Specifications for Construction.

PUBLIC UTILITIES

The following Public Utilities have facilities located within the right-of-way:

UTILITY	OWNER	CONTACT
Cable Television	Charter Communications 1408 S. Valley Center Drive Bay City, MI 48706	Mark Kelly 989.233.9404 Mark.kelly@charter.com
Telephone	AT&T 309 S. Washington Avenue Saginaw, MI 48607	Anika Estes 248.454.2998 ce3239@att.com
Gas	Consumers Energy 3201 E. Court Street Flint, MI 48506	Benjamin Lewis 989.791.5918 Benjamin.Lewis@cmsenergy.com
Electric	Consumers Energy 2400 Weiss Street Saginaw, MI 48602	Virgie Downs 989.791.5938 Virgie.Downs@cmsenergy.com
Municipality Traffic Signal, Signs, Street Lights	City of Saginaw 1435 S. Washington Avenue Saginaw, MI 48601	Joe Nugent 989.737.5583
MDOT Traffic Signals	MDOT – Bay Region 5859 Sherman Road Saginaw, MI 48604	Travis Phillips 989.233-7363 PhillipsT3@michigan.gov
Municipality Sewer & Water	City of Saginaw 1435 S. Washington Avenue Saginaw, MI 48601	Tony Folino 989.759.26009
Municipality Engineering	City of Saginaw 1435 S. Washington Avenue Saginaw, MI 48601	Travis Hare – City Engineer 989.759.1410

For the protection of underground utilities and in conformance with Public Act 174 of 2013, the Contractor shall contract the Miss Dig System, Inc. by phone at 811 or 800-482-7171 or via the web at either elocate.missdig.org for single address or rte.missdig.org, a minimum of 3 business days prior to excavation, excluding weekends and holidays.

Owners of public utilities will not be required to move poles or structures not already identified in the Plans to be relocated, in order to facilitate the operation of construction equipment, unless it is determined by the Engineer that such poles or structures constitute a hazard to the public or are extraordinarily dangerous to the Contractor's operations. **If the Contractor determines that additional relocations will be required in order to facilitate the operation of construction equipment for completion of this project, the Contractor shall notify the Engineer and the**

CITY OF SAGINAW
NOTICE TO BIDDERS
FOR
UTILITY COORDINATION

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LSLR: TLLF **March 2026**

Utility in writing, no later than 10 calendar days after award. The Contractor will be required to coordinate with utility companies to relocate any facilities required to accommodate the proposed scope of work. Support of utility poles during construction is the responsibility of the Contractor.

Additional underground electrical, cable, phone, and gas services that are not currently indicated on the plans may exist throughout the project limits. The Contractor shall be prepared to work with these utility companies to coordinate necessary relocations if additional conflicts arise. The private utility owner is responsible for costs, equipment, and labor to relocate their utilities as shown on the plans, or as deemed necessary by the Engineer.

CITY OF SAGINAW

SPECIAL PROVISION

FOR

LIQUIDATED DAMAGES

COS:TJH **1 OF 1** **APRIL 2026**

GENERAL REQUIREMENT

All work shall be accomplished in accordance with section 108 of the Michigan Department of Transportation 2020 Standard Specifications for Construction and as modified herein.

DESCRIPTION

Liquidated Damages per calendar day will be assessed at 100% of the amount indicated below:

SCHEDULE OF LIQUIDATED DAMAGES	
ORIGINAL CONTRACT AMOUNT	**LIQUIDATED DAMAGES (per calendar day)**
$ 0 to $ 100,000	$500
$ 100,000 to $ 500,000	$800
$ 500,000 to $ 1,000,000	$1000
$ 1,000,000 to $ 5,000,000	$1500
$5,000,000 to $15,000,000	$2000
Over $15,000,000	$4000

ASSESSMENT OF LIQUIDATED DAMAGES

Sums assessed as Liquidated Damages shall not be considered penalties, but as damages due the City from the contractor for failure to complete the work within the specified time.

CITY OF SAGINAW
SPECIAL PROVISION
FOR
AGGREGATE BASE

Spicer | Page **1** of **1** | C-1725
March 2026

DESCRIPTION
This work shall meet the requirements of sections 302 and 902 of the Standard Specifications for Construction except as herein specified.

The work includes furnishing, loading, hauling, stockpiling, placing, compacting, and shaping the base material at specified locations.

MATERIALS
Materials for **Aggregate Base** shall be 100 percent crushed limestone conforming to Dense-Graded Aggregate 22A under section 902 of the Standard Specifications for Construction.

No crushed concrete shall be accepted.

CONSTRUCTION
Construction shall be in accordance with sections 302.03, 902, and table 902-1 of the Standard Specifications for Construction.

MEASUREMENT AND PAYMENT
The completed work as measured will be paid for at the contract unit price for the following pay item(s).

Pay Item	Pay Unit
Aggregate Base	Square Yard

Aggregate Base will be measured in place, at the specified depth, by area in square yards and will be paid for at the contract unit price. This price shall be payment in full for all labor, materials, and equipment needed to accomplish this work.

CITY OF SAGINAW
SPECIAL PROVISION
FOR
ALTERATIONS TO THE MUNICIPAL WATER SYSTEM

Spicer | Page **1** of **12** | C-1725
March 2026

DESCRIPTION

This work shall consist of installing water service lines and appurtenances as shown on the Plans and as described herein. This work includes the furnishing of all labor, equipment, and materials required for excavation, directional boring, installation, reconnect to existing, testing, disinfection, and backfilling as shown on the Plans and as specified herein, and in accordance with American Water Works Association (AWWA), Michigan Department of Environment, Great Lakes, and Energy (EGLE), and City of Saginaw Standard Requirements. Any change or deviation from the plans must be approved in writing by the Engineer.

The work also includes removal of existing water service lines and appurtenances that were replaced as part of the Work. All removed materials which the City of Saginaw does not designate for salvage, shall become the property of the Contractor and shall be, disposed of as specified in subsection 205.03.P of the Standard Specifications for Construction.

Asbestos-cement is a common material for water mains in Saginaw distribution system. If contamination is encountered, contamination mitigation methods listed in the contract specifications require work to follow local, state, and federal regulations for contamination abatement, removal, handling, and disposal.

DEFINITIONS

1) Connection and Extension.
   a) The City of Saginaw defines each water service line (WSL) as having two component parts: a connection and an extension.
      i) The *connection* is that portion of the WSL from the corporation stop at the watermain to the curb stop near the property line.
      ii) The *extension* is that portion of a WSL from the curb stop to the water meter within the property owner's structure.
2) Meter Set.
   a) The City of Saginaw defines the *meter set* as the pipe and fittings that the water meter sits between.

MATERIAL

The Contractor shall furnish all pipe and connection materials required for the Work. Contractor shall provide materials and work through the water meter but not set the meter itself. The City will set the water meters, and provide any necessary replacement meters.

All materials shall meet the requirements of MDOT, AWWA, EGLE, and the municipality, as specified, and the January 2014 Lead Free Requirements of the Safe Drinking Water Act. Products manufactured in the State of Michigan shall be used when at all possible. When multiple products have similar performance, price, and other characteristics, the Michigan product shall be selected. If Michigan products are not available, products manufactured in the United States of America shall

CITY OF SAGINAW
SPECIAL PROVISION
FOR
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be used whenever possible.
All materials supplied for this project shall be manufactured within at least two years of the construction start date unless otherwise approved by the Engineer.

1) Water Service Piping and Appurtenances
   a) The water service piping material shall be of the material selected during the contract award process, which shall be either:
      i) HDPE AWWA C901 IPS/CTS SDR9, Color Black/Blue Stripes, or
      ii) Type K Copper Tubing, annealed, in accordance with ASTM B88.
   b) The size of tubing shall match the existing size of the water service being replaced.
   c) The fittings shall conform to ASTM B16.26, cast bronze.
   d) The joints of copper tubing shall be flared
2) Curb Stop and Box.
   a) Required for all *connection and/or extension* replacements. (See “Definitions” on Page 1.)
   b) Curb Stops shall be manufactured by Ford, Model #Z-22-333.
   c) Curb Stops shall be 5½ feet deep.
   d) Curb Stop Boxes shall be the standard Buffalo patterns and all parts of the same, including extension sections, shall be interchangeable and fit up with corresponding parts of other standard Buffalo pattern boxes.
   e) The internal diameter of the base shaft shall be 2½ inches for ¾-inch and 1-inch curb stop.
   f) The boxes shall be cast iron, suitable coated to resist corrosion, and the casting shall be smooth and free of any imperfections.
   g) The covers shall overlap and fit outside the rim of the upper section, and they shall have a horseshoe-shaped groove in them to receive the bolt head and the word “water” embossed on the top surface.
   h) All boxes shall be Tyler 6500 (2½ inch Boxes) Series.
   i) Curb Stops and Boxes shall be in accordance with municipality standards.
3) Corporation Stops and Saddles.
   a) Required for all *connection* replacements. (See “Definitions” on Page 1.)
   b) For Class 52 D.I. pipe, any taps less than or equal to 2 inches shall be Ford Model #F-600-3 or approved equal.
   c) For Pressure Class 350 D.I. pipe, any taps greater than ¾-inch and less than or equal to 2 inches shall be Style 202B Double Strap Saddles as manufactured by Ford Brass or approved equal.

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d) For PVC C909 and asbestos cement pipe, any taps less than or equal to 2 inches shall be Style 202BS double band saddles as manufactured by Ford Brass or approved equal.

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4) Meter Pit.

a) No new meter pits are required. Existing meter pits shall be removed when performing the Work at the address and the meter is being moved inside the house, as shown on the Plans.

5) Meter Isolation Valve.

a) All water service fittings shall be fabricated of brass and shall be lead free.

b) Valves up to 2 inches, for use in residential dwellings, shall be non-rising stem gate valve type with NPT connections.

c) To be installed both before the meter and after the “Post-Meter Sampling Tee” specified below.

6) Post-Meter Sampling Tee and Isolation Valve.

a) Tee, valve, and plug shall be fabricated of brass and shall be lead free.

7) Tracer Wire.

a) For new water service *connections* and *extensions*.

b) The tracer wire shall be polyethylene coated steel core copper wire, extra strength suitable for use with directional drilling:

i) SoloShot® Extra High Strength by Copperhead Industries, LLC, or approved equal.

c) The use of solid copper tracer wire will not be allowed.

d) Tracer wire connectors must contain a dielectric waterproof and corrosion proof sealant, lock shut and be color coded blue.

i) SnakeBite® Corrosion Proof Wire Connectors by Copperhead Industries, LLC, or approved equal.

e) Adjacent to curb stop box –

i) At-grade wire termination and grounding station tracer wire boxes shall be protective, magnetized, provide a direct connection to tracer wire without removing the cover, be color coded and have a locking cover..

(1) SnakePit® Access Point by Copperhead Industries, LLC or approved equal.

(i) Provide model that is suitable for the installation location, such as Lite Duty Adjustable for non-roadway locations and Concrete/Driveway model for concrete/driveway locations.

f) Adjacent to watermain saddle –

i) Contractor shall strip 12 inches of insulation from the end of the tracer wire and insert bare end of wire 6 inches into undisturbed soil to provide a solid electrical ground.

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8) Backfill Material.

a) The backfill material shall be in accordance with the Standard Specifications for Construction and Standard Plan R-83 series.

9) Disinfectant.

a) Use NSF Chlorine per AWWA Standards.

CONSTRUCTION

The Contractor shall install all pipe materials, required for the contract, according to MDOT, AWWA, EGLE, and the municipality standards.

1) Connection to Existing Water Main.

a) The Contractor shall locate the existing water main prior to construction of the proposed water service *connection* and shall furnish and install the necessary materials to complete the connection.

b) The Contractor shall coordinate with the City for the City to shut down water main valves for isolation for the Contractor's work, as necessary.

c) The Contractor shall connect the proposed water service *connection* to the existing water main as shown on the plans or as directed by the Engineer.

d) The Contractor shall connect the proposed water service *connection* to the existing water main in a continuous effort to complete the work.

i) The Contractor shall not leave the work site until the *connection* is complete and the customer's service line system is placed back into service and approved by the Engineer.

2) Crossing Existing Utilities.

a) The locations of existing utilities are shown in accordance with available data.

i) The Contractor shall expose all existing utilities prior to construction to verify location and elevation and immediately notify the Engineer of any conflicts.

ii) Exposing all utility crossings is required for both open-cut trenching and directional drilling.

b) Where existing utilities cross the Work, compacted sand backfill shall be required to bed the utility crossing.

i) The sand backfill shall extend to 4 inches above the top of the pipe or conduit, which is being supported.

ii) In addition to the sand backfill, it may be necessary to support the utility crossing with a 6-inch by 6-inch timber supported on each end on solid earth at both sides of the trench.

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iii) When supporting pipes with collars or bell joints, the timber shall be placed 3 inches below such collars or bells and the barrel of the pipe supported with hardwood blocking at 3-foot centers.

c) Cost of sand backfill shall be included in the pay item for water service lines.

3) Separation of Water Mains and Sewers.

a) The Contractor shall follow ELGE Standards for separation of sewers and water distribution systems.

b) For parallel installations, water mains shall be at least 10 feet horizontally from sewers.

i) The distance shall be measured edge-to-edge.

c) For crossings, the water mains and sewers shall be separated at least 18 inches from the outside of the water line to the outside of the sewer.

i) The maximum separation of the water main and sewer joints shall be maintained.

d) The reviewing authority shall approve any deviations from these requirements.

4) Abandoning Pipe.

a) With concurrence from the Engineer, outdoor buried abandoned water service line may be left in place with the ends crimped. Indoor abandoned water service line material inside a building may be left in place with the ends capped or filled with mortar.

b) Prior to removing and/or working near abandoned gas main and electrical conduits or ducts, the Contractor shall coordinate with Consumers Energy to confirm that suspected abandoned utilities are actually abandoned and are no longer in service.

5) Disposal.

a) All waste material shall be disposed of as specified under section 204 of the Standard Specifications for Construction.

6) Flushing of water service lines.

a) Contractor is responsible to coordinate with the City for the City to conduct the required flushing of each home's service line immediately after installation.

7) Installing Water Service Line *Connections*. (See definition on page 1)

a) The Contractor shall schedule each's site work with the City on a regular basis, such as week by week. The City shall then be able to notify residents prior to their water service line being shut down by more than 24 hours.

b) **All water service line *connections*** shall be installed utilizing an approved bore method, unless an individual location precludes it. On a case-by-case basis, the City's engineering department shall review and authorize an open cut method if a request is submitted by the Contractor. The method of installation shall be included in the piping price.

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c) Installation of Water Service Lines must be done in accordance with ANSI/AWWA C810-17 (First Edition), Replacement and Flushing of Lead Service Lines.

d) Water service lines shall include double strap saddles, corporations, piping, fittings, curb stops, curb stop boxes and all other material for complete operation as shown on the Plans.

e) Open cut services shall pass visual inspection by the Engineer, under system pressure prior to backfilling.

f) Backfill the water service trenches with granular material Class II.

g) When a service line bore will cross an existing utility, a sight hole must be excavated sufficient in size for the Engineer to visually verify the bore will clear the existing main.

h) Water services installed using a bore method shall pass an Engineer approved line pressure test witnessed by the Engineer prior to backfilling connection points.

i) Existing curb boxes shall be planned for replacement along with the curb stops, unless deemed reusable by the City or Engineer on a case-by-case basis.

j) Replacement curb stop boxes shall be installed with 5½ feet cover.

   i) Precautions shall be made to ensure the curb stop box is no less and no greater than 5½ feet deep.

8) Installing Water Service *Extensions* (See definition on Page 1)

a) The Contractor shall schedule each's site work with the City on a regular basis, such as week by week. The City shall then be able to notify residents prior to their water service line being shut down by more than 24 hours

b) **All water service line *extensions*** shall be installed utilizing an approved bore method, unless an individual location precludes it. On a case-by-case basis, the City's engineering department shall review and authorize an open cut method if a request is submitted by the Contractor. The method of installation shall be included in the piping price.

c) The installation of new water service extensions shall include the curb stops and boxes and shall include entrance into the building through the meter set and connect to the homeowners plumbing. Work shall be completed in accordance with ANSI/AWWA C810-17 (First Edition) Replacement and Flushing of Lead Service Lines.

   i) See Material section above for *Post-Meter Sampling Tee and Isolation Valve*

d) Open-cut private services shall pass visual inspection by the Engineer, under system pressure prior to backfilling.

e) Private services installed using a bore method greater than 10-feet shall be tested at 75 PSI for minimum of 15 minutes as witnessed by the Engineer prior to backfilling connection points.

f) The City and Engineer shall make the final determination of where the new service shall enter the dwelling.

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g) Services shall enter a dwelling at a minimum depth of 5½ feet below existing grade. Contractor may re-use the existing water service line foundation wall penetration if able. In the event that a new foundation wall penetration is required, Contractor shall hammer drill a hole. Exterior wall repair and sealing shall be made with hydraulic water-stop cement and then coal tar epoxy, Hi-Mil Sher-Tar® or equal. Interior wall repair and sealing shall be made with hydraulic water-stop cement.

h) New service shall match size shown on plans unless otherwise directed by Engineer. Minimum service size shall be ¾-inch.

i) Contractor shall be responsible for protecting private landscaping and plantings.

i) Any landscaping or plantings disturbed by the Contractor shall be replaced at the Contractor's expense.

9) Horizontal Directional Drilling Pipe.

a) The Contractor shall ensure a representative from the drilling Contractor, who is experienced with the equipment and boring procedures is onsite at all times during the boring operation to address immediate concerns and emergency operations.

i) Installation must not begin until the Engineer agrees that proper preparations have been made.

ii) Notify the Engineer at least two (2) work days prior to starting the work.

b) The directional bore shall begin with a pilot hole drilled along the proposed bore alignment.

i) Directional information shall be monitored and provided to the drilling operator using navigation equipment on the surface.

ii) A reverse drilling reamer shall be attached to expand the pilot hole to allow for the pipe installation.

iii) Bentonite slurry shall be pumped through the drill steel and mixed by the reamer to stabilize and lubricate the wall lining of the bore hole and to protect the pipe.

c) Instrumentation shall be provided and maintained to accurately locate the pilot hole and measure drilling fluid flow and pressure at all times.

d) Drilling fluids shall be contained within the drilling area and cleaned up within 48 hours following completion of pipe installation.

e) The Contractor shall ensure deflections in pipe are made by bending the pipe in accordance with the manufacturer's recommendations.

f) When a bored main will cross an existing water main, a sight hole must be excavated sufficient in size for the Engineer to visually verify the bore head will clear the existing main.

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g) If the Contractor encounters an obstruction during boring that prevents completion of the installation in accordance with the design location and specification, the pipe may be abandoned and left in place with approval by the Engineer.

   i) If the pipe is approved to be left in place, the Contractor shall immediately fill it with flowable fill and bulkhead the pipe.

   ii) The Contractor shall submit a revised plan within 3 business days for approval by the Engineer prior to beginning another boring.

   iii) If damage is observed during construction, the Contractor shall cease all work until a plan to minimize further damage and for restoration is obtained and approved by the Engineer.

h) If conditions warrant removal of any materials installed in a failed bore path, as determined by the Engineer, it will be at no additional cost to the contract.

i) The Contractor shall restore any damage caused by heaving, settlement, escaping drilling fluid (frac-out) or the drilling setup and operation.

   i) The Contractor shall ensure a frac-out contingency plan is provided and approved by the Engineer prior to starting the work.

j) The Contractor shall provide the Engineer a complete set of record (as-built) plans, showing all bores (successful and failed), within 30 calendar days of completing the work.

   i) The Contractor shall ensure as-built plans include the locating equipment used; horizontal and vertical alignment with degree of accuracy, entry, and exit points; bore diameter; tracer wire termination locations; drilling fluid composition; and important subsurface features.

   ii) The Contractor shall ensure the as-built plans are legibly drawn on project plan sheets or sheets developed by the boring Contractor.

   iii) The Engineer will have 15 calendar days to review and approve the as-built plans.

10) Stainless Steel Repair Clamps at Existing Water Service.

a) Following construction of new service line and connection to existing service at right-of-way, remove existing corporation valve and saddle.

b) Coordinate with City of Saginaw staff to reduce main pressure prior to removal of existing corporation valve.

c) Dewater excavation area as necessary to ensure clear visual of repair area on main.

d) Place stainless steel repair clamp over existing tap area per manufacturer’s requirements and place protective wrapping over affected area. Contractor shall also install a corporation stop.

e) Coordinate with City of Saginaw staff to reinstate main pressure and perform a visual leak test of the repair clamp.

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MEASUREMENT AND PAYMENT

The completed work as measured will be paid for at the contract unit price for the following pay item(s).

Pay Item	Pay Unit
Water Service Line Connection	Lin. Ft.
Water Service Line Extension, Outdoor	Lin. Ft.
Water Service Line Extension, Indoor	Lin. Ft.
Remove Existing Meter Pit	Each
Water Service Line Connection, Copper, Site-Specific	Lin. Ft
Water Service Line Extension, Copper, Site-Specific	Lin. Ft
Cut and Cap Inactive Service Line at Water Main	Each

Water service lines will be measured in place per foot, along the centerline of the pipe, with no deductions for fittings.

- Connection of water service line *connections* to the water mains will not be paid for separately and will be considered as included in the unit price for water service lines.
- Connection of water service line *extensions* to the connections and private customers will not be paid for separately and will be considered as included in the unit prices for water service lines.
- Curb stops and boxes requiring replacement shall not be paid for separately and will be considered as included in the unit prices for water service lines.
- Tracer wire for HDPE piping shall not be paid for separately and will be considered as included in the unit prices for water service lines.
- Meter grounding, when installing HDPE piping, shall not be paid for separately and will be considered as included in the unit prices for water service lines

Remove Existing Meter Pit will be paid for per each and shall include all labor and materials to remove the existing meter and install inside the home, excavate, remove and dispose of the meter pit and interior piping components, and furnishing, placing, and compacting the backfill.

Water Service Line Connection, Copper, Site-Specific and Water Service Line Extension, Copper, Site-Specific shall be used if a site is found to have soils that are unsuitable for use of plastic pipe, such as foundry sand/slag. There are no known areas in this project area but this pay item shall be used in that event, as directed by the City. Water service lines will be measured in place per foot, along the centerline of the pipe, with no deductions for fittings.

Cut and Cap Inactive Service Line at Water Main shall be paid for per each and shall include all labor and materials for cutting and capping the inactive service lead as directed by the City, excavation, disposal of excess material, and furnishing, placing, and compacting the backfill.

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The cost of windowing utility crossings, excavation, disposal of excess material, and furnishing, placing, and compacting the backfill for the water service lines and accessories will be considered as included in the unit prices for water service pay items unless otherwise specified.

Removal of other existing abandoned utilities encountered during construction including abandoned steam lines, gas main, abandoned electrical conduits, ducts, concrete encasement, valves, structures, etc. that is necessary for removal in order to install the proposed water service lines will not be paid for separately and will be considered as included in the unit prices for water service pay items.

Payment for all material, labor and equipment necessary to remedy an unsatisfactory testing, including removing and replacing any backfill will be considered as included in the contract unit price for the water service lines.

American Water Works Association

Dedicated to the World's Most Important Resource®

ANSI/AWWA C810-17
(First Edition)

AWWA Standard

Replacement and Flushing of Lead Service Lines

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AWWA Standard

This document is an American Water Works Association (AWWA) standard. It is not a specification. AWWA standards describe minimum requirements and do not contain all of the engineering and administrative information normally contained in specifications. The AWWA standards usually contain options that must be evaluated by the user of the standard. Until each optional feature is specified by the user, the product or service is not fully defined. AWWA publication of a standard does not constitute endorsement of any product or product type, nor does AWWA test, certify, or approve any product. The use of AWWA standards is entirely voluntary. This standard does not supersede or take precedence over or displace any applicable law, regulation, or code of any governmental authority. AWWA standards are intended to represent a consensus of the water industry that the product described will provide satisfactory service. When AWWA revises or withdraws this standard, an official notice of action will be placed on the first page of the Official Notice section of *Journal – American Water Works Association*. The action becomes effective on the first day of the month following the month of *Journal – American Water Works Association* publication of the official notice.

