



Department of Management Services
Purchasing Division
241 West South Street
Kalamazoo, MI 49007-4796
Phone: 269.337.8020
Fax: 269.337.8500
www.kalamazoocity.org

INVITATION FOR BID (IFB)

The City of Kalamazoo, Michigan is soliciting sealed bids for:

Project Name: 6th Street North Water Storage Tank Painting **Bid Reference #: 90900-010.0**

IFB ISSUE DATE: April 1, 2022

BID DUE/OPENING DATE: April 28, 2022 @ 3:00 p.m. Local Time
Facsimile Bids Will Not Be Accepted.

MAILING ADDRESS & INSTRUCTIONS

Mail to:
Purchasing Division
241 W. South Street
Kalamazoo, MI 49007

Questions about this IFB should be directed to:
Department Contact: **Debbie Jung, PE,**
Senior Civil Engineer, Water Resources
at jungd@kalamazoocity.org

Include on the Envelope the Project Name and Bid Reference Number. All Envelopes Must Be Sealed.

You are invited to submit a bid for this project. Specifications, terms, conditions and instructions for submitting bids are contained herein. This Invitation for Bid with all pages, documents and attachments contained herein, or subsequently added to and made a part hereof, submitted as a fully and properly executed bid shall constitute the contract between the City and the successful bidder when approved and accepted on behalf of the City by an authorized official or agent of the City. Please review the bid document as soon as possible and note the **DEADLINE FOR QUESTIONS** in the Instructions to Bidders.

All bidders shall complete and return the Bid and Award page(s) and submit all information requested herein in order for a bid to be responsive. The bid document shall be returned in its entirety, in a properly identified and sealed envelope to the Purchasing Division at the above address. **BIDS MUST BE RECEIVED BEFORE THE DUE DATE - LATE BIDS WILL NOT BE CONSIDERED.** The City reserves the right to postpone the bid opening for its own convenience.

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STATEMENT OF NO BID

NOTE: If you DO NOT intend to bid on this commodity or service, please complete and return this form immediately. Your response will assist us in evaluating all responses for this important project and to improve our bid solicitation process.

The Purchasing Division of the City of Kalamazoo wishes to keep its bidders list file up-to-date. If, for any reason you cannot supply the commodity/service noted in this bid solicitation, this form must be completed and returned to remain on the particular bid list for future projects of this type.

If you do not respond to this inquiry within the time set for the bid opening date and time noted, we will assume that you can no longer supply this commodity/service, and your name will be removed from this bid list.

- _____ Specifications too "tight", i.e. geared toward one brand or manufacturer only (explain below).
- _____ Specifications are unclear (explain below).
- _____ We are unable to meet specifications.
- _____ Insufficient time to respond to the Invitation for Bid.
- _____ Our schedule would not permit us to perform.
- _____ We are unable to meet bond requirements.
- _____ We are unable to meet insurance requirements.
- _____ We do not offer this product or service.
- _____ Remove us from your bidders list for this commodity or service.
- _____ Other (specify below).

REMARKS: _____

SIGNED: _____ NAME: _____
(Type or Print)

TITLE: _____ DATE: _____

FIRM NAME: _____
(if any)

ADDRESS: _____
(Street address) (City) (State) (Zip)

PHONE: _____ FAX: _____

EMAIL: _____

**SECTION I
INSTRUCTIONS TO BIDDERS**

1. **EXAMINATION OF BID DOCUMENT**-Before submitting a bid, bidders shall carefully examine the specifications and shall fully inform themselves as to all existing conditions and limitations. The bidder shall indicate in the bid the sum to cover the cost of all items included on the bid form.
2. **PREPARATION OF BID**-The bid shall be legibly prepared in ink or typed. If a unit price or extension already entered by the bidder on the Bid and Award form is to be altered, it shall be crossed out and the new unit price or extension entered above or below and initialed by the bidder with ink. The bid shall be legally signed and the complete address of the bidder given thereon.

All bids shall be tightly sealed in an envelope plainly marked SEALED BID and identified by project name, bid opening date and time. Bids opened by mistake, due to improper identification, will be so documented and resealed. The Purchasing Division will maintain and guarantee confidentiality of the contents until the specified opening date and time. Bids submitted by Fax machine will not be accepted.

3. **EXPLANATION TO BIDDERS**-Any binding explanation desired by a bidder regarding the meaning or interpretation of the Invitation for Bid (IFB) and attachments must be requested in writing, **at least business 5 days before the bid opening** so a reply may reach all prospective bidders before the submission of bids. Any information given to a prospective bidder concerning the IFB will be furnished to all prospective bidders as an amendment or addendum to the IFB if such information would be prejudicial to uninformed bidders. Receipt of amendments or addenda by a bidder must be acknowledged in the bid by attachment, or by letter or fax received before the time set for opening of bids. Oral explanation or instructions given prior to the opening will not be binding.
4. **CASH DISCOUNTS**-Discount offered for payment of less than thirty (30) days will not be considered in evaluating bids for award. Offered discounts of less than thirty (30) days will be taken if payment is made within the discount period, even though not considered in evaluation of the bid.
5. **WITHDRAWAL OF BIDS**-Bids may be withdrawn in person by a bidder or authorized representative, provided their identity is made known and a receipt is signed for the bid, but only if the withdrawal is made prior to the exact time set for receipt of bid. No bid may be withdrawn for at least ninety (90) days after bid opening.
6. **ALTERNATE BIDS**-bidders are cautioned that any alternate bid, unless specifically requested or any changes, insertions or omissions to the terms and conditions, specifications or any other requirement of this IFB may be considered non-responsive, and at the option of the City, result in rejection of the alternate bid.
7. **LATE BIDS**-Any bid received at the office designated herein after the exact time specified for receipt will not be considered. (Note: The City reserves the right to consider bids that have been determined by the City to be received late due to mishandling by the City after receipt of the bid and no award has been made.)
8. **UNIT PRICES**-If there is a discrepancy between unit prices and their extension, unit prices shall prevail.

SECTION II
BID AND AWARD

The undersigned having become thoroughly familiar with all of the bid/contract documents incorporated herein, the project site and the location conditions affecting the work, hereby proposes to perform everything required to be performed in strict conformity with the requirements of these documents, and to provide and furnish all the equipment, labor and materials necessary to complete in a professional manner the furnishing and installing of all of the following, meeting or exceeding the specifications as set forth herein for the prices as stated below.

6TH STREET NORTH WATER STORAGE TANK PAINTING

PART 1 (per section 05 00 00 of Technical Specifications)				
Pay Item	Quantity	Unit	Unit Price	Total Cost
Top Platform Hatch	1	Lump Sum	\$	\$
Overflow Pipe Discharge Modification	1	Lump Sum	\$	\$
Roof Painter's Railing	1	Lump Sum	\$	\$
PART 1 TOTAL				\$

PART 2 (per section 09 00 00 of Technical Specifications)				
Pay Item	Quantity	Unit	Unit Price	Total Cost
Exterior Overcoat	1	Lump Sum	\$	\$
Dry Interior Spot Repaint	1	Lump Sum	\$	\$
PART 2 TOTAL				\$

PROJECT TOTAL	\$
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Estimated Lump Sum cost included in Exterior and Dry Interior painting to protect and work around antennas and cables. Owner reserves the right to delete this amount if the antennas and cables are removed. \$ _____

Bidder shall provide all of the information as requested herein with their bid. **Failure to do so and/or failure to provide post-bid requested information may be cause for rejecting the bid as non-responsive.**

Work shall start within **10** working days, but no earlier than **May 16, 2022**, after receipt of notification by Contractor of Notice to Proceed and shall have substantial completion by **July 1, 2022**.

CITY OF KALAMAZOO – INVITATION FOR BIDS
6th Street North Water Storage Tank Painting

Page 2
Bid Reference #: 90900-010.0

Bidder/Contractor has examined and carefully studied the bidding documents and attachments, and acknowledges receipt of the following addenda:

Addendum No: _____

Dated: _____

By my signature below, I certify that the firm bidding on this contract, when making hiring decisions, does not use a past criminal conviction as a bar to or preclude a person with a criminal conviction from being considered for employment with the bidding firm unless otherwise precluded by federal or state law. I further certify that I have read and agree to be bound by the provisions of the City’s Non-Discrimination Clause found in Appendix A as updated by City Ordinance 1856.

Signed: _____ Name: _____

Title: _____

CITY OF KALAMAZOO EX-OFFENDER POLICY CHECKLIST

As part of the City’s commitment to reducing unacceptable poverty, encouraging rehabilitation, reducing recidivism and strengthening families in Kalamazoo, the City has updated its Purchasing Policy to ensure that firms with whom the City does business share in this commitment by utilizing hiring practices that do not unfairly deny people with arrest and conviction records gainful employment. *(Important: This requirement also extends to any subcontractors the bidder intends to use to fulfill the contract for goods or services being sought from the City.)*

Part I: Proof that the bidder does not inquire about an individual’s past arrest or criminal history on the bidders employment application form

- Attach a copy of the current application for employment being used by the bidder

Part II: Certification that the bidder does not use an individual’s past arrest or criminal history to unlawfully discriminate against them by checking *one or more* of the following:

- That pursuant to federal or state law bidder is precluded from hiring persons with certain criminal records from holding particular positions or engaging in certain occupations by providing a cite to the applicable statute or regulation; if checking this box, provide a citation to the applicable statute or rule upon which the bidder is relying: _____
- That bidder conducts criminal history background checks only as necessary, and only after making a conditional offer of employment; that any withdrawal of an offer of employment to an individual because of a past criminal history is job-related and consistent with business necessity after the individual has been provided an individualized assessment opportunity to review and challenge or supplement the history of past criminal conduct being relied upon by the bidder;
- That the use by bidder of criminal history background checks complies with the U.S. Equal Employment Opportunity Commission’s Enforcement Guidance on the Consideration of Arrest and Conviction Records in Employment Decisions and that the bidder has not had a determination rendered against it in past 7 years that it discriminated against a person through the use of an individual’s arrest or criminal history

I CERTIFY THAT THE ABOVE STATEMENTS ARE TRUE.

Date

Signature

Printed Name

Position

CITY OF KALAMAZOO
LOCAL PREFERENCE POLICY AND CERTIFICATION

The lowest responsive Kalamazoo County bidder whose bid is not low but falls within 2% of the lowest responsive bid is afforded the opportunity to become the successful bidder if it agrees to reduce its bid to match the lowest responsive bid. The City of Kalamazoo is the sole determiner whether a bidder is responsible, qualifies as a Kalamazoo County bidder, and if its bid is responsive to the City’s specifications, terms and conditions.

If the lowest Kalamazoo County bidder chooses not to match the lowest bid, the next lowest responsive Kalamazoo County bidder whose bid falls within 2% of the lowest bid, is given the opportunity to match the lowest responsive bid.

To qualify as a Kalamazoo County bidder, the bidder must meet both the following criteria:

1. Have a physical presence in Kalamazoo County by maintaining a permanent office, factory or other facility in Kalamazoo County with employees working in Kalamazoo County.
2. Have paid real or personal property taxes related to said business to the City of Kalamazoo, County of Kalamazoo or other municipal corporation within Kalamazoo County in the previous tax year, except that a non-profit entity need not meet this requirement.

This local preference policy applies only to purchases for materials, supplies, capital outlay, and services for maintenance, repair or operation of City facilities that are over \$25,000. If more than 50% of the contract is sub-contracted to firms located outside of Kalamazoo County that bid does not qualify for the local preference policy outlined above. The local preference policy will not apply if prohibited by law. The Purchasing Agent has the authority to finally determine if the bidder qualifies as a Kalamazoo County bidder as set forth herein. The Purchasing Agent may take into account the permanency of the business in Kalamazoo, and whether the business appears to be claiming to be a Kalamazoo County business solely or primarily to qualify as a Kalamazoo County business under this Resolution, and any other material factors.

CERTIFICATION

If you qualify as a Kalamazoo County bidder and wish to be considered for the local preference provisions as provided above please certify that fact by providing the information requested below and attesting to its accuracy.

Firm Name: _____

Street Address of Business: _____

City, State, and Zip Code: _____

Number of employees working in Kalamazoo County: _____

Name the city or township to which business real and/or personal property taxes are paid or provide non-profit status:

The above information is accurate:

Signature: _____

Date: _____

Title: _____

REFERENCE QUESTIONNAIRE

Please answer the following questions completely.

1. Firm name: _____
2. Established: Year _____ Number of Employees: _____
3. Type of organization:
 - a. Individual: _____
 - b. Partnership: _____
 - c. Corporation: _____
 - d. Other: _____
4. Former firm name(s) if any, and year(s) in business:

5. Include at least 3 references of contracts for similar work performed over the last five (5) years. Include: owner, contact person and phone number and description of work performed.
 - 5.1 Company Name: _____
Address: _____
Phone: _____
Contact: _____
Type of work or contract: _____
 - 5.2 Company Name: _____
Address: _____
Phone: _____
Contact: _____
Type of work or contract: _____
 - 5.3 Company Name: _____
Address: _____
Phone: _____
Contact: _____
Type of work or contract: _____

I hereby certify that all of the information provided is true and answered to the best of my ability.

Signed: _____ Name: _____
(type or print)

Title: _____ Date: _____

NOTE: This blanket addendum is for informational purposes only and does not need to be acknowledged by bidders in their submission.

COVID-19 ADDENDUM #2

January 1, 2022

TO: ALL Prospective Bidders
PROJECT: ALL Upcoming Projects

The purpose of this addendum is to clarify and/or modify the sealed bid delivery and bid opening process for all upcoming projects. All work affected is subject to all applicable terms and conditions of the Bidding and Contract Documents.

1. UPDATE TO SEALED BID DELIVERY AND BID OPENING POLICY:

Effective immediately and continuing until further notice, the City of Kalamazoo will return to IN-PERSON bid openings following City Hall guidelines, including Mask Mandate.

BIDS MUST BE RECEIVED BEFORE THE DUE DATE AND TIME – LATE BIDS WILL NOT BE CONSIDERED.

Bidders can submit sealed bids in one of the following ways:

- **Mail your bid**, to be received before the bid due date and time indicated in the bid document, to the City of Kalamazoo at the following address:

City of Kalamazoo
Purchasing Division
241 West South Street
Kalamazoo, MI 49007

- **Deliver your bid to the Treasurer’s Office Payment Drop Box** located in the northwest corner of City Hall before the bid due date and time indicated in the bid document.
- **Deliver your bid to City Hall In Person** before the bid due date and time indicated in the bid document.

All bids shall be tightly sealed in an envelope plainly marked SEALED BID and identified by project name, bid opening date and time. Bids opened by mistake, due to improper identification, will be so documented and resealed. The Purchasing Division will maintain and guarantee confidentiality of the contents until the specified opening date and time. Bids submitted by fax machine or email will not be accepted.

The Purchasing Division will post bid tabulations to the City of Kalamazoo website within 24 hours after the bid opening date and time at: <https://www.kalamazoo.org/bidopportunities>.

Questions regarding this sealed bid delivery and bid opening policy change related to the COVID-19 virus should be directed to the City of Kalamazoo at (269) 337-8020.

Sincerely,



Michelle Emig
Purchasing Division Manager

I hereby state that all of the information I have provided is true, accurate and complete. I hereby state that I have the authority to submit this bid which will become a binding contract if accepted by the City of Kalamazoo. I hereby state that I have not communicated with nor otherwise colluded with any other bidder, nor have I made any agreement with nor offered/accepted anything of value to/from an official or employee of the City of Kalamazoo that would tend to destroy or hinder free competition.

The firm's identification information provided will be used by the City for purchase orders, payment and other contractual purposes. If the contractual relationship is with, or the payment made to, another firm please provide a complete explanation on your letterhead and attach to your bid. Please provide for accounts payable purposes:

Tax Identification Number (Federal ID): _____

Remittance Address: _____

Financial Contact Name: _____ Financial Contact Phone Number: _____

Financial Contact Email Address: _____

I hereby state that I have read, understand and agree to be bound by all terms and conditions of this bid document.

SIGNED: _____ NAME: _____
(Type or Print)

TITLE: _____ DATE: _____

FIRM NAME: _____
(if any)

ADDRESS: _____
(Street address) (City) (State) (Zip)

PHONE: _____ FAX: _____

EMAIL ADDRESS: _____

FOR CITY USE ONLY - DO NOT WRITE BELOW

SECTION III
CITY OF KALAMAZOO
INDEMNITY AND INSURANCE

Contractor, or any of their subcontractors, shall not commence work under this contract until they have obtained the insurance required under this paragraph, and shall keep such insurance in force during the entire life of this contract. All coverage shall be with insurance companies licensed and admitted to do business in the State of Michigan and acceptable to the City of Kalamazoo within ten (10) days of the Notice of Award. The requirements below should not be interpreted to limit the liability of the Contractor. All deductibles and SIRs are the responsibility of the Contractor.

The Contractor shall procure and maintain the following insurance coverage:

Workers' Compensation Insurance including Employers' Liability Coverage, in accordance with all applicable statutes of the State of Michigan.

Commercial General Liability Insurance on an "Occurrence Basis" with limits of liability not less than \$1,000,000 per occurrence and aggregate. Coverage shall include the following extensions: (A) Contractual Liability; (B) Products and Completed Operations; (C) Independent Contractors Coverage; (D) Broad Form General Liability Extensions or equivalent, if not already included and (E) XCU coverage if the nature of the contract requires XC or U work.

Automobile Liability including Michigan No-Fault Coverages, with limits of liability not less than \$1,000,000 per occurrence, combined single limit for Bodily Injury, and Property Damage. Coverage shall include all owned vehicles, all non-owned vehicles, and all hired vehicles.

Additional Insured: Commercial General Liability and Automobile Liability, as described above, shall include an endorsement stating that the following shall be *Additional Insureds*: The City of Kalamazoo, all elected and appointed officials, all employees and volunteers, all boards, commissions, and/or authorities and board members, including employees and volunteers thereof. It is understood and agreed that by naming the City of Kalamazoo as additional insured, coverage afforded is considered to be primary and any other insurance the City of Kalamazoo may have in effect shall be considered secondary and/or excess.

To the fullest extent permitted by law the Contractor agrees to defend, pay on behalf of, indemnify, and hold harmless the City of Kalamazoo, its elected and appointed officials, employees, agents and volunteers, and others working on behalf of the City of Kalamazoo against any and all claims, demands, suits, or loss, including all costs connected therewith, and for any damages which may be asserted, claimed, or recovered against or from the City of Kalamazoo, by reason of personal injury, including bodily injury or death and/or property damage, including loss of use thereof, which arises out of, or is in any way connected or associated with this contract.

Cancellation Notice: All policies, as described above, shall include an endorsement stating that it is understood and agreed that thirty (30) days, or ten (10) days for non-payment of premium, Advance Written Notice of Cancellation, Non-Renewal, Reduction, and/or Material Change shall be sent to: City of Kalamazoo, Purchasing Division, 241 W. South Street, Kalamazoo, MI 49007.

Proof of Insurance Coverage: The Contractor shall provide the City of Kalamazoo at the time that the contracts are returned by him/her for execution, or within 10 days of Notice of Award, whichever is earlier, a Certificate of Insurance as well as the required endorsements. In lieu of required endorsements, if applicable, a copy of the policy sections where coverage is provided for additional insured and cancellation notice would be acceptable. Copies or certified copies of all policies mentioned above shall be furnished, if so requested.

INDEMNITY AND INSURANCE
Continued

If any of the above coverages expire during the term of this contract, the Contractor shall deliver renewal certificates and/or policies to City of Kalamazoo at least ten (10) days prior to the expiration date.

Scope of Coverage: The above requirements and conditions shall not be interpreted to limit the liability of the Contractor under this Contract but shall be interpreted to provide the greatest benefit to the City and its officers and employees. The above listed coverages shall protect the Contractor, its employees, agents, representatives and subcontractors against claims arising out of the work performed. It shall be the Contractor's responsibility to provide similar insurance for each subcontractor or to provide evidence that each subcontractor carries such insurance in like amount prior to the time such subcontractor proceeds to perform under the contract.

SECTION IV
SPECIAL REQUIREMENTS

1. BID BOND/GUARANTEE

The bid must be accompanied by a bid bond which shall not be less than five (5%) percent of the total amount of the bid. No bid will be considered unless it is accompanied by the required guarantee. The bid guarantee shall ensure the execution of the bid and award, and the furnishing of a performance bond and a labor and material bond (A and B below) by the successful bidder. (Contractors Note: A cashier's or certified check in lieu of a bid bond is **NOT** acceptable.)

