

Contract Routing Form

ROUTING: Routine

printed on: 07/15/2016

Contract between: Tecorp, Inc
and Dept. or Division: Engineering Division
Name/Phone Number:

Project: Repaint Madison Water Utility Reservoirs 9,115, and 315

Contract No.: 7729
Enactment No.: RES-16-00520
Dollar Amount: 2,169,600.00

File No.: 43339
Enactment Date: 07/06/2016

(Please DATE before routing)

Signatures Required	Date Received	Date Signed
City Clerk	7-18-16	7-18-2016
Director of Civil Rights	7/18/16	7/21/16 [Signature]
Risk Manager	7-22-16	7/22/16 RN
Finance Director	7-22-16	8-5-16 [Signature]
City Attorney #959	8-5-2016	8-9-16
Mayor	8.9.16	8.9.16

Please return signed Contracts to the City Clerk's Office
Room 103, City-County Building for filing.

Original + 2 Copies

07/15/2016 09:19:23 enknb - Adam Wiederhoeft- 266-9121

Dis Rights: OK / ~~NA~~ / Problem - Hold
Prev Wage: AA / Agency / No
Contract Value: See above
AA Plan: APPROVED
Amendment / Addendum # _____
Type: POS / Ewp / Sbdv / Gov't /
Grant / PW / Goal / Loan / Agrmt



Legislation Details (With Text)

File #: 43339 **Version:** 1 **Name:** Awarding Public Works Contract No. 7729, Repaint Madison Water Utility Reservoirs 9, 115, and 315.

Type: Resolution **Status:** Passed

File created: 6/10/2016 **In control:** BOARD OF PUBLIC WORKS

On agenda: 7/5/2016 **Final action:** 7/5/2016

Enactment date: 7/6/2016 **Enactment #:** RES-16-00520

Title: Awarding Public Works Contract No. 7729, Repaint Madison Water Utility Reservoirs 9, 115, and 315.

Sponsors: BOARD OF PUBLIC WORKS

Indexes:

Code sections:

Attachments: 1. Contract 7729.pdf

Date	Ver.	Action By	Action	Result
7/5/2016	1	COMMON COUNCIL	Adopt Under Suspension of Rules 2.04, 2.05, 2.24, and 2.25	Pass
6/22/2016	1	BOARD OF PUBLIC WORKS	RECOMMEND TO COUNCIL TO ADOPT UNDER SUSPENSION OF RULES 2.04, 2.05, 2.24, & 2.25 - REPORT OF OFFICER	
6/14/2016	1	Engineering Division	Refer	

In the adopted 2016 operating budget the Water Utility budgeted \$1.7 million for water building and structure improvements. The proposed work for the repainting of the three reservoirs in this contract is planned to be completed in both fiscal years 2016 and 2017. There is sufficient funding for the work scheduled in 2016, and the Water Utilities 2017 operating budget request will support the remainder of the cost.

The proposed resolution approves the contract at a total estimated cost of \$2,343,170.

MUNIS:
86100-54210-00000

Awarding Public Works Contract No. 7729, Repaint Madison Water Utility Reservoirs 9, 115, and 315. BE IT RESOLVED, that the following low bids for miscellaneous improvements be accepted and that the Mayor and City Clerk be and are hereby authorized and directed to enter into a contract with the low bidders contained herein, subject to the Contractor's compliance with Section 39.02 of the Madison General Ordinances concerning compliance with the Affirmative Action provisions **and subject to the Contractor's compliance with Section 33.07 of the Madison General Ordinances regarding Best Value Contracting:**

BE IT FURTHER RESOLVED, that the funds be encumbered to cover the cost of the projects contained herein.

See attached document (Contract No. 7729) for itemization of bids.

PROJECT _____ CONTRACTOR _____ AMOUNT OF BID _____

CONTRACT NO. 7729
REPAINT MADISON WATER UTILITY RESERVOIRS 9, 115, AND 315

TECORP, INC.