American National Standard

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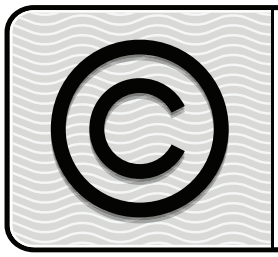

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1 Typical Water Service Line Components 3

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Foreword

This foreword is for information only and is not a part of ANSI/AWWA C810.*

I. Introduction.

I.A. *Background.* Replacement of lead service lines and subsequent flushing are important processes for ensuring the delivery of safe drinking water. The AWWA Policy Statement on Lead Service Line Management supports protecting public health through the reduction of exposure to lead in drinking water and encourages communities to develop a lead reduction strategy that includes identifying and removing all lead service lines over time. This standard is intended to describe essential procedures for the replacement of lead service lines, including the following elements: appropriate tools and techniques; flushing a service line after replacement; factors to consider in optimizing flushing; instructions to inform customers affected by the replacement, including additional risk reduction measures; and verification of lead level management prior to return to service. Although partial replacements should be discouraged, this standard also describes procedures for partial replacement and repair situations where full service line replacement is not possible or practical.

This is the first edition of this standard and will likely result in valuable feedback from first users of the standard. As such, it is anticipated that a second edition with additional information and guidance will be necessary and issued well before AWWA's regular five-year revision schedule for standards.

I.B. *History.* Development of this standard was authorized by the AWWA Standards Council in 2015 and was assigned to the AWWA Standards Committee on Distribution Systems Operations and Management. A Subcommittee on Lead Service Lines was formed to draft the standard. This first edition of the standard was approved by the AWWA Board of Directors on June 11, 2017.

I.C. *Acceptance.* In May 1985, the US Environmental Protection Agency (USEPA) entered into a cooperative agreement with a consortium led by NSF International (NSF) to develop voluntary third-party consensus standards and a certification program for direct and indirect drinking water additives. Other members of the original consortium included the Water Research Foundation (formerly AwwaRF) and the Conference of State Health and Environmental Managers (COSHEM). The

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American Water Works Association (AWWA) and the Association of State Drinking Water Administrators (ASDWA) joined later.

In the United States, authority to regulate products for use in, or in contact with, drinking water rests with individual states.* Local agencies may choose to impose requirements more stringent than those required by the state. To evaluate the health effects of products and drinking water additives from such products, state and local agencies may use various references, including

1. Specific policies of the state or local agency.

2. Two standards developed under the direction of NSF†: NSF/ANSI 60, Drinking Water Treatment Chemicals—Health Effects, and NSF/ANSI 61, Drinking Water System Components—Health Effects.

3. Other references, including AWWA standards, *Food Chemicals Codex*, *Water Chemicals Codex*,‡ and other standards considered appropriate by the state or local agency.

Various certification organizations may be involved in certifying products in accordance with NSF/ANSI 60 and 61. Individual states or local agencies have authority to accept or accredit certification organizations within their jurisdictions. Accreditation of certification organizations may vary from jurisdiction to jurisdiction.

Annex A, "Toxicology Review and Evaluation Procedures," to NSF/ANSI 60 and 61 do not stipulate a maximum allowable level (MAL) of a contaminant for substances not regulated by a USEPA final maximum contaminant level (MCL). The MALs of an unspecified list of "unregulated contaminants" are based on toxicity testing guidelines (noncarcinogens) and risk characterization methodology (carcinogens). Use of Annex A procedures may not always be identical, depending on the certifier.

ANSI/AWWA C810 does not address additives requirements. Thus, users of this standard should consult the appropriate state or local agency having jurisdiction in order to

1. Determine additives requirements, including applicable standards.

2. Determine the status of certifications by parties offering to certify products for contact with, or treatment of, drinking water.

3. Determine current information on product certification.

* Persons outside the United States should contact the appropriate authority having jurisdiction.

† NSF International, 789 North Dixboro Road, Ann Arbor, MI 48105.

‡ Both publications available from National Academy of Sciences, 500 Fifth Street, NW, Washington, DC 20001.

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II. Special Issues.

II.A. *Prioritizing Lead Service Line Replacement.* Suggested items to consider when prioritizing lead service line replacement follow (not in order of priority):

- Any lead service line that is physically disturbed by dig-ins, excavations, repairs, or similar activities.
- Existing partial lead service line replacements.
- Lead service lines supplying schools, day care centers, or other identified sensitive populations as defined by the USEPA.
- Lead service lines where sample results are more than 15 ppb or other established health levels.
- Lead service lines located in scheduled underground infrastructure work or street restoration work zones that could be replaced concurrently, minimizing any negative impact to customers.
- Multiple lead services within a compact area (cost containment).
- Length of lead pipe present in a particular service line.
- Consideration of presence of lead goosenecks and galvanized service lines.

II.B. *Optimizing Corrosion Control Treatment.* Corrosion of piping and solder can be a primary source of lead contamination in drinking water. Optimizing corrosion control treatment may help a utility to minimize this source of lead contamination. Utilities may consider appropriate corrosion control treatments that include pH adjustment, alkalinity adjustment, addition of corrosion inhibitors, and other corrosion control treatments. Additional guidance on applying corrosion control treatments can be found in the AWWA Manual of Water Supply Practice M58—*Internal Corrosion Control in Water Distribution Systems*, the AWWA "Optimized Corrosion Control Treatment Primer," and the 2015 *Journal - AWWA* article "Strategies for Assessing Optimized Corrosion Control Treatment of Lead and Copper" (these documents are available through the AWWA Lead Resource page: www.awwa.org/lead).

II.C. *Reuse or Replacement of Service Line Fittings, Valves, and Water Meters.* The scope of this standard covers replacement of lead service lines. Utilities may choose to reuse or replace the related fittings, valves (corporation stops and curb stops), and water meters, based on the site-specific age and condition of those components and based on the utility-specific replacement schedules and practices. The Reduction of Lead in Drinking Water Act requires that all newly installed pipes, fittings, and fixtures meet the current definition of "lead free." The reuse of existing fittings (that may or may not meet the current definition of "lead free") is allowed by the Reduction of Lead in Drinking Water Act if reused in their original locations.

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II.D. *Utility Communication Planning for Lead in Drinking Water.* Water utilities are facing a new communications challenge related to lead in drinking water. Currently, utilities are required under the Safe Drinking Water Act to communicate lead risks when there is an exceedance of the lead action level as defined in the Lead and Copper Rule and annually as part of their consumer confidence reports. Utilities conducting mandatory lead service line replacements must meet specific outreach requirements targeting affected households. Beyond these requirements, many utilities also communicate lead exposure risks proactively in consumer confidence reports, on websites, and through other means.

Water utilities should be planning to communicate lead exposure risks in a proactive and targeted manner not only when lead service lines are repaired or replaced but also when routine maintenance work on water mains may disturb lead service lines. This change may dramatically alter the frequency of direct-to-customer lead communications and requires a new level of planning by utility managers and communicators.

Although the water utility and public health communities have made significant strides in reducing lead exposure, public health advocates and regulatory agencies are looking closely at the contribution of lead at the tap from lead service lines—particularly lead service lines that have been disturbed. Three typical scenarios raise concerns about elevated lead levels: lead service line replacement when required by the Lead and Copper Rule or proactively performed by the utility; infrastructure replacement when full or partial lead service line replacement occurs when other utility work is under way, such as during water main rehabilitation; and repairs to lead service lines.

Water providers should consider building on current communication plans to provide additional information to customers regarding lead and lead service line replacement. AWWA has assembled *Communicating About Lead Service Lines: A Guide for Water Systems Addressing Service Line Repair and Replacement* as a tool for preparing and expanding these communications (http://www.awwa.org/Portals/0/files/resources/publicaffairs/pdfs/FINALeadServiceLineCommGuide.pdf).

This guide is designed to help water utilities build on current communication strategies to address these new areas of concern and manage the increased frequency of communication with customers. It provides utilities with customizable messages and templates to communicate with customers in a variety of ways to better protect public health. For brevity, the content of the guide will not be repeated here.

Additional guidance on utility communications can be found on the Lead Service Line Replacement Collaborative website: http://www.lslr-collaborative.org/.

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II.E. *Grounding of Electrical Circuits on Piping.* If the lead service line is replaced with a nonmetallic pipe or if a nonconductive plastic coupling (dielectric coupling) is used within a few feet of the home, the home owner may need to take additional measures to ensure the structure has sufficient grounding. Historically, connection to the home piping system was used for grounding the home's electrical system. By removing the underground metal piping, an alternative grounding strategy may be needed.

All metal water systems should be "bonded." Failure to adequately bond the potable water piping systems to the electrical system increases the potential for both fire and electrocution should the piping system become energized (see National Electric Code).

III. Use of This Standard. It is the responsibility of the user of an AWWA standard to determine that the products and/or processes described in that standard are suitable for use in the particular application being considered.

III.A. *Purchaser Options and Alternatives.* This standard is written as though the replacement and flushing work will be performed by the purchaser's (generally the utility's) personnel. Where the work is to be performed using a separate contract or as part of a contract for replacing service lines,* appropriate provisions should be included in the purchase documents to ensure the constructor is specifically instructed as to its responsibilities. The following information should be provided by the purchaser:

1. Standard used—that is, ANSI/AWWA C810, Replacement and Flushing of Lead Service Lines, of latest revision.
2. Whether compliance with NSF/ANSI 61, Drinking Water System Components—Health Effects, is required.
3. Details of other federal, state or provincial, and local requirements (Section 4).
4. Method of replacement to be used—open cut, trenchless on new route, or trenchless using existing route (Sec. 4.1).

III.B. *Modification to Standard.* Any modification of the provisions, definitions, or terminology in this standard must be provided by the purchaser.

IV. Major Revisions. This is the first edition of this standard.

V. Comments. If you have any comments or questions about this standard, please call the AWWA Engineering and Technical Services at 303.794.7711; write to the department at 6666 West Quincy Avenue, Denver, CO 80235-3098; or email at standards@awwa.org.

* Refer to other AWWA standards and manuals for design criteria for various service line materials.

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ANSI/AWWA C810-17
(First Edition)

American Water Works Association

Dedicated to the World's Most Important Resource®

AWWA Standard

Replacement and Flushing of Lead Service Lines

SECTION 1: GENERAL

Sec. 1.1 Scope

This standard describes essential procedures for the replacement of lead water service lines and flushing following replacement. Essential procedures include the following: appropriate tools and techniques; flushing a service line after replacement; factors to consider in optimizing flushing; and instructions to provide customers affected by the replacement, including additional risk reduction measures. This standard also describes procedures for partial replacement and repair situations where complete lead service line replacement is not possible or practical.

Sec. 1.2 Purpose

The purpose of this standard is to define the minimum process requirements for the replacement of lead service lines and for flushing following replacement.

Sec. 1.3 Application

This standard can be referenced in the purchase documents for the replacement of lead service lines and can be used as a guide for the appropriate replacement tools and techniques, flushing practices and procedures, communications with customers, and verification of successful completion. The stipulations of this standard apply when this document has been referenced and only to the extent referenced.

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SECTION 2: REFERENCES

This standard references the following documents. In their latest editions, they form a part of this standard to the extent specified within the standard. In any case of conflict, the requirements of this standard shall prevail.

AWWA—*Communicating About Lead Service Lines: A Guide for Water Systems Addressing Service Line Repair and Replacement*.

Safe Drinking Water Act (SDWA), 42 USC* 300.

USEPA†—Lead and Copper Rule (LCR), 40 CFR 141.

SECTION 3: DEFINITIONS

The following definitions shall apply in this standard:

1. *Constructor:* The party who provides the work and materials for placement or installation.

2. *Corporation stop:* A valve attached to the water main to which a service line is connected. It is used to interrupt flow during installation or maintenance of the service line (see Figure 1).

3. *Curb stop:* A valve installed in the service line, generally at the property line, and accessible for operation from the surface of the ground for routinely interrupting flow through the service line (see Figure 1).

4. *Customer:* The person, company, or organization receiving potable water service from the utility to a specific premise.

5. *Gooseneck:* A sweeping bend in a service line where it connects to the water main, resembling the shape of a goose's neck, that will allow soil movement without damaging the service line (see Figure 1).

6. *Manufacturer:* The party that manufactures, fabricates, or produces materials or products.

7. *Potable water:* Water that is safe and satisfactory for drinking and cooking.

8. *Purchaser:* The person, company, or organization that purchases any materials or work to be performed.

* United States Code, 732 North Capitol Street, NW, Washington, DC 20401-0001.

† US Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC 20460.

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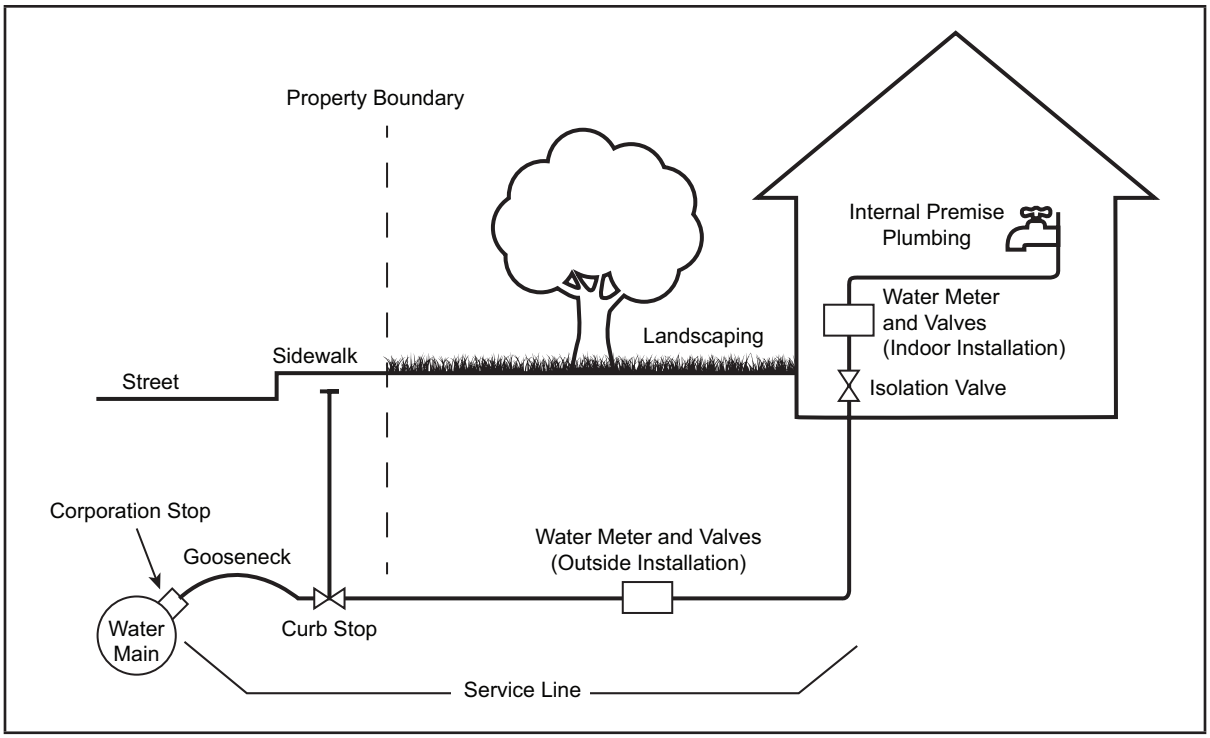

Figure 1 Typical water service line components

9. *Service line:* The pipe that runs between the utility's water main and the specific premises' plumbing, including both the portion owned by the utility, if any, and the private service line owned by the property owner (see Figure 1).

10. *Utility:* The organization or entity with the primary purpose of providing a designated area with potable water service.

11. *Water main:* The water pipe from which the domestic water supply is delivered by the utility to the service pipe leading to specific premises (see Figure 1).

12. *Water meter:* An instrument used for recording the quantity of water passing through the service line to specific premises. Water meters are typically installed with valves on inlet and outlet sides of the meter (see Figure 1).

SECTION 4: REQUIREMENTS

Materials shall comply with the requirements of the Safe Drinking Water Act and other federal regulations for potable water systems as applicable.

Water can be naturally corrosive and often dissolves lead as a result of water's contact with the service line as well as other plumbing components. A number of sampling and analytical techniques are available for customers to determine the

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level of lead in their drinking water. Some of these tests are collected and/or analyzed by the local water provider. Other tests may be conducted by the customers themselves but should be in compliance with sampling and analytical techniques accepted by the local utility. The data captured from the various tests can be used to assist the utility in adjusting the water chemistry by modifying the application of corrosion control chemicals.

Utility personnel should consider that the level of dissolved and particulate lead within the homes and/or businesses of their customers may be greater than the levels within their system based on the potential leaching from service lines and internal premise plumbing components. Lead service lines potentially represent the largest mass of lead in regular contact with potable water, hence the interest in removing lead service lines in their entirety. Utilities should also consider that lead levels may vary based on chemical and physical conditions, level of disturbance to the piping, sampling technique, and other factors when determining the number of samples to be collected. A single sample may not be adequate in determining how much lead is being released.

For planned lead service line replacements, the utility shall establish replacement agreements to be reviewed with and accepted by the customer before any work being accomplished. These agreements should detail the responsibilities of the customer as well as those of the utility and should be intended to reduce any ambiguity about what is to be accomplished and by whom. Any financial requirements essential to the completion of the project should also be identified.

Sec. 4.1 Location and Replacement of Lead Service Lines

The replacement of lead service lines can be generally accomplished by one of the following ways:

- Open cut full replacement—traditional technology with excavation on the full length of service line to be replaced.
- Trenchless replacement on new routes—methods such as directional drilling or pneumatic or hydraulic ramming tools (boring tools) to pull in the new service line on a new route (cutting and leaving the existing lead service in place and replacing it using a new service line).
- Trenchless replacement on existing routes—methods such as pipe splitting and/or pulling the existing lead service that is being replaced with a new pipe using the existing service line route (pipe splitting leaves the existing lead service in the ground, pulling removes the existing lead service line).

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4.1.1 *Locating lead service lines.* In order to replace the existing lead service line, the line must be appropriately identified and located. Some agencies have a database detailing the locations of their lead service lines. Such a record simplifies that portion of the replacement process. Other water providers do not have accurate records reflecting the locations of the lead assets. In this case, other means of identification shall be employed. It is highly recommended that utilities use more than one method of confirming the actual locations of the lead service lines. Utilities should record the service line material when observed during repairs, inspections, or other quality reports. Utilities should be aware that it is at times difficult to verify that a service line contains no portions made of lead, and that some degree of uncertainty may exist in a utility's inventory of lead service lines.

4.1.1.1 Identifying lead service lines at the meter, corporation stop, curb stop, or service box. Lead service lines can sometimes be identified at the main, curb stop, or meter box outside the house or adjacent to the meter inside the house. Typically, lead service lines have a distinctive "bulb-looking" section near the end at a brass, galvanized, compression, or other fitting that connects the service. The absence of the "bulb" section does not confirm the absence of lead. The observation of lead pipe in one location does not confirm the entire service line is lead. It is possible a portion of the lead service was previously replaced during repair or maintenance activity.

4.1.1.2 Using the scrape test to confirm the lead service line. Lead is a gray, nonmagnetic (a magnet will not stick to lead pipe), and relatively soft material compared with other pipe products. A coin scraped along the exterior of a lead pipe will create an indent and reveal a shiny-silver color. Care must be taken not to go too deep to avoid puncturing the pipe. Workers should use appropriate personal protective equipment, such as gloves and eye protection, to prevent exposure to lead. The scrape test identifies solid lead service lines. It will not identify lead-lined iron pipe.

4.1.1.3 Identifying lead service lines by water quality sampling. The concentration of lead found in the water sample can indicate if a lead service line is likely. A sample of the water from the service line should be taken to determine the level of lead. The line should be allowed to sit with no flow for at least 6 hours before sampling. Whether the water meter is inside the building, outside the building, or in an area that is unmetered, it is critical to flush a specific amount of water and then take a sample to be tested. The amount flushed prior to sampling should flush at least the volume of premise plumbing between the service line and the sampling tap. A single test may not be the most effective indicator of the existence of a lead service. The

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minimum lead concentration will be system specific, and multiple samples may be required to ensure the lead is not from lead solder or other internal plumbing sources. A low or nondetect lead sample cannot be used to verify the absence of a lead service line. Utilities should use care in interpreting water samples collected at one point in time because of the variability of lead occurrence in samples.

4.1.1.4 Utilizing hydro-excavation to determine the presence of lead. The hydro-excavation process creates a small boring hole to expose the service line at a depth at the water main, the curb box, and/or the meter box, allowing visual observation to identify whether the service line (or a portion) is lead or not. Care should be taken to minimize any physical disturbances to the pipe.

4.1.1.5 Full test-pit excavation. Dig or excavate a large pit down to the service line to expose the pipe. This method could physically disturb the pipe.

4.1.1.6 Other lead service identification techniques. A number of other techniques are used or offered for consideration to locate the presence of lead service lines. When considering other techniques, the utility should make sure such techniques minimize any physical disturbances to the pipe.

4.1.2 *Preparation.* Before the replacement of the lead service line, a number of related preparatory activities shall take place.

4.1.2.1 Customer notification. The impacted customers shall be notified to identify the process established for replacement, whether full or partial. Most agencies have agreements to be signed by both parties reflecting the responsibilities relative to the replacement effort. The type of replacement, the schedule, and other pertinent items shall be covered appropriately with the customer before the replacement activity. The customer notification should include any postreplacement responsibilities, such as flushing or the use of filters, and should include directions to the customer to make the workspace ready and safe prior to the replacement activity. Customers should also be made aware of the risks of a partial replacement, where applicable (see Sec. 4.2).

4.1.2.2 Underground utility locates. The location of other underground utilities shall be done prior to the work to avoid utility strikes and is critical to the success of the lead service line replacement. Locates shall be scheduled in a timely manner without disruption to the established work plan.

4.1.2.3 Lead service replacement plan. A replacement plan shall be established for the work crews to reflect the schedule of the effort, the typical amount of time the customers will be impacted, and so on. This information shall be used to inform the customer of the coming replacement activity and communicated to the customer in a timely manner.

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4.1.2.4 Water shutoff and service line isolation. Prior to beginning the replacement work, the water supply to the service line and the customer shall be shut off to avoid release of particulate lead into the customer's premises caused by vibration of the service during any excavation. The service line to be removed shall be isolated by shutting off appropriate valves at each end of the area to be removed.

4.1.3 *Open-cut full replacement of lead service lines.* The open-cut full replacement approach to lead service line removal involves the extraction of all the surface treatment and earth material above the level of the pipe. Care must be taken because other underground utilities, including the water main, may have not been properly located.

4.1.3.1 Proper equipment and material usage for open-cut full replacement. The excavation equipment used for the open-cut full replacement approach shall be sized to accommodate the full depth of the hole. Safety precautions shall be taken in consideration of the customer's property as well as any local pedestrian and/or vehicular traffic.

4.1.3.2 Use of adequate trench safety. Based on the depth of the excavation, an adequate level of trench safety shall be used to guarantee compliance with applicable requirements.

4.1.3.3 Lead service line removal. Once properly exposed and identified, the existing lead service line shall be disconnected from the main as well as the customer's side of the connection. When a utility elects to remove the lead pipe from the ground, the discarded lead line shall be carefully cut or bent into manageable sections and taken for processing for ultimate disposal. The amount of lead removed and the location of the removal along with any other pertinent information shall be documented. If the existing lead pipe is left in the ground, the impacted customer(s) should be made aware of the abandoned pipe.

4.1.3.4 Connecting the new service line. The new pipe shall be measured and placed with enough material to properly connect to the main as well as to the customer's side. The new pipe material shall comply with the requirements of the Safe Drinking Water Act and other federal regulations for potable water systems as applicable. When dissimilar metals are to be connected, a dielectric fitting shall be used to prevent galvanic corrosion (see Sec. II.E regarding grounding of electrical circuits on piping).

4.1.3.5 Backfill and surface restoration. Select bedding and/or a specified fill material, in conjunction with the identified surface treatment, shall be placed in a manner consistent with all applicable requirements to reduce or eliminate the possibility of settling beyond the allowable amount along the course of the excavation.

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4.1.4 *Trenchless replacement on new routes.* The directional drilling or pneumatic/hydraulic installation methods of replacing lead service lines make use of a pilot hole that is created by drilling or pneumatically or hydraulically pushing a rod into the soil from an open access pit at the main to an access pit at the meter box or at an area adjacent to the wall where the new service will be connected on the customer's side. In a number of these installation scenarios, the existing lead pipe is disconnected on either end and left in place. When the existing lead pipe is left in the ground, the impacted customer(s) should be made aware of the abandoned pipe.

4.1.4.1 Required access pits. Based on the length of the service to be replaced, access pits shall be excavated down to the depth of the main on one side and to the depth of the service connection on the customer's side. As with any excavation, utility locates shall be requested and received prior to the work being performed, and all applicable trench safety devices shall be used. If the distance between the access pits is great or other underground utilities that are a cause for concern exist, an intermediate access pit may be required.