A. PERFORMANCE BOND

A performance bond shall be furnished in the full amount of the contract ensuring the City of faithful performance of all the provisions of the contract, and the satisfactory performance of any equipment required hereunder. The bond shall also ensure the City against defective workmanship and/or materials.

B. LABOR AND MATERIAL (PAYMENT) BOND

A labor and material (payment) bond shall be furnished for the period covered by the contract, in the full amount of the contract for the protection of labor and material suppliers and sub-contractors.

Bonds shall be secured by a guaranty or a surety company listed in the latest issue of the U.S. Treasury, circular 570, and licensed to do business in the State of Michigan, and written in favor of the City of Kalamazoo. The amount of such bonds shall be within the maximum amount specified for such company in said circular 570. The bonds shall be accompanied by a power of attorney showing authority of the bonding agent to sign such bonds on behalf of the guaranty or surety company. The cost of the bonds shall be borne by the Contractor.

Failure of the Contractor to supply the required bonds within ten (10) days after Notice of Award, or within such extended period as the Purchasing Agent may agree to, shall constitute a default and the City of Kalamazoo may either award this contract to the next lowest bidder or re-advertise for bids and may charge against the Contractor for the difference between the amount of the bid and 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 Kalamazoo for a refund.

2. WAIVERS OF LIEN

Upon completion of all work and request for final payment, the Contractor shall furnish a 100% waiver of lien from each supplier and sub-contractor covering all items of the work. Failure to supply waivers of lien for the entire job upon completion and final payment request will be considered grounds for withholding final payment.

3. SUBCONTRACTORS

- A. Contractors shall state on the Bid and Award page any and all subcontractors to be associated with their bid, including the type work to be performed. Any and all subcontractors shall be bound by all of the terms, conditions and requirements of the contract; however, the prime contractor shall be responsible for the performance of the total work requirements.
- B. The Contractor shall cooperate with the City of Kalamazoo in meeting its commitments and goals with regard to maximum utilization of minority and women business enterprise and shall use its best efforts to ensure that minority and women business enterprises have maximum practicable opportunity to compete for subcontract work under this agreement.

4. PREVAILING WAGES

The successful bidder will be required to comply with Section 2-125 of the Code of Ordinances of the City of Kalamazoo regarding prevailing wages and Appendix B attached, incorporated herein by reference. Special note: This provision applies only to projects in excess of \$100,000 for City (\$2,000 federal) funded projects.

The City's requirements as it relates to prevailing wages includes a meeting with the City's Purchasing Division **prior** to work and payroll and work monitoring during the duration of the contract. Please contact Purchasing at (269) 337-8020 if you have any questions regarding Davis-Bacon provisions.

SECTION V
GENERAL PROVISIONS

1. INTENT

It is the intent of these plans and specifications to provide for a contractor who shall provide all labor, materials, tools, and equipment necessary to perform exterior tank painting, interior tank spot repairs, and various other repairs on the 6th Street North Water Storage Tank.

2. SCOPE OF WORK

Tank Information:

The structure is a 1,000,000-gallon composite tank with a low-water level of 57 ft. located at 2750 N. 6th St. Kalamazoo, Michigan.

The work includes:

Exterior: High pressure water clean (5,000 to 10,000 psi), spot power tool clean to a SSPC-SP11 standard and apply a three (3) coat epoxy urethane system. A 10-15 ft. section on the north side of the new painter's railing is to be painted black. Caulk the antenna cable penetrations on the roof.

Dry Interior: Spot power tool clean the spot failures throughout to a SSPC-SP11 standard. Apply a spot two (2) coat epoxy system to the prepared surfaces.

Repairs:

- 1) Install a gasket on the wet interior roof hatch.
- 2) Install a galvanized top platform hatch.
- 3) Install handholds at the roof hatches.
- 4) Install a duck bill check valve on the overflow discharge.
- 5) Install a roof painter's railing.
- 6) Replace dry interior and aviation light bulbs.

3. QUANTITIES

All quantities are lump sum items as described in the Technical Specifications.

4. UNIT PRICING

The unit price, including its pro-rata share of overhead, multiplied by the quantity shown shall represent the total bid and shall be held firm for the life of this contract. Any bid not conforming to this requirement may be rejected as non-responsive.

5. INSPECTION OF WORK

The City may maintain inspectors on the job who shall at all times have access to work.

6. INSPECTION OF SITE

Each bidder shall visit the site of the proposed work and fully acquaint himself/herself with the existing conditions relating to construction and labor and shall fully inform himself/herself as to the facilities involved and the difficulties and restrictions attending the performance of this contract. The bidder shall thoroughly examine and become familiar with the drawings, specifications, and all other bid/contract documents. The Contractor, by the execution of this contract, shall in no way be relieved of any obligation under it due to his/her failure to receive or examine any form or legal instrument, or to visit the site and acquaint himself/herself with the conditions there existing. No allowance shall be made subsequently in this connection in behalf of the Contractor for any negligence of his/her part. For inspection call the Public Services Department, Water Resources Division.

7. INSPECTION AND TESTING

The Contractor shall give the Project Manager timely notice of readiness of the work for all required inspections, tests or approvals, and shall cooperate with inspections and testing personnel to facilitate required inspections or tests. The City will provide for materials and construction testing including but not limited to compaction of subbase and backfill material, concrete testing and asphalt testing. The cost of said testing shall be borne by the City. Verification that testing required by the contract has been completed on one phase of the project prior to proceeding to the next phase is the responsibility of the Contractor. In the event that the project has proceeded without required testing, the Contractor shall insure that the required testing is obtained retroactively and shall provide access for testing as necessary at his/her sole expense.

8. MATERIALS INSPECTION AND RESPONSIBILITY

- 8.1 The Project Manager shall have the right to inspect any materials to be used in carrying out the terms of the contract.
- 8.2 The City does not assume any responsibility for the contracted quality and standard of all materials, equipment, components or completed work furnished under this contract.
- 8.3 Any materials, equipment, components or completed work which does not comply with contract specifications, MDOT, or State codes may be rejected by the City, and shall be replaced by the Contractor at no cost to the City.
- 8.4 Any materials, equipment or components rejected shall be removed within a reasonable period of time from the premises of the City at the entire expense of the Contractor after notice has been given by the City to the Contractor that such materials, equipment or components have been rejected.

9. LAYING OUT WORK

Before submitting a bid the Contractor shall verify all measurements and shall be responsible for the correctness of same. No extra charge or compensation will be allowed on account of differences between actual dimensions and the measurements indicated on the drawings. Any difference that may be found shall be submitted to the City Engineer for consideration before proceeding. The City Engineer will provide staking for the project.

10. SUPERVISION

The Contractor shall employ an experienced superintendent or foreperson on the job at all times.

11. TEMPORARY UTILITIES

11.1 Temporary or construction water will NOT be available on the sites. The Contractor must provide for drinking water.

11.2 Temporary toilets: To be supplied by the Contractor as may be necessary.

12. SITE SECURITY

The Contractor shall be responsible for job site security of all materials and tools provided by him/her and no claim for loss or damage will be considered by the City.

13. TARDINESS

Construction delays resulting from tardiness on the part of the Contractor will be reviewed by the City in the event of any request for contract extension by the Contractor.

14. PROGRESS SCHEDULE

14.1 After receipt of Notice to Proceed, work shall start within 10 days, but no sooner than May 16, 2022, unless otherwise agreed to by the Project Manager. **Project shall have a substantial completion date of July 1, 2022.** The tank may be out-of-service a maximum of 25 days.

14.2 The contractor has the option to complete the project in Fall 2022. Work can commence on or after October 3, 2022, with substantial completion date of November 7, 2022. The tank may be out-of-service a maximum of 25 days.

14.3 Work of a similar nature may be added to this contract if agreed to by the City and the Contractor. In the event that work is added, the progress schedule for the work will remain unchanged. Any contract time added for additional work will be applied to that additional work only and cannot be added to items in the original contract. Any work done on the items in the original contract past the number of working days stated herein will be subject to liquidated damages regardless of any work that may be added at a later date.

14.4 The Contractor will be required to meet with the Public Services representatives to work out detailed progress schedule. The schedule for this meeting will be within two weeks after contract award has been made.

14.5 The named sub-contractor(s) for all items shall also be present at the scheduled meeting and they will be required to sign the Progress Schedule to indicate their approval of the scheduled dates of work set forth in the Progress Schedule.

14.6 The Progress Schedule shall include, as a minimum, the starting and completion dates for major items, and where specified in the bid document the date the project is to be opened to traffic as well as the final project completion date specified in the bid documents. The Progress Schedule shall be coordinated with all aspects of the work occurring at the site.

14.7 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.

PROGRESS SCHEDULE (cont.)

- 14.8 The starting date and the contract time to the completion date for this project may be adjusted by Public Services without imposing liquidated damages upon the receipt of satisfactory documented evidence that unforeseen delayed delivery of critical materials will prevent the orderly prosecution the work.
- 14.9 Work hours are 7:00 am to 7:00 pm Monday through Saturday. Contractor can work outside these hours with Owner approval.

15. CONSTRUCTION SCHEDULE AND COORDINATION

- 15.1 The Contractor shall supply the City with an agreeable construction schedule before commencing work on this contract. This schedule shall detail beginning and completion dates for each major component of the project.
- 15.2 The Contractor shall coordinate and cooperate with all other contractors who may be working on the site in order to allow for the orderly progress of work being done.
- 15.3 The Contractor is required to keep the Project Manager fully informed of any proposed work which will tend to interfere with the existing operations at the site.
- 15.4 The Contractor shall schedule all work to accommodate the City's schedule. In the event Contractor's schedule falls on weekends, nights or overtime work is required, no additional compensation will be allowed. All work shall be part of this contract without regard to when it is done.

16. CONTRACTOR COORDINATION

- 16.1 The Contractor shall make every effort to coordinate every aspect of his work with that of other contractors on the site to assure an efficiently managed and proper installation.
- 16.2 Consideration shall be given to timing of construction, maintaining adequate construction access, and construction staging. Any costs associated with this coordination shall be included in the contract.

17. COORDINATING CLAUSE

The Contractor's attention is called to Article 104.08 of the MDOT 2012 Standard Specifications for Construction entitled "Cooperation by Contractor."

18. ADDITIONS

- 18.1 Any modification to the contract shall be subject to prior approval by the Purchasing Agent. City Commission approval may also be required.
- 18.2 Prices for additional work required are not requested in the itemized listing contained herein for the base project. Should additional work be authorized, compensation shall be made on the basis of price or prices to be mutually agreed upon. Such additional work shall not begin until a Change Order has been approved.

19. MAINTAINING TRAFFIC

- 19.1 This work shall be in accordance with the requirements of Section 812 of the MDOT Standard Specifications for Construction and as specified herein. The Contractor is advised that the current Michigan Manual of Uniform Traffic Control Devices is hereby established as governing all work in connection with traffic control devices, barricade lighting, etc. required on this project.
- 19.2 The Contractor shall furnish, erect, maintain and, upon completion of the work, remove all traffic control devices and barricade lights within the project and around the perimeter of the project for the safety and protection of through and local traffic. This includes, but is not limited to: Advance, regulatory and warning signs; barricades and channeling devices at intersecting streets on which traffic is to be maintained; barricades at the ends of the project and at right-of-way lines for intersecting streets which are to be closed with the first usable street on each side of the project. Traffic regulators, where required by the Engineer, are included.
- 19.3 Where the existing pavement or partial widths of new pavement are to be utilized for the maintenance of through and local traffic, drum type barricades will be required at 50' intervals or as directed by the Engineer for channeling and directing traffic through the construction area.
- 19.4 Through traffic shall be maintained utilizing sidewalk closures with detours and traffic shifts per MDOT traffic and safety details.
- 19.5 Protection of all pedestrian traffic shall be maintained at all times.
- 19.6 Payment for the traffic control devices shall be based on the quantity used and the contract unit prices.
- 19.7 Under Article 812.04.D "Operated Pay Items" the term 'Relocating' shall include the relocating of the item from any street covered by the contract to any other street covered by the contract.

Special Restrictions: Access to frontage properties shall be maintained as much as practical. Emergency access shall be maintained at all times. The Contractor shall maintain two-way traffic with flag control as needed when the road is restricted to only one traffic lane.

20. LIQUIDATED DAMAGES

- 20.1 Liquidated damages are applicable and begin after 25 days out-of-service or after Substantial Completion date whichever is the earlier date. Liquidated damages at \$1,250/calendar day shall apply after this date.
- 20.2 Ready for Final Payment Date shall be thirty (30) days after date Substantial Completion Date based on out-of-service days or scheduled Substantial Completion, or as adjusted by Change Order; or actual Substantial Completion if earlier. Liquidated damages after Ready for Final Payment Date of \$250/day shall apply.
- 20.3 Liquidated damages are cumulative if damages from Substantial Completion and Ready for Final Payment overlap. In addition, Special Damages, fines, or Set-offs may also apply.

21. REMOVAL OF RUBBISH

The Contractor shall daily remove all rubbish and accumulated materials due to his/her construction.

22. SITE ACCESS

The City will provide fair and reasonable access to the job site within the working schedules of both parties.

23. GUARANTEE

The Contractor shall guarantee all of his/her work for a period of two (2) years following the date of final acceptance of the completed work and shall repair, replace or make good any materials or work which fail to function or perform or be found defective, without cost to the City.

24. SAFETY

The Contractor shall comply with all applicable OSHA and MIOSHA regulations.

25. PAY ESTIMATES

The Contractor shall be responsible for the generation of invoices for payment. Payment will be generated by the City based upon an approved invoice. Recommended frequency of payment is monthly, however, frequency of payment will not exceed bi-weekly.

26. PRODUCT/SYSTEM SUBSTITUTIONS

Submit a written request, to be received not later than 10 days prior to scheduled bid opening, for Substitution of any Product not named. If no substitutions are submitted, it will be reasonably concluded by the Owner and Landscape Architect that the specified product will be incorporated into the Work and the Bidder will be committed to supplying the specified product.

26.1 Describe in detail any variance to the Product specified. All proposed substitution for specified items shall be substantially the same size (height, length, width, diameter, etc.), type, color, construction quality and shall meet the design intent to be considered for substitution for the Product specified.

26.2 Document each request with complete data substantiating compliance of proposed Substitution with Product specified including written certification that Product conforms to or exceeds all requirements of the Product specified.

26.3 Document all coordination information, including a list of changes or modifications needed to the Contract Documents or other parts of the Work and to construction performed by the Owner and Separate Contractors that will become necessary to accommodate the proposed substitution.

26.4 Provide name, address and telephone number of manufacturer's authorized representative.

26.5 Submit three copies of all documents for each request for Substitution for consideration.

26.5 Approval of the Substitution request, if given, will be in the form of an addendum issued prior to scheduled opening date and hour at local time.

27. SAMPLES AND DEMONSTRATIONS

Evidence in the form of samples may be requested. Such samples are to be furnished after the date of bid opening only upon request of The City unless otherwise stated in the bid proposal. If samples should be requested, such samples must be received by The City no later than seven (7) days after formal request is made. When required, The City may request full demonstrations of any unit(s) bid prior to the award of any contract. Samples, when requested, must be furnished free of expense to The City and if not used in testing or destroyed, will upon request within thirty (30) days of bid award be returned at the bidder's request.

28. ACCEPTANCE OF MATERIAL

The material delivered under this proposal shall remain the property of the seller until a physical inspection and actual usage of the material and/or services is made and thereafter accepted to the satisfaction of The City and must comply with the terms herein, and be full in accord with specifications and of the highest quality. In the event the material and/or service supplied to The City is found to be defective or does not conform to specifications, The City reserves the right to cancel the order upon written notice to the seller and return the product to seller at the seller's expense.

29. VARIATIONS TO SPECIFICATIONS

For purposes of evaluation, the bidder **MUST** indicate any variances from our specifications, terms and/or conditions, no matter how slight. If variations are not stated in the proposal, it will be assumed that the product or service fully complies with our specifications, terms and conditions.

30. SAFETY STANDARDS

The bidder warrants that the products supplied to The City conform in all respects to the standards set forth in the Occupational Safety and Health Act of 1970 and its amendments and the failure to comply with this condition will be considered a breach of contract.

31. MANUFACTURER'S CERTIFICATION

The City reserves the right to request from bidders separate manufacturer certification of all statements made in the bid.

32. PROTECTION OF WORK

The Contractor shall maintain adequate protection of all his/her work from damage and shall protect all public and private abutting property from injury or loss arising in connection with this contract.

33. PROTECTION OF PROPERTY

33.1 The Contractor shall confine his/her equipment and operations to those areas of the work site necessary for the completion of the work, or as authorized by the Project Manager. The Contractor shall protect and preserve from damage any facilities, utilities or features including trees, shrubs and turf which are not required to be disturbed by the requirements of the work.

33.2 The Contractor shall be responsible to determine the location of and to protect from damage any utilities or other improvements.

34. QUESTIONS

Bidders shall address questions regarding the specifications to Debbie Jung, P.E. Senior Civil Engineer at jungd@kalamazoo-city.org. (This does not relieve the requirements of Page 1, Item 3.) Questions regarding terms, conditions and other related bid requirements may be addressed to Monica Johnson, Buyer at johnsonm2@kalamazoo-city.org or (269) 337-8603.

SECTION VI
TERMS AND CONDITIONS

1. AWARD OF CONTRACT

- A. This contract will be awarded to that responsible bidder whose bid, conforming to this solicitation, will be most advantageous to the City, price and other factors considered. The City reserves the right to accept or reject any or all bids and waive informalities and minor irregularities in bids received. Other factors include, as an example but not limited to, delivery time, conformance to specifications, incidental costs such as demurrage and deposits, etc.

Notification of award will be in writing by the Purchasing Agent. Upon notification, the Contractor shall submit to the Purchasing Division all required insurance certificates (if required) and such other documentation as may be requested or required hereunder. Upon their receipt and subsequent approval by the City, the Purchasing Agent will forward to the Contractor a written **NOTICE TO PROCEED**. Work shall **NOT** be started until such **NOTICE TO PROCEED** is received by the Contractor.

- B. Unilateral changes in bid prices by the bidder shall not be allowed. However, the City, at its sole option, reserves the right to negotiate with bidders in the event of, but not limited to:

- 1) No bids received;
- 2) A single bid being received; or
- 3) Prices quoted are over budget and/or unreasonable.

2. COMPLETE CONTRACT

This bid document together with its addenda, amendments, attachments and modifications, when executed, becomes the complete contract between the parties hereto, and no verbal or oral promises or representations made in conjunction with the negotiation of this contract shall be binding on either party.

3. SUBCONTRACTORS - NON-ASSIGNMENT

Bidders shall state in writing any and all sub-contractors to be associated with this bid, including the type of work to be performed. The Contractor shall cooperate with the City of Kalamazoo in meeting its commitments and goals with regard to maximum utilization of minority and women-owned business enterprises.

The Contractor hereby agrees and understands that the contract resulting from this solicitation shall not be transferred, assigned or sublet without prior written consent of the City of Kalamazoo.

4. TAXES

The City of Kalamazoo is exempt from all federal excise tax and state sales and use taxes. However, depending upon the situation, the vendor or contractor may not be exempt from said taxes and the City of Kalamazoo is making no representation as to any such exemption.

5. INVOICING

All original invoice(s) will be sent to the Finance Division, 241 W. South Street, Kalamazoo, MI 49007 or via email at apinvoice@kalamazoocity.org. Faxed copy of invoice(s) will not be accepted, unless it is to replace an original invoice that was lost in the mail. The Finance Division processes payments after receipt of an original invoice from the Contractor and approval by the department.

The City of Kalamazoo policy is to pay invoice(s) within 30 days from the receipt of the original invoice, if the services or supplies are satisfactory and the proper paperwork and procedures have been followed. In order to guarantee payment to the vendor on a timely basis, the vendor needs to receive a purchase order number before supplying the City of Kalamazoo with goods or services. All original, and copies of original invoice(s), will clearly state which purchase order they are being billed against.

The City of Kalamazoo is a government municipality and therefore is tax exempt from all sales tax. Our tax-exempt number is 38-6004627.

The vendor is responsible for supplying the Finance Division with a copy of their W-9 if they are providing a service to the City of Kalamazoo.

6. PAYMENTS

Upon issuance of certificates of Payment by the Architect/Engineer for labor and material incorporated in the work and the materials suitably stored at the site payment shall be made up to ninety (90%) percent of the value thereof.