\$2,169,600.00

Acct. No. 86100-54210-00000
Contingency 8%±

\$2,169,600.00
173,570.00

GRAND TOTAL

\$2,343,170.00

SBS Web Site | SBS Online Services | NAIC Services | NIPR Services | Help



Wisconsin Office of the Commissioner of Insurance Active Company Appointment List for Licensee

Agent Information

Licensee Name: PETER S FORKER

License Number: 0000328914

NPN: 328914

Report Date: 07/11/2016

Active Appointments

Company Name	Company Number	NAIC Number	License type	LOA	Appointment Date
American States Insurance Company	111938	19704	INTERMEDIARY (AGENT) INDIVIDUAL	Property	01/03/2003
American States Insurance Company	111938	19704	INTERMEDIARY (AGENT) INDIVIDUAL	Casualty	01/03/2003
Arch Insurance Company	111572	11150	INTERMEDIARY (AGENT) INDIVIDUAL	Casualty	05/31/2011
Arch Insurance Company	111572	11150	INTERMEDIARY (AGENT) INDIVIDUAL	Property	05/31/2011
Developers Surety and Indemnity Company	110160	12718	INTERMEDIARY (AGENT) INDIVIDUAL	Property	12/14/2004
Developers Surety and Indemnity Company	110160	12718	INTERMEDIARY (AGENT) INDIVIDUAL	Casualty	12/14/2004
Federal Insurance Company	110713	20281	INTERMEDIARY (AGENT) INDIVIDUAL	Casualty	04/21/2003
Federal Insurance Company	110713	20281	INTERMEDIARY (AGENT) INDIVIDUAL	Property	04/21/2003
First National Insurance Company of America	112079	24724	INTERMEDIARY (AGENT) INDIVIDUAL	Property	01/03/2003
First National Insurance Company of America	112079	24724	INTERMEDIARY (AGENT) INDIVIDUAL	Casualty	01/03/2003
General Insurance Company of America	112078	24732	INTERMEDIARY (AGENT) INDIVIDUAL	Casualty	01/03/2003
General Insurance Company of America	112078	24732	INTERMEDIARY (AGENT) INDIVIDUAL	Property	01/03/2003
Gray Insurance Company, The	111726	36307	INTERMEDIARY (AGENT) INDIVIDUAL	Casualty	05/17/2011
Gray Insurance Company, The	111726	36307	INTERMEDIARY (AGENT) INDIVIDUAL	Property	05/17/2011
Guarantee Company of North America USA, The	110939	36650	INTERMEDIARY (AGENT) INDIVIDUAL	Casualty	03/05/1998
LM Insurance Corporation	110356	33600	INTERMEDIARY (AGENT) INDIVIDUAL	Property	09/30/2003
LM Insurance Corporation	110356	33600	INTERMEDIARY (AGENT) INDIVIDUAL	Casualty	09/30/2003
Liberty Mutual Fire Insurance Company	111439	23035	INTERMEDIARY (AGENT) INDIVIDUAL	Property	09/30/2003
Liberty Mutual Fire Insurance Company	111439	23035	INTERMEDIARY (AGENT) INDIVIDUAL	Casualty	09/30/2003
Liberty Mutual Insurance Company	111480	23043		Casualty	09/30/2003

			INTERMEDIARY (AGENT) INDIVIDUAL		
Liberty Mutual Insurance Company	111480	23043	INTERMEDIARY (AGENT) INDIVIDUAL	Property	09/30/2003
Ohio Casualty Insurance Company, The	110565	24074	INTERMEDIARY (AGENT) INDIVIDUAL	Property	09/04/2001
Ohio Casualty Insurance Company, The	110565	24074	INTERMEDIARY (AGENT) INDIVIDUAL	Casualty	09/04/2001
SAFECO Insurance Company of America	110264	24740	INTERMEDIARY (AGENT) INDIVIDUAL	Casualty	01/03/2003
SAFECO Insurance Company of America	110264	24740	INTERMEDIARY (AGENT) INDIVIDUAL	Property	01/03/2003
Travelers Casualty and Surety Company of America	110846	31194	INTERMEDIARY (AGENT) INDIVIDUAL	Casualty	04/15/2004
Travelers Casualty and Surety Company of America	110846	31194	INTERMEDIARY (AGENT) INDIVIDUAL	Property	04/15/2004
West American Insurance Company	112171	44393	INTERMEDIARY (AGENT) INDIVIDUAL	Casualty	09/04/2001
West American Insurance Company	112171	44393	INTERMEDIARY (AGENT) INDIVIDUAL	Property	09/04/2001
Western Surety Company	111843	13188	INTERMEDIARY (AGENT) INDIVIDUAL	Casualty	03/18/2003



\$2,169,600.00
CONTRACTOR'S OFFICE COPY

BID OF TECORP, INC.