4.1.4.2 Proper use of boring tools. The boring tool shall be placed in the launching access pit level and pointed in the direction of the receiving pit. The horizontal and vertical directions of the tool shall be monitored until it reaches the receiving pit. Proper service line installation depth is critical and must be maintained in accordance with local requirements.

4.1.4.3 Connecting the new service line. Once the boring tool reaches the receiving pit, the new service line shall be connected to the boring tool and pulled through the bore hole with enough length of the new service pipe material to add fittings to connect to the main as well as on the customer's side. When dissimilar metals are to be connected, a dielectric fitting shall be used to prevent galvanic corrosion (see Sec. II.E regarding grounding of electrical circuits on piping).

4.1.4.4 Backfill and surface restoration. Select bedding and/or a specified fill material, in conjunction with the identified surface treatment, shall be placed in the access pits in a manner consistent with all applicable requirements to reduce or eliminate the possibility of settling beyond the allowable amount along the extent of the excavation.

4.1.5 *Trenchless replacement on existing routes.* The pipe-splitting method employs the use of a tool pulled through the existing lead service line that splits the pipe. The existing lead service line remains in the ground and a new service line is pulled into place. Another related method is to disconnect the lead service on each end and to connect a fitting to one side with an extraction device and to connect

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the new pipe material on the other end in order to pull the new service into place, while removing the existing lead service line.

4.1.5.1 Required pipe- splitting and -pulling access pits. As in the directional drilling and pneumatic/hydraulic installation approaches, access pits shall be excavated to the depth of the main on one side and to the depth of the service connection on the customer's side. Other underground utility locates shall be obtained prior to the work, and all applicable trench safety devices shall be used.

4.1.5.2 Use of the splitting tool. Care must be taken to disconnect the existing lead service line and to cut it in a manner that facilitates pushing a cable through it with the splitting tool attached. The splitting tool is then used to displace the existing lead pipe and draws the new pipe material through it to the other end of the project. When the existing lead pipe is left in the ground, the impacted customer(s) should be made aware of the abandoned pipe.

4.1.5.3 Connecting the new service line. Once the splitting tool reaches the receiving access pit, the new service line shall be pulled through to allow enough material to adequately connect to both sides. When dissimilar metals are to be connected, a dielectric fitting shall be used to prevent galvanic corrosion (see Sec. II.E regarding grounding of electrical circuits on piping).

4.1.5.4 Backfill and surface restoration. Select bedding and/or a specified fill material, in conjunction with the identified surface treatment, shall be placed in the access pits in a manner consistent with all applicable requirements to reduce or eliminate the possibility of settling beyond the allowable amount along the extent of the excavation.

Sec. 4.2 Partial Replacements

4.2.1 *General.* It may not always be practical or possible to replace all of a lead service line at the same time. Coordination among the utility, the property owner, and constructor could result in situations in which partial replacement may be unavoidable. Although every effort shall be made to avoid partial replacements, it may be necessary to accommodate partial replacement situations as an interim measure. Partial replacement is not desirable because of the potential for increased release of lead into the water. This section describes additional requirements and recommendations for partial lead service line replacements.

4.2.2 *Existing conditions.* For services where partial replacements have previously occurred and a portion of the service still contains lead pipe, it is recommended that these locations be identified and re-evaluated for removal of the remaining material. For example, some utilities, property owners, or constructors,

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through the course of routine maintenance and repairs, may have replaced portions of lead services with alternative materials without having replaced the remainder of the service either to the main or into the property.

4.2.3 *Delayed replacement.* Situations will occur in which a lead service line might not be fully replaced and a portion is left for later replacement. Coordination among all stakeholders during a lead service line replacement is critical. When it is necessary to complete a total lead service line replacement where both the utility and the property owner are responsible for portions of the work (i.e., up to the property line and beyond the property line), all parties should perform the work in close succession to minimize the potential for utilization of the service before completion of the total replacement. However, there may be instances in which one party completes its portion of the work in advance of the other party being available or willing. The scope of replacement may be large for some communities, and thus the time required to complete all the work may be long. In either of the delay cases presented below, the utility shall record that all portions of the service have successfully been replaced after notification of successful completion of full replacement. Communications regarding the effect of partial service line replacement should occur as covered in Sec. 4.3.

4.2.3.1 Property owner delay. On completion of the utility-owned portion of a lead service line replacement, the property owner should complete replacement of their portion as well. However, given the logistics of this work and the likely need for the property owner to hire an independent contractor, there may be a period during which the old and new portions of the service will be connected to allow for the continued supply of water but the lead replacement is only partially complete. During the interim period, the property owner shall be provided clear guidance regarding the increased risk of lead entering the water associated with the partial-replacement condition. Refer to Sec. 4.3 with respect to communication during this period.

4.2.3.2 Utility delay. If a property owner replaces a portion or all of the service line from the home to the property line, the utility should make every effort to obtain documentation of the replacement for its inventory. In most cases the utility will learn of the work after it is completed. If the property owner notifies the utility in advance, the utility should try to schedule a mutually convenient time to perform its portion. When this is not achievable, the property owner shall be provided with clear guidance regarding the increased risk of lead entering the water associated with the partial-replacement condition. Refer to Sec. 4.3 with respect to communication during this period.

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4.2.4 *Partial replacement.* It is possible that a portion of the service may contain lead, be out of the utility's responsibility, and subsequently not be replaced. This circumstance may exist for a variety of reasons including cost, miscommunication, misunderstanding of the issues, ambivalence, or social defiance.

4.2.4.1 Property owner refusal. Given the potentially high cost associated with service line replacement and the challenges that may arise with performing the work, it is conceivable to anticipate that some property owners may elect to do nothing. When this condition occurs, the utility shall follow the recommendations presented herein for dielectric connection of dissimilar metals, flushing, and testing. Documentation of the refusal, or at a minimum documentation that a portion of lead material remains (including its location and quantity), will be important for the utility to maintain complete records of the lead service line replacement progress/program. The customer should receive all necessary information regarding future risk.

4.2.4.2 Incentive program verification. If financing or incentive programs are available to property owners, utilities will need to be cautious about validating that property owner portions of lead services have been replaced, in their entirety or at all. A method for verifying work performed and recording completed work will be necessary.

4.2.4.3 Cutting of lead service lines. After customer notifications and utility locates have been accomplished, the specific location of the lead pipe to be cut shall be identified. The proper cutting tools shall be identified to reduce the amount of lead displaced from the cut. A cutting tool such as a pipe cutter or pipe shearing device that reduces lead particles and disturbance is preferred to other tools that use a sawing or other abrasive action. The necessary safety equipment shall be used, including safety glasses and/or goggles and safety gloves. Care shall be taken while cutting the lead pipe to reduce the amount of lead shards from traveling and/or accumulating in the remaining service line sections. The lead service line sections remaining shall be connected and secured to reduce or eliminate the possibility of water leakage. When dissimilar metals are to be connected, a dielectric fitting shall be used to prevent galvanic corrosion. The discarded lead service line shall be carefully cut or bent into manageable sections for processing for ultimate disposal. The replacement section should be a pipe material in compliance with all federal, state, and local requirements. The amount removed as well as specific locations of the remaining sections should be documented. The replaced service line shall be turned on and checked for leaks

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in a manner that does not expose the customer's side to potential lead fragments. Flushing shall be accomplished in a manner consistent with Sec. 4.4.

Sec. 4.3 Communications and Instructions to Customers

4.3.1 *General.* It is important to inform all customers that may be affected by lead service line activities. The utility shall provide communication to customers regarding the following items:

1. Advanced notice of planned lead service line replacement projects (45 days prior is recommended).
2. Informational point-of-contact for the project.
3. Additional notice prior to actual planned work affecting service line (day prior).
4. On-site utility point-of-contact during construction.
5. Postconstruction instructions regarding customer flushing, use of a point-of-use (POU) filter or bottled water, water sampling, and testing to be completed.
6. Clear guidance regarding the increased risk of lead entering the water associated with a partial lead service line replacement condition (if a full-service line replacement was not completed). Customers with partial replacements should avoid consuming their water unless they are using a filter certified for lead removal or they should consume bottled water until sample results show that their lead levels are less than the regulatory guideline.

In addition to water shutoff and service-line-isolation actions (Sec. 4.1.2.4), customers should be advised not to use water during excavation and construction activities.

Additional guidance to utilities for completing these customer communications is available in the foreword of this standard and in the AWWA document *Communicating About Lead Service Lines: A Guide for Water Systems Addressing Service Line Repair and Replacement*.

Sec. 4.4 Flushing Service Lines After Full or Partial Replacement

4.4.1 *Flushing by the utility immediately after lead service replacement.* After all connections have been completed, flush the water from an outside connection (such as hose-bib or hose leading from the house side of the meter installation) to remove any particles in the service line and near point-of-entry. The flushing is best done, if possible and practical, before the meter is connected in the service using a "jumper" or straight pipe in place of the meter. The straight pipe will allow for a higher velocity flush and protects the meter from potential damage from lead pipe and other construction-related fragments. Flush at full velocity for at least

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10 minutes. If the meter was replaced with a "jumper," it may be reconnected in the service after utility flushing. Following completion of flushing by the utility, the customer shall flush the interior premise plumbing as described in Sec. 4.4.2.

In situations where flushing by the utility is not performed, the customer should be notified with instructions to flush before using any water.

4.4.2 *Flushing by the customer after lead service replacement.* The customer should flush all interior premise plumbing the same day or before next water use following the replacement. Subsequent flushing by the customer should be done once every two weeks for three months or at other intervals based on monitoring results if available. Utilities may want to encourage best times to flush based on water demand and operations (for example, when neighbors' water usage is low, e.g., midmorning to dinner time or late at night). Customers shall be advised to not use hot water in the premise plumbing until initial flushing is completed to prevent sedimentation of lead particles in premise hot water tanks.

4.4.2.1 Suggested instructions for customers.

1. Find all the faucets that will drain, including the basement and all floors in your house.
2. Remove aerators and screens whenever possible, including the shower heads, from all faucets you plan to flush.
3. Include the laundry tubs, hose-bibs, bathtubs, and showers as flushing points.
4. After all the aerators are off, open the faucets in the basement or lowest floor in the house. Leave all faucets running at highest rate possible, using cold water.
5. After the faucets are all open in lowest floor, open the faucets on next highest floor of the house. Continue until faucets are open on all floors.
6. After all faucets are opened, leave the water running for at least 30 minutes.
7. After 30 minutes, turn off the first faucet you opened and continue to turn off other faucets in the same order you turned them on.
8. Clean aerators/screens at each faucet. You may need to replace screens/aerators if too old or worn.

Utilities and customers may consider an optional approach by coordinating a targeted flush of a few faucets at a time before opening all the faucets for the whole house flush. The targeted flush would start with a pattern of opening all faucets in a single area or single floor and then moving to the next to increase the flow velocities, followed by the whole house flush described above, with all faucets open.

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4.4.2.2 Additional daily miniflush. As a precaution, the customer should do a miniflush of premise plumbing by running tap water each morning or when the water sits in the pipe for at least 6 hours. Flush for 5 minutes to displace water that has been sitting in the pipes inside the house and in the service line. This could include taking a shower, running the dishwasher, flushing a toilet, collecting water for plants/garden, or running the faucet. The customer should do this before using any water for drinking, cooking, infant formula, and so on. Daily miniflushes should continue for six months or until lead sample results show the lead level is below the regulatory guideline. The customer should clean debris from aerators and screens once a month for six months. After six months, clean debris twice a year.

4.4.2.3 Sampling. Water sampling and testing, following replacement and flushing, shall be conducted per Sec. 5.2.

SECTION 5: VERIFICATION

Sec. 5.1 Documentation of Construction Activities

Documentation of construction activities for each service line work activity may support verification that the lead service line has been fully or partially replaced. The following information shall be documented and recorded:

- Picture of home with house number
- Picture of test pits and meter pit showing new pipe or pipe ends and old lead pipe if in same location
- Length and material type of new pipe installed
- Type of pipe material the new pipe is connected to inside home
- Method of installation (trenchless, hand-excavation, etc.)
- Length and location of any abandoned lead service line pipe left in the ground

Flushing time and location(s) (for example, an outside hose-bib) shall be recorded. Some homes may not have an outside hose-bib turned on or other situations may arise that do not allow for postflushing by the utility. These situations shall be documented in field reports along with any communication attempted with the customer.

Sec. 5.2 Water Testing Following Replacement

Testing the water following the replacement shall be done to determine if appreciable lead is still present in the drinking water. Lead may still exist inside

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home plumbing (lead solder, redeposited lead in scale of plumbing, and brass components) and could be disturbed during service line work. Therefore, lead present in the water following a full replacement does not mean the lead service has not been replaced. This condition should be explained to the customer. Flushing recommendations described in Sec. 4.4 can help remove released particles.

5.2.1 *Testing initiation.* Testing the water shall commence at least one month after the replacement to allow for sufficient in-house flushing and a period of normal use of water to occur. Utilities may consider initiating testing within the one-month period if supported by performance data. When only a partial replacement is completed and the lead service line replacement was mandatory as part of compliance with the Lead and Copper Rule (LCR), testing shall be conducted within 72 hours after the completion of the partial replacement of the service line per the requirements of the LCR.

5.2.2 *Test samples.* Testing shall include first-draw and second-draw samples. First-draw sample shall be the initial draw from the tap when it is turned on. Second-draw sample shall be collected with the objective of collecting water that stagnated in the service line, generally the fourth to seventh liter depending on site-specific conditions. Utilities may be able to omit the second draw sample if supported by documentation that the construction activities completely removed the lead service line and by acceptable first-draw lead data. Samples shall be collected from a frequently used tap inside the home, preferably the kitchen tap as the residents' consumption would likely be from the kitchen tap. Samples shall also be collected with the aerator on. Samples should be collected at the maximum flow rate of the tap and should be collected in wide-mouth bottles.

5.2.3 *Profile sampling.* Lead levels higher than expected from full lead replacements may occur and the utility or homeowner could investigate further with profile sampling. A profile is a series of bottles filled continuously following the stagnation period. The trend of lead concentrations coupled with measurements of the inside plumbing and service line will show which portion of plumbing or service contributes the highest lead by the liter number.

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CITY OF SAGINAW
SPECIAL PROVISION
FOR
CONCRETE PAY ITEMS

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DESCRIPTION
This work shall be in accordance with section 1004 of the Michigan Department of Transportation Standard Specifications for Construction, except as modified herein.

This special provision indicates the type of concrete mixture to be used for pay items related to concrete. This work shall include placing portions of concrete pavement regardless of length or width with non-reinforced portland cement concrete

MATERIALS
Materials for all concrete items shall be Concrete, Grade P1 Six Full Sack Mix, in accordance with Sections 1004 of MDOT Standard Specifications for Construction.

CONSTRUCTION
Construction shall be according to the MDOT 2020 Standard Specifications for Construction or as directed by the Engineer in the field.

Prior to beginning construction, the Contractor shall submit the name and plant location of the proposed concrete supplier for the project.

Prior to beginning construction, the Contractor shall submit mix designs for the proposed concrete mixtures proposed for use on the project for the Engineer to review.

A 4-inch minimum sand base shall be constructed for all driveways and compacted to 95 percent of maximum unit weight. Sand base shall be MDOT Class II granular material.

A 4-inch minimum sand base shall be constructed for all curb repairs and compacted to 95 percent of maximum unit weight. Sand base shall be MDOT Class II granular material.

MEASUREMENT AND PAYMENT
Payment for the completed work for the various concrete pay items in this contract using a six full sack mix shall be at their individual contract unit prices as follows.

Pay Item	**Pay Unit**
Remove and Replace Concrete Curb & Gutter, Det F4, Modified	Foot
Curb Ramp Opening, Conc, Modified	Foot
Remove and Replace Concrete Drive or Approach	Square Foot
Conc Pavt, Nonreinf, Modified	Cubic Yard

CITY OF SAGINAW
SPECIAL PROVISION
FOR
CONCRETE PAY ITEMS

Payment for each shall include the material, labor and equipment necessary to construct each item according to the plans, specifications and any special provisions included with this contract.

The Engineer will measure **Curb Ramp Opening, Conc, Modified** in place along the joint of the curbing with the pavement including transitions to and from adjacent standard full height curb and gutter cross section.

Driveway removal shall be directed onsite by the Engineer. Removal of non-integral curb at paved driveways shall be included in the **Remove and Replace Concrete Curb & Gutter** pay item. Payment for sawcutting, if required, will be included in the related removal pay item and will not be paid for separately

CITY OF SAGINAW
SPECIAL PROVISION
FOR
CONCRETE SIDEWALK

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DESCRIPTION

This work shall consist of furnishing and installing sidewalk and sidewalk ramps at intersections in accordance with section 803 the Standard Specifications for Construction and MDOT Special Detail R-28-J, except as modified herein.

MATERIALS

Material provided for sidewalk shall be in accordance with section 803.02 of the Standard Specifications for Construction with the following exception: Materials for all concrete items shall be Concrete, grade 3500 Six Full Sack Mix, in accordance with section 1004 of the Standard Specifications for Construction.

Detectable Warning Surface, Cast Iron shall be cast-iron detectable warning inlays installed, according to the manufacturer's instructions and MDOT Special Detail R-28-J. Color shall be black with asphaltic dip finish, as approved by the Engineer.

CONSTRUCTION

Prior to beginning construction, the Contractor shall submit the name and plant location of the proposed concrete supplier for the project.

Prior to beginning construction, the Contractor shall submit mix designs for the proposed concrete mixtures proposed for use on the project for the Engineer to review.

A 4-inch minimum sand base shall be constructed for all sidewalks and shall be compacted to 95 percent of maximum unit weight. Sand base shall be MDOT Class II granular material.

MEASUREMENT AND PAYMENT

The completed work as measured will be paid for at the contract unit price for the following pay item(s).

Pay Item	Pay Unit
Remove and Replace Sidewalk	Square Foot

Sidewalk shall be of the type and thickness called for on the Plans, will be measured in place by area in square foot.

Payment for the 4-inch minimum sand base shall be included in the contract unit price for all sidewalk items.

The contract unit price for sidewalk and ramp includes placement of sand base, furnishing, placing, and curing concrete; furnishing and placing expansion joints; furnishing and placing backfill regardless of amount.

All grading required to meet ADA standards shall be included in the items listed above. All labor, equipment, and materials shall be considered included in the pay items above.

CITY OF SAGINAW
SPECIAL PROVISION
FOR
HOT MIX ASPHALT (HMA) APPLICATION ESTIMATE

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DESCRIPTION
This work shall be done in accordance with the requirements of Division 5 of the Michigan Department of Transportation 2020 Standard Specifications for Construction except as modified herein.

CONSTRUCTION METHODS
Testing performed in accordance with Section 501.03.N will apply for this project.

MATERIALS
Leveling and wearing road courses shall be HMA, LVSP and shall be placed as indicated on the plans with an average yield of 220 lbs/syd placed per lift.

Leveling and wearing driveway courses shall be HMA, LVSP and shall be placed as indicated on the plans with an average yield of 165 lbs/syd placed per lift

The performance grade binder for mixture HMA, LVSP shall be 58-28 performance grade and the HMA.

The HMA bond coat mixture shall be as per standard specifications. The application rate on existing or between courses shall be 0.05 to 0.15 gallons per square yard. The HMA bond coat mixture shall be included in HMA pay items and not be paid for separately.

The aggregate wear index shall be 260 minimum, top course only.

MEASUREMENT AND PAYMENT
The completed work as measured will be paid for at the contract unit price for the following pay item(s).

Pay Item	Pay Unit
HMA LVSP	Ton
Remove and Replace HMA Driveway, 3”	Square Foot

Measurement and payment for HMA LSVS road paving shall be at the contract unit price per ton. No additional payment will be made for HMA bond coat mixture.

The paving of all intersecting street approaches shall be as shown on the plans and paid for as mainline paving using the appropriate HMA mixture items.

Driveway removal shall be directed onsite by the Engineer. Removal of non-integral curb at paved driveways shall be included in the **Remove and Replace Concrete Curb & Gutter** pay item. Payment for sawcutting, if required, will be included in the related removal pay item and will not be paid for separately.

CITY OF SAGINAW
SPECIAL PROVISION
FOR
MAINTAINING TRAFFIC

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DESCRIPTION

This work shall consist of all labor, materials and equipment required to maintain traffic within the construction influence areas of each quadrant as outlined on the project drawings.

Traffic shall be maintained by the Contractor throughout the project in accordance with section 104.07.C, 104.11, 812 and 922 of the Standard Specifications for Construction and in accordance with any Supplemental Specifications. All traffic control devices shall conform to Part 6 of the 2011 Michigan Manual of Uniform Traffic Control Devices (MMUTCD).

The contractor will control noise, dust, traffic, and surface restoration according to local ordinances and contract specifications.

CONSTRUCTION INFLUENCE AREA (CIA)

The CIA shall include the right of way of all roads listed on project drawings from the point of beginning to the point of ending as well as at any locations necessary for construction signing.

TRAFFIC RESTRICTIONS

Roadways shall not be closed to traffic. One temporary lane, 10 feet in width, shall be provided at all times for the maintenance of local traffic, except for short durations on a day to day basis if individual connection work is required across the whole width of the roadway. During paving operations, Contractor shall maintain one lane for local traffic during working hours utilizing traffic devices. The Contractor shall furnish, erect, maintain, and upon completion of the work, remove all traffic control devices and barricade lights within the project limits.

Maintain access at all times for local traffic to properties and driveways located within the Construction Influence Area (CIA). Any aggregate used to maintain access to residential and commercial driveways shall be limestone and included in the pay items for driveway removal and replacement.

Open trenches overnight shall be approved by the Engineer. The Contractor may not work after dark unless approved by the Engineer and adequate lighting is provided. Work on weekends shall be approved by the Engineer.

CONSTRUCTION

The Contractor shall provide a minimum of 48-hour notice to the City’s Engineering Department prior to a road closure.

The existing utilities as shown on the Plans shall be **protected at all times**. If any damage occurs immediately contact the City of Saginaw Water & Sewer Maintenance & Service division at (989) 759-1612 and the City of Saginaw Engineering Division at (989) 759-1410, along with the owner of the utility.

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SPECIAL PROVISION
FOR
MAINTAINING TRAFFIC

The Contractor shall provide 24-hour emergency contacts to the Engineer. During non-working periods, the Contractor shall have a maximum one-hour response time for addressing issues within the work zone.

The Contractor shall notify the Engineer and municipality or other necessary agencies of any road closures within the project area.

The Contractor shall coordinate his operations with other contractors or utility owners performing work on other projects within or adjacent to the CIA or adjoining areas to avoid conflicts in maintenance of traffic, construction signing and to provide for the orderly progress of work.

The Contractor will be responsible for coordinating construction activities with all local businesses, keeping them advised, in advance of any construction activities that will affect vehicular and pedestrian movements to their business.

Maintain pedestrian access throughout the project at all times during construction, on at least one side of the street. Stage the removal and replacement of sidewalks and ramps as required. Temporary barricades included in pedestrian access plan will be paid for as **Pedestrian Type II Barricade, Temp**. If any hard surfaces or temporary ramps are required to maintain pedestrian access as a result of the Contractor's staging plan, those items will be at the Contractor's expense and will not be paid for separately.

No work shall be performed between the hours of 10 p.m. and 7 a.m. in accordance with the City ordinance. No deviations from these restrictions will be allowed unless otherwise approved by the Engineer.

TRAFFIC CONTROL DEVICES

The Contractor shall be responsible for maintaining all traffic control devices and shall review the condition and adequacy of traffic control devices each working day for the project duration. Any damaged or inadequate traffic control devices shall be replaced at no additional cost to the municipality.

All temporary traffic control signs shall be placed at a distance "D", "B," and "L' as per MDOT Maintaining Traffic Typical 101-GEN-SPACING-CHARTS. Use 36"x36" advance warning signs.

Notify the City of Saginaw in advance of any planned major street lane closure. The lane shall not be left closed outside of working hours.

To summarize, the following MDOT Maintaining traffic typicals shall be used at all or one time during construction and shall be included in the Proposal:

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101-GEN-SPACING-CHARTS
102-GEN-NOTES
110-TR-NFW-2L (traffic regulators 2-lane roadway)
122-NFW-SHL-(R) (shoulder closure 2-lane roadway)
123-NFW-1LC-(R)

MEASUREMENT AND PAYMENT

Payment for Maintaining Traffic shall be in accordance with section 812 of the Standards Specifications for Construction for the work items listed in the log of the project and in the proposal, which shall be payment in full for all labor, material, and equipment needed to accomplish this work.

Payment for temporary signs, plastic drums, and barricades shall be made based on the maximum quantity in place at any one time as determined by the Engineer for the entire project. Moving of units from one location to another is considered included in the appropriate pay item.