When the cumulative total of payment is equal to fifty (50%) percent of the contract sum, subsequent payments will be made in the full amount for labor and material certified by the Architect/Engineer.

The amount retained shall be held until final acceptance of the work, receipt of all payrolls, releases, and waiver of liens.

7. CHANGES AND/OR CONTRACT MODIFICATIONS

The City reserves the right to increase or decrease quantities, service or requirements, or make any changes necessary at any time during the term of this contract, or any negotiated extension thereof. Price adjustments due to any of the foregoing changes shall be negotiated and mutually agreed upon by the Contractor and the City.

Changes of any nature after contract award which reflect an increase or decrease in requirements or costs shall not be permitted without prior approval by the Purchasing Agent. City Commission approval may also be required. **SUCH CHANGES, IF PERFORMED IN ADVANCE OF PURCHASING AGENT APPROVAL, MAY BE SUBJECT TO DENIAL AND NON-PAYMENT.**

8. LAWS, ORDINANCES AND REGULATIONS

The Contractor shall keep himself/herself fully informed of all local, state and federal laws, ordinances and regulations in any manner affecting those engaged or employed in the work and the equipment used. Contractor and/or employees shall, at all times, serve and comply with such laws, ordinances and regulations.

Any permits, licenses, certificates or fees required for the performance of the work shall be obtained and paid for by the Contractor.

This contract shall be governed by the laws of the State of Michigan.

9. RIGHT TO AUDIT

The City or its designee shall be entitled to audit all of the Contractor's records, and shall be allowed to interview any of the Contractor's employees, throughout the term of this contract and for a period of three years after final payment or longer if required by law to the extent necessary to adequately permit evaluation and verification of:

- A. Contractor compliance with contract requirements,
- B. Compliance with provisions for pricing change orders, invoices or claims submitted by the Contractor or any of his payees.

10. HOLD HARMLESS

If the acts or omissions of the Contractor/Vendor or its employees, agents or officers, cause injury to person or property, the Contractor/Vendor shall defend, indemnify and save harmless the City of Kalamazoo, and LL Harris and Associates, their agents, officials, and employees against all claims, judgments, losses, damages, demands, and payments of any kind to persons or property to the extent occasioned from any claim or demand arising therefrom.

11. DEFAULT

The City may at any time, by written notice to the Contractor, terminate this contract and the Contractor's right to proceed with the work, for just cause, which shall include, but is not limited to the following:

- A. Failure to provide insurance and bonds (when called for), in the exact amounts and within the time specified or any extension thereof.
- B. Failure to make delivery of the supplies, or to perform the services within the time specified herein, or any extension thereof.
- C. The unauthorized substitution of articles for those bid and specified.
- D. Failure to make progress if such failure endangers performance of the contract in accordance with its terms.
- E. Failure to perform in compliance with any provision of the contract.

DEFAULT (cont.)

- F. **Standard of Performance** - Contractor guarantees the performance of the commodities, goods or services rendered herein in accordance with the accepted standards of the industry or industries concerned herein, except that if this specification calls for higher standards, then such higher standards shall be provided.

Upon notice by the City of Contractor's failure to comply with such standards or to otherwise be in default of this contract in any manner following the Notice to Proceed, Contractor shall immediately remedy said defective performance in a manner acceptable to the City. Should Contractor fail to immediately correct said defective performance, said failure shall be considered a breach of this contract and grounds for termination of the same by the City.

In the event of any breach of this contract by Contractor, Contractor shall pay any cost to the City caused by said breach including but not limited to the replacement cost of such goods or services with another Contractor.

The City reserves the right to withhold any or all payments until any defects in performance have been satisfactorily corrected.

In the event the Contractor is in breach of this contract in any manner, and such breach has not been satisfactorily corrected, the City may bar the Contractor from being awarded any future City contracts.

- G. All remedies available to the City herein are cumulative and the election of one remedy by the City shall not be a waiver of any other remedy available to the City.

12. TERMINATION OF CONTRACT

The City may, at any time and without cause, suspend the work of this contract for a period of not more than ninety days after providing notice in writing to the Contractor. The Contractor shall be allowed an adjustment in the contract price or an extension of the contract times, or both, directly attributable to the suspension if Contractor makes an approved claim.

The City may, without prejudice to any other right or remedy of the City, and with or without cause, terminate the contract by giving seven days written notice to the Contractor. In such case the Contractor shall be paid, without duplication, for the following items:

- A. Completed and acceptable work executed in accordance with the contract documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such work;
- B. Expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials or equipment as required by the contract documents in connection with uncompleted work, plus fair and reasonable sums for overhead and profit on such expenses;
- C. All documented claims, costs, losses and damages incurred in settlement of terminated contracts with Subcontractors, Suppliers and others; and
- D. Reasonable expenses directly attributable to termination.

The Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

13. INDEPENDENT CONTRACTOR

At all times, the Contractor, any of his/her employees, or his/her sub-contractors and their subsequent employees shall be considered independent contractors and not as City employees. The Contractor shall exercise all supervisory control and general control over all workers' duties, payment of wages to Contractor's employees and the right to hire, fire and discipline their employees and workers. As an independent contractor, payment under this contract shall not be subject to any withholding for tax, social security or other purposes, nor shall the Contractor or his/her employees be entitled to sick leave, pension benefit, vacation, medical benefits, life insurance or workers' unemployment compensation or the like.

14. PROJECT SUPERVISOR

The Contractor shall employ an individual to act as Project Supervisor. The Project Supervisor shall be available to the Contractor's workers and the Project Manager at all times by use of a beeper or other reliable means. The Project Supervisor shall prepare daily work plans for the employees, monitor employee performance, attendance and punctuality; and work closely with the City's Project Manager in assuring contract compliance.

15. MEETINGS

The Contractor and/or Project Supervisor shall be available to meet with the Department Head or Project Manager at a mutually agreeable time to discuss problems, issues or concerns relative to the contract. Either party may call a meeting at any time. When such a request for a meeting is made, the meeting date shall, in no case exceed five (5) working days after the request; and, if in the sole opinion of the Department Head, the severity of the circumstance warrants, no more than one (1) working day.

SECTION VII
ADDITIONS TO GENERAL PROVISIONS

PART 1 – GENERAL

GENERAL PURPOSE OF THESE ADDITIONS TO GENERAL PROVISIONS

- A. These Additions to the General Provisions were prepared by Dixon Engineering, Inc. using paragraphs from Engineering Joint Contract Documents Committee (EJCDC) General Conditions GC-700 -18 which were modified by DIXON as they relate to the coating industry. The General Provisions of this Contract were prepared by the Owner. These Additional General Provisions are intended to supplement the Owner's General Provisions as they relate to this specific project. Two examples are:
1. The Owner's Terms and Conditions detail the payment process, how to submit a Request for Payment application, what form to use and when and where to submit the application. These Additions detail how DIXON calculates approval of a pay request, no payment for stored materials, percentage complete calculation methodology, etc.
 2. In the General Provisions Liquidated Damages are defined, when, where and amount. In these Additions the method of calculating claimed wind and weather days is detailed.
- B. This Addition to General Provisions follow the EJCDC format and the Article numbers reflect the Article number in the 2018 edition of the EJCDC General Conditions. Note that not all Articles or subsections are referenced.

DISCREPANCIES BETWEEN OWNER'S GENERAL PROVISIONS AND THESE ADDITIONS.

- A. If the conflict is administrative in nature, then the Owner's Terms and Conditions govern. Examples are Pay Request procedures, filing a Claim, etc.
- B. If the conflict is of a technical nature, then these Additions govern.
- C. An issue determined to be in conflict in a specific item does not void other non-conflicting paragraphs in the same Article number.
- D. Bidders are required to familiarize themselves with all the General Provisions, Terms and Conditions, and Special Requirements of the contract, as well as these Additions.
- E. In all cases of discrepancies between the General Provisions, these Additions, the Technical Specifications and/or the Drawings, the Engineer shall be notified. The specifications shall govern over the drawings.
- F. If Work proceeds without Contractor obtaining proper interpretations of the conflicting issues from the Engineer, any installed Work that is not in accordance with the specification, and best practices shall be replaced at no additional cost and other costs that may occur are also the responsibility of the Contractor if they were aware of the conflict.

ARTICLE 1 DEFINITIONS AND TERMINOLOGY

1.01 DEFINED TERMS

- A. Construction Industry Definitions: These definitions are taken from the EJCDC General Conditions C-700-18, the 2018 edition and some were modified by DIXON to be specific to the coating industry.
1. *Bulletin*—If time permits, a Bulletin is issued prior to a Change Order. A Bulletin is an inquiry of the Contractor of the cost to complete the work described in the Bulletin. It is intended as the basis of a Change Order if all parties reach agreement. A Bulletin may be considered as the same as a Change Proposal except that a Bulletin is generated by the Engineer because it generally requires specifications to be addressed.
 2. *Change Order* is a written order to the contractor signed by the owner, issued after execution of the contract, authorizing a change in the work or an adjustment in the contract sum or the contract time. A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
 3. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
 4. *Constituent of Concern (CC)*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), lead based paint (as defined by the HUD/EPA standard) hazardous waste, and any substance, product, waste, or other material. Lead, chrome, and other by-products of paint removal, as well as strippers, new coatings, and thinners, are to be included in this definition. Coating industry related CC, from new or from previous projects cannot be the basis of Contract Termination or Change Proposal by the Contractor.
 5. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor. A Shop Drawing is not a Drawing and is not part of the Contract Documents.
 6. *Electronic Document*—Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including but not limited to Shop Drawings and other Submittals, that are in an electronic or digital format.
 7. *Electronic Means*—Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow: (a) the transmission or communication of Electronic Documents; (b) the documentation of transmissions, including sending and receipt; (c) printing of the transmitted Electronic Document by the recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.
 8. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
 9. *Hold Point*—A point in the construction sequence when the Contractor is required to stop work on that portion of the project until Work has been Site reviewed by RPR or Project Manager.

10. *Non-Conformance Report*—A report written by the Engineer or Resident Project Representative, to document the Contractor’s Work that does not meet requirements of the specifications or contract.
11. *Performance Specifications* –Specifications that require the manufacturer or supplier of equipment, materials, or systems to design, manufacture, deliver, and install products to achieve specific results under stipulated conditions of operation and in environments described in applicable Specification Sections.
12. *Ready for Final Payment* – This term is used to define a time when Liquidated Damages begin, separate from Liquidated damages for failure to meet Substantial Completion Date. Ready for Final Payment Date is generally listed 30 days after Substantial Date. All punch list items are to be completed, Site cleaned and restored, and equipment removed. At the option of the Owner this LD may be in addition (cumulative) with an LD for failure to meet Substantial Completion Date.
13. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or “RPR” includes any assistants or field staff of Resident Project Representative.
14. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor’s Applications for Payment. The Schedule of Value Form is supplied in these Bidding Documents as Section 00 06 00. This Schedule is to be submitted with the Bid. Adjustment of Schedule of Values by Engineer will not change the total Bid as calculated by the Contractor completing the Schedule of Values.
15. *Set-Off*—Owner may withhold from payment including Final Payment an amount equal to additional expenses incurred by Owner which were the responsibility of the Contractor. Such expenses may include additional engineering expenses related to excess review of incomplete submittals of shop drawings, pay requests, or bonds and insurance, excess Requests for Information, excess tests and inspections and return visit to site to complete a reinspection of a previously failed inspection, increase inflation in Engineering fees that result from Contractor delaying project into the next season; additional expenses incurred by Owner resulting from Contractor failure to clean site, rehabilitate Site and other construction related expenses resulting from Contractor not completing their contractual obligations.
16. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands furnished by Owner which are designated for the use of Contractor.
17. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
18. *Submittal*—A written or graphic document, prepared by or for Contractor, which the Contract Documents require Contractor to submit to Engineer, or that is indicated as a Submittal in the Schedule of Submittals accepted by Engineer. Submittals may include Shop Drawings and Samples; schedules; product data; Owner-delegated designs; sustainable design information; information on special procedures; testing plans; results of tests and evaluations, source quality-control testing and inspections, and field or Site quality-control testing and inspections; warranties and certifications; Suppliers’ instructions and reports; records of delivery of spare parts and tools; operations and maintenance data; Project photographic documentation; record documents; and other such documents required by the Contract Documents. Submittals, whether or not approved or accepted by Engineer, are not Contract Documents. Change Proposals, Change Orders, Claims, notices, Applications for Payment, and requests for interpretation or clarification are not Submittals.

19. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof. On tank projects, date of substantial completion is the date the tank is, or would have been returned to service, except for voluntary delay by Owner. Date of Substantial Completion is after complete cure, disinfection, and testing.
20. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

B. Defective:

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or 15.04).
 - d. All work completed that is rejected by an unresolved non-conformance report.

ARTICLE 2 PRELIMINARY MATTERS

2.04 PRECONSTRUCTION CONFERENCE

A. Preconstruction Conference is herein called Preconstruction Meeting:

1. The Engineer will schedule a Preconstruction Meeting to be attended by Owner, Engineer, and Contractor. Prior to beginning any Work, Contractor shall submit to the Engineer, a Project Schedule and all other required Submittals for the project. If the schedule is aggressive, working overtime, weekends, and/or holidays, that time shall be reflected in the Project Schedule. Once the project has begun, the Contractor shall carry the Project Schedule to completion without delay.
2. Attend a Preconstruction Meeting that may be scheduled by the Owner at a mutually agreeable time after contract preconditions, bonds, certificates of insurance, and other requirements have been met.
3. A corporate officer, or someone with legal authority to obligate the company/corporation, project manager (if different from officer), and the intended superintendent shall attend. If project superintendent does not attend the meeting, it shall be the Contractor’s responsibility to supply the information discussed at the meeting to the field superintendent.
4. The Owner will be represented by the project contact person, and the Engineer by the Project Manager, or a Contract Administrator.
5. All containment, personal hygiene, and lead control issues required in this contract will be reviewed. Be prepared to commit designated “Competent Person(s)” to responsibilities of confined space, scaffold rigging, lead, etc.

B. Progress Meetings:

1. The Project Manager or Owner will schedule Progress Meetings to be held on the job Site whenever needed to supply information necessary to prevent job interruptions, to observe the Work, or to inspect completed Work. The Contractor shall be represented at each progress meeting by persons with full authority to act for the Contractor in regard to all portions of the Work.

ARTICLE 3 CONTRACT DOCUMENTS: INTENT REQUIREMENTS, REUSE

3.01 INTENT

- A. The drawings and specifications are intended to include all Work and materials necessary for completion of the Work. Any incidental item of material, labor, or detail required for the proper execution and completion of the Work and omitted from either the drawings or specifications or both, but obviously required by governing codes, local regulations, trade practices, operational functions, and good workmanship, shall be provided as a part of the contract Work without extra cost, even though not specifically detailed or mentioned.

ARTICLE 4 COMMENCEMENT AND PROGRESS OF THE WORK

4.01 COMMENCEMENT OF CONTRACT TIMES

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to such date except as recommended immediately following or by written authorization of the Owner AND the Engineer (Engineer must be able to schedule appropriate RPR for Project.) Contract time is governed by out-of-service time. The Contractor is encouraged to deliver equipment to the Site prior to Contract Start. The Site will be available up to two (2) weeks prior to agreed drainage date. Contractor is also encouraged to rig the structure, complete containment installation, and complete weld repairs that do not affect the wet interior prior to draining of the tank. The amount of Work completed shall have been approved at the Preconstruction Meeting. Since the tank is not out of service these dates do not apply against Out of Service time but may require scheduling RPR services (see Section 00 91 19.01 Scheduling for RPR Services.)
- B. Delaying Work start for the convenience of the Contractor may require Owner to Set off inflation increased Engineering or RPR expenses against Contractor's Request for Payment.

4.05 DELAYS IN CONTRACTOR'S PROGRESS

A. Liquidated Damages

1. Contract time is governed by out-of-service time.
2. On tank projects, date of substantial completion is the date the tank is or would have been returned to service, except for voluntary delay by Owner. Date of substantial completion is after complete cure, disinfection, and testing. A voluntary delay in filling by Owner, or delay that is no fault of the Contractor may extend Substantial Completion date.
3. Abnormal weather conditions are defined as weather conditions that are at variance with the routine. An example of the determination procedure and of the required claim format is:

Project length: 45 days
Substantial completion date: June 30th.
Start date: May 16th.
3 years of data* 2018, 2019, 2020
Average number of rain/wind days: 9
Actual number of rain/wind days**: 12
Claim for time extension: 3 days

- 4. *Submit weather history from nearest weather reporting station for three (3) previous years from the same time period. Submit formal, by simple claim (use format above).
- 5. **Rain/wind day is a rain or wind day where either rain and/or wind conditions exceeded safe Work conditions or were outside the parameters of good paint practices. Wind days are winds in excess of 20 mph for over four (4) hours during normal Work hours, and rain days having measurable precipitation.
- 6. Weather Claim Evaluation: Engineer will evaluate claim and make sole determination as to whether days meet criteria. Engineer will disallow dates where Work could have been completed on the interior; dates that result from the Contractor’s Work practices (i.e. complete wet interior first and then move to exterior). Good weather days not used will count against claim.
- 7. Claimed rain/wind days that occur after the scheduled Substantial Completion Date or an extended Substantial Completion Date will not be awarded. Days past Substantial Completion and good weather days that were not used for Productive Work will be considered “days within the control of the Contractor.”

ARTICLE 5 SITE; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENT CONDITIONS

5.02 USE OF SITE AND OTHER AREAS

A. Site:

- 1. Protection - The Contractor is responsible for the protection of property during the period of construction and shall exercise care to prevent damage to structures, utility services, storm and sanitary drainage systems, lawns, trees, plant material, fences, walks, drives, roadways, and other improvements in and adjacent to the area of Work under the contract. Any damage to property resulting from the Contractor’s operations shall be repaired or replaced by the Contractor at their expense.
- 2. The Contractor shall be responsible for all injury to Work in process of construction, and for all property or materials stored at the premises that may be damaged or stolen while the Work is in his care, at Contractor’s expense.
- 3. The Contractor shall confine the apparatus, the storage of materials, and the operations of his Workers to limits indicated by law, ordinance, permits, or direction of the Engineer, and shall not unreasonably encumber the premises with his materials.
- 4. Maintenance
 - a. Provide labor and material necessary to maintain the Site in a safe condition.
 - b. Keep the premises free from accumulation of waste materials, rubbish, and other debris resulting from the Work.
 - c. At completion of the Work, remove all waste materials, rubbish, and debris from about the premises, as well as all tools, construction equipment, machinery, and surplus materials.
 - d. At the Contractor’s expense, repair damage that may have occurred to any permanent structure completed under the contract Work, or to private or public property.
 - e. Notify the Owner of your intentions and the reasons why, if it is necessary to protect adjacent houses, cars, etc. During clean-up these areas will be considered as part of the Site and shall be cleaned accordingly.

- f. Failure to continually maintain the Site or to immediately clean the Site after a complaint or project completion may result in the Owner completing the Work by hire or by the Owner’s forces. All cost would be responsibility of the Contractor, subject to Set off.
 - g. Restore Site to preconstruction condition:
 - i. Refill holes and level area around the construction Site for the Site to the original grade.
 - ii. Bring soil to a friable condition by disking, harrowing, or otherwise loosening and mixing to a depth of 3 in. – 4 in. Thoroughly break all lumps and clods.
 - iii. Rake area to be seeded. Sow seed at a minimum rate of 220 lbs./acre.
5. Cleaning - Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work, but prior to Ready for Final Payment, Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

5.03 SUBSURFACE AND PHYSICAL CONDITIONS

- A. Locations of all buried utility service lines in or adjacent to the Work area that are not shown on the drawings will be located by the Contractor through the local utility locating agency and marked with warning stakes. The Contractor shall be responsible for the protection of all utility service lines that are to remain. Damage to any such utility service lines, pipes, etc. resulting from the Contractor’s operations shall be repaired or replaced by the Contractor at their expense. Underground Work in the coating industry involves drilling for anchors for containment systems. The painting of pit piping will be considered subsurface Work. For this type of Work the Contractor must rely on Utility Locating Services and not Technical Data from Owner, or in the case of pits, a visual inspection. Contractor shall notify each utility before digging for anchors or for any reason. Before starting, call in advance or/as required by the individual agencies: Call 811 or appropriate agency in the state of the project.