2016

PROPOSAL, CONTRACT, BOND AND SPECIFICATIONS

FOR

REPAINT MADISON WATER UTILITY RESERVOIRS 9, 115, AND 315

CONTRACT NO. 7729

PROJECT NO. 86100

MUNIS NO. 86100-54210-00000

IN

MADISON, DANE COUNTY, WISCONSIN

AWARDED BY THE COMMON COUNCIL
MADISON, WISCONSIN ON JULY 5, 2016

CITY ENGINEERING DIVISION
1600 EMIL STREET
MADISON, WISCONSIN 53713

<https://bidexpress.com/login>

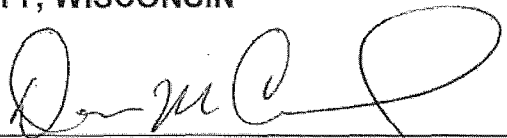
REPAINT MADISON WATER UTILITY RESERVOIRS 9, 115, AND 315
CONTRACT NO. 7729

INDEX

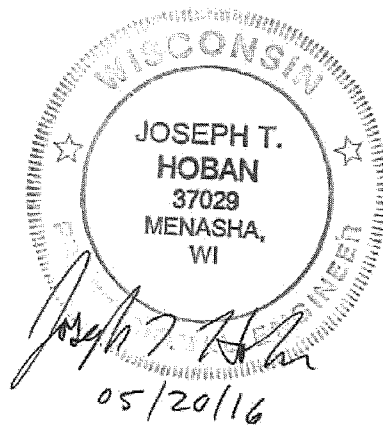
SECTION A: ADVERTISEMENT FOR BIDS AND INSTRUCTIONS TO BIDDERSA-1
SECTION B: PROPOSAL SECTIONB-1
SECTION C: SMALL BUSINESS ENTERPRISE C-1
SECTION D: SPECIAL PROVISIONS D-1
SECTION E: BIDDER'S ACKNOWLEDGEMENTE-1
SECTION F: DISCLOSURE OF OWNERSHIP & BEST VALUE CONTRACTINGF-1
SECTION G: BID BOND G-1
SECTION H: AGREEMENT H-1
SECTION I: PAYMENT AND PERFORMANCE BONDI-1
SECTION J: PREVAILING WAGE RATES J-1

This Proposal, and Agreement have
been prepared by:

**MADISON WATER UTILITY
CITY OF MADISON
MADISON, DANE COUNTY, WISCONSIN**


for Alan Larson, P.E., B.C.E.E. – Principal Engineer

Technical Specifications prepared by:
DIXON ENGINEERING, INC.



SECTION A: ADVERTISEMENT FOR BIDS AND INSTRUCTIONS TO BIDDERS

REQUEST FOR BID FOR PUBLIC WORKS CONSTRUCTION CITY OF MADISON, WISCONSIN

A BEST VALUE CONTRACTING MUNICIPALITY

PROJECT NAME:	REPAINT MADISON WATER UTILITY RESERVOIRS 9, 115, AND 315
CONTRACT NO.:	7729
SBE GOAL	3%
BID BOND	5%
PRE BID MEETING (1:00 P.M.)	JUNE 3, 2016
PREQUALIFICATION APPLICATION DUE (1:00 P.M.)	JUNE 3, 2016
BID SUBMISSION (1:00 P.M.)	JUNE 10, 2016
BID OPEN (1:30 P.M.)	JUNE 10, 2016
PUBLISHED IN WSJ	MAY 20, MAY 27 & JUNE 3, 2016

PRE BID MEETING: Representatives of the Affirmative Action Department will be present to discuss the Small Business Enterprise requirements at 1600 Emil Street, Madison Wisconsin.

PREQUALIFICATION APPLICATION: Forms are available on our website, www.cityofmadison.com/business/pw/forms.cfm. If not currently prequalified in the categories listed in Section A, an amendment to your Prequalification will need to be submitted prior to the same due date. Postmark is not applicable.