CITY OF SAGINAW
SPECIAL PROVISION
FOR
MAINTENANCE GRAVEL, MODIFIED
DRIVEWAY GRAVEL, MODIFIED

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DESCRIPTION

This work consists of constructing an aggregate surface on a prepared grade, where directed by the Engineer, to maintain traffic during construction. Maintenance of driveways and intersections by the use of an aggregate surface during construction is included in this work. Removal and disposal of the aggregate when no longer needed is included in this item of work.

This work will be in accordance with sections 306, 902, and Table 902-1 of the Standard Specifications for Construction, except as modified herein.

MATERIAL

Materials for gravel shall be 100 percent crushed limestone conforming to Dense-Graded Aggregate 23A under section 902 of the Standard Specifications for Construction.

No crushed concrete shall be accepted.

CONSTRUCTION

Gravel is to be placed as directed by the Engineer to provide a flush transition to driveways, roadway, and other areas where traffic is to be maintained. The aggregate surface for maintenance gravel shall be maintained in a smooth and firm condition until no longer needed for maintaining traffic.

MEASUREMENT AND PAYMENT

The completed work as measured will be paid for at the contract unit price for the following pay item(s).

Pay Item	Pay Unit
Maintenance Gravel, Modified	Ton
Remove and Replace Gravel Driveway, 23A	SF

Payment for **Maintenance Gravel, Modified** shall be measured in tons and includes all labor, equipment, and materials required for the construction, maintenance, and removal of the aggregate surface as described in this special provision and as directed by the Engineer.

Removing and replacing grave driveway will be paid for at the contract unit prices and shall include all labor, equipment and materials to complete the work.

Driveway removal shall be directed onsite by the Engineer. Removal of non-integral curb at driveways shall be included in the **Remove and Replace Concrete Curb & Gutter** pay item.

Removal of integral curb will be measured and paid for as **Pavement Removal, Complete** and will not be paid for separately

CITY OF SAGINAW
SPECIAL PROVISION
FOR
PAVEMENT, REM, MODIFIED
DRIVEWAY, REM

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DESCRIPTION
Work includes the removal and disposal of existing pavement as specified on the Plans, in the proposal, or as directed by the Engineer. Work shall be performed in accordance with section 204 of the Standard Specifications for Construction, except that additional payment will not be made for multiple layers of pavement or driveway regardless of thickness and type of pavement.

MATERIALS
Provide material in accordance with section 204.02 of the Standard Specifications for Construction.

CONSTRUCTION
Construction shall be in accordance with section 204.03 of the Standard Specifications for Construction.

MEASUREMENT AND PAYMENT
The completed work as measured will be paid for at the contract unit price for the following pay item(s).

Pay Item	Pay Unit
Pavement Removal, Complete	Square Yard

Removing pavement will be paid for at the contract unit prices and shall include all labor, equipment and materials to complete the work.

Payment for sawcutting, if required, will be included in the related removal pay item and will not be paid for separately.

Pavement removal shall be to an existing joint or to a sawed joint as shown on plans or as directed by the Engineer.

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DESCRIPTION

Section 816 of the Standard Specifications for Construction is deleted and replaced by this special provision. The Contractor shall be responsible for the performance and quality of turf growth in the areas indicated on the plans and as identified by the Engineer. The Contractor shall comply with all state and federal laws and regulations in completing this work.

The Contractor shall establish a durable, permanent, weed-free, mature, perennial turf. The work consists of fundamental turf work, including but not limited to topsoiling, seeding, mulching, erosion control, maintenance, and repair of turf as described herein during the life of the contract.

The Contractor shall choose and implement proven turf establishment industry practices; provide all necessary labor and equipment; select and provide all turf establishment materials; and control erosion and any subsequent sedimentation at all times.

The Contractor shall be responsible for a site analysis and its interpretation for their own use to ensure compliance with this special provision. The site analysis will take into consideration topsoil needs, fertilizer and pH requirements, seed mix, existing and future soil moisture levels, slopes and grades, required erosion control items and devices, maintenance requirements, local highway snow deicing practices, and any other characteristics that influence and affect turf establishment.

Section 107.11 of the Standard Specifications for Construction is revised relative to the Contractor's responsibility for the repair of turf establishment work as follows. The Contractor shall be responsible, at no additional cost to the contract, for the repair of turf establishment work occasioned by storm events up to and including 3 inches of rain in a 24-hour period as documented by local meteorological data submitted to the Engineer for review and approval. All other portions of section 107.11 remain unchanged.

REQUIREMENTS

1) The Contractor shall possess valid Michigan Department of Agriculture commercial pesticide applicator's certificate for right-of-way category.

2) All herbicide applications shall be made by a commercial applicator licensed in the State of Michigan.

a) All individuals applying pesticides shall possess a valid Michigan Department of Agriculture commercial pesticide applicator's certificate for the appropriate category.

b) All application procedures and materials shall meet all federal, state, and local regulations.

3) At least 10 days prior to start of turf establishment, the Contractor performing the turf establishment work shall provide the Engineer with documentation that they will meet one or both of the following requirements:

a) At least one person employed by the Contractor and assigned to the job site shall have a degree or certificate in Turf Management, Horticulture, or related field.

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b) At least one person employed by the Contractor and assigned to the job site shall have at least five (5) years of experience in roadside turf establishment.

MATERIALS

The Contractor shall use topsoil, seed, mulch, pesticide, herbicide and/or mulch blankets, and any other unique erosion control materials as necessary to fulfill this special provision, as detailed in the plans, and as indicated in the work plan. The Contractor may use additional materials as necessary to meet the standards set forth for turf establishment in this special provision. The use of any sod on the project requires the prior approval of the Engineer and if approved, may be used at limited site locations only.

Selection of all materials is the responsibility of the Contractor with the following minimum conditions:

1) Soil.

a) The Contractor shall provide furnished or salvaged topsoil which may be blended compost that will provide vigorous growth.

i) It shall be humus bearing and of not less than 4 inches in depth.

ii) It shall be free of stones larger than 1 inch in diameter and other debris.

iii) The finished slope shall be trimmed and graded according to subsection 205.03.N of the Standard Specifications for Construction.

2) Seed.

a) The Contractor shall use a seeding mixture that is composed of a blend of four or more species of perennial grass.

i) All species and their cultivars or varieties shall be guaranteed hardy for Michigan.

ii) The seed shall be legally saleable in Michigan.

iii) The seed product shall not contain more than 10 percent inert materials.

iv) The seed source shall be from a MDOT approved certified vendor.

The following is a list of recommended species of perennial grasses: Kentucky Bluegrass, Perennial Ryegrass, Hard Fescue, Creeping Red Fescue, Chewings Fescue, Turf-type Tall Fescue, Buffalo grass, and Alkaligrass-Fults Puccinellia distans.

The cultivars or varieties of grasses selected shall be disease and insect resistant and good color. No one species in the blend shall be more than 25 percent of the mixture by weight. No one species in the blend shall be less than 5 percent of the mixture by weight. No grass species selected shall be considered noxious or objectionable, such as Quack Grass, Smooth Brome, Orchard Grass, Reed Canary Grass, and others.

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b) The species and varieties of seed shall be adapted to all site conditions, to the site use, and to the soils, moisture, and local climate.
   i) Site use may include but is not limited to detention pond, wildlife habitat, playground, wetlands, forested wetland, rural roadside, urban roadside, and maintained front yard.

c) At least two of the species in the mixture proposed to be planted within 15 feet behind the curb or the shoulder shall be salt tolerant.

3) Mulch.

a) Seeded areas shall be mulched with the appropriate materials for the site conditions, shall promote germination and growth of seed and to mitigate soil erosion and sedimentation.

4) Herbicides.

a) The Contractor shall comply with all federal, state, and local laws as noted in the Standard Specifications for Construction, section 107.

b) A weed control application will require the Contractor to make proper notifications and/or postings as per label and MDA requirements for all locations that will be sprayed.

c) The Contractor will also notify selected City of Saginaw staff 48 hours prior to any applications being made.

d) The Contractor shall furnish and apply herbicide(s) as needed.

e) It shall be the Contractor’s responsibility to select the herbicide(s) and the rate at which it will be used.

f) The work and herbicide(s) shall be approved by the Engineer prior to the application of the material.

g) A spray log will be required to be completed and submitted to the project office, each day an application is made.

h) No water shall be drawn from any waterway (i.e. river, ditch, creek, lake etc.) that is located on any state, county, or municipal right-of-way for mixing with herbicides.

5) Fertilizers.

a) The Contractor shall furnish and apply fertilizer(s) as needed.

b) It shall be the Contractor’s responsibility to select the fertilizer(s) and the rate at which it will be used.

c) The work and fertilizer(s) shall be approved by the Engineer prior to the application of the material.

6) Water.

a) The Contractor shall furnish and apply water from an approved source as specified in the work plan at a rate of promote healthy growth.

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CONSTRUCTION

The Contractor shall be responsible for all work and any and all construction methods used in completing this work. Any part of the Standard Specifications for Construction or MDOT Standard Plans chosen to be implemented by the Contractor shall not imply responsibility on the part of the City of Saginaw for acceptability of the Contractor's construction methods or for the quality of the Contractor's work outcome at any time.

1) Inspection of the work

a) The Contractor shall be responsible for all inspection of turf establishment work.

b) The Contractor shall use a Contractor's Daily Report approved by the Engineer to report inspections made and to document turf establishment work performed on this project.

i) The Contractor's Daily Report shall be completed and submitted to the Engineer when any work performed under this special provision is in progress.

ii) The Contractor's Daily Report shall be accompanied by all necessary materials documentation including tests slips, certifications, etc.

iii) The Engineer shall determine the acceptability of these reports in terms of their completeness and accuracy.

iv) The Engineer reserves the right to verify all submitted measurements and computations.

v) Failure by the Contractor to submit acceptable and timely reports to the Engineer may result in withholding of progress pay estimates on turf-related items until such time as reports are submitted in an acceptable and timely fashion.

c) The Engineer reserves the right to inspect the project for any reason in accordance with subsection 104.01 of the Standard Specifications for Construction, including the fulfillment of other inspection requirements such as soil erosion and sedimentation control, NPDES, etc.

i) These inspections made by the Engineer shall not relieve the Contractor of the inspections required by this special provision or the Contractor's responsibilities for erosion control and turf establishment.

2) Erosion Control.

a) Erosion shall be controlled at all times according to section 208 of the Standard Specifications for Construction.

b) Control of soil erosion is the responsibility of the Contractor.

c) Sedimentation controls shall be placed as indicated on the plans or as directed by the Engineer.

d) The site shall be continuously monitored by the Contractor for needed erosion repair from any cause as addressed in the contract documents.

e) All eroded areas shall be returned to their original grade as detailed in the contract documents.

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f) If sedimentation occurs in drainage structures or any watercourse or water containment area, corrective action shall be taken immediately and all disturbed areas contributing to this sedimentation shall be restored within 24 hours of erosion occurrence.

i) Sediment deposited as a result of the Contractor's inability to control the soil erosion shall be removed at the Contractor's expense.

g) The Contractor shall reimburse the City of Saginaw for any costs levied against the City of Saginaw, such as fines, environmental costs, costs for remedies required, or any other costs as a result of the Contractor's failure to comply with this special provision and with all federal, state, and local laws.

3) Erosion Repair.

a) The Contractor is responsible for all repair and liable for all consequences (legal, monetary, or other) associated with erosion or sedimentation damage to finished or unfinished work.

b) All erosion occurrences and the repairs made by the Contractor shall be reported to the Engineer in the format and at the frequency required by the Engineer.

c) Any erosion, displacement, or disturbance to ongoing or completed work by any cause shall be repaired by the Contractor at no additional cost to the contract unless otherwise noted herein.

d) The Contractor shall be responsible and liable for all traffic control and safety measures required to repair and protect damaged turf areas.

e) Any eroded area that may affect the support of the roadbed or safety of the public shall be repaired within 24 hours of the erosion occurrence.

f) Protection devices such as barriers, directional sign/signals, temporary fence, or any other safety measures shall be placed by the Contractor immediately after any erosion damage occurs that has the potential of endangering the public.

i) In these instances, the Contractor shall, within 24 hours of the occurrence of the damage, provide the Engineer with a written summary of the immediate action taken and describing the repairs made and the safety measures taken.

4) Final Acceptance Parameters.

a) Before final acceptance of the turf establishment work, all of the following minimum parameters shall be met throughout all exposed areas of the project designated on the plans or identified by the Engineer as turf establishment areas.

i) There shall be no exposed bare soil and the turf shall be fully germinated, erosion free, weed free, disease free, dark green in color, and in a vigorous growing condition.

b) The Engineer will notify the Contractor of the dates and times of all acceptance inspections.

c) The Contractor may accompany the Engineer while these inspections are being made.

d) If the Contractor does not agree with the decision made by the Engineer, the Contractor can request an inspection by a mutually agreed upon third party (Michigan State University

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Extension service or other).

i) A joint inspection, including the Engineer, the Contractor, and the third party, will be scheduled.

ii) All expert fees and expenses charged by the third party will be paid by the Contractor.

iii) Any and all claims for extra compensation shall be according to subsection 104.10 of the Standard Specifications for Construction.

MEASUREMENT AND PAYMENT

The completed work as measured will be paid for at the contract unit price for the following pay item(s).

Pay Item	Pay Unit
Turf Establishment, Performance	Square Yard

Turf Establishment, Performance shall be measured in place by area in square yards. All materials, labor, and equipment required or selected by the Contractor to install, maintain, inspect, repair, and meet the acceptance parameters for turf establishment specified in this special provision, including preparation, updating, and submittal of the Contractor's work plan and Contractor's Daily Reports, will not be paid separately but will be considered included in the contract unit price bid for **Turf Establishment, Performance.**

The following schedule of payment applies to work performed according to this special provision. Upon completion of topsoil surfacing stage, 50 percent of the authorized amount for **Turf Establishment, Performance** will be paid to the Contractor. The remaining authorized amount will be paid upon completion of all other work necessary to comply with this special provision and to meet all final acceptance parameters for **Turf Establishment, Performance.**

APPENDIX A

2027 COS LSLR

DETAILS FOR CONSTRUCTION PER HOUSE

2027 COS LSLR Addresses

Street Address	Connection Material at Curb Stop	Extension Material at Curb Stop	Material Before Meter Set	Schedule for Replacement	Zone	Connection Length (ft) (from GIS)	Connection Size (in) (from GIS)	Extension Length (ft) (from GIS)	Extension Size (in) (from GIS)	Curb Box Surface Material (from GIS)	Water Main Size (in) (from GIS)	Driveway Surface Material	Distance to Ex. Plumbing Connection (ft) (assumed)	Meter Location (City billing data)	Notes
10 JEFFERSON CT	Verified Lead	Verified No Lead	Inactive Account Flagged	Replace Connection	Zone 2	6	0.75	7	0.75	Concrete	4	Concrete	5	Basement	surface materials are assumed
1001 WEBBER ST	Verified Lead	Verified No Lead	Verified Galvanized	Replace Full Service	Zone 4	31	0.75	10	0.75	Concrete	6	Concrete	5	Basement	
1008 WEBBER ST	Verified Lead	Verified Galvanized	Verified No Lead	Replace Full Service	Zone 4	11	0.75	14	0.75	Grass	6	Gravel	5	Crawl Space	
1011 BURT ST	Verified No Lead	Verified No Lead	Verified Need Letter	Replace Extension	Zone 2	38	0.75	13	0.75	Concrete	16	Gravel	5	Basement	
1012 S JEFFERSON AVE	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 2	12	1	12	0.75	Grass	10	Asphalt	5	Basement	
1017 S PARK AVE	Verified No Lead	Verified Galvanized	Verified Need Letter	Replace Extension	Zone 2	33	0.75	11	0.75	Grass	6	Concrete	5	Basement	
1023 S JEFFERSON AVE	Verified Lead	Verified Galvanized	Verified Galvanized	Replace Full Service	Zone 2	31	1.25	13	1	Grass	10	Concrete	5	Basement	refer to GIS for service to replace
1102 S JEFFERSON AVE	Verified Lead	Verified No Lead	Verified Galvanized	Replace Full Service	Zone 2	10	0.75	12	0.75	Grass	10	Concrete	5	Basement	
1105 S JEFFERSON AVE	Verified Lead	Verified No Lead	Verified Galvanized	Replace Full Service	Zone 2	30	1	14	0.75	Grass	10	Asphalt	5	Basement	refer to GIS for service to replace
1105 WEBBER ST	Verified Lead	Verified Galvanized	Verified No Lead	Replace Full Service	Zone 4	34	0.75	10	0.75	Grass	6	Concrete	5	Basement	
111 S 11TH ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 1	15	1	10	0.75	Concrete	6	Concrete	5	Crawl Space	
1116 WEBBER ST	Verified Lead	Verified No Lead	Verified Need Letter	Replace Full Service	Zone 4	14	0.75	12	0.75	Grass	6	Asphalt	5	Basement	
1119 ATWATER ST	Verified No Lead	Verified Galvanized	Non-existent	Replace Extension	Zone 2	16	1	14	Verify in Field	Grass	6	Gravel	5	Basement	refer to GIS for service to replace
1122 WEBBER ST	Verified No Lead	Verified No Lead	Verified Galvanized	Replace Extension	Zone 4	15	0.75	11	0.75	Grass	6	Asphalt	5	Basement	
1132 S JEFFERSON AVE	Verified No Lead	Verified Galvanized	Verified Galvanized	Replace Extension	Zone 2	15	0.75	10	0.75	Grass	10	Concrete	5	Basement	refer to GIS for service to replace
1137 HOWARD ST	Verified No Lead	Verified No Lead	Verified Need Letter	Replace Extension	Zone 2	12	0.75	22	0.75	Grass	6	Concrete	5	Basement	
1143 WARD ST	LeadSample Site	Verified No Lead	Verified Need Letter	Replace Full Service	Zone 2	12	0.75	9	0.75	Grass	6	Gravel	5	Basement	refer to GIS for service to replace
118 S 7TH ST	Verified Lead	Verified No Lead	Verified Need Letter	Replace Full Service	Zone 1	35	0.75	11	0.75	Grass	6	Concrete	5	Basement	refer to GIS for service to replace
119 S 4TH AVE	Verified Lead	Verified Galvanized	Verified No Lead	Replace Full Service	Zone 1	33	0.75	12	0.75	Grass	6	Gravel	5	Crawl Space	
1207 WEBBER ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 4	32	0.75	10	0.75	Grass	6	Concrete/Dirt	5	Basement	
121 S 10TH ST	Verified No Lead	Verified No Lead	Verified Need Letter	Replace Extension	Zone 1	10	0.75	12	Verify in Field	Grass	12	Asphalt	5	Basement	
1216 S PARK AVE	Verified No Lead	Verified Galvanized	Verified Need Letter	Replace Extension	Zone 2	12	0.75	12	0.75	Grass	6	Concrete	5	Crawl Space	Caution - service crosses a 20" WM
123 S 4TH AVE	Verified Lead	Verified Galvanized	Verified Galvanized	Replace Full Service	Zone 1	35	Verify in Field	10	Verify in Field	Grass	6	Concrete	5	Crawl Space	
1232 BROWN ST	Verified Lead	Verified Galvanized	Verified Galvanized	Replace Full Service	Zone 2	30	0.75	14	0.75	Grass	6	Concrete/Dirt	5	Basement	
125 S 13TH ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 1	10	0.75	15	0.75	Grass	6	Concrete	5	Crawl Space	
129 N 14TH ST	Verified No Lead	Verified No Lead	Verified Need Letter	Replace Extension	Zone 1	33	0.75	12	0.75	Grass	6	Concrete	5	Basement	
130 S 15TH ST	Verified Lead	Verified Galvanized	Verified Need Letter	Replace Full Service	Zone 1	28	0.75	12	0.75	Grass	6	Concrete	5	Crawl Space	
1305 OWEN ST	Verified Lead	Verified Galvanized	Verified Galvanized	Replace Full Service	Zone 2	12	0.75	13	0.75	Grass	16	Concrete	5	Basement	
1309 MOTT ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 2	31	0.75	12	0.75	Concrete	6	Concrete	5	Basement	
1312 WARD ST	LeadSample Site	Verified No Lead	Verified No Lead	Replace Connection	Zone 2	10	0.75	14	0.75	Grass	6	Concrete	5	Basement	
1320 OWEN ST	Verified Lead	Verified Galvanized	Verified Need Letter	Replace Full Service	Zone 2	30	0.75	13	0.75	Grass	16	Concrete	5	Basement	
1327 WARD ST	Verified Lead	Verified No Lead	Verified Galvanized	Replace Full Service	Zone 2	31	0.75	12	0.75	Grass	20	Gravel	5	Basement	
1330 S PARK AVE	Verified Lead	Verified No Lead	Inactive Account Flagged	Replace Connection	Zone 2	13	0.75	11	0.75	Concrete	6	Gravel	5	Basement	
1331 ATWATER ST	Verified Lead	Verified No Lead	Non-existent	Replace Connection	Zone 2	17	1	7	0.75	Gravel	6	Dirt	5	Crawl Space	refer to GIS for service to replace
1335 ALGER ST	Verified Lead	Verified Galvanized	Verified Galvanized	Replace Full Service	Zone 2	31	0.75	13	0.75	Grass	6	Concrete	5	Basement	
136 S 16TH ST	LeadSample Site	Verified Galvanized	Verified Need Letter	Replace Full Service	Zone 1	28	0.75	10	0.75	Grass	6	Gravel	5	Basement	
137 S 16TH ST	Verified No Lead	Verified No Lead	Verified Need Letter	Replace Extension	Zone 1	11	0.75	11	Verify in Field	Grass	6	Concrete	5	Basement	
1405 FEDERAL AVE	Verified Lead	Verified No Lead	Verified Need Letter	Replace Full Service	Zone 1	31	0.75	14	0.75	Grass	6	Pavers	5	Basement	
1409 MERRILL ST	Verified No Lead	Verified Galvanized	Verified Galvanized	Replace Extension	Zone 2	14	0.75	13	0.75	Concrete	6	Asphalt	5	Crawl Space	
1425 EMILY ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 2	30	0.75	13	0.75	Grass	6	Gravel	5	Basement	
1443 EMILY ST	Verified Lead	Verified Galvanized	Verified Galvanized	Replace Full Service	Zone 2	30	0.75	13	0.75	Grass	6	Gravel	5	Basement	
1445 GAGE ST	LeadSample Site	Verified Galvanized	Verified Galvanized	Replace Full Service	Zone 2	13	0.75	10	0.75	Grass	6	Concrete	5	Basement	refer to GIS for service to replace; caution - service crosses a 16" WM
1461 ATWATER ST	Verified Lead	Verified Galvanized	Verified Galvanized	Replace Full Service	Zone 2	10	0.75	13	0.75	Grass	6	Gravel	5	Crawl Space	
1502 ALGER ST	Verified Lead	Verified Galvanized	Verified Galvanized	Replace Full Service	Zone 2	12	0.75	11	0.75	Concrete	6	Concrete	5	Basement	
1503 MOTT ST	Verified No Lead	Verified Galvanized	Verified Need Letter	Replace Extension	Zone 2	10	0.75	11	Verify in Field	Asphalt	6	Concrete/Asphalt	5	Basement	served off Emily St. - see GIS
1513 BAGLEY ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 2	35	0.75	11	0.75	Grass	6	Concrete	5	Basement	
1513 EMILY ST	Verified Lead	Verified Galvanized	Verified Galvanized	Replace Full Service	Zone 2	34	Verify in Field	11	0.75	Grass	6	Concrete/Asphalt	5	Basement	
1515 CHERRY ST	Verified No Lead	Verified Galvanized	Verified Galvanized	Replace Extension	Zone 1	32	0.75	13	0.75	Grass	8	Asphalt	5	Basement	
1518 BAGLEY ST	Verified Lead	Verified Galvanized	Verified No Lead	Replace Full Service	Zone 2	11	0.75	10	0.75	Concrete	6	Gravel	5	Crawl Space	
1522 FEDERAL AVE	Verified No Lead	Verified Galvanized	Verified Need Letter	Replace Extension	Zone 1	11	0.75	12	0.75	Grass	12	Concrete	5	Crawl Space	served off S. 10th St. - see GIS
1528 EMILY ST	Verified Lead	Verified Galvanized	Verified Need Letter	Replace Full Service	Zone 2	13	0.75	11	0.75	Concrete	6	Concrete	5	Basement	
1607 SPRUCE ST	Verified No Lead	Verified Galvanized	Verified Need Letter	Replace Extension	Zone 2	33	0.75	12	0.75	Grass	6	Gravel	5	Crawl Space	
1610 ANNESLEY ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 3	32	0.75	11	0.75	Grass	6	Pavers	5	Basement	
1610 WALNUT ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 3	30	0.75	12	0.75	Grass	8	Gravel	5	Basement	
1619 CHERRY ST	Verified Lead	Verified Galvanized	Verified Need Letter	Replace Full Service	Zone 1	36	0.75	11	0.75	Grass	8	Concrete	5	Basement	
1619 SPRUCE ST	Verified No Lead	Verified No Lead	Verified Need Letter	Replace Extension	Zone 2	33	0.75	11	Verify in Field	Grass	6	Concrete	5	Basement	
1625 CORNELIA ST	Verified Lead	Verified Galvanized	Verified Galvanized	Replace Full Service	Zone 2	8	0.75	12	0.75	Grass	6	Gravel	5	Basement	
1658 CORNELIA ST	Verified Lead	Verified Galvanized	Verified Galvanized	Replace Full Service	Zone 2	31	0.75	11	0.75	Grass	6	Dirt	5	Crawl Space	
1700 CHERRY ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 1	10	0.75	12	0.75	Grass	8	Concrete	5	Basement	
1703 CHERRY ST	Verified No Lead	Verified No Lead	Verified Need Letter	Replace Extension	Zone 1	12	0.75	34	0.75	Grass	8	Concrete	5	Crawl Space	refer to GIS for service to replace
1722 CHERRY ST	Verified No Lead	Verified No Lead	Verified Need Letter	Replace Extension	Zone 1	36	1	10	0.75	Grass	6	Concrete	5	Basement	served off S. 12th St. - see GIS
1810 WALNUT ST	Verified No Lead	Verified No Lead	Verified Need Letter	Replace Extension	Zone 3	32	0.75	11	0.75	Grass	6	Gravel	5	Basement	refer to GIS for service to replace
1822 PHELON ST	Verified Lead	Verified Galvanized	Verified Galvanized	Replace Full Service	Zone 2	32	0.75	11	0.75	Grass	6	Concrete	5	Basement	refer to GIS for service to replace
1902 PRESCOTT AVE	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 4	29	0.75	11	0.75	Asphalt	6	Asphalt	5	Crawl Space	2 units, 1 meter
1903 PRESCOTT AVE	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 4	10	0.75	13	0.75	Grass	6	Concrete	5	Basement	
1908 PRESCOTT AVE	Verified Lead	Non-existent	Non-existent	Replace Connection	Zone 4	30	0.75	11	0.75	Concrete	6	Asphalt	5	Basement	refer to GIS for service to replace
1911 CHERRY ST	Verified Lead	Verified Galvanized	Verified Need Letter	Replace Full Service	Zone 1	33	0.75	13	0.75	Grass	6	Concrete/Asphalt	5	Basement	2 units, 1 meter
1926 S JEFFERSON AVE	Verified No Lead	Verified No Lead	Verified Galvanized	Replace Extension	Zone 4	11	0.75	12	0.75	Grass	20	Gravel	5	Crawl Space	
1927 OWEN ST	Verified No Lead	Verified Galvanized	Verified Galvanized	Replace Full Service	Zone 4	11	0.75	10	0.75	Grass	6	Concrete	5	Meter Pit	Meter Pit/Crawl Space
1938 PRESCOTT AVE	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 4	30	0.75	10	0.75	Grass	6	Asphalt	5	Basement	
1938 S JEFFERSON AVE	Verified No Lead	Verified Galvanized	Verified Need Letter	Replace Full Service	Zone 4	12	0.75	10	0.75	Grass	20	Concrete	5	Basement	
1950 RAY ST	Verified Lead	Verified No Lead	Inactive Account Flagged	Replace Connection	Zone 5	12	Verify in Field	9	Verify in Field	Grass	6	Concrete/Asphalt	5	Basement	served off Fulton St.; refer to GIS for service to replace
200 S 13TH ST	Verified Lead	Verified Galvanized	Verified Lead	Replace Full Service	Zone 1	33	0.75	10	0.75	Concrete	6	Concrete	5	Bathroom	
2000 S JEFFERSON AVE	Verified No Lead	Verified No Lead	Verified Galvanized	Replace Extension	Zone 4	11	0.75	11	0.75	Grass	20	Asphalt	5	Basement	
2005 WILKINS ST	Verified Lead	Verified No Lead	Verified Galvanized	Replace Full Service	Zone 4	29	0.75	9	0.75	Grass	6	Concrete	5	Basement	
2008 S JEFFERSON AVE	Verified No Lead	Verified No Lead	Verified Galvanized	Replace Extension	Zone 4	9	0.75	13	0.75	Grass	20	Gravel	5	Basement	
202 N 13TH ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 1	25	0.75	17	0.75	Grass	6	Dirt	5	Office	refer to GIS for service to replace
2021 WILKINS ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 4	27	0.75	11	0.75	Grass	6	Concrete	5	Bathroom	
2027 OWEN ST	Verified No Lead	Verified Galvanized	Verified Galvanized	Replace Extension	Zone 4	7	0.75	13	0.75	Grass	6	Gravel	5	Basement	
2030 CHERRY ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 1	12	0.75	12	0.75	Grass	6	Asphalt	5	Basement	refer to GIS for service to replace
2031 CHERRY ST	Verified Lead	Verified Galvanized	Verified No Lead	Replace Full Service	Zone 1	31	0.75	13	0.75	Grass	6	Dirt	5	Bathroom	
2031 OWEN ST	Verified No Lead	Verified No Lead	Verified Galvanized	Replace Extension	Zone 4	5	0.75	14	0.75	Grass	6	Concrete	5	Meter Pit	Meter Pit w/Touchpad
2038 CHERRY ST	Verified No Lead	Verified Galvanized	Verified No Lead	Replace Extension	Zone 1	11	0.75	11	0.75	Grass	6	Concrete	5	Basement	served off S. 15th St. - see GIS
2106 PARKWOOD AVE	Verified Lead	Non-existent	Non-existent	Replace Connection	Zone 4	27	0.75	13	0.75	Grass	6	Asphalt	5	Basement	refer to GIS for service to replace
2116 OWEN ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 4	32	0.75	8	0.75	Grass	6	Grass	5	Basement	
2120 OWEN ST	Verified Lead	Verified Galvanized	Verified Galvanized	Replace Full Service	Zone 4	32	0.75	8	0.75	Concrete	6	Concrete	5	Basement	
214 S 11TH ST	LeadSample Site	Verified No Lead	Verified No Lead	Replace Connection	Zone 1	36	Verify in Field	10	0.75	Concrete	6	Asphalt	5	Basement	refer to GIS for service to replace
2201 PARKWOOD AVE	Verified Lead	Verified Galvanized	Verified Need Letter	Replace Full Service	Zone 4	10	0.75	12	0.75	Grass	6	Concrete	5	Kitchen	
2202 BURT ST	LeadSample Site	Verified Galvanized	Verified No Lead	Replace Full Service	Zone 1	33	0.75	11	0.75	Grass	6	Concrete	5	Office	
2203 BURT ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 1	11	0.75	11	0.75	Grass	6	Concrete	5	Basement	
2204 PRESCOTT AVE	Verified Lead	Verified Galvanized	Verified Need Letter	Replace Full Service	Zone 4	27	0.75	13	0.75	Grass	6	Concrete	5	Basement	coordinate curb box relocation w/COS inspector
2205 CHERRY ST	Verified Lead	Verified Galvanized	Verified Need Letter	Replace Full Service	Zone 1	32	0.75	11	0.75	Grass	6	Concrete/Gravel	5	Basement	
2208 OWEN ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 4	30	0.75	11	0.75	Grass	6	Concrete	5	Basement	
2208 S JEFFERSON AVE	Verified No Lead	Verified Galvanized	Verified Galvanized	Replace Extension	Zone 4	9	0.75	12	0.75	Grass	20	Concrete	5	Basement	
2211 OWEN ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 4	10	0.75	11	0.75	Grass	6	Concrete	5	Basement	
2215 OWEN ST	Verified Lead	Verified Galvanized	Verified Galvanized	Replace Full Service	Zone 4	10	0.75	10	0.75	Grass	6	Asphalt	5	Basement	
2217 PARKWOOD AVE	Verified No Lead	Verified Galvanized	Verified Need Letter	Replace Extension	Zone 4	8	0.75	11	0.75	Grass	6	Asphalt	5	Basement	refer to GIS for service to replace
2224 CHERRY ST	Verified No Lead	Verified No Lead	Verified Need Letter	Replace Extension	Zone 1	12	0.75	11	0.75	Grass	6	Asphalt	5	Basement	
2225 PARKWOOD AVE	Verified No Lead	Verified Galvanized	Verified Need Letter	Replace Extension	Zone 4	11	0.75	13	0.75	Grass	12	Concrete	5	Basement	served off Hiland St. - see GIS