5.06 HAZARDOUS ENVIRONMENTAL CONDITIONS AT SITE

- A. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition (Constituents of Concern) encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the Scope of the Work or eventually identified as being caused or created by the Contractor.
- B. Power Lines – Antennas – Electrical Wiring
 - 1. If overhead power lines present an unsafe Work condition as determined by OSHA, Owner or utility, the Contractor at their expense and coordination, shall have the utility temporarily relocate, move, or cover lines, eliminating the hazard.
 - 2. Unless stated differently in Contract Documents, protect all antennas, controls, cables, and associated property of Owner’s equipment or material on, in or near the structure during Work. Design construction procedures to maintain operation of antenna system. If antennas are removed from the structure protect all telecommunication equipment remaining in place.

3. Unless stated differently in the Contract Documents, protect all electrical lines and controls including 110/220 V. service lines, cathodic wiring, lights, globes, outlets, and service boxes. Protect associated property of private telecommunication companies (911, school buses, etc.) from damage during Work. Design construction procedures to maintain operation of telecommunication systems.

ARTICLE 6 BONDS AND INSURANCE

6.01 PERFORMANCE, PAYMENT, AND MAINTENANCE BONDS (NOT BID BONDS)

- A. Supply a Maintenance (Warranty) Bond for two (2) years at 50% of the contract price, to ensure any repair work required or detected as a result of the (13) months (1 year) Post Construction inspection. The repair scheduling may be delayed several months for Contractor’s schedule or Owner’s operational requirements. This bond is to remain in effect until repairs have been completed and accepted. Per Technical Specifications, if repairs exceed 10% of any area, then the warranty and bond shall be extended another year. The maintenance (warranty) bond must be issued by the same surety that issues the performance bond required under Paragraph 1.A of Section IV Special Requirements.

ARTICLE 7 CONTRACTOR’S RESPONSIBILITIES

7.01 CONTRACTOR’S MEANS AND METHODS OF CONSTRUCTION

- A. Contractor shall supervise, direct, control, and have authority over or be responsible for Contractor’s means, methods, techniques, sequences, or procedures of construction, and the safety precautions and programs incident thereto.
- B. Any plan or methods of accomplishing the work suggested to the contractor by the Engineer or other representative of the Owner, but not specified or required, shall be used at the contractor’s own risk and responsibility. The Engineer and Owner assume no responsibility.
- C. Contractor shall comply with Laws and Regulations applicable to the performance of the Work.
- D. Contractor’s shall perform the Work in accordance with the Contract Documents. Contractor’s obligation to perform under terms of Contract and complete the Work in accordance with the Contract Documents is absolute.
- E. Contractor shall be responsible for the acts or omissions of Contractor and of any Subcontractor, any Supplier, and of any other individual or entity performing any of the Work.

7.02 SUPERVISION AND SUPERINTENDENCE

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents.
 1. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.
 2. Resident superintendent shall be fluent in English to the level of competency to complete responsibilities of the Contractor and to communicate with the RPR. Superintendent shall also be fluent or have access to a translator on site, for the primary language of all of the Workers. Degree of fluency in English and language of workers to be sufficient so that superintendent’s employees can adequately and safely complete their duties:

3. No employee of Contractor, Subcontractor, or Supplier may be on the Project Site who cannot be directed by a Superintendent, or translator in regard to work assignments, safety issues, or who cannot understand safety signage.

7.03 LABOR; WORKING HOURS

- A. Provide equipment of sufficient size and power to expedite the project so that all deadlines are met. Personnel and crew size also shall be sufficient to meet required deadlines.
- B. If, in the sole opinion of the Engineer, there is insufficient equipment or personnel to complete the project, the Engineer will notify the Contractor and Owner, and a Project Meeting will be held within twenty-four (24) hours for the purpose of contract termination, unless a reasonable cause is given to the contrary.

7.05 “OR EQUALS”

- A. Whenever an article, material, or item of equipment is described by a performance specification, written as a proprietary product, or uses the name of a manufacturer or vendor, the term “or equal” if not inserted, shall be implied. The specific article, material, or item of equipment mentioned shall be understood as indicating the minimum requirements for fulfilling contract obligations in regard to type, function, standard of design and efficiency. See Section 09 97 13, Part 2, Substitution of Coatings, which shall govern over this clause where conflicting, relative to coatings, grouts, and fillers only. Other exceptions are when the specifications state that only the proprietary item will be permitted.

7.11 LAWS AND REGULATIONS

- A. Contractor is responsible for all permits and requirements of local, state, and federal agencies. This includes building, electrical, labor, OSHA, etc. The only permits not included are from health agencies for interior painting, cathodic protection installation and mixer installation which is the responsibility of the Owner.
- B. Display all wage requirements and other permits on a temporary board.
- C. Attach to the superintendent’s copy of the specifications copies of other permits that do not require display.

7.13 SAFETY AND PROTECTION

- A. Conform to the Occupational Safety and Health Standards of the United States Department of Labor and local safety agencies. This shall be made a condition of each subcontract as entered into pursuant to this contract.
- B. Removal of lead-based paint and painting of structures are recognized as very dangerous Work, and it is further recognized the painting industry has extensive safety training programs available.
- C. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs. Contractor’s Safety Representative shall have the authority to supersede Contractor’s foreman and shall stop work if the Work being completed is in violation of Contractor’s or Owner’s safety program, or OSHA regulations.
- D. Monitor and be responsible for all safety practices.

- E. The Engineer and Owner shall have full access to the Site. Contractor shall make personnel and equipment available to the Owner and Engineer/RPR to expedite observations.
- F. While at the Site, Engineer’s employees and representatives will comply with the specific applicable requirements of Owner’s and Contractor’s safety programs (if any) of which Engineer has been informed.
- G. Contractor is responsible for security, safety, etc. on the Site until all his equipment is removed and all keys are returned.

7.17 CONTRACTOR’S GENERAL WARRANTY AND GUARANTEE

- A. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents, or a release of Contractor’s obligation to perform the Work in accordance with the Contract Documents, or a release of Owner’s warranty and guarantee rights:
 - 1. Observations and/or Daily Observation Reports by Engineer/RPR;
 - 2. Recommendation by Engineer or payment by Owner of any progress or final payment;
 - 3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 - 4. use or occupancy of the Work or any part thereof by Owner;
 - 5. any review and approval of a Shop Drawing or Sample submittal;
 - 6. the issuance of a notice of acceptability by Engineer;
 - 7. the end of the correction period;
 - 8. any inspection, test, or approval by others; or
 - 9. any correction of defective Work by Owner.

7.19 DELEGATION OF PROFESSIONAL DESIGN SERVICES

- A. If the Contract Documents note, or Contractor determines, that professional engineering or other design services are needed to carry out Contractor’s responsibilities for construction means, methods, techniques, sequences, and procedures, or for Site safety, then Contractor shall cause such services to be provided by a properly licensed design professional, at Contractor’s expense. Such services are not Owner-delegated professional design services under this Contract, and neither Owner nor Engineer has any responsibility with respect to (1) Contractor’s determination of the need for such services, (2) the qualifications or licensing of the design professionals retained or employed by Contractor, (3) the performance of such services, or (4) any errors, omissions, or defects in such services.

ARTICLE 10 ENGINEER’S STATUS DURING CONSTRUCTION

10.07 LIMITATIONS ON ENGINEER’S AUTHORITY AND RESPONSIBILITIES

- A. Engineer’s Responsibilities
 - 1. Engineer will be Owner’s representative during the construction period.
 - 2. Engineer’s Project Manager (PM) will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor’s executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract

Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work, and will endeavor to guard Owner against defective Work.

3. Engineer will identify all Set-off expenses incurred against Engineer in their invoice to Owner.
4. Engineer's review of the final Application for Payment and accompanying documentation, and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Contractor, will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.

B. The Resident Project Representative's (RPR) Responsibilities

1. If the Owner retains Engineer to provide RPR services, the RPR will be Engineer's representative at the Site to assist in observing the progress and quality of the Work. RPR's dealings in matters pertaining to the Work in general will be with Engineer and Contractor. RPR's dealings with Subcontractors will only be through or with the full knowledge or approval of Contractor. The authority of any RPR will be as directed by the Engineer.
2. Neither Engineer's authority or responsibility under any provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, will create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them. No Agreement between the Owner and Engineer and nothing in this Contract shall imply or construct a third party beneficiary status to the Contractor.

- C. Engineer/RPR shall have the authority to stop Work in the event continuation of Work under a noncompliance situation, such as incomplete containment, may result in the violation of environmental laws, create a potential tort, or may result in the covering of defective or unaccepted Work (Nonconformance) product. This authority to stop work transfers back to the Owner after the Owner has been notified and returns to the Site.

ARTICLE 11 CHANGES TO THE CONTRACT

11.02 CHANGE ORDERS

- A. A Change Order is a written order to the Contractor signed by the Owner, issued after execution of the contract, authorizing a change in the work or an adjustment in the contract sum or the contract time. The cost or credit to the Owner resulting from a change in the work shall be determined in one or more of the following ways:
1. By mutual acceptance of a lump sum;
 2. By unit prices stated in the Contract Documents or subsequently agreed upon;
 3. By actual itemized cost and fixed fees as set forth in 2 above. Cost shall be limited to the following: cost of materials, cost of labor, and cost of overhead.

- B. A Bulletin will be issued in most cases before a Change Order. A Bulletin will request prices and other information from the Contractor. Prices requested in a Bulletin are subject to negotiation with the Owner.

11.04 FIELD ORDERS

- A. A field modification is written by the Engineer to the Contractor for purposes of clarification of the specifications or plans. A field modification is limited to items that do not change the scope of the project.
- B. Field modifications do not affect either the project cost or completion date.
- C. Field modifications become part of the Contract Documents and become binding upon the Contractor if they fail to object within three (3) working days after receiving the modification. A field modification may be used as the basis of a project cost change or contract extension if all parties agree on the field modification form to a potential future claim of either party or that the field modification will be complied with, but under protest.

ARTICLE 15 PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 AND 15.06 PROGRESS AND FINAL PAYMENTS

- A. Engineer’s review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.
- B. Measurement of payment will be considered based on the Schedule of Values submitted with the Contractor’s bid. The Schedule of Values will be reviewed by the Engineer prior to Notice of Award. If the Engineer determines the Schedule of Values is not acceptable, the Engineer will use the Contractor’s Schedule to reallocate values. The Engineer’s reallocation interest will be to maintain a sufficient value for Work completed toward the end of the project, to avoid frontloading values. The Engineer will assign values high enough to bring in another Contractor to finish Work in case of default. When evaluating the Schedule of Values, the Engineer will consider that material delivered to the Site has no value until properly applied. The Contractor has five (5) days to appeal the reallocated Schedule of Values.
- C. Pay request(s) shall be made on form(s) supplied by the Owner or Engineer or required by Owner. If no form is supplied, use AIA form.
- D. Owner will make progress payments once each month during performance of the Work, in which the Contractor files an application for payment.
 - 1. All such payments will be compared with the Schedule of Values,
 - 2. or in the case of unit price Work, based on the number of units completed, or
 - 3. if lump sum item is less than 100% completed then allocated as follows:
 - a. On the exterior, surface preparation by high pressure cleaning or jetting and power tool cleaning will be considered equal to 40% of the line-item Work and cost and full coat 15%. The remainder will be for lettering, demobilization, and clean-up.
 - b. Dry interior painting and repairs will not be broken down. 100% completion is required before they will be considered for payment.

6th Street North Water Storage Tank Painting**Bid Reference #: 90900-010.0**

- c. Mobilization is included in the surface preparation allotment for items in 3 above.
4. Owner is entitled to impose a set-off or withholding against payment based on any of the following:
 - a. Third party claims, have been made or there is reasonable evidence indicating probable filing of claims against Owner on account of Contractor's conduct in the performance or furnishing of the Work, or
 - b. Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from Workplace injuries, adjacent property damage, non-compliance with Laws and Regulations (Special Damages, see Article 18 below), and patent infringement or,
 - c. Damage caused by the Contractor to the Owner or to another Site approved Contractor or;
 - d. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other Work at or adjacent to the Site or;
 - e. an event that would constitute a default by Contractor and therefore justify a termination for cause or;
 - f. defective Work not remedied;
 - i. requiring correction or replacement including additional inspection costs
 - ii. requiring correction or replacement
 - iii. Owner has been required to correct defective Work or
 - iv. has accepted defective Work
 - g. persistent failure to carry out the Work in accordance with the Contract Documents.
 - h. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is contractually responsible or responsible for creating the condition;
 - i. the Contract Price has been reduced by Change Orders;
 - j. failure of the Contractor to make payments properly to subcontractors, or for labor, materials, or equipment or;
 - k. liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - l. liquidated damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or Ready for Final Payment or;
 - m. reasonable evidence that the Work cannot be completed for the unpaid balance of the contract sum, or within the contract time or;
 - n. Contractor has failed to provide and maintain required bonds or insurance or;
 - o. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.
 - p. Owner has incurred extra charges or Engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to complete field observations that were determined to be failed;
 - q. other items entitling Owner to a Set-off against Payment
 - r. The Owner may also decline to make payment including an item previously approved for payment, because of subsequently discovered evidence or subsequent observations,

as may be necessary in their opinion to protect against loss by Set-off amount previously recommended.

5. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment agreed to by Owner and Contractor, if Contractor remedies the reasons for such action.
 - a. The reduction imposed shall be binding on Contractor unless Contractor duly submits a Change Proposal contesting the reduction.
 - b. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss.
6. Owner may decide against Set-off as a remedy, but in so doing, Owner does not waive any remaining remedies.
7. Neither the Owner nor the Engineer are under any requirements or obligations to notify the bonding company at project conclusion of Set-offs or other remedies chosen.
8. If the Owner/Engineer prepare an accounting Change Order at Project Conclusion it will be considered signed by Contractor, unless the Contractor files a Change Proposal within five days protesting the Set-off. If appeal is rejected, the Change Order will be considered signed unless further appeals per the appeals process are claimed.

15.08 CORRECTION PERIOD

- A. Within thirteen (13) months from the date of substantial completion, the structure will be inspected by the Owner and/or their representative.
- B. The inspection will be performed in accordance with the applicable portions of AWWA D-102-17 Standard for Painting Steel Water Storage Tanks and industry standards.
- C. The Owner will establish a date of inspection and may or may not notify the Contractor in advance. The Contractor's attendance will not be required.
- D. The Owner will select a third-party inspection firm (either Engineer or project representative) to document inspection.
- E. Any failed Work will be documented, and the Contractor will be notified of necessary repair (method and extent). The Owner reserves the right to require inspection of the repair Work and possibly a second warranty inspection, dependent on degree of failure.
- F. This warranty will automatically be extended until the tank is ice-free (if applicable) and the warranty inspection can be performed. The Contractor guarantees that the system is free from defects due to faulty materials or Workmanship and the Contractor shall make the necessary correction to correct these defects. If the amount of rework exceeds ten percent (10%) of a portion of the project, then the Owner reserves the right to have the warranty period extended one (1) year for the entire portion of the Work.
- G. Cost for one (1) year warranty inspection will be the responsibility of the Owner.
- H. Cost for a second warranty inspection and repair inspections will be the responsibility of the Contractor and guaranteed by Contractor's Performance and Maintenance Bond (see Article 6)
- I. The Owner retains all contractual remedies. The warranty shall not be considered an exclusive remedy.

- J. If the Owner conditionally accepts Work which was observed or found to be in noncompliance, then the Owner has the right to withhold from final payment an amount equal to the cost to redo the Work if it fails the subsequent Warranty Observation, as well as an additional amount for additional Engineering services.
- K. Contractor shall pay for additional expenses for RPR or Engineering or other Owner related expenses resulting from the failed Warranty. The Maintenance Bond shall remain in full effect, but Engineer will notify Contractor first. Failure to respond positively within two weeks will trigger notification and claim to bonding company.

ARTICLE 16 SUSPENSION OF WORK AND TERMINATION

16.02 AND 16.03 TERMINATION for CAUSE AND FOR CONVENIENCE

- A. The Owner may terminate the contract when the approved progress schedule is not met because of failure of the Contractor to exercise diligence and effectively perform all required work, or when the progress of the work is unacceptable to the owner.
- B. In the absence of a project Progress Schedule, the determination regarding the Contractor’s diligence will be based on the Engineer’s opinion, correspondence, and field reports.
- C. The Owner may terminate the contract when in the opinion of the Engineer the Non-conformance report(s) indicate the Contractor is unable or unwilling to complete the contract within the terms of the contract.

ARTICLE 18 MISCELLANEOUS

18.02 LIMITATION OF DAMAGES

- A. Contractor shall reimburse Owner (1) for any fines or penalties imposed on Owner as a direct result of the Contractor’s failure to attain Substantial Completion according to the Contract Times, and (2) for the actual costs reasonably incurred by Owner for Engineering, construction observation, inspection, and administrative services needed after the time specified in the Project Summary for Substantial Completion (as duly adjusted pursuant to the Contract), until the Work is substantially complete.
- B. After Contractor achieves Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times, Contractor shall reimburse Owner for the actual costs reasonably incurred by Owner for Engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Work to be completed and ready for final payment (as duly adjusted pursuant to the Contract), and if necessary to hire other Contractors to complete portions of the Work, until the Work is completed and ready for final payment.
- C. The special damages imposed in this paragraph are supplemental to any liquidated damages for delayed completion established in this Agreement.

APPENDIX A
NON-DISCRIMINATION CLAUSE FOR ALL CITY OF KALAMAZOO CONTRACTS

The Contractor agrees to comply with the Federal Civil Rights Act of 1964 as amended; the Federal Civil Rights Act of 1991 as amended; the Americans With Disabilities Act of 1990 as amended; the Elliott-Larson Civil Rights Act, Act. No. 453, Public Act of 1976 as amended; the Michigan Handicappers Civil Rights Act, Act No. 220, Public Act of 1976 as amended, City Ordinance 1856 and all other applicable Federal and State laws. The Contractor agrees as follows:

1. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, national origin, sex, age, height, weight, marital status, physical or mental disability, family status, sexual orientation or gender identity that is unrelated to the individual's ability to perform the duties of the particular job or position. Such action shall include, but not be limited to the following: employment, upgrading, demotion or transfer, recruitment advertising, layoff or termination; rates of pay or other forms of compensations; and selection for training, including apprenticeship.
2. 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, national origin, sex, age, height, weight, marital status, physical or mental disability family status, sexual orientation or gender identity that is unrelated to the individual's ability to perform the duties of the particular job or position.
3. If requested by the City, the Contractor shall furnish information regarding practices, policies and programs and employment statistics for the Contractor and subcontractors. The Contractor and subcontractors shall permit access to all books, records and accounts regarding employment practices by agents and representatives of the City duly charged with investigative duties to assure compliance with this clause.
4. Breach of the covenants herein may be regarded as a material breach of the contract or purchasing agreement as provided in the Elliott-Larsen Civil Rights Act and City Ordinance 1856.
5. The Contractor will include or incorporate by reference the provisions of the foregoing paragraphs 1 through 4 in every subcontract or purchase order unless exempted by the rules, regulations or orders of the Michigan Civil Rights Commission* and will provide in every subcontract or purchase order that said provision will be binding upon each subcontractor or seller.
6. The Contractor will not preclude a person with a criminal conviction from being considered for employment unless otherwise precluded by federal or state law. (for contracts over \$25,000)

The Elliott-Larson Civil Rights Act, Sec. 202 of Act. No. 453 of 1976 reads in part as follows:

Sec. 202. (1) An employer shall not:

- (a) Fail or refuse to hire, or recruit, or discharge or otherwise discriminate against an individual with respect to employment, compensation, or a term condition or privilege of employment because of religion, race, color, national origin, age, sex, height, weight or marital status.
- (b) Limit, segregate or classify an employee or applicant for employment in a way which deprives or tends to deprive the employee or applicant of an employment opportunity or otherwise adversely affects the status of an employee or applicant because of religion, race, color, national origin, age, sex, height, weight or marital status.
- (c) Segregate, classify or otherwise discriminate against a person on the basis of sex with respect to a term, condition or privilege of employment, including a benefit plan or system.

* Except for contracts entered into with parties employing less than three employees.

APPENDIX B - PREVAILING WAGES

Prevailing wages are applicable to this contract; therefore, rates will apply as follows:

- (XX) Project is funded by City of Kalamazoo monies and is estimated to be in excess of \$100,000.00. The applicable prevailing wage rates are attached.

Specifications for projects in which the City of Kalamazoo is party for construction, alterations and/or repair including painting and decorating of public buildings or public works in or for the City of Kalamazoo and which requires or involves the employment of mechanics and/or laborers shall contain the following provisions stating the minimum wages to be paid the various classes of laborers and mechanics for the project. Prevailing wage rates determined by the U.S. Department of Labor under Davis Bacon and related acts will be used for City of Kalamazoo construction projects.

By the incorporation of prevailing wage rates within this specification, the City of Kalamazoo stipulates that:

- ✓ Contractor or his/her subcontractor shall pay all mechanics and laborers employed directly upon the site of the work, unconditionally and not less than once a week and without subsequent deduction or rebate on any account the full amount, accrued at the time of payment, computed at wage rates as incorporated herein regardless of any contractual relationship which may be alleged to exist between the contractor or subcontractor and such laborers and mechanics;
- ✓ The scale of wages to be paid shall be posted by the contractor in a prominent and easily accessible place at the site of the work;
- ✓ The Prime Contractor and all subcontractors shall submit weekly certified payrolls documenting the hours worked and wages paid by work classification. **NOTE: Contactor shall not include Social Security numbers of employees on certified payrolls.**
- ✓ There may be withheld from the contractor's accrued payments the amount considered necessary by the City's Contracting Official to pay to laborers and mechanics employed by the contractor or any subcontractor on the work for the difference between the rates of wages required by the contract and the rates of wages received by such laborers and mechanics except those amounts properly deducted or refunded pursuant to the terms of the Davis-Bacon Act (USC, Title 40, Sec. 276a) and interpretations thereof.

Special Note: The City's requirements as it relates to prevailing wages **includes a meeting with the City's Purchasing Agent prior to starting work and the submission of weekly certified payrolls by prime contractors and all subcontractors.** The City will monitor certified payrolls, work progress, and conduct interviews with the mechanics and labors employed directly upon the site during the duration of the contract Please contact the Purchasing Department at (269) 337-8020 if you have any questions regarding prevailing wage provision.

The overtime pay to which a laborer or mechanic is entitled under this contract shall be that overtime pay to which he/she is entitled by any agreement made with the contractor or subcontractor or by any applicable provision of law; but in no event shall such amount be less than the prevailing wage in the Kalamazoo community for such overtime.

Revised 4-08



PREVAILING WAGES

**6th STREET NORTH
WATER STORAGE TANK PAINTING**

Bid Reference #: 90900-010.0

April 2022

Superseded General Decision Number: MI20210061

State: Michigan

Construction Type: Heavy

County: Kalamazoo County in Michigan.

Heavy, Includes Water, Sewer Lines and Excavation (Excludes Hazardous Waste Removal; Coal, Oil, Gas, Duct and other similar Pipeline Construction)

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$15.00 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 2022.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$11.25 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2022.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <https://www.dol.gov/agencies/whd/government-contracts>.

CARP0525-006 06/01/2021

	Rates	Fringes
CARPENTER, Includes Form Work....	\$ 25.94	20.59

ELEC0131-006 06/01/2021

	Rates	Fringes
ELECTRICIAN.....	\$ 36.61	7.95+27%

ENGI0325-009 09/01/2021

POWER EQUIPMENT OPERATORS: Underground Construction (Including Sewer)

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 35.92	24.85
GROUP 2.....	\$ 31.03	24.85
GROUP 3.....	\$ 30.53	24.85
GROUP 4.....	\$ 30.25	24.85

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

ENGI0326-025 06/01/2021

EXCLUDES UNDERGROUND CONSTRUCTION

	Rates	Fringes
OPERATOR: Power Equipment		
GROUP 1.....	\$ 42.38	24.85
GROUP 2.....	\$ 39.08	24.85
GROUP 3.....	\$ 36.43	24.85
GROUP 4.....	\$ 34.72	24.85
GROUP 5.....	\$ 34.72	24.85
GROUP 6.....	\$ 28.86	24.85
GROUP 7.....	\$ 26.38	24.85

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)

GROUP 7: Oiler

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.

IRON0340-004 06/19/2017

	Rates	Fringes
IRONWORKER, STRUCTURAL AND REINFORCING.....	\$ 24.43	24.67

LAB00334-011 09/01/2018

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.....	\$ 20.97	12.85
(2) Mason Tender- Cement/Concrete.....	\$ 21.10	12.85
(4) Grade Checker.....	\$ 21.28	12.85
(5) Pipelayer.....	\$ 21.40	12.85

LAB00355-010 06/01/2021

EXCLUDES OPEN CUT CONSTRUCTION

	Rates	Fringes
LABORER		
Common or General; Grade Checker; Mason Tender - Cement/Concrete.....	\$ 24.90	12.95
Pipelayer.....	\$ 20.34	12.85

PAIN0312-014 06/12/2014

	Rates	Fringes
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PAINTER

Brush & Roller.....	\$ 21.75	11.94
Spray.....	\$ 22.75	11.94

PLAS0016-020 04/01/2014

Rates Fringes

CEMENT MASON/CONCRETE FINISHER...	\$ 22.31	12.83
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PLUM0333-026 06/01/2020

Fort Custer

Rates Fringes

PLUMBER.....	\$ 38.79	23.08
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PLUM0357-012 07/01/2020

Excluding Fort Custer

Rates Fringes

PLUMBER.....	\$ 35.20	22.35
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TEAM0007-011 06/01/2020

Rates Fringes

TRUCK DRIVER

Lowboy/Semi-Trailer Truck...	\$ 28.05	.50 + a+b
Tractor Haul Truck.....	\$ 27.80	.50 + a+b

FOOTNOTE:

- a. \$470.70 per week.
- b. \$68.70 daily.

* SUMI2010-059 11/09/2010

Rates Fringes

LABORER: Landscape.....	\$ 12.25 **	0.00
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TRUCK DRIVER: Dump Truck.....	\$ 18.00	6.43
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TRUCK DRIVER: Off the Road Truck.....	\$ 20.82	3.69
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WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.
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** Workers in this classification may be entitled to a higher
minimum wage under Executive Order 14026 (\$15.00) or 13658
(\$11.25). Please see the Note at the top of the wage
determination for more information.

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>.

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) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which 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. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of 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. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write 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 the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write 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 by 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

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISIO"



Technical Specifications

**6th STREET NORTH
WATER STORAGE TANK PAINTING**

Bid Reference #: 90900-010.0

April 2022

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SECTION 00 91 18

DEFINITIONS for TECHNICAL SPECIFICATIONS

PART 1 – GENERAL

1.01 DEFINITIONS FOR TECHNICAL SPECIFICATIONS

- A. **Wet Interior:** Internal surfaces, excluding inaccessible areas, to the roof, shell, bottom, accessories, and appurtenances that are exposed to the stored water or its vapor. Examples are the interior of the roof, sidewall, domed bottom, and exterior of the access tube within the tank.
- B. **Dry Interior:** Surfaces of the finished structure, excluding inaccessible areas, that are not exposed to the elemental atmosphere or the stored water or its vapor. Examples are the interior of the access tube, interior of the column, and underside of the bowl above the column.
- C. **Exterior:** External surfaces, excluding inaccessible areas, of the roof, sidewall, column, accessories, and appurtenances that are exposed to the elemental atmosphere.
- D. **Inaccessible Areas:** Areas of the finished structure that, by virtue of the configuration of the completed structure, cannot be accessed to perform surface preparation or coating application (with or without the use of scaffolding, rigging, or staging). Inaccessible areas include such areas as the contact surfaces of roof plate lap joints, underside of roof plates where they cross supporting members, top surface of rafters directly supporting roof plates, contact surfaces of bolted connections, underside of column baseplates, contact surfaces of mating parts not intended to be removed or disassembled during routine operation or maintenance of the structure and inside of risers less than a nominal 36 in. diameter.
- E. **Sidewall:** Vertical walls to the weld seam of the roof.
- F. **Access Tube:** Cylindrical tube extending from top of the column to the roof through the tank, including all steel appurtenances (i.e. ladder, overflow pipe, brackets, etc.)
- G. **Top Platform:** Landing area directly under tank's access tube.
- H. **Roof:** Very top of the structure, including top seam of sidewall.
- I. **Bottom:** Lower area of the tank proper shaped like a dome. Also section that extends up to the sidewall.
- J. **Column:** Center support whether concrete or steel.

SECTION 00 91 19.01
SCHEDULING FOR RPR SERVICES

PART 1 – COMMUNICATION

1.01 RESIDENT PROJECT REPRESENTATIVE (RPR) SERVICES

- A. DIXON provides three types of RPR services or any combination of the three:
1. Hold Point Site Visits (sometimes called Critical Phase Visits) where RPR Services are for defined Hold Point, where Work stops until that portion of Work is reviewed on Site by a professional RPR.
 2. Full Time RPR is a professional RPR staying in lodging away from home and living on per diem expenses.
 3. Daily RPR is a professional RPR living at home and traveling to Site on a daily basis.
 4. Based on the type of project the RPR services may change from Daily or Full Time to Hold Point or from Hold Point to Daily or Full Time.
 5. Intended Beneficiary: The onsite observation services for this project are for the benefit of the Owner. There are no intended benefits to the contractor, or any other third parties. Contractor still provides quality control (QC).

1.02 HOLD POINT OBSERVATIONS AND MEETINGS

- A. Each hold point requires an onsite visit for Observation. Example: If the contractor coats over or otherwise makes work inaccessible for Observation, the Work will be considered failed. Remove Work and recoat or repair in accordance with this specification. At least two (2) new hold points, surface preparation and coating, may be created when work fails after the primer has been applied.
- B. Stop Work and schedule Observation times for the following Hold Points as a minimum. Additional Hold Points may be determined at the Preconstruction Meeting. Each Hold Point requires a Site visit and observation. Schedule of Hold Points – Preliminary:
1. Hold Point Meeting: The Preconstruction Meeting is the initial hold Point. The Preconstruction Meeting will not be scheduled until five (5) days after all required submittals are received and reviewed by the Engineer and no exceptions are taken to the shop drawings.
 2. Hold Point - Prior to draining tank:
 - a. To ensure all Section of 01 50 00 and 01 53 43 environmental requirements are met.
 3. Hold Points – Section 05 00 00 – Metal Repairs:
 - a. To locate or quantify repairs as necessary.
 - b. To review surface preparation prior to welding and review all products prior to installation.

- c. After welding is complete for quality assurance.
- 4. Hold Points – Sections 09 97 13 – Steel Coating and 09 97 13.10 Steel Coating Surface Preparation:
 - a. Prior to surface preparation to set the standard.
 - b. Prior to primer application to verify cleanliness, profile, thoroughness, and ambient conditions for coating application.
 - c. Prior to application of each successive coat for quality assurance and ambient conditions for the next coat.
 - d. Prior to final coat to verify all non-conformance issues have been resolved.
 - e. Scheduled pre-final Observation: Allow engineer access to all locations so a complete punch list can be prepared. Final coat on ladders or other access points can be delayed until after this Observation and included as a punch list item.
 - f. Scheduled final Observation: After ALL punch list items have been completed (including painting ladders), provide access to all items on the punch list.

1.03 SCHEDULING FOR RPR SERVICES FOR HOLD POINT OBSERVATIONS

- A. Prior to First Observation 48 hours advance Notice is required
- B. All Subsequent Hold Points shall be scheduled by 6:00 P.M (Eastern Time) the previous day.
 - 1. Scheduling with a Central Contract Administrator. Names and phone numbers of a Contract Administrator and a Second Contract Administrator will be given to the Contractor during the Preconstruction Meeting.
- C. The Contract Administrator may be contacted by cell phone. If no answer a voice mail may be left with all details of RPR request included, or
- D. The Contract Administrator may be contacted by text to their cell phone.
- E. If the Contract Administrator is not available, DIXON’s Corporate Office may be contacted during regular working hours at 1-800-327-1578.
- F. Scheduling through a Project Manager is not an alternative.
- G. Scheduling through an RPR is not an alternative for Hold Point Observation.

1.04 SCHEDULING FOR RPR SERVICES FOR FULL TIME OF DAILY OBSERVATIONS

- A. Productive Work
 - 1. Do not start, continue, or complete any Productive Work if RPR is not present on the project site.
 - 2. Productive Work includes, but is not limited to, all elements of abrasive blast cleaning, power washing, high pressure water jetting or high/low pressure water cleaning, power tool cleaning, rigging, painting, metal repairs, concrete repairs, punch list items, and clean-up.

3. Preparation, mobilization, and containment erection, and other non-productive work does not require observation if completed before the structure is removed from service, nor does demobilization after tank is returned to service.
4. But if containment erection is completed while other productive work progresses, an RPR is required.
5. If welding is completed for contracted work (antenna rails, painter's rails, ladders, etc.) during containment erection welding, then contracted work is considered Productive Work and an RPR shall be present. Any spot painting during containment erection is also considered Productive Work.
6. After the project has been completed and after all punch list items have been completed, cure time and site clean-up, excluding any waste coating or abrasive issues, are not considered Productive Work.
7. After the Project has been completed; complaints from Owner or neighbors concerning health, environmental, or damage issues, or if there are still waste coating or waste abrasive issues, these are considered Productive Work requiring an RPR even after the structure is returned to service.
8. Essentially all work completed between out-of-service date and Substantial Completion Date, excluding cure and disinfection, is considered Productive Work and requires the presence of an RPR.

1.05 SCHEDULING WITH A CENTRAL CONTRACT ADMINISTRATOR

- A. The Contract Administrator may be contacted by cell phone. If no answer a voice mail may be left with all details of RPR request included or
- B. The Contract Administrator may be contacted by text to their cell phone.
- C. If the Contract Administrator is not available DIXON's Corporate Office may be contacted during regular working hours at 1-800-327-1578.
- D. Scheduling through a Project Manager is not an alternative.

1.06 SCHEDULING THROUGH ONSITE RPR

- A. Scheduling through on site RPR completing Full Time or Daily RPR Services may be considered a properly completed Request if completed by the foreman and RPR before leaving site. If not completed on site then schedule through the Central Contract Administrator.

1.07 SUMMARY OF SCHEDULING HOLD POINT OBSERVATIONS

- A. Contract Administrator
 1. by phone
 2. by text
 3. by voice mail
- B. Second Contract Administrator
 1. by phone

- 2. by text
- 3. by voice mail
- C. Corporate Office during work hours
 - 1. by phone
 - 2. NO voicemail
- D. Do NOT contact Project Manager

1.08 SUMMARY OF SCHEDULING FOR FULL TIME OR DAILY OBSERVATIONS

- A. Contract Administrator
 - 1. by phone
 - 2. by text
 - 3. by voice mail
- B. Second Contract Administrator
 - 1. by phone
 - 2. by text
 - 3. by voice mail
- C. Corporate Office during work hours
 - 1. by phone
 - 2. NO voicemail
- D. RPR on site
- E. Do NOT contact Project Manager

1.09 CONTRACTOR'S RESPONSIBILITIES

- A. The Engineer and Owner shall have full access to the Site at reasonable times for their Observation, testing, and Contractor's personnel and equipment shall be available to the Owner and Engineer/RPR to expedite Observations. Provide Owner, Engineer/RPR proper and safe conditions for such access, including rigging, and advise them of contractor's site safety procedures and programs so that they may comply as applicable.
- B. Contractor is responsible for all of Contractor's manpower needs and scheduling and Work to be completed. RPR is to be available to expedite the project and complete their services with minimal interference of the Contractor's Work. Successful project completion is dependent on Contractor's proper scheduling and use of RPR services.
- C. Contractor is financially responsible for efficient scheduling of RPR services, See Section 00 91 19.02.

1.10 DELAY IN ARRIVAL OF RPR

- A. RPRs for Hold Point, Full – Time or Daily observations may be delayed by traffic or other reason from arriving at the scheduled time. Contractor shall contact Contract Administrator immediately if the RPR has not arrived at the scheduled time.

- B. The Contract Administrator will locate the missing RPR, return to the Contractor with a revised arrival time, and discuss with Contractor what other Work can be completed until RPR arrives for Observation.

1.11 REJECTED DEFECTIVE WORK

- A. All Productive Work completed without an RPR present shall be considered Defective Work and rejected per the General Provisions. This includes Work completed:
 - 1. Without proper scheduling an RPR
 - 2. Prior to the scheduled arrival of the RPR
 - 3. When Day has been scheduled as a No Workday
 - 4. When RPR is delayed and Contract Administrator has not been notified.

1.12 NON-CONFORMANCE REPORTS (NCR)

- A. The RPR will issue a non-conformance report for every performance item, material, or equipment supplied, and/or environmental situation that fails to meet requirements of the specifications.
- B. All Work in non-conformance will be considered Defective Work to be replaced, repaired per terms of the General Provisions.
- C. Do not start Work until all required equipment and RPR is on-site.
- D. Immediately correct all environmental non-conformance to prevent an accident. If an incident has already occurred, contact the proper governmental environmental agency and conduct an immediate clean-up per their direction.
- E. If the Nonconformance is issued because of equipment specified but not delivered, repaired or replaced then the financial Set-off will be 140% * of the rental value of equipment in non-conformance (i.e. non-working decontamination trailer, hand wash facilities, are filtration units, etc.).
- F. If the Nonconformance issued is because of noncompliance with environmental equipment or practices the Set-off will be 140%* of the estimated cost of compliance. *The costs of items E. and F. above are damage estimates. The cost of equipment will be the rental charge from a reputable local dealer with 40% extra being for operation cost. Cost of environmental compliance is the estimated cost of compliance. The extra 40% is potential risk to the owner for non-conformance. In no situation will the Owner assume liability.
- G. All additional Engineering/RPR expenses incurred because of a nonconformance report is subject to Set off by Owner.

SECTION 00 91 19 .02

CONTRACTOR'S FINANCIAL RESPONSIBILITY FOR RPR

PART 1 - PROGRESS SCHEDULE and RPR SCHEDULE

1.01 GENERAL

A. Contractor is financially responsible for the proper and efficient use of RPR services.

1.02 PROGRESS SCHEDULE

- A. Per the General Provisions a Progress Schedule is required to be submitted. At the Preconstruction meeting the Contractor shall submit a preliminary Progress Schedule. This General Provisions of this contract as-bid restricts Work to 40 hours/ 8 hours per day, 5 days per week. If the Owner has prior approved a more open schedule it is noted in the Project Summary. Either prior approved in the Project Summary or not; a Progress Schedule more aggressive than Monday through Friday, regular working hours, will require submittal and discussion, at Preconstruction Meeting.
- B. Once the Owner, at the Preconstruction meeting accepts a more aggressive schedule the Contractor is responsible for all of the Contractor's manpower scheduling and Critical Path Work to maintain the Schedule.
- C. Contractor shall complete a minimum 8 hours per day of Productive Work, which should be calculated into the Schedule.

1.03 HOLD POINTS AND RPR SERVICES

- A. Fees for Hold Point RPR Services are contracted with the Owner at a Unit Price and are calculated to include the following: travel time to and from Site, reimbursable expenses, observation and report time. Time required for Contractor to repair or redo small areas that failed Observation, are not included in the unit price. Failure may be minimal compared to all Work observed, but failed Work still must be observed before proceeding. For minor failures that can be quickly repaired, the Contractor may entirely at their option:
1. Accept a Non-Conformance for failed Observation.
 2. Request, the RPR wait for a reasonable period while repairs are completed.
 3. Proceed with the next phase for all areas which have not failed, and "work around" failed areas. The failed areas would then be observed at the next Hold Point.
- B. The Fee for extended onsite time, or a new Hold Point is the responsibility of the Contractor.

1.03.1 FULL TIME OR DAILY RPR SERVICES

- A. It is the intention of the Owner, that the RPR fees be used to observe Productive Work. Productive Work is defined in previous Section 00 91 19 .01 Scheduling for RPR Services, with examples. The Owner will pay for all RPR service fees generated observing Productive Work that meets specification requirements. Normally this will be the first time for most observations. But if Observation fails, then the Owner pays for second observation, if it passes.

- B. The Contractor will pay all RPR and/or Engineer fees generated by failed Observations of Productive Work.
- C. Availability of RPR and RPR's ability to timely perform the required Services are dependent on Contractor's communication. RPR is to be available to meet the Progress Schedule demands and complete RPR services with minimal interference of the Contractor's Work, if Contractor properly scheduled RPR Services.