Street Address	Connection Material at Curb Stop	Extension Material at Curb Stop	Material Before Meter Set	Schedule for Replacement	Zone	Connection Length (ft) (from GIS)	Connection Size (in) (from GIS)	Extension Length (ft) (from GIS)	Extension Size (in) (from GIS)	Curb Box Surface Material (from GIS)	Water Main Size (in) (from GIS)	Driveway Surface Material	Distance to Ex. Plumbing Connection (ft) (assumed)	Meter Location (City billing data)	Notes
2226 OWEN ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 4	33	0.75	9	0.75	Grass	6	Asphalt	5	Basement	
2306 PRESCOTT AVE	Verified No Lead	Verified No Lead	Verified Need Letter	Replace Extension	Zone 4	28	0.75	11	0.75	Grass	6	Concrete	5	Basement	
2326 S JEFFERSON AVE	Verified No Lead	Verified Galvanized	Verified Need Letter	Replace Extension	Zone 4	8	0.75	11	0.75	Grass	20	Gravel	5	Mechanical Room	
234 S 4TH AVE	Verified Lead	Non-existent	Non-existent	Replace Connection	Zone 1	12	0.75	10	Verify in Field	Grass	6	Concrete	5	Basement	refer to GIS for service to replace
235 S 5TH AVE	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 1	32	0.75	12	0.75	Grass	10	Asphalt	5	Basement	
2401 PRESCOTT AVE	Verified No Lead	Verified Galvanized	Verified No Lead	Replace Extension	Zone 4	10	0.75	11	Verify in Field	Grass	6	Concrete	5	Basement	
2404 PRESCOTT AVE	Verified No Lead	Verified Galvanized	Verified Need Letter	Replace Extension	Zone 4	28	0.75	12	Verify in Field	Grass	6	Asphalt	5	Basement	
2502 S JEFFERSON AVE	Verified No Lead	Verified Galvanized	Verified Galvanized	Replace Extension	Zone 4	11	0.75	11	0.75	Gravel	20	Gravel	5	Basement	coordinate curb box relocation w/COS inspector
2503 PRESCOTT AVE	Verified Lead	Non-existent	Non-existent	Replace Connection	Zone 4	13	0.75	9	Verify in Field	Grass	6	Concrete	5	Office	refer to GIS for service to replace
2527 PRESCOTT AVE	Verified Lead	Verified Galvanized	Verified No Lead	Replace Full Service	Zone 4	12	0.75	10	0.75	Grass	6	Asphalt	5	Basement	
2532 S JEFFERSON AVE	Verified No Lead	Verified Galvanized	Verified Galvanized	Replace Extension	Zone 4	31	0.75	11	0.75	Grass	8	Concrete	5	Basement	
2604 S JEFFERSON AVE	Verified No Lead	Verified No Lead	Verified Galvanized	Replace Extension	Zone 4	30	0.75	13	0.75	Grass	8	Asphalt	5	Basement	
2610 S JEFFERSON AVE	Verified No Lead	Verified Galvanized	Verified Need Letter	Replace Extension	Zone 4	32	0.75	11	0.75	Grass	8	None	5	Basement	
3 JEFFERSON CT	Verified Lead	Verified Galvanized	Verified Galvanized	Replace Extension	Zone 2	18	0.75	6	0.75	Grass	4	Concrete	5	Basement	surface materials are assumed
3021 RUST AVE	Verified No Lead	Verified No Lead	Verified Need Letter	Replace Extension	Zone 5	11	0.75	11	0.75	Grass	6	Concrete	5	Basement	
3023 S JEFFERSON AVE	LeadSample Site	Verified No Lead	Verified No Lead	Replace Connection	Zone 4	12	0.75	9	0.75	Grass	8	Concrete	5	Office	
3106 FULTON ST	Verified No Lead	Verified No Lead	Verified Need Letter	Replace Extension	Zone 5	20	0.75	12	0.75	Grass	6	Concrete	5	Basement	
3118 S JEFFERSON AVE	Verified No Lead	Verified No Lead	Verified Galvanized	Replace Extension	Zone 4	33	0.75	12	0.75	Grass	8	Concrete	5	Basement	
3119 S JEFFERSON AVE	Verified Lead	Verified No Lead	Inactive Account Flagged	Replace Connection	Zone 4	12	0.75	12	0.75	Concrete	8	Concrete	5	Meter Pit	Meter Pit w/Touchpad
319 S 9TH ST	Verified Lead	Verified No Lead	Verified Galvanized	Replace Full Service	Zone 1	29	Verify in Field	15	0.75	Concrete	6	Pavers	5	Basement	refer to GIS for service to replace
3201 RUST AVE	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 5	11	0.75	12	0.75	Concrete	6	Concrete	5	Basement	
3212 ROBERTS ST	Verified No Lead	Verified Galvanized	Verified Galvanized	Replace Extension	Zone 5	24	0.75	10	Verify in Field	Grass	6	Asphalt	5	Basement	
3217 ROBERTS ST	Verified No Lead	Verified Galvanized	Verified No Lead	Replace Extension	Zone 5	8	0.75	10	Verify in Field	Grass	6	Concrete	5	Meter Pit	Meter Pit w/Touchpad
322 S 15TH ST	Verified No Lead	Verified No Lead	Verified Need Letter	Replace Extension	Zone 1	29	0.75	14	0.75	Grass	6	Concrete	5	Basement	
3221 RUST AVE	Verified Lead	Verified No Lead	Verified Lead	Replace Full Service	Zone 5	11	0.75	12	0.75	Grass	6	Gravel	5	Basement	
324 S 14TH ST	Verified No Lead	Verified Galvanized	Verified No Lead	Replace Extension	Zone 1	11	0.75	11	Verify in Field	Grass	6	Gravel	5	Basement	
328 S 13TH ST	Verified Lead	Verified Galvanized	Verified Need Letter	Replace Full Service	Zone 1	9	0.75	12	0.75	Grass	6	Gravel	5	Basement	
3302 RUCKLE ST	LeadSample Site	Verified Galvanized	Verified Galvanized	Replace Full Service	Zone 5	22	0.75	9	0.75	Grass	6	Asphalt	5	Basement	
3311 FULTON ST	Verified Lead	Verified Galvanized	Verified No Lead	Replace Full Service	Zone 5	6	0.75	12	Verify in Field	Concrete	6	Concrete	5	Basement	
3407 FULTON ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 5	12	1	9	0.75	Grass	6	Concrete	5	Basement	refer to GIS for service to replace
3410 RUST AVE	Verified No Lead	Verified Galvanized	Verified No Lead	Replace Extension	Zone 5	26	0.75	10	Verify in Field	Grass	6	Concrete	5	Meter Pit	Meter Pit w/Touchpad
3412 FULTON ST	Verified Lead	Verified Galvanized	Non-existent	Replace Full Service	Zone 5	22	0.75	11	0.75	Grass	6	Concrete	5	Basement	see layout in GIS
3419 ROBERTS ST	Verified Lead	Verified Galvanized	Verified Need Letter	Replace Full Service	Zone 5	9	0.75	9	0.75	Grass	6	Gravel	5	Basement	
342 S 13TH ST	Verified Lead	Verified Galvanized	Verified No Lead	Replace Full Service	Zone 1	8	0.75	14	0.75	Grass	6	Concrete	5	Kitchen	
343 S 14TH ST	Verified No Lead	Verified Galvanized	Verified No Lead	Replace Extension	Zone 1	31	0.75	13	Verify in Field	Grass	6	Pavers	5	Basement	
347 S 10TH ST	Verified Lead	Verified Galvanized	Verified Galvanized	Replace Full Service	Zone 1	10	0.75	13	0.75	Concrete	12	Concrete	5	Basement	
347 S 9TH ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 1	33	0.75	11	0.75	Grass	6	Concrete	5	Basement	
351 S 11TH ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 1	31	1	13	0.75	Grass	6	Asphalt	5	Basement	
351 S 5TH AVE	Verified No Lead	Verified Lead	Verified No Lead	Replace Extension	Zone 1	13	0.75	10	0.75	Concrete	6	Concrete	5	Office	
4 JEFFERSON CT	Verified Lead	Verified Galvanized	Verified Galvanized	Replace Full Service	Zone 2	6	0.75	6	0.75	Grass	4	Concrete	5	Basement	surface materials are assumed
430 S 17TH ST	LeadSample Site	Verified No Lead	Verified No Lead	Replace Connection	Zone 1	35	0.75	9	0.75	Grass	8	Concrete	5	Mechanical Room	
434 S 5TH AVE	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 1	33	0.75	12	0.75	Grass	6	Concrete	5	Basement	refer to GIS for service to replace
435 S 11TH ST	Verified Lead	Verified Galvanized	Verified Galvanized	Replace Full Service	Zone 1	32	0.75	12	0.75	Grass	6	Concrete	5	Bathroom	
443 S 17TH ST	Verified No Lead	Verified Galvanized	Verified Galvanized	Replace Extension	Zone 1	13	0.75	10	0.75	Grass	8	Concrete	5	Basement	coordinate curb box relocation w/COS inspector
447 S 4TH AVE	Verified Lead	Verified No Lead	Verified Need Letter	Replace Full Service	Zone 1	34	0.75	10	0.75	Grass	6	Concrete	5	Basement	
5 JEFFERSON CT	Verified Lead	Verified Galvanized	Verified Galvanized	Replace Full Service	Zone 2	18	0.75	6	Verify in Field	Grass	4	Concrete	5	Basement	surface materials are assumed
511 S 4TH AVE	Verified No Lead	Verified Galvanized	Verified No Lead	Replace Extension	Zone 3	33	0.75	10	0.75	Concrete	6	Gravel	5	Basement	coordinate curb box relocation w/COS inspector
513 S 10TH ST	LeadSample Site	Verified No Lead	Verified Galvanized	Replace Full Service	Zone 3	12	0.75	11	0.75	Grass	6	Dirt	5	Bathroom	
519 S 10TH ST	Verified No Lead	Verified No Lead	Verified Need Letter	Replace Extension	Zone 3	11	0.75	12	0.75	Grass	6	Dirt	5	Basement	
524 OWEN ST	Verified Lead	Verified No Lead	Verified Galvanized	Replace Full Service	Zone 2	31	0.75	14	0.75	Concrete	12	Asphalt	5	Basement	
526 S 4TH AVE	Verified No Lead	Verified No Lead	Verified Need Letter	Replace Extension	Zone 3	11	0.75	14	0.75	Grass	6	Concrete	5	Basement	
533 S 13TH ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 3	31	0.75	13	0.75	Grass	6	Pavers	5	Mechanical Room	refer to GIS for service to replace
537 S 15TH ST	Verified No Lead	Verified Galvanized	Verified Need Letter	Replace Extension	Zone 3	12	0.75	11	0.75	Grass	6	Gravel	5	Basement	
613 S 10TH ST	Verified Lead	Verified Galvanized	Verified Need Letter	Replace Full Service	Zone 3	9	0.75	12	0.75	Concrete	6	Concrete	5	Basement	refer to GIS for service to replace
618 S PARK AVE	Verified Lead	Verified Galvanized	Verified No Lead	Replace Full Service	Zone 2	32	1	11	0.75	Grass	6	Concrete	5	Basement	refer to GIS for service to replace; Caution - service crosses a 24" WM
639 S 14TH ST	Verified No Lead	Verified Galvanized	Verified Lead	Replace Extension	Zone 3	33	0.75	11	Verify in Field	Grass	6	Concrete	5	Basement	
643 S 15TH ST	LeadSample Site	Verified No Lead	Verified No Lead	Replace Connection	Zone 3	11	0.75	11	0.75	Grass	6	Gravel	5	Bathroom	
643 S 9TH ST	Verified No Lead	Verified No Lead	Verified Need Letter	Replace Extension	Zone 3	11	0.75	11	0.75	Grass	6	Concrete	5	Basement	
646 S 4TH AVE	Verified No Lead	Verified Galvanized	Verified Galvanized	Replace Extension	Zone 3	15	1	10	0.75	Grass	6	Concrete	5	Basement	refer to GIS for service to replace
648 S 10TH ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 3	34	1	10	0.75	Grass	6	Concrete	5	Bedroom	Caution - service crosses a 12" WM
648 S 4TH AVE	Verified No Lead	Verified Galvanized	Verified Galvanized	Replace Extension	not in GIS	15	1	10	0.75	Grass	6	Concrete	5	Basement	same parcel as 646 S. 4th Ave.;EXT017803
706 MEREDITH ST	Verified Lead	Verified Galvanized	Verified No Lead	Replace Full Service	Zone 2	11	0.75	11	0.75	Grass	6	Concrete	5	Basement	
708 S PARK AVE	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 2	34	0.75	10	0.75	Grass	6	Asphalt	5	Basement	Caution - service crosses a 24" WM
709 ATWATER ST	Verified Lead	Verified No Lead	Inactive Account Flagged	Replace Connection	Zone 2	10	0.75	13	0.75	Concrete	6	Concrete	5	Bathroom	
714 S 14TH ST	Verified Lead	Verified Galvanized	Verified No Lead	Replace Full Service	Zone 3	34	0.75	12	0.75	Grass	6	Concrete	5	Basement	
715 S 11TH ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 3	12	1	13	0.75	Grass	6	Concrete	5	Basement	
719 S 12TH ST	Verified No Lead	Verified Galvanized	Verified No Lead	Replace Extension	Zone 3	10	0.75	12	0.75	Grass	6	Concrete	5	Mechanical Room	refer to GIS for service to replace
724 S 14TH ST	Verified No Lead	Verified No Lead	Verified Need Letter	Replace Extension	Zone 3	33	0.75	12	0.75	Grass	6	Concrete	5	Utility Room	refer to GIS for service to replace
734 SIMONEAU ST	Verified Lead	Verified Galvanized	Verified Galvanized	Replace Full Service	Zone 2	33	0.75	13	0.75	Grass	4	Grass	5	Basement	
735 MEREDITH ST	LeadSample Site	Verified No Lead	Verified No Lead	Replace Connection	Zone 2	33	0.75	13	0.75	Grass	6	Concrete	5	Basement	
736 S 10TH ST	Verified Lead	Verified Galvanized	Verified Galvanized	Replace Full Service	Zone 3	32	0.75	11	0.75	Concrete	6	Gravel	5	Basement	Caution - service crosses a 12" WM
737 S 10TH ST	Verified Lead	Verified Galvanized	Verified Need Letter	Replace Full Service	Zone 3	12	1	12	0.75	Grass	6	Asphalt	5	Basement	
8 JEFFERSON CT	Verified Lead	Verified Galvanized	Verified Galvanized	Replace Full Service	Zone 2	6	0.75	7	0.75	Grass	4	Concrete	5	Basement	surface materials are assumed
807 SIMONEAU ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 2	10	0.75	12	0.75	Grass	6	Gravel	5	Basement	
811 S 11TH ST	Verified Lead	Verified No Lead	Verified Need Letter	Replace Full Service	Zone 3	12	0.75	11	0.75	Grass	6	Asphalt	5	Basement	
811 S 14TH ST	Verified No Lead	Verified Galvanized	Verified Need Letter	Replace Extension	Zone 3	8	0.75	15	0.75	Grass	6	Concrete	5	Basement	
813 PHELON ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 2	11	0.75	13	0.75	Concrete	6	Concrete	5	Basement	coordinate curb box relocation w/COS inspector
816 HOWARD ST	Verified Lead	Verified Galvanized	Verified Need Letter	Replace Full Service	Zone 2	36	1	8	0.75	Concrete	6	Concrete	5	Basement	
816 S PARK AVE	Verified No Lead	Verified No Lead	Verified Galvanized	Replace Extension	Zone 2	15	1.5	5	0.75	Grass	6	Concrete	5	Basement	refer to GIS for service to replace; Caution - service crosses a 24" WM
820 S 11TH ST	Verified No Lead	Verified Galvanized	Verified No Lead	Replace Extension	Zone 3	33	1	10	0.75	Grass	6	Concrete	5	Basement	CB next to large tree, in decorative landscaping
824 S PARK AVE	LeadSample Site	Verified No Lead	Verified No Lead	Replace Connection	Zone 2	14	1	10	0.75	Grass	6	Gravel	5	Basement	Caution - service crosses a 24" WM
833 S 11TH ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 3	13	0.75	12	0.75	Grass	6	Asphalt	5	Kitchen	refer to GIS for service to replace
834 S 4TH AVE	Verified Lead	Verified No Lead	Verified Need Letter	Replace Full Service	Zone 3	11	1	14	0.75	Grass	6	Dirt	5	Basement	
844 S 17TH ST	Verified No Lead	Verified No Lead	Verified Need Letter	Replace Extension	Zone 3	35	0.75	13	0.75	Grass	8	Concrete	5	Basement	
850 S 4TH AVE	LeadSample Site	Verified No Lead	Verified No Lead	Replace Connection	Zone 3	12	0.75	12	0.75	Grass	6	Gravel	5	Basement	
9 JEFFERSON CT	Verified Lead	Verified Galvanized	Verified Galvanized	Replace Full Service	Zone 2	18	0.75	7	0.75	Concrete	4	Concrete	5	Basement	surface materials are assumed
902 OWEN ST	Verified Lead	Verified No Lead	Verified Need Letter	Replace Full Service	Zone 2	29	0.75	15	0.75	Grass	16	Concrete	5	Basement	
904 WEBBER ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 4	12	0.75	13	0.75	Grass	6	None	5	Basement	
906 OWEN ST	Verified Lead	Verified No Lead	Verified Galvanized	Replace Full Service	Zone 2	33	0.75	10	0.75	Grass	16	Concrete	5	Basement	
910 OWEN ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 2	33	0.75	11	0.75	Grass	16	Concrete	5	Basement	refer to GIS for service to replace
910 WEBBER ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 4	10	0.75	15	0.75	Grass	6	Asphalt	5	Basement	refer to GIS for service to replace
911 EMERSON ST	Verified Lead	Verified Galvanized	Verified Galvanized	Replace Full Service	Zone 2	32	0.75	13	0.75	Grass	6	Pavers	5	Basement	
915 WEBBER ST	Verified Lead	Non-existent	Non-existent	Replace Connection	Zone 4	38	0.75	21	0.75	Grass	6	None	5	Basement	refer to GIS for service to replace
919 EMERSON ST	Verified Lead	Verified Galvanized	Verified Galvanized	Replace Full Service	Zone 2	27	1.5	17	0.75	Concrete	6	Concrete	5	Basement	
923 CHERRY ST	Verified Lead	Verified Galvanized	Verified Need Letter	Replace Full Service	Zone 2	11	1.5	97	0.75	Grass	6	Concrete	5	Basement	served off S. Park Ave. - see GIS
932 S 12TH ST	Verified No Lead	Verified Galvanized	Verified Need Letter	Replace Extension	Zone 3	33	1	15	0.75	Grass	6	Gravel	5	Basement	refer to GIS for service to replace
939 S 12TH ST	LeadSample Site	Verified No Lead	Verified No Lead	Replace Connection	Zone 3	10	0.75	13	0.75	Grass	6	Gravel	5	Basement	
950 S 12TH ST	Verified Lead	Verified No Lead	Verified No Lead	Replace Connection	Zone 3	31	0.75	12	0.75	Grass	6	Brick	5	Basement	

Council Communication

Item Number: 27.