1.03.2 FULL TIME OR DAILY RPR SERVICES

- A. Contractor Pays for RPR or Engineering Services resulting from:
 - 1. Productive Work on a Holiday
 - 2. Failed or Improper Scheduling,
 - 3. Failure to Request Observation per Section 00 91 19 .01,
 - 4. Less than 8 hours per day or On-Call Time as a result of:
 - a. Premature Request for RPR Services,
 - b. No show or late start,
 - c. Rejection of Work and/or Non-Conformance reports,
 - d. Equipment failure, insufficient manpower, materials or equipment
 - e. Weather reasons per 1.04.B.03

1.04 RPR FEE CALCULATIONS FOR FAILED OBSERVATIONS

- A. The basis for Fees assessed to Contractor is based on the Owner/DIXON contract. Fees will be calculated in the same manner as in Owner/Engineer Agreement, i.e. if the RPR is working at an overtime rate for Owner, then fee for unproductive services will be documented at the same rate
 - 1. Hold Point for Welding or Coating Observation, or extra Progress Meetings
 - a. The same Unit Price Fee as would be charged to Owner for each respective Observation or meeting. Note the fee will be determined by the Contract and may vary between types of Hold Point services.
 - b. Extended time at site charged at Regular Rate (See definition below)
 - 2. Daily Observation shall be the same fee as charged to Owner from the Owner/DIXON contract.
 - a. Minimum workday is 8 hours plus travel time
 - b. reimbursable mileage
 - 3. Fulltime Observation Fee shall be the same as charged to Owner for the same Service.
 - a. Minimum workday is 8 hours
 - b. Minimum work week is 40 hours
 - c. Reimbursable expenses/ Per Diem
 - 4. Fees common to Full Time, Daily and Hold Points with extended stays, and On-Call Time
 - a. Regular Pay for RPR is charged at the rate matching the RPR's experience and qualifications.
 - b. Overtime Rate is 1.5 times Regular Rate
 - 1) For all time worked on the actual holiday
 - 2) Weekend work by RPR

- 3) For time over 40 hours. (The standard work week for overtime (over 40) begins on Monday as Sunday is already paid at overtime rate.)
- B. Fees of misused or unnecessary Engineer/RPR Services will be documented and submitted to the Owner for Set off.
- C. The right to Set-off is a contracted right of Owner per the General Provisions, or Additions to General Provisions, and the right to enforce those rights are at the Owner's discretion.

1.05 ON-CALL TIME

- A. RPR's are professional personnel that get paid a minimum of 8 hours per day even though the Contractor's operations or methods results in less than an 8 hour day.
- B. If the Contractor has scheduled a Workday, and if RPR is not free to spend the day at RPR's discretion or to be reassigned; then the RPR will be considered On-Call.
 1. The RPR will be considered, if scheduled, on-call every morning and day unless work is cancelled per Section 00 19 91.01.
 2. For Daily observation the On - Call time will not exceed 8 hours, any travel time should occur within that 8 hours.
 - a. Late Starts - Agreed start time will be scheduled with the Contract Administrator at the Preconstruction Meeting.
 - b. The RPR's on-call time starts at the agreed start time, if RPR is on Site and available to Work, and On Call time continues until Work starts.
 3. For weather reasons
 - a. 8 hours if adverse weather conditions were clearly forecast
 - b. Two hours plus time worked up to 8 hours or actual time worked if greater; if forecast was less than 20% weather meeting definition of a weather day.
 4. For reasons other than weather, eight (8) hours will be considered minimum On-Call Time. This includes, but is not limited to, equipment failure, insufficient materials, damaged containment, etc.
- C. Actual charged on-call time will be eight (8) hours, minus the number of hours actually worked.
- D. Overtime, Weekend, Holiday pay requirements apply to all on-call time pay. On-call hours will count towards forty (40) hour week triggering overtime at forty (40) hours.
- E. If Work is cancelled per requirements in Section 00 19 91.01 (by prior night) in advance and RPR is notified in advance, there is no on call time.
- F. If contractor schedules days off per Scheduling requirements, the inspector will return to his/her home base and there will be no show time charges. Based on the Contract the RPR may be entitled to Mobilization or Demobilization.

SECTION 01 50 00

TEMPORARY CONSTRUCTION FACILITIES and UTILITIES

PART 1 - GENERAL

1.01 SUMMARY

- A. The Contractor is fully responsible to provide and maintain temporary facilities and utilities required for construction as described herein, and to remove the same upon completion of work.

1.02 QUALITY ASSURANCE

- A. Regulatory Requirements:
 - 1. National Fire Protection Association (NFPA): NFPA No.70-93
 - 2. National Electrical Code (NEC) and local amendments thereto.
 - 3. Comply with any and all federal, state, and local codes and regulations, and utility company requirements.

PART 2 - PRODUCTS

2.01 TEMPORARY ELECTRICITY and LIGHTING

- A. Supply temporary lighting sufficient to enable Contractor to safely access all work areas.
- B. Electrical requirements in excess of capacity of existing electrical service shall be responsibility of Contractor.
- C. Provide, maintain, and remove temporary electric service facilities.
- D. Facilities exposed to weather shall be weatherproof-type and electrical equipment enclosure locked to prevent access by unauthorized personnel.
- E. Contractor is to pay for and arrange for the installation of temporary services.
- F. Patch affected surfaces and structures after temporary services have been removed.
- G. Provide explosion proof lamps, wiring, switches, sockets, and similar equipment required for temporary lighting and small power tools.

2.02 WATER for CONSTRUCTION

- A. Owner will provide water required for cleaning and other purposes.
- B. Water use shall not exceed usage that might endanger the Owner's water system's integrity.

2.03 SANITARY FACILITIES

- A. Provide temporary sanitary toilet facilities conforming to state and local health and sanitation regulations, in sufficient number for use by Contractor's employees.

- B. Maintain in sanitary condition and properly supply with toilet paper.
- C. Remove from site before final acceptance of work.

2.04 TEMPORARY FIRE PROTECTION

- A. Provide and maintain in working order a minimum of two fire extinguishers and such other fire protective equipment and devices as would be reasonably effective in extinguishing fires.

2.05 DAMAGE to EXISTING PROPERTY

- A. Contractor is responsible for replacing or repairing damage to existing buildings, sidewalks, roads, parking lot surfacing, and other existing assets.
- B. Owner has the option of contracting for such work and having cost deducted from contract amount if the Contractor is not qualified to complete repairs, or fails to act in a timely manner.

2.06 SECURITY

- A. Security is not provided by Owner.
- B. Contractor shall be responsible for loss or injury to persons or property where work is involved, and shall provide security and take precautionary measures to protect Contractor's and Owner's interests.

2.07 TEMPORARY PARKING

- A. Parking for equipment and Contractor employees shall be designated and approved by Owner.
- B. Make arrangements for parking area for employees' vehicles.
- C. Any costs involved in obtaining parking area shall be borne by Contractor.

PART 3 - EXECUTION

3.01 GENERAL

- A. Maintain and operate systems to ensure continuous service.
- B. Modify and extend systems as work progress requires.

3.02 REMOVAL

- A. Completely remove temporary materials and equipment when no longer required.
- B. Clean and repair damage caused by temporary installation or use of temporary facilities.
- C. Restore existing or permanent facilities used for temporary service to specified or original condition.

3.03 BARRIERS and ENCLOSURES

- A. The Contractor shall furnish, install, and maintain as long as necessary, required adequate barriers, warning signs or lights at all dangerous points throughout the work for protection of property, workers, and the public. The Contractor shall hold the Owner harmless from damage or claims arising out of any injury or damage that may be sustained by any person or persons as a result of the work under the contract.

SECTION 01 53 43
PROTECTION of ENVIRONMENT

PART 1 - GENERAL

1.01 SUMMARY

- A. Contractor in executing work shall maintain work areas, on-and-off site, free from environmental pollution that would be in violation of federal, state, or local regulations.
- B. The Contractor is responsible for any and all clean-up that may be necessary and all applicable costs for the same.

1.02 LAWS and REGULATIONS

- A. Environmental regulations may be met with different available technologies. It is the Contractor's sole responsibility to comply with these and all applicable environmental regulations.
- B. If a contamination occurs work will stop until cleanup is complete.

1.03 PROTECTION of SEWERS

- A. Take adequate measures to prevent impairment of operation of existing sewer system. Prevent construction material, pavement, concrete, earth, or other debris from entering sewer or sewer structure.

1.04 PROTECTION of WATERWAYS

- A. Observe rules and regulations of local and state agencies, and agencies of U.S. government prohibiting pollution of any lake, stream, river, or wetland by dumping of refuse, rubbish, dredge material, or debris therein.
- B. Provide containment that will divert flows, including storm flows and flows created by construction activity, to prevent loss of residues and excessive silting of waterways or flooding damage to property.
- C. Comply with procedures outlined in U.S. EPA manuals entitled "Guidelines for Erosion and Sedimentation Control Planning and Implementation," Manual EPA-72-015 and "Processes, Procedures, and Methods to Control Pollution Resulting from all Construction Activity," Manual EPA 43019-73-007.

1.05 DISPOSAL of EXCESS EXCAVATED and OTHER WASTE MATERIALS

- A. Dispose waste material in accordance with federal and state codes, and local zoning ordinances.

- B. Unacceptable disposal sites include, but are not limited to, sites within wetland or critical habitat, and sites where disposal will have detrimental effect on surface water or groundwater quality.
- C. Make arrangements for disposal subject to submission of proof to Engineer that Owner(s) of proposed site(s) has valid fill permit issued by appropriate government agency and submission of haul route plan, including map of proposed route(s).
- D. Provide watertight conveyance for liquid, semi-liquid, or saturated solids that have potential to leak during transport. Liquid loss from transported materials is not permitted, whether being delivered to construction site or hauled away for disposal. Fluid materials hauled for disposal must be specifically acceptable at selected disposal site.

1.06 PROTECTION of AIR QUALITY

- A. Contain paint aerosols and VOCs by acceptable work practices.
- B. Minimize air pollution by requiring use of properly operating combustion emission control devices on construction vehicles and equipment used by Contractor, and encouraging shutdown of motorized equipment not actually in use.
- C. Trash burning not permitted on construction site.
- D. If temporary heating devices are necessary for protection of work, they shall not cause air pollution.

1.07 PROTECTION from FUEL and SOLVENTS

- A. Protect the ground from spills of fuel, oils, petroleum distillates, or solvents by use of containment system.
- B. Total paint, thinner, oils, and fuel delivered to and stored on-site cannot exceed supplied capacity of spill containment provided (i.e. fuel and oil to be sized to exceed possible spill).
- C. Provide proper containment unit under fuel tank and oil reservoirs for all equipment and fuel storage tanks.
- D. Barrels of solvents, even for cleaning, are prohibited. Do not deliver paint thinners in containers greater than five (5) gallons.
- E. Disposal of waste fluids shall be in conformance with federal, state, and local laws and regulations.

1.08 USE of CHEMICALS

- A. Chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant, or of other classification, must show approval of U.S. EPA, U.S. Department of Agriculture, state, or other applicable regulatory agency.

- B. Use of such chemicals and disposal of residues shall be in conformance with manufacturer’s written instructions and applicable regulatory requirements.

1.09 NOISE CONTROL

- A. Conduct operations to cause least annoyance to residents in vicinity of work and comply with applicable local ordinances.
- B. Equip compressors, hoists, and other apparatus with mechanical devices necessary to minimize noise and dust. Equip compressors with silencers on intake lines.
- C. Equip gasoline or oil-operated equipment with silencers or mufflers on intake and exhaust lines.
- D. Route vehicles carrying materials over such streets as will cause least annoyance to public and do not operate on public streets between hours of 6:00 P.M. and 7:00 A.M., or on Saturdays, Sundays, or legal holidays unless approved by Owner.

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

3.01 HAZARDOUS MATERIALS PROJECT PROCEDURES

- A. Applicable Regulations:
 - 1. RCRA, 1976 – Resource Conservation and Recovery Act: This federal statute regulates generation, transportation, treatment, storage and disposal of hazardous wastes nationally.
 - 2. Act 64, 1979 – Michigan’s Hazardous Waste Management Act: This statute regulates generation, transportation, treatment, storage, and disposal of hazardous wastes.
 - 3. Act 641 as amended 1990 – Michigan’s Solid Waste Act: This statute regulates generation, transportation, treatment, storage and disposal of solid wastes.
- B. Use the Uniform Hazardous Waste Manifest (shipping paper) to use an off-site hazardous waste disposal facility.
- C. Federal, State and local laws and regulations may apply to the storage, handling and disposal of hazardous materials and wastes. The list below includes the regulations which are most frequently encountered:

<u>Topic</u>	<u>Agency and Telephone Number</u>
Small quantity hazardous waste management, including hazardous waste stored in tanks	Hazardous Waste Division, EGLE (517) 373-2730 in Lansing, or District Office Certified County Health Department

Hazard Communication Standards
(for chemical in the workplace)

Occupational Health Division,
Michigan Department of Consumer
and Industrial Services (517) 373-
1410

Burning of waste oil and other
discharges to the air

Air Quality Division, EGLE (517)
322-1333 in Lansing, or District
Office

Local fire prevention regulations and
codes (including chemical storage
requirements)

Local fire chief or fire marshal

D. Department of Environment, Great Lakes, and Energy
Hazardous Waste Division
Compliance Section District Offices

Kalamazoo District Office

7953 Adobe Rd.

Kalamazoo, MI 49009

(269) 567-3500

(269) 567-9440 (fax) (Remediation and Redevelopment Div. and Water Div.)

(269) 567-3555 (fax) (Air Quality Di., Env. Science and Services Div., Geol. and
Land Mgmt. Div., and Waste and Haz. Materials Div.)

SECTION 05 00 00 **METAL REPAIRS**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Steel Repair.

1.02 REFERENCES

- A. AWWA D100 Weld Standard
- B. AWS Weld Standard
- C. API 650 Standard

1.03 OMISSIONS

- A. The specifications include all work and materials necessary for completion of the work. Any incidental item(s) of material, labor, or detail(s) required for the proper execution and completion of the work are included.

1.04 DEFINITIONS

- A. Ground Flush: Ground even with adjacent metal with no transition. This preparation is intended for all removed items.
- B. Ground Smooth: Ground welds to the point that no cuts or scratches occur when rubbing your hand over the weld. Rebuild with weld any concavity discovered during grinding. This preparation is intended for all newly added steel.

1.05 WORK INCLUDED

- 1) Install a gasket on the wet interior roof hatch.
- 2) Install a top platform hatch.
- 3) Install handholds at the roof hatches.
- 4) Install a duck bill check valve on the overflow discharge.
- 5) Install a roof painter's railing.
- 6) Replace dry interior and aviation light bulbs.

1.06 WORKMANSHIP

- A. Provide material and workmanship necessary to produce a first-class job.
- B. All weld spatter is to be removed prior to coating application.
- C. All removed steel items are to be ground flush with surrounding surface. All new welds are to be ground smooth.
- D. The Contractor is to properly dispose of all removed items.

1.07 WELDER QUALIFICATIONS

- A. Certified for type and position of weld specified.
- B. The welder shall be specialized in industrial or heavy commercial welding and experienced in rigging and elevated work.

1.08 SUBMITTALS

- A. Safety Data Sheets (SDS) – for all items as required by law.
- B. Welder’s certification.
- C. Submit materials at least one (1) week prior to preconstruction meeting.

1.09 WORK SEQUENCING

- A. The following is NOT a ways-and-means decision of the Contractor. It is accepted and good painting practice and shall be completed by the Contractor in this specified fashion:
 - 1. Complete ahead of all cutting and welding all surface preparation, such as removal of heavy metal bearing coating in the immediate area.
 - 2. Complete all welding repairs prior to commencement of any power washing or abrasive blast cleaning.
 - 3. Do not install non-painted items or store on or in the tank until after painting has been completed.
 - 4. Remove existing items that are not to be painted after water cleaning, store in a secure location.
 - 5. Disassemble appurtenances with mating surfaces (i.e. overflow flange, vent flange, etc.), surface prepare and coat mating surfaces and reassemble after topcoat is dry.

1.10 NEW STEEL COATING

- A. The new carbon steel and weld burn surfaces are to be prepared and coated in accordance with Sections 09 97 13 and 09 97 13.10.

PART 2 – PRODUCTS

2.01 STEEL PLATING and OTHER STRUCTURAL SHAPES

- A. General Steel: ASTM – A36.
- B. General Stainless Steel: ASTM – 316.
- C. General Galvanized Steel: ASTM – A123.
- D. Threading on all couplings and plugs to meet NPT standards.

2.02 BOLTS and NUTS

- A. Stainless Steel

1. ASTM F594G – 316 Stainless Steel Bolts.
 2. ASTM F594G – 316 Stainless Steel Nuts.
- B. Galvanized Steel
1. ASTM A307 Grade A zinc coated Steel Bolts.
 2. ASTM A307 Grade A zinc coated Nuts.

2.03 WELDS

- A. Final – E70XX Electrodes.
- B. Root – E60XX Electrodes.
- C. Wire – ER70S Electrodes.

2.04 OVERFLOW DUCKBILL CHECKVALVE

- A. Duck bill check valve with 304 stainless steel ANSI flange. Tideflex series 35.
- B. Manufactured/supplied by Tideflex Technologies www.redvalve.com (412) 279–0044 or approved equal.

PART 3 - EXECUTION

3.01 ROOF HATCH GASKET

- A. Install a gasket on the wet interior roof hatch cover.
- B. Gasket to be ¼ inch EPDM or neoprene.
- C. Install after the exterior coating is dry to the touch.
- D. Apply gasket using adhesive, 3M Super Weatherstrip and Gasket Adhesive or approved equal.
- E. Payment is incidental to the project.

3.02 TOP PLATFORM HATCH

- A. Install a top platform hatch.
- B. All new steel for the hatch and curb is to be shop galvanized and field repairs are to be performed with field galvanizing coating.
- C. Furnish and install a hinged hatch at the top platform.
- D. Complete all welding and cutting prior to any surface preparation for field galvanizing to avoid contamination of surfaces.
- E. Remove any residue and weld smoke by solvent cleaning.
- F. Power tool clean to a SSPC-SP11 finish all areas damaged by welding. Use 3M Scotch-Brite Clean'n Strip Discs.
- G. Apply one-coat of ZRC Galvanizing Compound Flat as manufactured by ZRC Worldwide 800-831-3275.
- H. See Drawing 01.
- I. Payment is a separate line item “Top Platform Hatch” which the Owner reserves the right to delete.

3.03 HANDHOLDS

- A. Furnish and install a handhold on the roof at the access tube hatch and the wet interior roof hatch.
- B. Handhold to be a ¾ in. diameter rod shaped into a 16 in. x 3 in. “U”. Weld using a ¼-in. full fillet.
- C. The handhold is to be located on the ladder side of the opening.
- D. Payment is incidental to the project.

3.04 OVERFLOW DISCHARGE MODIFICATION WITH A DUCK BILL CHECK VALVE

- A. Trim the end of the overflow and install a flange with a duck bill check valve on the new end. Note that the existing pipe is stainless steel all welding and new steel for the overflow are to be stainless steel.
- B. Field verify existing overflow pipe dimensions.
- C. Weld a minimum of ¼ inch stainless steel ANSI flange on the end of the discharge and bolt the duck bill check valve on the flange.
- D. Install gasket between the existing flange and the new flange per AWWA C207 with a full face and a minimal thickness of 1/16 inch.
- E. The bolts are to be stainless steel.
- F. See Drawing 02.
- G. Payment is a separate line item “Overflow Pipe Discharge Modification” which the Owner reserves the right to delete.

3.05 ROOF PAINTER’S RAILING

- A. Install a 33 ft. diameter painter’s railing on the roof. Field verify dimensions prior to fabrication. The intention is that the painter’s railing diameter be 3-4 ft. larger than the handrail around the entire circumference.
- B. All butt weld sections on the painters railing to be at a stand-off.
- C. Install couplings with brass plugs located at every other painter’s railing stand-off. Caulk the underside of the coupling. All threaded fittings to be coated with pipe joint compound.
- D. See Drawing 03.
- E. Payment is a separate line item “Roof Painter’s Railing” which the Owner reserves the right to delete.

3.06 REPLACE LIGHT BULBS

- A. Replace all dry interior and aviation light bulbs with LED light bulbs.

- B. Dry interior bulbs to be bright white LED bulbs with a minimum brightness of 800 lumens and a color of light at a minimum of 5,000K and a minimum rated life of 25,000 hours., size A19.
- C. The aviation light bulbs to be LED with a minimum brightness of 1600 lumens and a color of light at a minimum of 5,000K, and a minimum rated life of 25,000 hours.
- D. Change bulbs after all blast and paint equipment has been removed from the tank.
- E. All bulbs to have the same color and brightness throughout the dry interior.
- F. Payment is incidental to the project.