Date: May 18, 2026

From: Timothy Morales, City Manager

Subject: Blanket Purchase Orders

Prepared By: Theodore (Ted) Bomba, Superintendent of Water Treatment

Manager's Recommendation:

Approve the blanket purchase orders for the specified vendors for a total amount of $180,000, for various parts, supplies, electrical, and mechanical repair services that will be needed to operate and maintain the Water and Wastewater Treatment Services Department, Water Treatment Division for FY2027, pending budget approval.

Justification:

Time and experience have shown that certain vendors reliably provide the lowest price on certain parts, supplies, and specialized repair services. These include plumbing and electrical, rental services, piping and valves, repair services, and repair parts only available from a sole source. Water Treatment personnel will continue to solicit quotes for items purchased to ensure that we obtain the lowest possible price. Issuing individual purchase orders is costly and administratively time-consuming; therefore, we are requesting authorization to issue blanket purchase orders as follows:

Vendor	Amount	GL Account #
Alro Steel Bay City, MI	$2,500.00	591-542.01-742.000
Central Metalizing Saginaw, MI (out-city)	$10,000.00	591-542.01-974.000
Elevator Service LLC Greenwich, CT	$6,000.00	591-542.01-801.000
Ferguson Enterprises Saginaw, MI (out-city)	$2,500.00	591-542.01-742.000

Grainger Saginaw, MI (out-city)	$2,500.00	591-542.01-742.000
Hamilton Electric Saginaw, MI (out-city)	$10,000.00	591-542.01-974.000
J.E. Johnson, Inc. Midland, MI	$2,500.00	591-542.01-801.000
John E. Green Company Saginaw, MI (out-city)	$25,000.00	591-542.01-930.000
Kraft Power Corporation Gaylord, MI	$20,000.00	591-542.01-930.000
KSS Enterprises Midland, MI	$2,500.00	591-542.01-735.000
Lingle Equipment Inc. Saginaw, MI (out-city)	$5,000.00	591-542.01-944.000
The Macomb Group Midland, MI	$2.500.00	591-542.01-742.000
Marshall Campbell Saginaw, MI	$5,000.00	591-542.01-742.000
Medler Electric Bay City, MI	$7,000.00	591-542.01-742.000
Michigan CAT Saginaw, MI (out-city)	$20,000.00	591-542.01-930.000
Oscar W. Larson, Co. Clarkston, MI	$15,000.00	591-542.01-801.000
Standard Electric Saginaw, MI (out-city)	$7,000.00	591-542.01-742.000
York Electric Bay City, MI	$10,000.00	591-542.01-974.000

William E. Walter, Inc. Flint, MI	$25,000.00	591-542.01-930.000

These vendors meet all requirements of §14.33, "Vendors," of "Purchasing, Contracting, and Selling Procedure," of Chapter 14, "Finance and Purchasing," of Title I, "Administrative Code," of the Saginaw Code of Ordinances, O-204.

Funds are budgeted in the Water Operations and Maintenance Fund, Treatment and Pumping Division, Cleaning Supplies 591-542.01-735.000 $2,500, Parts and Supplies Account No. 591-542.01-742.000 $29,000, Professional Services Account No. 591-742.01-801.000 $23,500, General Repairs Account No. 591-542.01-930.000 $90,000, Equipment Rental Account 591-542.01-944.000 $5,000.00 and Repairs and Replacements Account No. 591-542.01-974.000 $30,000, pending budget approval.

Council Action:

Motion to approve the recommendation of the City Manager.

Attachments:

None

Moved by Council Member _____, seconded by Council Member _____ to adopt an ordinance introduced April 13, 2026, entitled and reading as follows, be taken up and enacted:

O- _____

AN ORDINANCE TO AMEND §153-2.2 “DEFINITIONS,” §153-3.1.C(3) “SPECIAL LAND USES,” §153-3.1.F(2) “PERMITTED USES,” AND BY ADDING NEW SECTION §153-4.35 TITLED “MICRO DWELLING UNIT/MICRO DWELLING UNIT DEVELOPMENT” OF CHAPTER 153, “ZONING CODE,” OF TITLE XV, “LAND USAGE,” OF THE CITY OF SAGINAW CODE OF ORDINANCES, O-204.

The City of Saginaw Ordains:

Section 1. An ordinance to amend §153-2.2 “Definitions,” §153-3.1.C(3) “Special Land Uses,” §153-3.1.F(2) “Permitted Uses,” and by adding new section §153-4.35 titled “Micro Dwelling Unit/Micro Dwelling Unit Development” of Chapter 153, “Zoning Code,” of Title XV, “Land Usage,” of the City of Saginaw Code of Ordinances, O-204.

§153-2.2 – Add Dwelling, Micro Unit (MDU) definition.

Dwelling, Micro Unit (MDU)
A primary dwelling unit that is between 400 square feet and 600 square feet in size, built on an approved permanent, frost-free foundation, meeting current frost line requirements, the State of Michigan’s building and sanitary codes, and qualifying for a Certificate of Occupancy. Includes housing types commonly referred to as tiny homes, micro-units, bungalows, cottages, or economy efficient dwellings.

§153-3.1.C(3) – Add Micro Dwelling Unit (MDU)/Micro Dwelling Unit Development to the list of Special Land Uses under R-3, High Density Residential.

§153-3.1.F(3) – Add Micro Dwelling Unit (MDU)/Micro Dwelling Unit Development to the table as a Special Land Use on the ground floor of a primary street and on the ground floor of a secondary street under MU-1, Mixed Use 1.

§153-4.35 Micro Dwelling Unit/Micro Dwelling Unit Development

A. Purpose. Micro Dwelling Units are small dwellings that are designed to respond to changing family needs, smaller household sizes, and increasing housing costs. A Singular Micro Dwelling Unit may be developed on a single subject lot, or in a cluster with other Micro Dwelling Units under single common ownerships or through site condominium. Community buildings serving the MDU community may be permitted on the same lot. Developers are encouraged to build to the highest standards practicable.

B. Micro Dwelling Units are only permitted by Special Land Use in the R-3, High Density Residential and the MU-1, Mixed Use 1 Zoning Districts, or as an approved Planned Unit Development.

C. All Micro Dwelling Units must comply with all pertinent building and fire regulations.

D. All Micro Dwelling Units shall contain a storage area comprising of at least ten percent (10%) of the total area of the dwelling or have a storage area within an accessory structure.

E. Maximum Building Height for all Micro Dwelling Units: 1.5 stories/20 feet

F. All MDUs and additions must be firmly attached to a permanent, frost protected foundation constructed on the site meeting current frost line requirements and in accordance with the Michigan Residential building Code as adopted by the City of Saginaw. Movable structures or structures with wheels are prohibited.

G. Site Design for Micro Dwelling Unit/Micro Dwelling Unit Development.
    1. All building frontages shall be compliant with the applicable setback and setback zone requirements required by the underlying zoning district.

    2. No Micro Dwelling Unit shall be constructed with any building dimension across the front, side, or rear elevation which does not meet or exceed the minimum length of 20 feet. Micro Dwelling Unit Developments arranged in a cottage court design are exempt from this provision.

    3. Building and design standards shall be compliant with the requirements of the underlying zoning district.

H. All MDUs shall be connected to the public sewer and water supply when required by §94.080 through §94.083, or to such private facilities approved by the local health department.

I. All MDUs shall be made of high-quality, natural materials or engineered equivalent, and designed to fit within the traditional neighborhood context of the City of Saginaw. Encouraged design elements include pitched roofs with overhangs, aligned patterns of windows and doors, and defined front entrances.

J. A building permit must be obtained in accordance with the city building code and other building regulations before any construction may commence on any Micro Dwelling Unit.

K. Singular Micro Dwelling Units.
    1. Only one (1) singular Micro Dwelling Unit is permitted on a subject lot.

2. To the maximum extent practicable, the floor area of a proposed Singular Micro Dwelling Unit shall be the greater of 400 square feet, or no less than 50 percent (50%) of the average floor area of other single-family dwelling units within 200 feet of the subject lot along both sides of the street of the same block.

3. Residential Compatibility Design Standards: A Singular Micro Dwelling Unit shall be constructed to be generally compatible with other existing dwelling units on the same block face within 200 feet of the subject lot. The regulations apply where at least 50 percent (50%) of the residential lots along both faces of a block contain occupied dwelling units.

    a. This provision may be satisfied by constructing the Singular Micro Dwelling Unit, so at least three (3) of the following features are similar to the majority of the other dwelling units within 200 feet on the block face on both sides of the street:
        i. Roof style and overhang, including but not limited to gable, mansard, hip, A-frame, flat, etc.
        ii. Garage orientation and design, whether attached or detached
        iii. Building massing, including but not limited to a ranch with two-story attached garage, two-story with attached garage, bungalow, etc.
        iv. Front porches, whether present or not
        v. Exterior building material
        vi. Pattern of window and door openings, including but not limited to central door and three windows, offset door and four windows, etc.

L. Micro Dwelling Unit Developments.

1. Micro Dwelling Unit Developments shall consist of a minimum of four (4) micro dwelling units arranged on a single 10,000 square foot lot under single common ownership or through site condominium. Cottage Court style of development is permitted. For each additional 1,500 square feet of lot size, the required minimum number of Micro Dwelling Units shall increase by one (1).

2. No Micro Dwelling Unit shall be located closer than ten (10) feet to any other Micro Dwelling Unit or accessory structure.

3. Building Design. All Micro Dwelling Units shall be architecturally compatible with at least two other structures on the subject lot as determined by the Zoning Administrator.

4. Site Design.
    a. Buildings shall be arranged and clustered to maximize the opportunities for shared circulation, parking, loading/unloading, pedestrian walks, and access to open space. The overall design of the cluster shall be oriented toward the primary street.

    b. Sidewalk access to the front of each unit must be included from the primary street, parking areas, and open space.

Community buildings serving the Micro Dwelling Unit Development may be permitted on the same subject lot.

Section 2. This ordinance shall take effect on May 28, 2026. Enacted: May 18, 2026.

Yeas:
Nays:
Absent:

_____ _____

Brenda F. Moore
Mayor

Kristine Bolzman, MiPMC/MMC
City Clerk

ORDINANCE DECLARED ADOPTED

I, Kristine Bolzman, City Clerk of the City of Saginaw, Michigan, do hereby certify that the foregoing is a true and complete copy of the ordinance adopted by the City of Saginaw, Saginaw County, State of Michigan, at a public meeting held on May 18, 2026 the original thereof is on file in the records of my office; the meeting was conducted and public notice of said meeting was given pursuant to Act No. 267, Public Acts of Michigan, 1976, as amended, and minutes of this meeting were kept and will be made available as required.

_____

Kristine Bolzman, MiPMC/CMC
City Clerk

2026/2027 PROPOSED BUDGET

Moved by Council Member _____, seconded by Council Member _____ to adopt the following resolution:

WHEREAS: the City Charter requires the City Council, by resolution, to establish and adopt the budget, appropriate funds for the next fiscal year's expenditures, and to provide for a tax levy of the amount necessary to be raised by taxation at least 30 days prior to the first day of the upcoming fiscal year; and

WHEREAS: a public hearing on this fiscal year 2026-2027 budget was held on Monday, May 18, 2026, at 6:30 p.m., in accordance with Section 44 of the Charter of the City of Saginaw and State of Michigan Act 5 Public Acts of 1982, as amended; and

WHEREAS: the taxable value of real and personal property in the City has been determined to be $639,602,891 being 8.81% of $7,253,622,736 the December 31, 2025, calendar year 2026 total Ad Valorem taxable value of property in Saginaw County.

NOW, THEREFORE, BE IT RESOLVED, that the budget of the City of Saginaw for the fiscal year beginning July 1, 2026, as summarized below, is hereby adopted on a department (appropriation center) level in General Fund and at the fund level for all other funds, subject to all City Ordinance and policies regarding the expenditure of funds and the conditions set forth in this resolution. The financial summary of all funds for the fiscal year 2026-2027 budget is as follows:

General Fund Operating Fund - 101

Means of Financing:		
Property Tax	$ 4,214,889	
City Income Tax	17,991,000	
State Revenue Sharing	11,148,548	
Grants	2,963,572	
Licenses, Permits, and Fees	2,359,430	
Charges for Services & Sales	1,412,521	
Fines and Forfeitures	253,000	
Interest	1,313,795	
Rents	51,200	
Reimbursements	3,788,379	
Other Revenues	490,600	
Fund Balance	112,000.00	
Transfers	80,038	$ 46,178,972

Estimated Requirements:			
General Government	$ 4,147,150		
Fiscal Services	3,541,904		
Community Public Safety - Police	17,965,318		
Community Public Safety - Fire	10,084,443		
Neighborhood Services & Inspections	2,406,282		
Public Services	5,368,404		
Other Expenditures*	2,665,471	$	46,178,972

*Includes retiree healthcare insurance, unemployment, operating transfers, payment to other governmental entities, and contributions

Forest Lawn Cemetery Fund - 152

Means of Financing:			
Charge for Services	$ 29,674	$	29,674
Estimated Requirements:			
Increase in Fund Equity	$ 29,674	$	29,674

Oakwood Cemetery Fund - 153

Means of Financing:			
Charge for Services	$ 5,236	$	5,236
Estimated Requirements:			
Increase in Fund Equity	$ 5,236	$	5,236

Major Streets Fund - 202

Means of Financing:			
State Revenue Sharing	$ 11,249,264		
State Reimbursement	630,667		
Non Business Permits	21,500		
Services - Sales	24,500		
Interest and Rents	20,000		
Other Revenues	56,701		

Fund Equity	292,683	$	12,295,315
Estimated Requirements:			
Engineering Administration	$ 258,292		
Street Projects	5,408,753		
Bridge Projects	100,000		
Traffic Engineering	1,412,066		
Street Administration	696,845		
Routine Maintenance	2,525,036		
Bridge Maintenance	75,227		
Winter Maintenance	1,343,520		
State Trunkline	28,034		
State Routine Maintenance	91,583		
State Winter Maintenance	331,848		
Debt Service	9,953		
Transfers	14,158	$	12,295,315

Local Streets Fund - 203

Means of Financing:			
State Revenue	$ 3,184,374		
Interest	7,500		
Other Revenue	1,266,335		
Fund Equity	227,302	$	4,685,511
Estimated Requirements:			
Engineering Administration	$ 72,177		
Street Resurfacing	976,820		
Street Projects	57,691		
Traffic Engineering	435,303		
Street Administration	486,102		
Routine Maintenance	773,576		
Winter Maintenance	424,495		
Saginw County Road Millage	1,450,000		
Transfers	9,347	$	4,685,511

Public Safety Fund - 205				
Means of Financing:				
Property Taxes	$	3,899,141	$	3,899,141
Estimates Requirements:				
Community Public Safety - Police	$	2,611,951		
Community Public Safety - Fire		1,287,190	$	3,899,141
Rubbish Collection Fund - 226				
Means of Financing:				
Property Taxes	$	2,947		
Services and Sales		500		
Charges for Service		2,853,628		
Interest and Rents		121,500		
Other Revenues		1,878,420		
Fund Equity		484,090	$	5,341,085
Estimates Requirements:				
Administration	$	856,986		
Rubbish Collections		1,605,441		
Environmental Improvement		414,400		
Sanitary Landfill		8,000		
Brush Collections		466,653		
Recycling		490,722		
Composting		418,469		
Yard Waste		916,332		
Debt Service		12,941		
Transfers		151,141	$	5,341,085
Clean Energy Coalition - 230				
Means of Financing:				
Transfers	$	40,000	$	40,000

Estimated Requirements:				
Clean Energy Coalition	$	40,000	$	40,000

Andersen Enrichment Center - 236

Means of Financing:				
Charge for Services	$	29,000		
Interest and Rents		68,000		
Other Revenues		15,000	$	112,000
Estimated Requirements:				
Andersen Enrichment Center	$	112,000	$	112,000

Saginaw Arts and Enrichment Commission - 237

Means of Financing:				
Donations	$	106,002		
Interest and Rents		3,500		
Other Revenues		39,500	$	149,002
Estimated Requirements:				
Arts and Enrichment Commission	$	149,002	$	149,002

Brownfield Authority - 243

Means of Financing:				
Property Taxes	$	147,568		
Revolving Loan		200,000	$	347,568
Estimated Requirements:				
Tax Increment Payments	$	347,568	$	347,568

Downtown Development Authority - 2011 - 248				
Means of Financing:				
Property Taxes	$	189,695		
Transfers		42,000	$	231,695
Estimated Requirements:				
Grants	$	42,000		
2-Mill Levy		189,695	$	231,695
Redevelopment Grant				
Police Training Fund - 252				
Means of Financing:				
State Grants	$	15,000	$	15,000
Estimated Requirements				
Police Training	$	15,000	$	15,000
Drug Forfeiture Fund - 262				
Means of Financing:				
Interests and Rents	$	1,000		
Other Revenues		30,000	$	31,000
Estimated Requirements:				
Drug Forfeitures	$	31,000	$	31,000
DOJ - JAG Grant Fund - 266				
Means of Financing:				
Grants	$	0	$	0
Estimated Requirements:				
Justice Assistance Grant	$	0	$	0

Community Development Block Grant (CDBG) Fund - 275

Means of Financing:				
Federal Grants	$	2,192,977		
Other Revenues		11,507	$	2,204,484
Estimated Requirements:				
CDBG Administration	$	463,515		
Special Projects		617,229		
Economic Development		42,000		
Economic Development Subgrantees		298,038		
Saginaw Economic Development Corp.		176,469		
Code Compliance		32,603		
Subgrantees		400,000		
McKinney Homeless		174,630	$	2,204,484

CDBG Residential Loan Fund - 276

Means of Financing:				
Federal Grants	$	674,500	$	674,500
Estimated Requirements:				
Residential Loans	$	362,546		
Single Family		311,954	$	674,500

Home Program - 278

Means of Financing:				
Federal Grants	$	1,460,989	$	1,460,989
Estimated Requirements:				
Home Program	$	550,000		
		910,989	$	1,460,989

SEDC Revolving Loan Fund - 280

Means of Financing:				
Interest and Rents	$	40,000		
Other Revenues		178,480	$	218,480
Estimated Requirements:				
SEDC	$	218,480	$	218,480

National Opioid Settlement Fund - 284

Means of Financing:				
Fund Equity	$	166,133	$	166,133
Estimated Requirements:				
National Opioid	$	166,133	$	166,133

American Rescue Plan Act Fund - 285

Means of Financing:				
Federal Grant		1,410,144	$	1,410,144
Estimated Requirements:				
Public Health	$	52,938		
Negative Economic Impact		219,246		
Revenue Replacement		1,137,960	$	1,410,144

Saginaw Medical Facility Fund - 286

Means of Financing:				
Grants	$	20,000,000	$	20,000,000
Estimated Requirements:				
Saginaw Medical Facility	$	20,000,000	$	20,000,000

Unfunded Liability Fund - 296

Means of Financing:				
Other Revenues	$	178,000	$	178,000
Estimated Requirements:				
Increase Fund Equity	$	178,000	$	178,000

Capital Project Fund - 401

Means of Financing:				
Transfers	$	496,183	$	496,183
Estimated Requirements:				
General Fund	$	350,997		
Rubbish Collection Fund		145,186	$	496,183

Sewer Operations and Maintenance Fund - 590

Means of Financing:				
Grants	$	50,000		
Non Business Permits		600		
Services and Sales		25,347,836		
Fines and Forfeitures		68,000		
Interest and Rents		671,500		
Other Revenues		18,957,029		
Retianed Earnings		7,712,041	$	52,807,006
Estimated Requirements:				
Sewer Administration	$	1,794,024		
Engineering Administration		402,131		
Process Control Systems		1,851,033		
Meter Maintenance and Services		745,404		
Maintenance and Services		4,811,929		
Catch Basin Cleaning		710,363		
Treatment and Pumping		13,381,449		
Sewer Asset Management		422,460		
Remote Facilities		4,802,570		
Sewer Surplus		12,072,472		

Sewer Bond Construction	10,842,000	
Debt Service	229,851	
Customer Accounting	714,643	
Transfers	26,677	$ 52,807,006

Water Operations and Maintenance Fund - 591

Means of Financing:		
Grants	$ 50,000	
Services - Sales	31,710,000	
Interest and Rents	614,558	
Reimbursement	21,687	
Other Revenues	13,770,000	
Retained Earnings	20,357,571	$ 66,523,816
Estimated Requirements:		
Cross Connections	$ 144,175	
Water Administration	1,628,926	
Engineering Administration	850,479	
Process Control Systems	1,872,511	
Meter Maintenance and Services	688,764	
Maintenance and Services	4,618,031	
Lead & Copper Replacement	3,037,051	
Treatment and Pumping	11,190,164	
Water Asset Management	1,009,054	
Raw Water	1,300,000	
Water Surplus	22,219,500	
Water Bond Construction	13,200,000	
Debt Service	4,011,588	
Customer Accounting	732,365	
Transfers	21,208	$ 66,523,816

Boat Launch Operations Fund - 594

Means of Financing:				
Charges for Service	$	25,000	$	25,000
Estimated Requirements:				
Boat Launch Operations	$	25,000	$	25,000

Public Works Building Fund - 601

Means of Financing:				
Services and Sales	$	629,977		
Other Revenues		6,000	$	635,977
Estimated Requirements:				
Public Works Building	$	635,977	$	635,977