PART 4 – SPECIAL PROVISIONS

4.01 STEEL REPLACEMENT COATING

- A. All large pieces of steel to be shop primed using the specified prime coat over a SSPC-SP10 near white surface preparation.
- B. Do not prime 3 in. from area to be welded.
- C. After installation, spot clean welded areas to a SSPC-SP11 and apply coating as specified.
- D. Use only one manufacturer for repair coating.
- E. Payment is incidental to weld repairs.

4.02 WELD PREPARATION PRIOR to COATING

- A. Prepare all new welds per NACE RPO 0178 prior to coating application. Grind welds to category D.

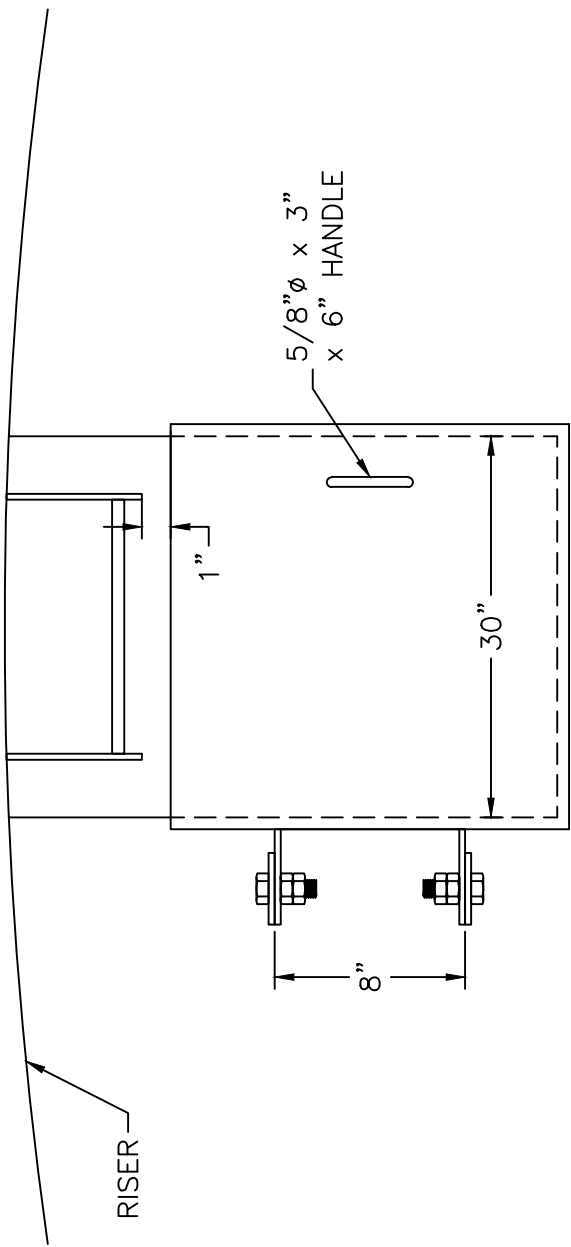
4.03 COATING REPAIR – WET INTERIOR

- A. Complete all welding and cutting prior to any surface preparation for painting to avoid contamination of surfaces.
- B. Remove any residue and weld smoke by solvent cleaning.
- C. Power tool clean to a SSPC-SP11 finish all areas damaged by welding.
- D. Use 3M Scotch-Brite Clean'n Strip Discs.
- E. Feather edges of adjacent coating a minimum of ½ in. from exposed steel.
- F. Apply repair system at 3.5 - 4.5 mils per coat as follows:

<u>Manufacturer</u>	<u>System</u>
Tnemec	20/20
Induron	PE-70/PE-70
PPG	Amerlock 2/Amerlock 2
Sherwin Williams	646PW/646PW

- G. Contractor has the option to apply one (1) coat of Aquatopoxy A-61 at 6.0-10.0 mils in lieu of the two coat system.

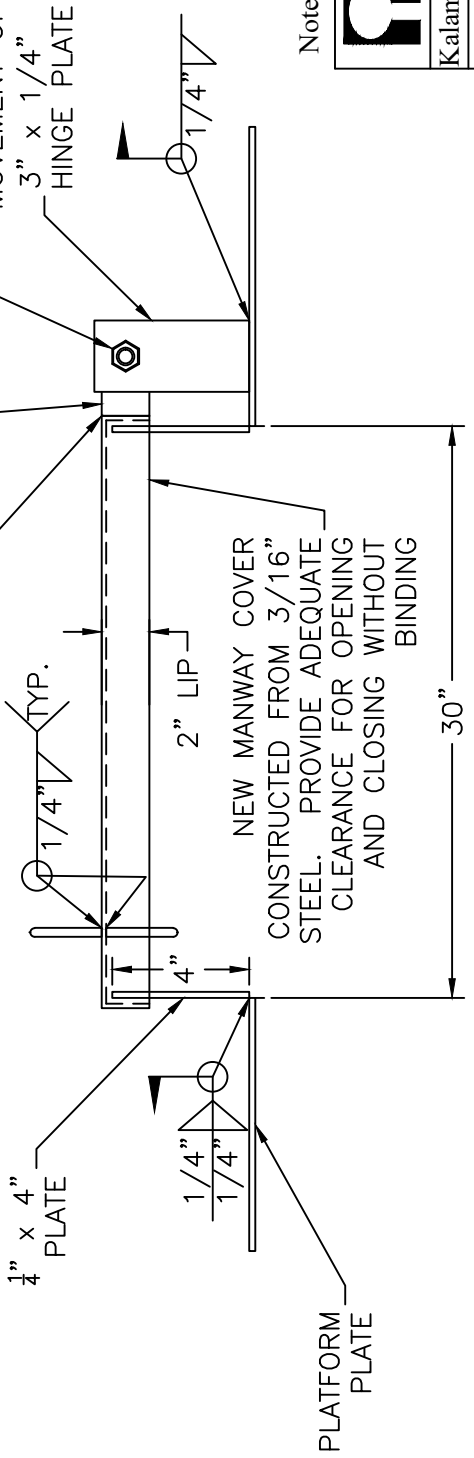
- H. System to meet all National Sanitation Foundation 61 certification standards for potable water contact.
- I. Contractor to follow the relevant items from Sections 09 97 13 and 09 97 13.10.
- J. Payment is incidental to weld repairs.



PLATFORM HATCH COVER

- NOTES:**
1. THE EXISTING OPENING IS 30" x 30" TOMBSTONE SHAPED, WITH NO COVER.
 2. SQUARE -OFF THE OPENING SO IT IS 30" x 30" SQUARE.
 3. INSTALL NEW KICKPLATE AROUND THE OPENING USING 4" x 1/4" PLATE.

SECURE HINGES WITH 3/4" STAINLESS STEEL BOLTS AND DOUBLE NUT TO PREVENT LOOSENING. PROVIDE A PVC OR PLASTIC WASHER BETWEEN HINGES TO PREVENT PAINT DAMAGE BY RUBBING. TENSION ON BOLT SHALL ALLOW EASY MOVEMENT OF COVER.

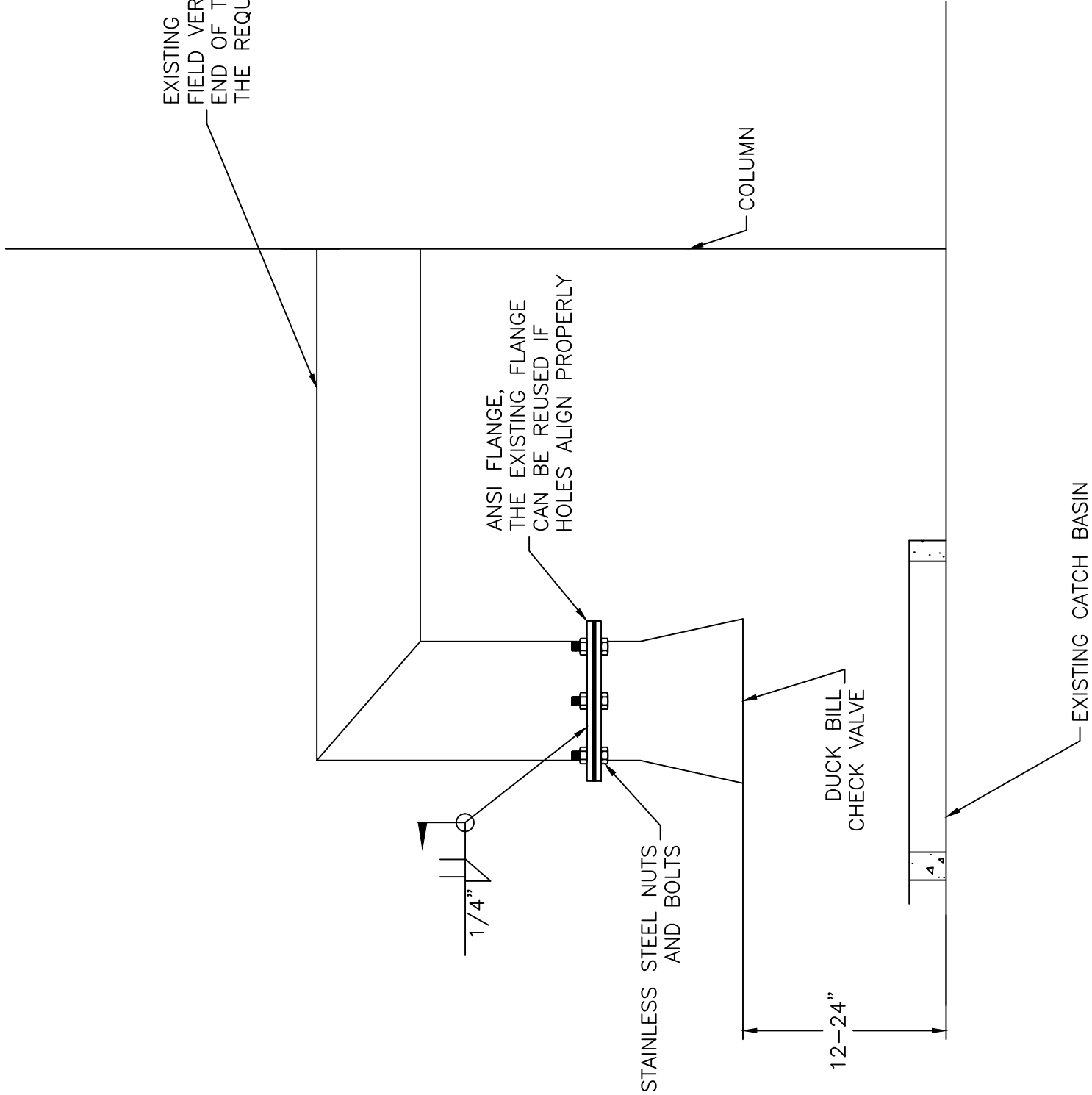


Note: Drawing not to scale.



Kalamazoo, MI 1,000,000 Composite	
Platform Hatch	
Drawn By: TMF	Date: 07/28/21
Checked By: JVR	DWG: 01

EXISTING 12"Ø OVERFLOW PIPE,
FIELD VERIFY SIZE, TRIM THE
END OF THE PIPE TO CREATE
THE REQUIRED AIR GAP



ANSI FLANGE,
THE EXISTING FLANGE
CAN BE REUSED IF
HOLES ALIGN PROPERLY

STAINLESS STEEL NUTS
AND BOLTS

DUCK BILL
CHECK VALVE

12-24"

EXISTING CATCH BASIN

COLUMN

Note: Drawing not to scale.

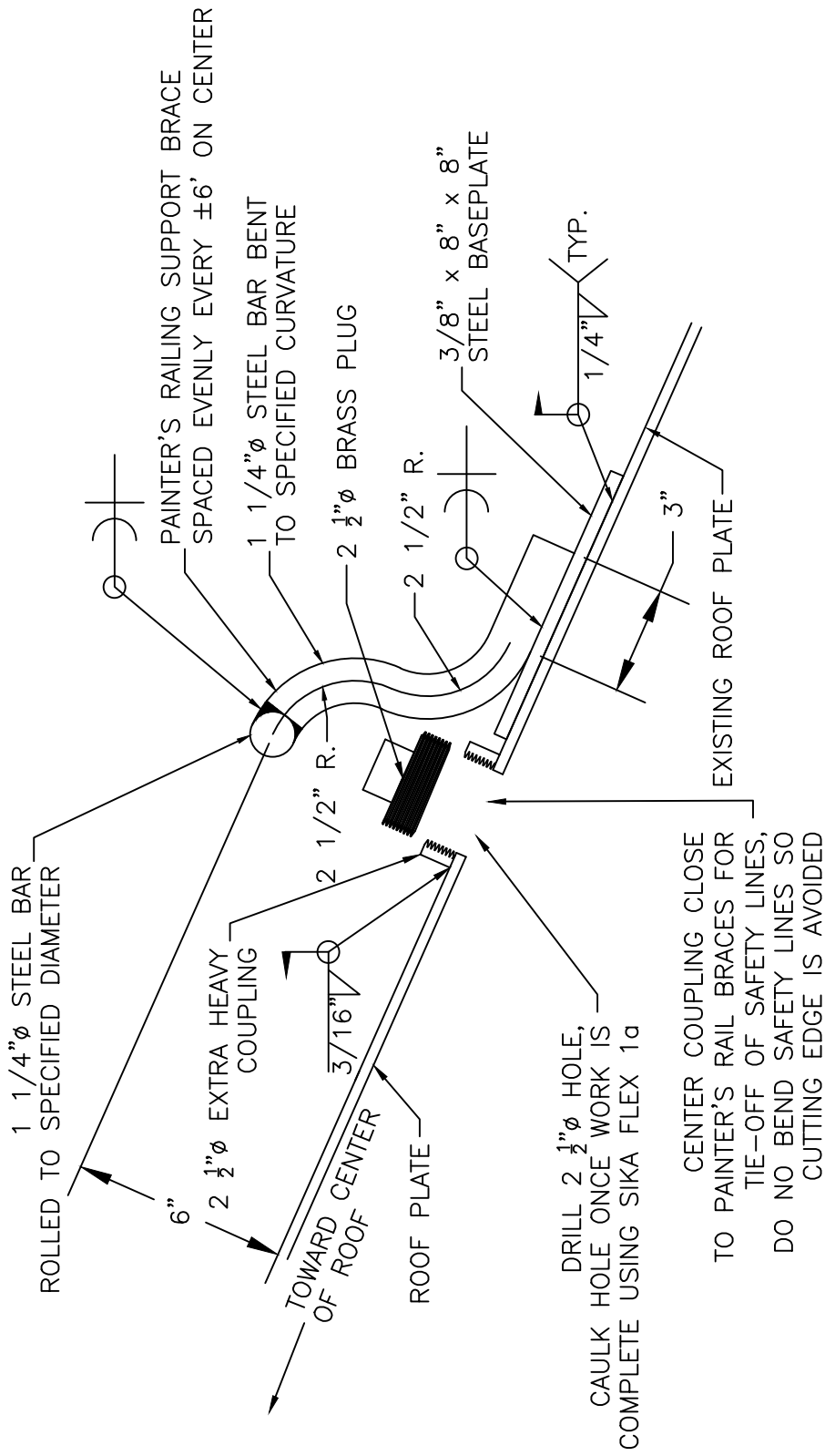


Kalamazoo, MI 1,000,000 Composite

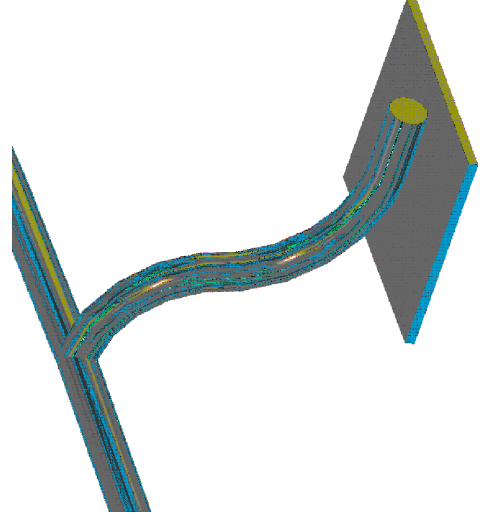
Overflow Discharge

Drawn By: TMF Date: 07/28/21

Checked By: JVR DWG: 02



ROOF PAINTER'S RAIL WITH RIGGING COUPLINGS



ISO VIEW

NOTE:

1. PROVIDE COUPLING AT PAINTER'S RAIL BRACES (ONE AT EVERY OTHER BRACE).
2. ALL WELDED CONNECTION POINTS FOR THE 1 1/4" ROLLED STEEL BAR MUST BE COMPLETED AT A PAINTER'S RAIL BRACE.
3. THREADED CONNECTIONS ARE TO BE SEALED WITH PIPE JOINT COMPOUND (OATEY GREAT WHITE OR APPROVED EQUAL).

Note: Drawing not to scale.



Kalamazoo, MI 1,000,000 Composite

Painter's Railing

Drawn By: TMF

Date: 07/28/21

Checked By: JVR

DWG: 03

SECTION 09 97 13 **STEEL COATING**

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Painting of steel structures.
- B. Interior cleaning and disinfection.

1.02 REFERENCES

- A. AWWA Standards:
 - 1. D102 – 17 Painting Steel Water Storage Tanks.
 - 2. C652 – Disinfection of Water Storage Facilities.
 - 3. C655 – Field Dechlorination.
- B. NSF/ANSI
 - 1. NSF/ANSI 61

1.03 WORK INCLUDED

- A. Exterior: Apply a three (3) coat epoxy urethane system. A 10-15 ft. section on the north side of the new painter's railing is to be painted black. Caulk the antenna cable penetrations on the roof.
- B. Dry Interior: Apply a spot two (2) coat epoxy system to the prepared surfaces.

1.04 EXISTING CONDITIONS

- A. Exterior: Original urethane system applied in 2005.
- B. Wet Interior: Original epoxy system applied in 2005.
- C. Dry Interior: Original epoxy system applied in 2005 (only the access tube and manway are coated).

1.05 OMISSIONS or INCIDENTAL ITEMS

- A. It is the intent of these specifications to coat the structure for the purpose of corrosion protection on wet interior surfaces. It is the intent to coat the exterior for corrosion protection and aesthetics.
- B. Any small or incidental items not specifically detailed in the schedule, but obviously a part of the work are included in the work at no additional cost to the Owner.
- C. Engineer, as interpreter of the specifications, will determine if disputed items fall under this category. Prevailing custom and trade practices will be considered in this determination.

1.06 PAINTER QUALIFICATIONS – NON-HEAVY METAL PROJECTS

- A. Contractor shall complete all coating and surface preparation.
- B. Painter shall be specialized in industrial or heavy commercial painting.
- C. ALL CONTRACTORS SHALL BE PREQUALIFIED with Dixon Engineering for projects of this size and complexity.

1.07 SUBMITTALS

- A. Submit the following with your annual prequalification:
 - 1. Occupational Safety and Health Programs and certification that all site personnel have been trained as required by law.
- B. Submit the following ten (10) days prior to the preconstruction meeting:
 - 1. Safety Data Sheets (SDS) and Product Data Sheets:
 - a. Furnish from all suppliers Safety Data Sheets and product data sheets for all applicable materials including, but not limited to, paints, thinners, cleaners, degreasers, and abrasive materials.
 - b. Provide for employees one (1) copy of all data sheets at the job site for employee access.
 - c. Provide one (1) hard copy and an electronic copy to the Engineer.
 - d. No work may commence without the complete filing. All SDS shall conform to requirements of SARA (EPCRA) Right-to-Know Act.
 - 2. Fall Prevention Plan and Site Specific Fall Hazard Evaluation:
 - a. Site specific plan to contain a generic drawing of the existing structure and appurtenances of this structure and reflect safety changes specified for this project.
 - b. Certifications for all spiders, scaffolding, stages, etc. to be used on the project. All certifications to be current, less than one year old.
- C. Submit the following at the preconstruction meeting:
 - 1. Designated OSHA Competent Person and qualifications, if not previously submitted.
- D. Submit the following within two (2) weeks of project completion with final pay request:
 - 1. Waste manifest, waste hauler and disposal facility. Required only if waste is hazardous.
 - 2. Waivers of lien.
 - 3. Copies of any formal worker safety or environmental citations received on the project.

1.08 OWNER RESPONSIBILITY

- A. Drain the structure with a seven (7) day notice after Contractor meets all precedent conditions of the contract.

- B. Fill the tank and draw samples and test after chlorination; responsibility of good results remains with the Contractor. Poor test results could result in added costs to Contractor, including re-chlorination, cost of water, plus possible liquidated damages.

1.09 DELIVERY and STORAGE of MATERIAL

- A. Submit manufacturer's invoice, with or without paint cost, to the Engineer for review. This submittal will be used to identify the quantity of paint recommended by the manufacturer for a job of this size and design and will be used to check the quantity actually delivered to the project.
- B. Cover bulk materials subject to deterioration because of dampness, weather, or contamination, and protect while in storage.
- C. Maintain materials in original, sealed containers, unopened and with labels plainly indicating the manufacturer's name, brand, type, grade of material, and batch numbers.
- D. Remove from the work site containers that are broken, opened, water marked, and/or contain caked, lumpy, or otherwise damaged materials. They are unacceptable.
- E. Store the material in a climate controlled designated area where the temperature will not exceed the manufacturer's storage recommendations. Heat the storage area to the manufacturer's recommended minimum mixing temperature.
- F. Keep equipment stored outdoors from contact with the ground, away from areas subject to flooding, and covered with weatherproof plastic sheeting or tarpaulins.
- G. Store all painting materials in a location outside the structure.
- H. Do not store or have on-site unapproved material, material from different manufacturers, or materials from different projects.

1.10 ACCESS and INSPECTOR SAFETY

- A. Provide access to all portions of the project where work is being completed. Access must be close enough and secure enough to allow inspector to use inspection equipment without extensions.
- B. Provide personnel to assist with access and to ensure Contractor's access equipment is safely used.
- C. Provide separate fall protection devices and safety lines for the Owner and inspectors. Limit fall to 5 ft. vertically.
- D. New safety tie-off points have been added as part of this project, see Section 05 00 00 Metal Repairs. Do not rig equipment from these points. Provide separate fall protection cables and safety grabs for each tie-off point. The Contractor can install additional rigging couplings for staging. Coupling design for the additional couplings is to match those designed for safety lines.
 - 1. Tie-off points are located on the roof for wet interior safety.

- E. These specifications require the Contractor to supply a separate fall protection cable and safety grab for each tie-off point for the inspector's use. The Contractor is encouraged to provide a separate cable and tie-off for each worker. The cables may be connected to the same tie-off point as the inspector's, but a separate cable and safety grab are required for each user.

1.11 INSPECTION and TESTING

- A. Prior to the scheduled inspection, remove all dust, spent abrasive, and foreign material from the surface to be coated.
- B. The Contractor is to furnish an instrument for measuring the wet film thickness, and also a calibrated instrument for measuring dry film thickness of each field coat of paint. The dry film thickness testing gauge shall be the magnetic type as manufactured by Elcometer Co., or the Nordson Gauge Co.; spring loaded model with two percent (2%) accuracy margin over a range of one-to-twenty-one (1-21) mils or equal.
- C. The Engineer will furnish and operate inspection equipment for their own use as quality assurance.
- D. Certify to the Owner that the specified paint has been applied at the paint manufacturer's recommended coverage, and to the specified thickness required. Also, certify that the paint has been applied in accordance with this contract.
- E. Take all necessary steps, including dry striping by brush or roller, to ensure a holiday-free coating system.
- F. The wet interior coating repairs are subject to low or high voltage holiday testing.
- G. The Owner and Engineer reserve the right to perform destructive testing under conditions deemed necessary. Testing may include, but is not limited to, the Tooke thickness test and adhesion testing. Any damage caused by these tests will be corrected to specifications at the Contractor's expense.

1.12 CLIMATIC CONDITIONS

- A. Do not apply paint when the temperature, as measured in the shade, is below the manufacturer's required ambient and surface temperatures.
- B. Do not apply paint to wet or damp surfaces, or during rain, snow, or fog.
- C. Do not apply paint when it is expected the relative humidity will exceed 85%, or the surface temperature is less than 5° above dew point, or the air temperature will drop below the manufacturer's requirements for proper cure. Anticipate dew or moisture condensation, and if such conditions are prevalent, delay painting until the inspector is satisfied the surfaces are dry.

1.13 APPLICATION

- A. Complete all painting and surface preparation in strict accordance with these specifications, approved paint manufacturer's specifications, and good painting practices per SSPC.
- B. Apply each coating at the rate and in the manner specified by the manufacturer. Check the wet film thickness every 200 sq. ft. to ensure each coat applied meets the dry film thickness range requirements.
- C. Allow sufficient time for each coat of paint to dry and cure. Allow a minimum of twenty-four (24) hours between coats, unless product requirements have a maximum time less than 24 hours.
- D. Apply exterior coating by brush and roller only. Spray application is not permitted without prior approval of the Engineer. Even with prior approval, responsibility for damage still remains with the Contractor.
- E. Coatings shall be applied using methods to eliminate roller or spray marks in the finished product on the exterior.
- F. Painting may be delayed because of poor coverage or the potential damage from overspray and/or dry spray. In all cases, responsibility for damages rests with the Contractor.
- G. The Contractor is responsible for the appearance of the finished project and is warned to prevent contact with any freshly applied coating. Removal of rigging shall be completed so not to mar or damage the coating.
- H. Additional coats required for coverage or to eliminate roller marks, spray marks and to repair dry spray and overspray are the responsibility of the Contractor at no additional cost to the Owner.
- I. Use of pole extension on spray guns is prohibited for all paint application.
- J. Mixing of partial kits is not permitted. All partial cans of coating must be removed from the site.
- K. Mixing blades to be clean. The Engineer has the right to reject mixing blades based on cleanliness or paint build-up. Do not use the same mixing blade for different coatings (i.e. epoxy and urethane coatings).

1.14 PRESSURE RELIEF VALVES

- A. Furnish two (2) pressure relief valves.
- B. The valves shall be Aquatrol series 69F1 or approved equal.
- C. Valves will need to be fitted with hydrant thread adaptor. Valves to be adjustable with range a minimum of 30 to 90 psi. Set valve at 60 psi.
- D. Supply three (3) days prior to draining of the structure.
- E. After work to the structure and successful disinfection have been completed, the Owner will return the valves to the possession of the Contractor.
- F. Cost shall be incidental to project cost.

PART 2 – PRODUCTS

2.01 COLOR

A. Exterior Coatings:

1. Supply the Engineer with a color chart to allow the Owner ample time for the exterior topcoat color selection.
2. Factory tint the intermediate coat(s) for all areas of the structure if similar to the finish coat. Tinting shall be sufficient to allow visibility of the dissimilar color from 1 ft., and from 100 ft.
3. The Owner shall select or verify the topcoat color at the preconstruction meeting.
 - a. All bids shall be based on Tnemec “Delft Blue” color.

B. Dry Interior Coatings:

1. The color is to be a different tint between coats. Tinting to be performed in the factory. The final color is to be white. The topcoat color is to be verified at the preconstruction meeting.

2.02 SUBSTITUTIONS

- A. All coatings specified and approved herein have met or exceeded a specified list of ASTM standards. The materials specified are the standard to which all others shall be compared.
- B. The purpose is to establish a standard of design and quality, and not to limit competition.
- C. Other manufacturers wishing to have their products approved have also had their coatings tested using the same representative of Dixon Engineering, Inc., and the same test methods.
- D. Approval by ANSI/NSF Standard 61 is also a requirement for potable water contact coatings.
- E. The selection of coatings also has taken into consideration the manufacturer’s current and past performance on availability, stocking, and shipping capabilities, ability to resolve disputes, and any applicable warranties.

2.03 EQUIPMENT COVERING

- A. Use material that is 8 – 10 mils thick, and 100% impermeable to all vulnerable equipment.
- B. Use material resistant to tear and/or rip by mechanical action from abrasive blasting during blasting operations.
- C. Make coverings airtight by use of duct tape at the openings, or other suitable measures.

- D. Meet with representative of equipment Owner to verify covering will not damage equipment. Damage is the Contractor's responsibility. This includes not only the Owner's equipment, but also telecommunication antennas, cables, buildings, controls, etc.

PART 3 – EXECUTION

3.01 DISINFECTION

- A. Disinfect the completely painted structure in accordance with AWWA Standard C652 Chlorination Method No. 3.
- B. Furnish the material and labor necessary to disinfect the structure in the required manner. Any chlorine products used are to be NSF 61 approved. Assist the Owner during filling and ensure that any manways are free of leaks after filling. Contractor is to adjust the manways and replace gaskets as needed to ensure there are no leaks.
- C. Do not allow water to enter the distribution system until satisfactory bacteriological test results are received.
- D. Owner is responsible to collect two consecutive bacteriological samples, 24 hours apart, following disinfection. Satisfactory results are required before the tank can be returned to service.
- E. Water drained to waste may not contain any substances in concentrations that can adversely affect the natural environment. No total residual chlorine may be measured in water discharged to surface water. It is recommended that the water be dechlorinated per AWWA C655F Field Dechlorination.
- F. Pay all additional expenses if it is necessary to repeat the testing and disinfection procedure as a result of defective work.

3.02 PROTECTION of NON-WORK AREAS

- A. Protect all non-painted surfaces prior to all painting.
- B. Protect and seal all controls and electrical components (even if they are not in the immediate work area) that are in danger from the project. Coordinate with the Owner so all controls are shut down and/or vented if necessary.

3.03 ANTENNA SYSTEM PROTECTION

- A. There are 7 antennas mounted on the roof. The number of antennas listed are from the last known condition, the Contractor is to field verify number of antennas.
- B. There are cables routed from the ground up to the antennas with miscellaneous sensitive equipment mounted on the structure and control equipment/buildings located on the ground.
- C. Use material that is 100% impermeable to cover and protect all antennas, antenna cables, and antenna controls/buildings.

- D. Use material resistant to tear by mechanical action from abrasive blasting, power washing and coating application.
- E. Payment for damage to antennas, antenna cables, miscellaneous equipment and/or antenna controls/buildings is the responsibility of the Contractor.
- F. Contact the Owner of each set of antennas one (1) week prior to the beginning of construction. Name of antenna companies will be available at the preconstruction meeting.
- G. Antennas may remain in service during the project. The Contractor is responsible for their own RF safety. Contractor to provide a minimum of one RF monitor for employees on site for the duration of the project.

3.04 ANTENNA EQUIPMENT COATING

- A. Antenna equipment is to be surface prepared and coated to match the exterior tank per these specifications including but not limited to: brackets and mounting poles.
- B. All previously coated items are to be coated per the exterior specifications. Any galvanized, stainless steel or other uncoated materials are to remain uncoated.
- C. Cost is incidental to the project.

3.05 HAND WASH FACILITY

- A. Provide OSHA approved hand wash facility with running water. Hot water is not required.
- B. Stock facility with soap and towels and keep supply replenished.
- C. Test water and dispose of properly after job is completed.

3.06 LIGHTING of WORKSPACE

- A. Provide durable lighting fixtures designed for the intended work environment for use during blasting, painting, and during all inspections.
- B. Encase portable lamps in a non-conductive, shatterproof material. Use only heavily insulated cable with an abrasive resistant casing.
- C. Install all temporary electrical items in accordance with all local, state, and federal codes, including OSHA.
- D. Protect from paint overspray and damage from abrasive materials.
- E. Measure required illumination during surface preparation and coating application at the work surface. Supply 20 ft. candles minimum illumination during blasting and painting, and 30 ft. candles minimum prior to and during inspection, per SSPC-Guide 12. Inspect the prepared surface at the higher illumination prior to calling for inspection. All work must conform to specification requirements prior to the scheduled inspection.
- F. Measure the illumination at the work surface in the plane of the work.

PART 4 – SPECIAL PROVISIONS

4.01 ANTENNA CABLE PENETRATION CAULKING

- A. Seal the antenna cable penetrations on the roof with caulking.
- B. Remove all existing caulking, spray foam insulation, or tape.
- C. Apply clear silicone caulking to completely seal the penetrations.
- D. Cost is incidental to the project.

4.02 SCHEDULING

- A. Complete all welding and any other work that damages the coating before paint operations begin, including surface preparation. The exception is paint removal in the weld area.
- B. If Contractor wants a variance in this schedule, request the change and give reason in writing to the Owner. The project manager will reply with a written Field Order if change is approved. Engineer reserves the right to put further restrictions in Field Order. If Contractor objects to restrictions, he may revert to the original specifications.

4.03 GRASS RESTORATION

- A. The Contractor is to report any damaged ground at the construction site in writing prior to mobilization of equipment, otherwise all repairs to the damaged ground will be the responsibility of the Contractor.
- B. Refill all holes, ruts etc. with clean topsoil, and level area around the construction site to the original grade.
- C. Fill material to be clean soil, no gravel, rocks or construction debris is to be used as fill material without the Owner's consent.
- D. Bring soil to a friable condition by disking, harrowing, or otherwise loosening and mixing to a depth of 3 in. – 4 in. Thoroughly break all lumps and clods.
- E. Rake area to be seeded. Sow seed at a minimum rate of 220 lbs/acre. Use seed intended for the climate.
- F. Work to be completed to the Owner's satisfaction.
- G. Cost is incidental to the project.

SECTION 09 97 13.10

STEEL COATING SURFACE PREPARATION

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Power Tool Cleaning.
- B. High Pressure Water Cleaning.

1.02 REFERENCES

- A. AWWA Standards:
 - 1. D102-17 Painting Steel Water Storage Tanks.
- B. SSPC and NACE Standards:
 - 1. SP11 – Power Tool Cleaning to Bare Metal.
 - 2. SP12/NACE No. 5 – Surface Preparation and Cleaning of Metals by Waterjetting Prior to Recoating
 - 3. VIS 3 (Visual standard for hand and power tool cleaned metal).

1.03 WORK INCLUDED – SURFACE PREPARATION

- A. Exterior: High pressure water clean (5,000 to 10,000 psi), spot power tool clean to a SSPC-SP11 standard.
- B. Dry Interior: Spot power tool clean the spot failures throughout to a SSPC-SP11 standard.

PART 2 – PRODUCTS

2.01 EXTERIOR CLEANER

- A. United 727 Weather-Zyme as manufactured by United Laboratories, 320 37th Ave., St. Charles, IL 60174 1-800-323-2594.

PART 3 – EXECUTION

3.01 WET INTERIOR CLEANING

- A. Low pressure water clean at 4,000 psi all surfaces and appurtenances to remove sediment, minerals, other contaminants, and any remaining water.
- B. Staining may remain in place, the Engineer to approve cleanliness.
- C. The cost is incidental to the project.

3.02 HIGH PRESSURE WATER CLEANING - EXTERIOR

- A. Solvent clean all visible grease, oil, salt, algae, and residue in accordance with SSPC-SP1.
- B. High pressure water clean all exterior surfaces and appurtenances at 5,000 – 10,000 psi to remove all dirt, chalk, algae, other foreign material, and all brittle or loose coating, rust, and mill scale. Operational pressure will be determined by the Engineer based on field conditions.
- C. Maintain a water jet nozzle distance of 2 in. – 10 in. away from the surface.
- D. Hold the water jet nozzle with 0° - 15° tip perpendicular (90°) to the surface at all times.
- E. Only use machines rated at and capable of achieving and maintaining 10,000 psi. Use of a rotating/reciprocating nozzle during water cleaning is permitted but not to increase the pressure of a washer rated lower than required.
- F. Do NOT exceed a rate of 10 sq. ft./minute.
- G. The gauge measuring time of use must be operational on the unit, if not operational the Contractor may be shut down and/or deducted price for rental of an operational unit from the final payment.
- H. Feather all edges using power tools per this specification.

3.03 POWER TOOL CLEAN (SSPC-SP11) – EXTERIOR – DRY INTERIOR

- A. Solvent clean all visible grease, oil, salts, and residue.
- B. Power tool clean all surfaces and appurtenances to bare metal (SP11) in areas where steel is exposed or rusted, or where coating is abraded.
- C. Retain or produce a surface profile. Surface profile shall be greater than 1.0 mil.
- D. Edges of adjacent coating shall be feathered a minimum of ½ in. from the exposed steel with 3M Scotch-Brite Clean'n Strip discs.

SECTION 09 97 13.19.01

DRY INTERIOR STEEL COATING – SPOT TWO COAT EPOXY

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Partial painting in the dry interior.

1.02 REFERENCES

- A. SSPC and NACE Standards:

1. PA1 – Paint Application.
2. PA2 – Measurements and Calibration.
3. NACE RP 0178 Surface Finish Requirements.

1.03 WORK INCLUDED

- A. Application of a spot two (2) coat epoxy system.

PART 2 – PRODUCTS

2.01 EPOXY – SPOT 2 COAT SYSTEM

- A. Spot two (2) coat epoxy system.

- B. Approved suppliers and system:

<u>Manufacturer</u>	<u>System</u>
Tnemec	66(spot)/66(spot)
Induron	PE-70(spot)/PE-70(spot)
PPG	Amerlock 2(spot)/Amerlock 2(spot)
Sherwin Williams	646(spot)/646(spot)

PART 3 – EXECUTION

3.01 EPOXY – SPOT 2 COAT EPOXY

- A. Apply to all prepared areas a spot two (2) coat epoxy system.
- B. Surface preparation has been previously defined in Section 09 97 13.10.
- C. Apply each coat at the following rates:

<u>Coat</u>	<u>Minimum</u>	<u>Maximum</u>
	<u>D.F.T. (mils)</u>	<u>D.F.T. (mils)</u>
Primer (spot)	3.5	5.5
Topcoat (spot)	<u>3.5</u>	<u>5.5</u>
Total	7.0	11.0

- D. Each coat to be a different color from the previous coat and is to be approved by the engineer. No color bleedthrough should occur if proper application rates are observed.
- E. Apply all coats in uniform color and sheen without streaks, laps, runs, sags, cloudy, or missed areas. Correct all defects before application of the successive coat.
- F. Allow a minimum of twenty-four (24) hours between coats. Additional time may be necessary if low temperatures require an increase in the necessary cure time.

3.02 SCHEDULE of WORK

- A. Complete all exterior and interior welding prior to surface preparation.

SECTION 09 97 13.24.01

EXTERIOR STEEL COATING – THREE COAT EPOXY URETHANE OVERCOAT

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Painting on the exterior.

1.02 REFERENCES

A. SSPC and NACE Standards:

- 1. PA1 – Paint Application.
- 2. NACE RP 0178 Surface Finish Requirements.

1.03 WORK INCLUDED

- A. Application of a three (3) coat epoxy urethane system.

PART 2 – PRODUCTS

2.01 EPOXY URETHANE – 3 COAT OVERCOAT SYSTEM

- A. The coating shall be an epoxy urethane system.
- B. The contractor is advised to follow all requirements for safety concerning isocyanates.
- C. Ultraviolet protection additives mixed at factory only. There will be no tinting or addition of any material other than the manufacturer’s thinners.
- D. Approved suppliers and systems:

<u>Manufacturer</u>	<u>System</u>
Tnemec	66(spot)/66/1074/1074UV
Induron	PE-70 (spot)/PE-70/I-6600 Plus/I-6600 Plus
Sherwin Williams	646PW(spot)/646PW/Acrolon Ultra/Acrolon Ultra
PPG	Amerlock 2(spot)/Amerlock 2/Pitthane Ultra/Pitthane Ultra

PART 3 – EXECUTION

3.01 EPOXY URETHANE – 3 COAT OVERCOAT SYSTEM

- A. Apply to all prepared surfaces and appurtenances a three (3) coat epoxy urethane system.
- B. Surface preparation and paint requirements have been previously defined in Section 09 97 13.10. Apply all coatings by brush and roller. Spray application is prohibited.

C. Apply each coat at the following rates:

<u>Coat</u>	Minimum	Maximum
	<u>D.F.T. (mils)</u>	<u>D.F.T. (mils)</u>
Primer (spot)	2.0	3.0
Epoxy Intermediate	2.0	3.0
Urethane Intermediate	2.0	3.0
Topcoat	<u>2.0</u>	<u>3.0</u>
Total	8.0	12.0

- D. Each full coat to be a different color from the previous coat and is to be approved by the engineer. No color bleedthrough should occur if proper application rates are observed.
- E. Apply all coats in uniform color and sheen without streaks, laps, runs, sags, cloudy, or missed areas. Correct all defects before application of the successive coat.
- F. Allow a minimum of twenty-four (24) hours between coats. Additional time may be necessary if low temperatures require an increase in the necessary cure time.
- G. Paint a 10-15 ft. section on the north side of the new painter's rail black. Field verify location and dimensions with the owner prior to application.

3.02 SCHEDULE of WORK

- A. Complete all exterior and interior welding prior to surface preparation.