Technical Services - Geographical Information Systems Fund - 650

Means of Financing:				
Charge for Services	$	392,185	$	392,185
Estimated Requirements:				
Geographical Information Systems	$	392,185	$	392,185

Technical Services - Information Services Fund - 658

Means of Financing:				
Charge for Services	$	2,545,039		
Sale of Property		2,897	$	2,547,936
Estimated Requirements:				
Information Services	$	2,547,936	$	2,547,936

Radio Operations Fund - 660

Means of Financing:				
Charge for Services	$	177,109		
Interest		2,532		
Reimbursement		170	$	179,811
Estimated Requirements:				
Radio Operations	$	179,811	$	179,811

Motor Pool Operations Fund - 661

Means of Financing:				
Charge for Services	$	3,236,569		
Interest		5,746		
Reimbursement		4,760		
Other Revenues		19,809	$	3,266,884
Estimated Requirements:				
Garage - Administration	$	1,459,631		
Garage - Operations		1,807,253	$	3,266,884

Self-Insurance Fund - 677

Means of Financing:				
Charge for Services	$	2,718,543		
Interest		1,400		
Reimbursements		4,707	$	2,724,650
Estimated Requirements:				
Self-Insurance	$	2,724,650	$	2,724,650

Workers Compensation Fund - 678

Means of Financing:				
Charge for Services	$	1,378,365	$	1,378,365
Estimated Requirements:				
Workers Compensation Administration	$	1,058,950		
Employee Health		319,415	$	1,378,365

TOTAL GENERAL FUNDS AND OTHER FUNDS $230,651,742

RESOLVED FURTHER, that budgetary control is exercised at the department (appropriation center) level in the General Fund and at the fund level for all other funds. The City Manager is hereby empowered to transfer appropriations within appropriation centers. General Fund line-item budget transfers from one account to another within the same appropriation center can be made without City Council approval. All budget transfers from one appropriation center to another or from the General Fund Contingent Appropriation center account must be approved by City Council. In all other funds, line-item budget transfers from one account to another within the same department and fund can be made without City Council approval; and

RESOLVED FURTHER, that there is hereby a 7.500 mills on each dollar of taxable value of real property for the purpose of public safety, and in the amount of 5.9861 mills on each dollar of taxable value for the purpose of meeting all other municipal requirements for said fiscal year, said levy to be applied on all the taxable real and personal property in the City of Saginaw as set forth in the assessment roll for 2026; and

RESOLVED FURTHER, that there is hereby levied against each household unit, the fee of $250.00 per unit for the collection, disposal, recycling, processing, and marketing of solid waste collection, including materials to be placed in a landfill or composted, whether such services are provided by the City or its commercial hauler. The charges for unpaid rubbish services shall become a lien against the property in accordance with MCL 141.121, as amended; and

RESOLVED FURTHER, that the Treasurer and/or Deputy Treasurer in his/her capacity as City Treasurer and/or Deputy Treasurer be authorized and directed to accept payment of taxes and special assessment due July 1, 2026 without additional charge up to and including July 31, 2026 provided that after said thirty-first day of July, 2026 there shall be added one-half percent collection fee to taxes and special assessments remaining unpaid, as required by Section 60 of the City Charter, and

RESOLVED FURTHER, that the Treasurer and/or Deputy Treasurer in his/her capacity as City Treasurer and/or Deputy Treasurer be authorized and directed to accept partial payment of taxes and special assessments in four or less equal installments for a period not extending beyond March 1, 2027, with interest as follows:

To July payments add	0.0%
To August payments add	1.0%
To September payments add	1.5%
To October payment add	2.0%
To November payment add	2.5%
To December payment add	3.0%
To January payment add	3.5%
To February payment add	4.0%

RESOLVED FURTHER, that the fiscal year 2026-2027 General Fund Budget be automatically amended on July 1, 2026, to re-appropriate encumbrances outstanding and reserved at June 30, 2026, and capital allocations as determined appropriate by the City Manager; and

RESOLVED FURTHER, that the personnel complement be amended to incorporate those changes contained in the fiscal year 2026-2027 Budget; and

RESOLVED FURTHER, that the City Manager be authorized to adjust the compensation levels for City Employees restricted within the applicable pay range contained in the fiscal year 2026-2027 Budget.

Ayes:
Nays:
Absent:

RESOLUTION DECLARED ADOPTED

I, Kristine Bolzman, City Clerk of the City of Saginaw, Michigan, do hereby certify that the foregoing is a true and complete copy of the resolution adopted by the City of Saginaw, Saginaw County, State of Michigan, at a public meeting held on May 18, 2026; the original thereof is on file in the records of my office; the meeting was conducted and public notice of said meeting was given pursuant to Act No. 267, Public Acts of Michigan, 1976, as amended, and minutes of this meeting were kept and will be made available as required.

_____
Kristine Bolzman, MiPMC/CMC
City Clerk

RESOLUTION R-2

2026/2027 PUBLIC SAFETY MILLAGE

Moved by Council Member _____, seconded by Council Member _____ to adopt the following resolution:

WHEREAS: the Council of the City of Saginaw, pursuant to the authority granted by Act No. 33 of the Public Acts of 1951, as amended, created a special assessment district in 2006 with an assessment to be determined each year, with the proceeds dedicated to pay for the costs of police and fire protection for the City of Saginaw; and

WHEREAS: the proposal to further authorize the Council to create a special assessment district with a millage rate not to exceed seven and one-half (7.5000) mills was approved by voters at an election held on February 27, 2024; and

WHEREAS: a public hearing shall be held on May 18, 2026, on the estimate for funding the special assessment district for 2027 and defraying the expenses for police and fire by special assessment on the property to be especially benefited.

NOW, THEREFORE, BE IT RESOLVED, that the District shall be the entire City of Saginaw and that seven and one-half (7.5000) mills on the taxable value of all real property in the district is the amount necessary to defray the expenses for police and fire services by special assessment on the property to be especially benefited.

Ayes:
Nays:
Absent:

RESOLUTION DECLARED ADOPTED

I, Kristine Bolzman, City Clerk of the City of Saginaw, Michigan, do hereby certify that the foregoing is a true and complete copy of the resolution adopted by the City of Saginaw, Saginaw County, State of Michigan, at a public meeting held on May 18, 2026; the original thereof is on file in the records of my office; the meeting was conducted and public notice of said meeting was given pursuant to Act No. 267, Public Acts of Michigan, 1976, as amended, and minutes of this meeting were kept and will be made available as required.

_____
Kristine Bolzman, MiPMC/CMC
City Clerk

RESOLUTION R-3

APPROVING THE REQUEST OF THE DOWNTOWN DEVELOPMENT AUTHORITY TO LEVY A 2 MILL TAX ON ALL REAL AND TANGIBLE PERSONAL PROPERTY NOT EXEMPT BY LAW AND AS FINALLY EQUALIZED IN THE DOWNTOWN DEVELOPMENT DISTRICT FOR FISCAL YEAR 2027

Moved by Council Member _____, seconded by Council Member _____ to adopt the following resolution:

WHEREAS: Part 2, Downtown Development Authorities, of Michigan's Recodified Tax Increment Financing Act, being Public Act 57 of 2018, as amended, authorizes the Saginaw Downtown Development Authority to levy not more than two mills of tax on the real and tangible personal property not exempt by law and as finally equalized in the Downtown District, which is also sometimes referred to as the Downtown Development Authority District; and

WHEREAS: The Saginaw Downtown Development Authority, at a regular meeting of its board on March 28, 2017, found and determined that the levying of such tax is necessary to carry out the purposes for which it was created, including to correct and prevent deterioration in the Downtown District and promote economic growth therein; and

WHEREAS: The Saginaw Downtown Development Authority had held an informational public meeting on March 14, 2017, pursuant to notice requesting input from property owners within the Downtown District, and all affected individuals were provided the opportunity to speak in support of or objection to the levying of such a tax; and

WHEREAS: The Council for the City of Saginaw approves the levying of such a tax to halt property value deterioration and increase property valuation where possible in the Downtown District and to eliminate the causes of that deterioration and to promote economic growth.

NOW, THEREFORE, BE IT RESOLVED, that the City of Saginaw approves the levy of a 2 mill ad valorem tax on all real and tangible personal property not exempt by law and as finally equalized in the Downtown District.

BE IT FURTHER RESOLVED, that all officials and employees of the Saginaw Downtown Development Authority and the City of Saginaw are hereby directed and authorized to take whatever action is necessary and proper to levy the 2 mills for fiscal year 2027.

Ayes:
Nays:
Absent:

RESOLUTION DECLARED ADOPTED

I, Kristine Bolzman, City Clerk of the City of Saginaw, Michigan, do hereby certify that the foregoing is a true and complete copy of the resolution adopted by the City of Saginaw, Saginaw County, State of Michigan, at a public meeting held on May 18, 2026; the original thereof is on file in the records of my office; the meeting was conducted and public notice of said meeting was given pursuant to Act No. 267, Public Acts of Michigan, 1976, as amended, and minutes of this meeting were kept and will be made available as required.

_____
Kristine Bolzman, MiPMC/CMC
City Clerk

RESOLUTION R-4

ADOPTING A FINAL PROJECT PLANNING DOCUMENT AMENDMENT FOR WATER MAIN IMPROVEMENTS AND DESIGNATING AN AUTHORIZED PROJECT REPRESENTATIVE

Moved by Council Member _____, seconded by Council Member _____ to adopt the following resolution:

WHEREAS: the City of Saginaw recognizes the need to make improvements to its existing water system, consisting of water main improvement projects; and

WHEREAS: the City of Saginaw authorized Fishbeck, Inc. to prepare a Project Planning Document Amendment which recommends water main improvement projects; and

WHEREAS: said Project Planning Document Amendment was presented at a Public Hearing held on May 18, 2026, and all public comments have been considered and addressed.

NOW THEREFORE BE IT RESOLVED, that the City Council for the City of Saginaw formally adopts said Project Planning Document Amendment and agrees to implement the water main improvement projects (Selected Alternative).

BE IT FURTHER RESOLVED, that the Director of the Department of Water and Wastewater Treatment Services, a position currently held by Michael Grenier, is designated as the authorized representative for all activities associated with the project referenced above, including the submittal of said Project Planning Document Amendment as the first step in applying to the State of Michigan for a Drinking Water State Revolving Fund Loan to assist in the implementation of the selected alternatives.

Ayes:
Nays:
Absent:

RESOLUTION DECLARED ADOPTED

I, Kristine Bolzman, City Clerk of the City of Saginaw, Michigan, do hereby certify that the foregoing is a true and complete copy of the resolution adopted by the City of Saginaw, Saginaw County, State of Michigan, at a public meeting held on May 18, 2026; the original thereof is on file in the records of my office.

_____
Kristine Bolzman, MiPMC/CMC
City Clerk

A RESOLUTION TO TENTATIVELY AWARD A CONSTRUCTION CONTRACT FOR N. MASON WATER MAIN & DEAD-END LOOPING DWSRF 7900.01 (C-1724)

Moved by Council Member _____, seconded by Council Member _____ to adopt the following resolution:

WHEREAS: the City of Saginaw wishes to construct improvements to its existing water treatment and distribution system; and

WHEREAS: the water system improvements project formally adopted on April 16, 2026 will be funded through the State of Michigan's Drinking Water State Revolving Fund (DWSRF) program; and

WHEREAS: the City of Saginaw has sought and received construction bids for the proposed improvements and has received a low bid in the amount of $2,684,776.00 from L. D'Agostini & Sons Inc; and

WHEREAS: the City of Saginaw's engineer, Travis Hare has recommended awarding the contract to the low bidder.

NOW, THEREFORE, BE IT RESOLVED, that the City of Saginaw tentatively awards the contract for construction of the proposed water system improvements project to L. D'Agostini & Sons Inc., contingent upon successful financial arrangements with the DWSRF.

Yeas:
Nays:
Absent:

RESOLUTION DECLARED ADOPTED

I, Kristine Bolzman, City Clerk of the City of Saginaw, Michigan, do hereby certify that the foregoing is a true and complete copy of the resolution adopted by the City of Saginaw, Saginaw County, State of Michigan, at a public meeting held on May 18, 2026; the original thereof is on file in the records of my office; the meeting was conducted and public notice of said meeting was given pursuant to Act No. 267, Public Acts of Michigan, 1976, as amended, and minutes of this meeting were kept and will be made available as required.

_____
Kristine Bolzman, MiPMC/CMC
City Clerk

A RESOLUTION TO TENTATIVELY AWARD A CONSTRUCTION CONTRACT FOR WATER SYSTEM IMPROVEMENTS FOR LEAD SERVICE LINE REPLACEMENTS (C-1725)

Moved by Council Member _____, seconded by Council Member _____ to adopt the following resolution:

WHEREAS: the City of Saginaw wishes to construct improvements to its existing water treatment and distribution system; and

WHEREAS: the water system improvements project formally adopted on April 16, 2026 will be funded through the State of Michigan's Drinking Water State Revolving Fund (DWSRF) program; and

WHEREAS: the City of Saginaw has sought and received construction bids for the proposed improvements and has received a low bid in the amount of $1,526,335.00 from Super Construction LLC.

WHEREAS: the City of Saginaw's engineer, Travis Hare has recommended awarding the contract to the low bidder.

NOW, THEREFORE, BE IT RESOLVED, that the City of Saginaw tentatively awards the contract for construction of the proposed water system improvements project to Super Construction LLC., contingent upon successful financial arrangements with the DWSRF.

Yeas:
Nays:
Absent:

RESOLUTION DECLARED ADOPTED

I, Kristine Bolzman, City Clerk of the City of Saginaw, Michigan, do hereby certify that the foregoing is a true and complete copy of the resolution adopted by the City of Saginaw, Saginaw County, State of Michigan, at a public meeting held on May 18, 2026; the original thereof is on file in the records of my office; the meeting was conducted and public notice of said meeting was given pursuant to Act No. 267, Public Acts of Michigan, 1976, as amended, and minutes of this meeting were kept and will be made available as required.

_____
Kristine Bolzman, MiPMC/CMC
City Clerk

SUPPLEMENTAL RESOLUTION AUTHORIZING ISSUANCE OF WATER SUPPLY SYSTEM JUNIOR LIEN REVENUE BONDS, SERIES 2026

Moved by Council Member _____, seconded by Council Member _____ to adopt the following resolution:

WHEREAS: by resolution adopted on March 6, 2000 (the "Resolution"), the City Council of the City of Saginaw authorized the issuance of its Water Supply System Revenue and Revenue Refunding Bonds, Series 2000 in the aggregate principal amount of $10,010,000 (the "Series 2000 Bonds") under Act 94, Public Acts of Michigan, 1933, as amended ("Act 94"), to finance improvements to the System (as defined in the Resolution) and to refund then outstanding water supply system revenue bonds of the City; and

WHEREAS: by resolution adopted on December 17, 2007 that supplemented the Resolution (the "2008 Supplemental Resolution"), the City Council of the City authorized the issuance of its Water Supply System Revenue Bonds, Series 2008 in the aggregate principal amount of $11,100,000 (the "Series 2008 Bonds") under Act 94 to finance improvements to the System; and

WHEREAS: by resolution adopted on October 25, 2010 that supplemented the Resolution (the "2011A Supplemental Resolution"), the City Council of the City authorized the issuance of its Water Supply System Revenue Bonds, Series 2011A in the aggregate principal amount of $18,000,000 (the "Series 2011A Bonds") under Act 94 to finance improvements to the System; and

WHEREAS: by resolution adopted on August 22, 2016 that supplemented the Resolution (the "2016 Supplemental Resolution"), the City Council of the City authorized the issuance of its Water Supply System Revenue and Revenue Refunding Bonds, Series 2016 in the aggregate principal amount of $23,730,000 (the "Series 2016 Bonds") under Act 94 to finance improvements to the System and to advance refund a portion of the Series 2008 Bonds; and

WHEREAS: by resolution adopted on March 22, 2021 that supplemented the Resolution (the "2021 Supplemental Resolution"), the City Council of the City authorized the issuance of its Water Supply System Revenue and Revenue Refunding Bonds, Series 2021 in the aggregate principal amount of $18,225,000 (the "Series 2021 Bonds") under Act 94 to finance improvements to the System and to advance refund a portion of the Series 2011A Bonds; and

WHEREAS: by resolution adopted on March 7, 2022 that supplemented the Resolution, as amended on August 15, 2022 (as amended, the "2022 Supplemental Resolution"), the City Council of the City authorized the issuance of its Water Supply System Junior Lien Revenue Bonds, Series 2022 in the aggregate principal amount of $5,000,000 (the "Series 2022 Bonds") under Act 94 to finance improvements to the System; and

WHEREAS, the Series 2022 Bonds were sold to the Michigan Finance Authority (the "Authority") in order to receive a subsidized interest rate through participation in the State of Michigan Drinking Water Revolving Fund Program; and

WHEREAS: by resolution adopted on July 28, 2025 that supplemented the Resolution, (the "2025 Supplemental Resolution"), the City Council of the City authorized the issuance of its Water Supply System Junior Lien Revenue Bonds, Series 2025 in the aggregate principal amount of $18,800,000 (the "Series 2025 Bonds") under Act 94 to finance improvements to the System; and

WHEREAS, the Series 2025 Bonds were sold to the Michigan Finance Authority (the "Authority") in order to receive a subsidized interest rate through participation in the State of Michigan Drinking Water Revolving Fund Program; and

WHEREAS, the Resolution authorizes the issuance of Junior Lien Bonds (as defined therein) for any lawful purpose of the System which are of junior standing and priority of lien with respect to the Net Revenues to the claim of the Series 2000 Bonds, the Series 2008 Bonds, the Series 2011A Bonds, the Series 2016 Bonds and the Series 2021 Bonds, and which are of equal priority of lien with respect to the Series 2022 Bonds and the Series 2025 Bonds; and

WHEREAS: this City Council does hereby determine that it is necessary to acquire and construct the 2026 Water Projects (as hereinafter defined); and

WHEREAS: the cost of the 2026A Water Project is estimated to be Six Million Eight Hundred Forty-Five Thousand Dollars ($6,845,000); and

WHEREAS: the cost of the 2026B Water Project is estimated to be Two Million Three Hundred Thousand Dollars ($2,300,000); and

WHEREAS: the City desires to issue a series of Junior Lien Bonds, as authorized by the Resolution and Act 94, to pay all or part of the cost of acquiring, constructing and installing the 2026 Water Projects and to sell such bonds in a private negotiated sale to the Authority as authorized by Act 227, Public Acts of Michigan, 1985, as amended ("Act 227"), in order to enable the Authority to provide assistance with respect to the 2026 Water Projects from the proceeds of the State of Michigan Drinking Water Revolving Fund.

NOW, THEREFORE, BE IT RESOLVED, that the City Council of the City of Saginaw, Saginaw County, Michigan, as follows:

1. 2026 SUPPLEMENTAL RESOLUTION. This resolution (hereinafter referred to as the "2026 Supplemental Resolution") is adopted in accordance with Section 26(a)(i) of the Resolution and pursuant to the authority contained in Act 94.

2. DEFINITIONS. All terms which are defined in Section 1 of the Resolution shall have the same meanings in this 2026 Supplemental Resolution including the preambles thereto. In addition, the following terms shall have the following meanings in this 2026 Supplemental Resolution:

    a. ”2026 Water Projects” means, collectively, the 2026A Water Project and the 2026B Water Project”.
    b. “2026A Water Project” means the improvements to the System, consisting without limitation of the replacement of water main and the construction of a new looped connection from A Street through Larch Street along the Huron and Eastern Railway, eliminating dead-end water mains, as well as all work, equipment and appurtenances necessary or incidental to such improvements.
    c. “2026B Water Project” means the improvements to the System, consisting without limitation of the replacement of water service lines along N. Mason Street between Houghton Street and State Street, and along Perkins Street between Genesee Street and 17th Street, in the City; as well as all work, equipment and appurtenances necessary or incidental to such improvements.
    d. “Code” means the Internal Revenue Code of 1986, as amended, and the rules and regulations promulgated thereunder.
    e. “Contract Documents” means the Purchase Contract between the City and the Authority, the Supplemental Agreement by and among the City, the Authority and the State of Michigan acting through the Department of Environment, Great Lakes, and Energy, and the Issuer’s Certificate for each series of the Series 2026 Bonds, or such other closing documents required by the Authority for the issuance of each series of the Series 2026 Bonds.
    f. “Sale Order” means each written order of the City Manager or the City Manager’s designee (either, the “Authorized Officer”) approving each respective sale of the Series 2026A Bonds and the Series 2026B Bonds and making certain determinations regarding the final terms thereof within the parameters of this 2026 Supplemental Resolution.
    g. “Series 2026 Bonds” means, collectively, the Series 2026A Bonds and the Series 2026B Bonds.
    h. “Series 2026A Bonds” means the City’s Water Supply System Junior Lien Revenue Bonds, Series 2026A, as authorized by this 2026 Supplemental Resolution.
    i. “Series 2026B Bonds” means the City’s Water Supply System Junior Lien Revenue Bonds, Series 2026B, as authorized by this 2026 Supplemental Resolution.
    j. “Series 2026 Issue Date” means the date on which the Series 2026 Bonds are issued and delivered to the original purchaser upon receipt of payment therefor.

k. “Tax-Exempt Bonds” means any Series 2026 Bonds, the interest on which is excludable from gross income for federal income tax purposes under the Code.

3. NECESSITY; PUBLIC PURPOSE. It is hereby determined to be a necessary public purpose of the City to acquire, construct and install the 2026 Water Projects.

4. ESTIMATES OF PERIOD OF USEFULNESS AND COST. The Council adopts the estimates of 40 years and upwards as the period of usefulness of each of the 2026 Water Projects; and $6,845,000 as the cost of the 2026A Water Project (including no capitalized interest), and $2,300,000 as the cost of the 2026B Water Project (including no capitalized interest), which estimates are now on file with the City Clerk.

5. AUTHORIZATION OF SERIES 2026 BONDS - PURPOSE. To pay part of the cost of acquiring, constructing and installing the 2026 Water Projects, the City shall borrow the aggregate sum of not to exceed Nine Million One Hundred Forty-Five Thousand Dollars ($9,145,000), consisting of the following.

   a. To pay part of the cost of acquiring, constructing and installing the 2026A Water Project, the City shall borrow the sum of not to exceed Six Million Eight Hundred Forty-Five Thousand Dollars ($6,845,000), as finally determined in the Sale Order or such lesser amount thereof as shall have been advanced to the City pursuant to the Contract Documents, and issue the Series 2026A Bonds therefor pursuant to the provisions of Act 94. The remaining costs, including payment of legal, financial and other expenses incident thereto and incident to the issuance and sale of the Series 2026A Bonds, are to be paid from the City's available funds on hand.
   b. To pay part of the cost of acquiring, constructing and installing the 2026B Water Project, the City shall borrow the sum of not to exceed Two Million Three Hundred Thousand Dollars ($2,300,000), as finally determined in the Sale Order or such lesser amount thereof as shall have been advanced to the City pursuant to the Contract Documents, and issue the Series 2026B Bonds therefor pursuant to the provisions of Act 94. The remaining costs, including payment of legal, financial and other expenses incident thereto and incident to the issuance and sale of the Series 2026B Bonds, are to be paid from the City's available funds on hand.
   c. During the time funds are being drawn down by the City under each of the Series 2026 Bonds, the Authority will periodically provide the City a statement showing the amount of principal that has been advanced and the date of each advance, which statement shall constitute prima facie evidence of the reported information; provided that no failure on the part of the Authority to provide such a statement or to reflect a disbursement or

the correct amount of a disbursement shall relieve the City of its obligation to repay the outstanding principal amount actually advanced (subject to any principal forgiveness as provided for in each of the Series 2026 Bonds), all accrued interest thereon, and any other amount payable with respect thereto in accordance with the terms of each of the Series 2026 Bonds.

6. SERIES 2026 BOND DETAILS.

   a. The Series 2026A Bonds shall be designated "Water Supply System Junior Lien Revenue Bonds, Series 2026A;" shall be payable out of Net Revenues, as more fully set forth in Section 7 of the Resolution; shall be issued as one fully registered manuscript bond, shall be sold and delivered to the Authority in any denomination. The Series 2026A Bonds shall be dated the date of delivery to the Authority, or such other date as determined by the Authorized Officer in the Sale Order, and shall be payable on the dates as determined by the Authorized Officer in the Sale Order provided the final maturity shall be no later than 40 years after the date of the first principal payment. The Series 2026A Bonds shall bear interest at a rate of not to exceed 2.75% per annum as determined by the Authorized Officer in the Sale Order, payable semiannually on the dates as determined by the Authorized Officer in the Sale Order.
   b. The Series 2026B Bonds shall be designated "Water Supply System Junior Lien Revenue Bonds, Series 2026B;" shall be payable out of Net Revenues, as more fully set forth in Section 7 of the Resolution; shall be issued as one fully registered manuscript bond, shall be sold and delivered to the Authority in any denomination. The Series 2026B Bonds shall be dated the date of delivery to the Authority, or such other date as determined by the Authorized Officer in the Sale Order, and shall be payable on the dates as determined by the Authorized Officer in the Sale Order provided the final maturity shall be no later than 40 years after the date of the first principal payment. The Series 2026B Bonds shall bear interest at a rate of not to exceed 2.75% per annum as determined by the Authorized Officer in the Sale Order, payable semiannually on the dates as determined by the Authorized Officer in the Sale Order.
   c. Notwithstanding the above, the final amount of any maturity and terms of any of the Series 2026 Bonds shall be as provided in the Contract Documents and will be finally determined by the Authorized Officer in the Sale Order.

7. APPOINTMENT OF PAYING AGENT. From time to time the Authorized Officer shall designate and appoint a Paying Agent, which shall also act as transfer agent and bond registrar. The initial Paying Agent shall be the City Treasurer. In the event of a change in the Paying Agent, notice shall be given in writing, by certified mail, to each Registered Owner not less than sixty (60) days prior to the

next interest payment date. The Paying Agent shall keep the official books for the recordation of the Registered Owners of the Series 2026 Bonds.

8. REGISTRATION OF BONDS. Registration of the Series 2026 Bonds shall be recorded in the registration books of the City to be kept by a Paying Agent. Series 2026 Bonds may be transferred only by submitting the same, together with a satisfactory instrument of transfer signed by the Registered Owner or the Registered Owner's legal representative duly authorized in writing, to the Paying Agent, after which a new Series 2026 Bond or Series 2026 Bonds shall be issued by the Paying Agent to the transferee (new registered owner) in any denomination, in the same aggregate principal amount as the Series 2026 Bonds submitted for transfer. No transfer of Series 2026 Bonds shall be valid unless and until recorded on the bond registration books in accordance with the foregoing. The person in whose name any Series 2026 Bonds is registered may for all purposes, notwithstanding any notice to the contrary, be deemed and treated by the City and the Paying Agent as the absolute owner thereof, and any payment of principal and interest on any Series 2026 Bond to the Registered Owner thereof shall constitute a valid discharge of the City's liability upon such Series 2026 Bond to the extent of such payment. No Series 2026 Bond shall be transferred less than fifteen (15) days prior to an interest payment date nor after the Series 2026 Bond has been called for redemption.

9. AUTHORITY'S DEPOSITORY. Notwithstanding any other provision of the Resolution, this 2026 Supplemental Resolution or the Series 2026 Bonds, so long as the Authority is the owner of the Series 2026 Bonds: (a) the Series 2026 Bonds shall be payable in lawful money of the United States; (b) the Series 2026 Bonds are payable as to principal, premium, if any, and interest at U.S. Bank Trust Company, National Association, or at such other place as shall be designated in writing to the City by the Authority (the "Authority's Depository"); (c) the City agrees that it will deposit with the Authority's Depository payments of the principal of, premium, if any, and interest on the applicable Series 2026 Bonds in immediately available funds by 12:00 p.m. (noon) at least five business days prior to the date on which any such payment is due whether by maturity, redemption or otherwise; in the event that the Authority's Depository has not received the City's deposit by 12:00 p.m. (noon) on the scheduled day, the City shall immediately pay to the Authority as invoiced by the Authority an amount to recover the Authority's administrative costs and lost investment earnings attributable to that late payment; and (d) written notice of any redemption of the applicable Series 2026 Bonds shall be given by the City and received by the Authority's Depository at least 40 days prior to the date on which such redemption is to be made.

10. PRIOR REDEMPTION. Each series of the Series 2026 Bonds issued and sold to the Authority shall be subject to redemption prior to maturity upon the terms

and conditions set forth in the form of Series 2026 Bonds contained in Section 18 hereof.

11. EXECUTION AND DELIVERY OF SERIES 2026 BONDS. Each series of the Series 2026 Bonds shall be executed in the name of the City with the facsimile signatures of the Mayor and City Clerk and shall have a facsimile of the City's seal printed thereon. No Series 2026 Bond shall be valid until authenticated by an authorized representative of the Bond Registrar. The Series 2026 Bonds shall be delivered to the Bond Registrar for authentication and be delivered by the Bond Registrar to the City Treasurer for delivery to the purchaser upon payment of the purchase price for the Series 2026 Bonds.

12. PAYMENT OF BONDS; DEFEASANCE. As provided in Section 7 of the Resolution, the Bonds and the interest thereon shall be payable solely from the Net Revenues (except to the extent payable from the proceeds of bond insurance or other credit enhancement or from the proceeds of Bonds), and to secure such payment there is hereby created a statutory lien upon the whole of the Net Revenues which shall be a junior lien, junior and subordinate to the lien of the Series 2000 Bonds, the Series 2008 Bonds, the Series 2011A Bonds, the Series 2016 Bonds, the Series 2021 Bonds and any Additional Bonds (as defined in the Resolution,) and of an equal priority of lien with respect to the Series 2022 Bonds and the Series 2026 Bonds. The Series 2026 Bonds, including both principal and interest thereon, shall not be a general obligation of the City and shall not constitute an indebtedness of the City for the purpose of any debt limitations imposed by any constitutional or statutory provisions.

    In the event cash or direct obligations of the United States or obligations the principal of and interest on which are guaranteed by the United States, or a combination thereof, the principal of and interest on which, without reinvestment, come due at times and in amounts sufficient to pay at maturity or irrevocable call for earlier optional or mandatory redemption, the principal of, premium, if any, and interest on any of the outstanding Series 2026 Bonds, shall be deposited in trust, this 2026 Supplemental Resolution shall be defeased with respect to such Series 2026 Bonds (the "Defeased Bonds"), and the owners of the Defeased Bonds shall have no further rights under this 2026 Supplemental Resolution except to receive payment of the principal of, premium, if any, and interest on the Series 2026 Bonds from the cash or securities deposited in trust and the interest and gains thereon and to transfer and exchange bonds as provided herein. Defeased Bonds shall be treated as if they have been redeemed for all purposes under the Resolution and this 2026 Supplemental Resolution.

13. FUNDS AND ACCOUNTS; FLOW OF FUNDS. Except as otherwise provided in this 2026 Supplemental Resolution, all of the provisions relative to funds and accounts, their maintenance, the flow of funds and other details relative thereto, shall remain as specifically set forth in the Resolution.

14. JUNIOR LIEN BOND AND INTEREST REDEMPTION FUND. In accordance with Section 14(c) of the Resolution, there is hereby established and maintained a fund, designated the "Junior Lien Bond and Interest Redemption Fund," for the purpose of paying the principal, redemption premiums, if any, and interest on the Series 2026A Bonds and the Series 2026B Bonds and any additional Junior Lien Bonds that may be issued as they come due.

15. SERIES 2026 CONSTRUCTION ACCOUNTS. A subaccount of the Construction Fund established by the Resolution is hereby established for the Series 2026 Bonds and designated the "Series 2026 Construction Account." The Series 2026 Construction Account shall consist of two separate accounts, designated "Series 2026A Construction Subaccount" and "Series 2026B Construction Subaccount"", each of which shall be maintained as a separate depository account, into which the proceeds of, respectively, the Series 2026A Bonds and the Series 2026B Bonds shall be deposited and used solely for the purpose for which the respective Series 2026A Bonds or Series 2026B Bonds were issued. Any unexpected balance in the Series 2026 Construction Account remaining after completion of the 2026 Water Projects may be used for such purposes as allowed by law. After completion of the 2026 Water Projects and disposition of remaining Series 2026 Bond proceeds, if any, pursuant to the provisions of this Section, the Series 2026 Construction Account shall be closed

16. SERIES 2026 BOND PROCEEDS. The proceeds of the sale of the Series 2026A Bonds shall be used solely to pay the costs of the 2026A Water Project. The proceeds of the sale of the Series 2026B Bonds shall be used solely to pay the costs of the 2026B Water Project.

17. SALE OF BONDS. Each series of the Series 2026 Bonds shall be sold to the Authority. The City determines that a negotiated sale to the Authority is in the best interest of the City because the terms offered by the Authority are more favorable than those available from other sources of funding.

18. FORM OF SERIES 2026 BONDS. Each series of the Series 2026 Bonds shall be in substantially the following form, with such changes and additions as shall be determined to be appropriate.

UNITED STATES OF AMERICA
STATE OF MICHIGAN
COUNTY OF SAGINAW

CITY OF SAGINAW
WATER SUPPLY SYSTEM JUNIOR LIEN REVENUE BOND
SERIES 2026[A][B]

INTEREST RATE	MATURITY DATE	DATE OF ORIGINAL ISSUE
_____%	See Exhibit A	

Registered Owner: Michigan Finance Authority

Principal Amount:

The City of Saginaw, County of Saginaw, State of Michigan (the "City"), acknowledges itself indebted to, and for value received hereby promises to pay to, the Registered Owner identified above, or registered assigns, the Principal Amount or so much thereof as shall have been advanced to the City pursuant to a Purchase Contract between the City and the Michigan Finance Authority (the "Authority") and a Supplemental Agreement by and among the City, the Authority and the State of Michigan acting through the Department of Environmental Quality on the maturity dates and in the amounts set forth in Exhibit A attached hereto, unless redeemed prior thereto as hereinafter provided, the final payment to be made upon presentation and surrender of this bond at the office of the Treasurer, City of Saginaw, County of Saginaw, Michigan, the bond registrar and paying agent, or at such successor bond registrar and paying agent as may be designated pursuant to the Resolution (as hereinafter defined), and to pay to the Registered Owner, as shown on the registration books at the close of business on the 15th day of the calendar month preceding the month in which an interest payment is due, by check or draft drawn upon and mailed by the bond registrar and paying agent by first class mail postage prepaid to the Registered Owner at the registered address, interest at the rate per annum specified above on such Principal Amount, to the extent advanced to the City pursuant to the Purchase Contract and the Supplemental Agreement and not forgiven pursuant to the related Order of Approval issued by the Michigan Department of Environmental Quality, until the City's obligation with respect to the payment of such Principal Amount is discharged. Interest is payable on the first day of _____ and _____ in each year, commencing on _____ 1,

20__. Principal and interest are payable in lawful money of the United States of America.

In the event of a default in the payment of principal or interest hereon when due, whether at maturity, by redemption or otherwise, the amount of such default shall bear interest (the "additional interest") at a rate equal to the rate of interest that is two percent above the Authority's cost of providing funds (as determined by the Authority) to make payment on the bonds of the Authority issued to provide funds to purchase this bond but in no event in excess of the maximum rate of interest permitted by law. The additional interest shall continue to accrue until the Authority has been fully reimbursed for all costs incurred by the Authority (as determined by the Authority) as a consequence of the City's default. Such additional interest shall be payable on the interest payment date following demand of the Authority. In the event that (for reasons other than the default in the payment of any municipal obligation purchased by the Authority) the investment of amounts in the reserve account established by the Authority for the bonds of the Authority issued to provide funds to purchase this bond fails to provide sufficient available funds (together with any other funds that may be made available for such purpose) to pay the interest on outstanding bonds of the Authority issued to fund such account, the City shall and hereby agrees to pay on demand only the City's pro rata share (as determined by the Authority) of such deficiency as additional interest on this bond.

During the time funds are being drawn down by the City under this bond, the Authority periodically will provide the City a statement showing the amount of principal that has been advanced and the date of each advance, which statement shall constitute prima facie evidence of the reported information; provided that no failure on the part of the Authority to provide such a statement or to reflect a disbursement or the correct amount of a disbursement shall relieve the City of its obligation to repay the outstanding principal amount actually advanced [(subject to any principal forgiveness as provided for herein)], all accrued interest thereon, and any other amount payable with respect thereto in accordance with the terms of this bond.

This bond is a single obligation (the "Series 2026[A][B] Bonds") in the principal sum of the principal sum of _____ Dollars ($_____) issued by the City under and pursuant to a resolution duly adopted by the City Council of the City on March 6, 2000, as supplemented by resolutions adopted by the City Council of the City on December 17, 2007, October 25, 2010, August 22, 2016, March 22, 2021, March 7, 2022, as amended on August 15, 2022, as supplemented on July 28, 2025, and supplemented on _____, 2026 (as supplemented and amended, the "Resolution") and an order of the City Manager of the City and under and in full compliance with the Constitution and statutes of the State of Michigan, including specifically Act 94, Public Acts of Michigan, 1933, as amended, for the purpose of paying the cost of acquiring, constructing and installing improvements to the Water Supply System of the City (the "System").

This bond is a self-liquidating bond and is not a general obligation of the City and does not constitute an indebtedness of the City within any constitutional, statutory or charter limitation, but is payable, both as to principal and interest, solely from the net revenues of the System, including all appurtenances, extensions and improvements thereto, after provision has been made for reasonable and necessary expenses of operation, maintenance and administration (the "Net Revenues"). The principal of and interest on this bond are secured by a statutory lien on the Net Revenues, junior and subordinate to the lien of all outstanding and Additional Bonds issued under the Resolution. The Bonds of this series shall have equal standing with any additional Junior Lien Bonds that may be issued pursuant to the Resolution, and additional bonds of superior standing to the bonds of this series may be issued pursuant to the Resolution.

For a complete statement of the revenues and reserves from which and the conditions under which this bond is payable, a statement of the conditions under which additional bonds of equal standing may hereafter be issued, the rights and limitations on the owner of this bond and the general covenants and provisions pursuant to which this bond is issued, reference is made to the Resolution.

The City has covenanted and agreed, and does hereby covenant and agree to fix and maintain at all times while any bonds payable from the Net Revenues of the System shall be outstanding, such rates for service furnished by the System as shall be sufficient to provide for payment of the principal of and interest on this bond and any other bonds payable from the Net Revenues as and when the same shall become due and payable, and to maintain a bond redemption fund and a bond reserve account therefor, to provide for the payment of expenses of administration and operation and such expenses for maintenance of the System as are necessary to preserve the same in good repair and working order, and to provide for such other expenditures and funds for the System as are required by the Resolution.

This bond is transferable, as provided in the Resolution, only upon the books of the City kept for that purpose by the bond registrar and paying agent, upon the surrender of this bond together with a written instrument of transfer satisfactory to the bond registrar and paying agent duly executed by the Registered Owner or his attorney duly authorized in writing. Upon the exchange or transfer of this bond a new bond or bonds of any authorized denomination, in the same aggregate principal amount and of the same interest rate and maturity, shall be authenticated and delivered to the transferee in exchange therefor as provided in the Resolution, and upon payment of the charges, if any, therein provided. Bonds so authenticated and delivered shall be in the denomination of $5,000 or any integral multiple thereof not exceeding the aggregate principal amount for each maturity.

This bond is subject to redemption prior to maturity at the option of the City and with the prior written consent of and upon such terms as may be required by the Authority. That portion of the bond called for redemption shall not bear interest after the date fixed for

redemption, provided funds are on hand with the bond registrar and paying agent to redeem the same.

Notwithstanding any other provision of this bond, so long as the Authority is the owner of this bond, (a) this bond is payable as to principal, premium, if any, and interest at U.S. Bank Trust Company, National Association, or at such other place as shall be designated in writing to the City by the Authority (the "Authority's Depository"); (b) the City agrees that it will deposit with the Authority's Depository payments of the principal of, premium, if any, and interest on this bond in immediately available funds by 12:00 noon at least five business days prior to the date on which any such payment is due whether by maturity, redemption or otherwise; in the event that the Authority's Depository has not received the City's deposit by 12:00 noon on the scheduled day, the City shall immediately pay to the Authority as invoiced by the Authority an amount to recover the Authority's administrative costs and lost investment earnings attributable to that late payment; and (c) written notice of any redemption of this bond shall be given by the City and received by the Authority's Depository at least 40 days prior to the date on which redemption is to be made.

It is hereby certified, recited and declared that all acts, conditions and things required to exist, happen and be performed precedent to and in the issuance of this bond existed, have happened and have been performed in due time, form and manner as required by law, and that the total indebtedness of the City, of which this bond is one, does not exceed any constitutional, statutory or charter limitation.

IN WITNESS WHEREOF, the City of Saginaw, County of Saginaw, State of Michigan, by its City Council, has caused this Series 2026 Bond to be executed in its name by the facsimile signatures of its Mayor and City Clerk and a facsimile of its corporate seal to be imprinted hereon, all as of the Date of Original Issue. This Series 2026 Bond shall not be valid unless the Certificate of Authentication has been manually executed by an authorized representative of the bond registrar and paying agent.

CITY OF SAGINAW

(Seal)

By: _____ By: _____
City Clerk Mayor

CERTIFICATE OF AUTHENTICATION

This bond is one of the Series 2026[A][B] Bonds described in the within mentioned Resolution.

By: _____
Treasurer, City of Saginaw
Bond Registrar and Paying Agent

Date of Authentication:

ASSIGNMENT

For value received, the undersigned hereby sells, assigns and transfers unto _____
(please print or type name, address and taxpayer identification number of transferee) the within bond and all rights thereunder and hereby irrevocably constitutes and appoints _____ attorney to transfer the within bond on the books kept for registration thereof, with full power of substitution in the premises.

Dated:_____

_____

Signature Guaranteed:

_____

Signature(s) must be guaranteed by an eligible guarantor institution participating in a Securities Transfer Association recognized signature guarantee program.

EXHIBIT A

The principal amounts and maturity dates applicable to the bond to which this Exhibit A is attached are as follows:

MATURITY DATE _____1	PRINCIPAL MATURITY

Based on the schedule provided above unless revised as provided in this paragraph, repayment of the Principal Amount shall be made according to such schedule until the full Principal Amount disbursed to the City is repaid; provided, however, that the City shall have no obligation to repay any serial principal installment for which the City did not receive a disbursement of Principal Amount by the date such serial principal installment is due. In the event the Order of Approval issued by the Department of Environment, Great Lakes, and Energy (the "Order") approves a principal amount of assistance less than the amount of this Bond, the MFA shall only disburse principal up to the amount stated in the Order. In the event (1) that the payment schedule described above provides for payment of a total principal amount greater than the amount of assistance [or principal forgiveness] by the Order, (2) that less than the principal amount of assistance approved by the Order is disbursed to the City by the MFA or (3) of prepayment [or principal forgiveness] of the Bond, the MFA shall prepare a new payment schedule that shall be effective upon receipt by the City.

[END OF SERIES 2026 BOND FORM]

19. COVENANTS. The City covenants and represents to the register owners of the Series 2026 Bonds that so long as any of the Series 2026 Bonds remain outstanding and unpaid as to either principal or interest:

    (a) The City shall acquire and construct the 2026 Water Projects promptly and in accordance with the plans therefor.

    (b) The City agrees to take all action, and refrain from taking any action, that is necessary, including making any rebate payments to the United States government that may be required by the Code, which are hereby authorized to be paid from the Operation and Maintenance Fund as an expense of the System, so as not to impair the exclusion of the interest on the Series 2026 Bonds issued as Tax-Exempt Bonds from gross income for federal income tax purposes.

20. APPROVAL OF MICHIGAN DEPARTMENT OF TREASURY. The issuance and sale of the Series 2026 Bonds shall be subject to permission being granted therefor by the Department of Treasury of the State of Michigan and the Authorized Officer is authorized and directed, if necessary, to make application to the Department of Treasury for permission to issue and sell the Series 2026 Bonds as provided by the terms of this 2026 Supplemental Resolution.

21. SALE, ISSUANCE, DELIVERY, TRANSFER AND EXCHANGE OF SERIES 2026 BONDS; AUTHORIZATION OF OFFICERS. Each series of the Series 2026 Bonds shall be sold at a private, negotiated sale to the Authority, as authorized by Act 227. The City Council determines that the sale and delivery of the Series 2026 Bonds to the Authority as provided in this 2026 Supplemental Resolution will provide the City with the lowest cost of borrowing money for the 2026 Water Projects. Each sale shall be made pursuant to the terms and conditions to be set forth in a Purchase Contract (the "Purchase Contract") and a Supplemental Agreement (the "Supplemental Agreement") related to the respective series of the Series 2026 Bonds. The Authorized Officer is authorized to execute and deliver each Supplemental Agreement and each Purchase Contract in such forms as shall be approved by the Authorized Officer, with such approval to be evidenced by the Authorized Officer's signature thereon. Notwithstanding any other provision of this 2026 Supplemental Resolution, the Series 2026A Bonds shall be initially sold to the Authority as one bond, numbered 1, in the aggregate principal amount of not to exceed $6,854,000, and the Series 2026B Bonds shall be initially sold to the Authority as one bond, numbered 1, in the aggregate principal amount of not to exceed $2,300,000. In addition, the Authorized Officer and other City employees and officials are authorized to execute and deliver to the Authority and such certificates and documents as the Authority or bond counsel shall require, including but not limited to any revenue sharing pledge agreement, and to do all other things necessary to effectuate the sale, issuance, delivery, transfer and exchange of the

Series 2026 Bonds in accordance with the provisions of this 2026 Supplemental Resolution. The Authorized Officer is authorized to execute any orders, receipts, agreements, pledge agreements, documents or certificates necessary to complete the transaction, including, but not limited to, any issuers certificate, any certificates relating to federal or state securities laws, rules or regulations, and any revenue sharing pledge agreement. The Authorized Officer is authorized to seek a credit assessment, or similar, from Standard & Poor's or another nationally recognized rating organization and to execute and file any applications to the Michigan Department of Treasury, including an Application for State Treasurer's Approval to Issue Long-Term Securities and any other applications to the Michigan Department of Treasury and to seek any waivers from the Michigan Department of Treasury.

22. TAX COVENANT. The City covenants to comply with all requirements of the Code necessary to assure that the interest on Series 2026 Bonds issued as Tax-Exempt Bonds will be and will remain excludable from gross income for federal income tax purposes. The Authorized Officer and other appropriate officials of the City are authorized to do all things necessary to assure that the interest on any such Series 2026 Bonds will be and will remain excludable from gross income for federal income tax purposes.

23. SEVERABILITY; SECTION HEADINGS. If any section, paragraph, clause or provision of this 2026 Supplemental Resolution shall be held invalid, the invalidity of such section, paragraph, clause or provision shall not affect any of the other provisions of this 2026 Supplemental Resolution. The section headings in this 2026 Supplemental Resolution are furnished for convenience of reference only and shall not be considered to be part of this 2026 Supplemental Resolution.

24. STATE REVENUE SHARING PLEDGE. If required by the Authority, as additional security for repayment of the Series 2026 Bonds, the City Council agrees to pledge the state revenue sharing payments that the City is eligible to receive from the State of Michigan under Act 140, Public Acts of Michigan, 1971, as amended, to the Authority as purchaser and holder of the Series 2026 Bonds. The Authorized Officer is authorized to execute and deliver a revenue sharing pledge agreement between the City and the Authority.

25. PUBLICATION AND RECORDATION. This 2026 Supplemental Resolution shall be published in full in *The Saginaw News*, a newspaper of general circulation in the City qualified under State law to publish legal notices, promptly after its adoption and shall be recorded in the official proceedings of the City Council and such recording shall be authenticated by the signature of the Mayor and the City Clerk.

26. BOND COUNSEL. Dickinson Wright PLLC, Troy, Michigan, is hereby appointed to act as bond counsel with respect to the Series 2026 Bonds.

27. RATIFICATION OF RESOLUTION; CONFLICTING RESOLUTIONS. The Resolution, as amended and supplemented by the 2008 Supplemental Resolution, the 2011A Supplemental Resolution, the 2016 Supplemental Resolution, the 2021 Supplement Resolution, the 2022 Supplemental Resolution, as amended, the 2025 Supplemental Resolution, and this 2026 Supplemental Resolution, is hereby ratified and confirmed. All other resolutions and parts of other resolutions insofar as they may be in conflict herewith are hereby rescinded.

28. EFFECTIVE DATE. This 2026 Supplemental Resolution shall take effect immediately.

Ayes:
Nays:
Absent:

RESOLUTION DECLARED ADOPTED

I, Kristine Bolzman, City Clerk of the City of Saginaw, Michigan, do hereby certify that the foregoing is a true and complete copy of the resolution adopted by the City of Saginaw, Saginaw County, State of Michigan, at a public meeting held on May 18, 2026; the original thereof is on file in the records of my office; the meeting was conducted and public notice of said meeting was given pursuant to Act No. 267, Public Acts of Michigan, 1976, as amended, and minutes of this meeting were kept and will be made available as required.

_____
Kristine Bolzman, MiPMC/CMC
City Clerk