BIDS TO BE SUBMITTED by hand to 1600 EMIL ST., MADISON, WI 53713 or online at www.bidexpress.com.

THE BID OPENING is at 1600 EMIL ST., MADISON, WI 53713.

STANDARD SPECIFICATIONS

The City of Madison's Standard Specifications for Public Works Construction - 2016 Edition, as supplemented and amended from time to time, forms a part of these contract documents as if attached hereto.

These standard specifications are available on the City of Madison Public Works website, www.cityofmadison.com/Business/PW/specs.cfm.

The Contractor shall review these Specifications prior to preparation of proposals for the work to be done under this contract, with specific attention to Article 102, "BIDDING REQUIREMENTS AND CONDITIONS" and Article 103, "AWARD AND EXECUTION OF THE CONTRACT." For the convenience of the bidder, below are highlights of three subsections of the specifications.

SECTION 102.1: PRE-QUALIFICATION OF BIDDERS

In accordance with Wisconsin State Statutes 66.0901 (2) and (3), all bidders must submit to the Board of Public Works proof of responsibility on forms furnished by the City. The City requires that all bidders be qualified on a biennial basis.

Bidders must present satisfactory evidence that they have been regularly engaged in the type of work specified herein and they are fully prepared with necessary capital, materials, machinery and supervisory personnel to conduct the work to be contracted for to the satisfaction of the City. All bidders must be pre-

qualified by the Board of Public Works for the type of construction on which they are bidding prior to the opening of the bid.

In accordance with Section 39.02(9)(a)l. of the General Ordinances, all bidders shall submit in writing to the Affirmative Action Division Manager of the City of Madison, a Certificate of Compliance or an Affirmative Action Plan at the same time or prior to the submission of the proof of responsibility forms.

The bidder shall be disqualified if the bidder fails to or refuses to, prior to opening of the bid, submit a Certificate of compliance, Affirmative Action Plan or Affirmative Action Data Update, as applicable, as defined by Section 39.02 of the General Ordinances (entitled Affirmative Action) and as required by Section 102.11 of the Standard Specifications.

SECTION 102.4 PROPOSAL

No bid will be accepted that does not contain an adequate or reasonable price for each and every item named in the Schedule of Unit Prices.

A lump sum bid for the work in accordance with the plans and specifications is required. The lump sum bid must be the same as the total amounts bid for the various items and it shall be inserted in the space provided.

All papers bound with or attached to the proposal form are considered a part thereof and must not be detached or altered when the proposal is submitted. The plans, specifications and other documents designated in the proposal form will be considered a part of the proposal whether attached or not.

A proposal submitted by an individual shall be signed by the bidder or by a duly authorized agent. A proposal submitted by a partnership shall be signed by a member/partner or by a duly authorized agent thereof. A proposal submitted by a corporation shall be signed by an authorized officer or duly authorized registered agent of such corporation, and the proposal shall show the name of the State under the laws of which such corporation was chartered. The required signatures shall in all cases appear in the space provided thereof on the proposal.

Each proposal shall be placed, together with the proposal guaranty, in a sealed envelope, so marked as to indicate name of project, the contract number or option to which it applies, and the name and address of the Contractor or submitted electronically through Bid Express (www.bidexpress.com). Proposals will be accepted at the location, the time and the date designated in the advertisement. Proposals received after the time and date designated will be returned to the bidder unopened.

The Bidder shall execute the Disclosure of Ownership form. REFER TO SECTION F.

SECTION 102.5: BID DEPOSIT (PROPOSAL GUARANTY)

All bids, sealed or electronic, must be accompanied with a Bid Bond equal to at least 5% of the bid or a Certificate of Annual/Biennial Bid Bond or certified check, payable to the City Treasurer. Bid deposit of the successful bidders shall be returned within forty-eight (48) hours following execution of the contract and bond as required.

PREVAILING WAGE RATES

Prevailing Wage Rates may be required and are attached in Section J of the contract. See Special Provisions to determine applicability.

Bidders for this Contract(s) must be Pre-Qualified for at least one of the following type(s) of construction denoted by an

Building Demolition

- 101 Asbestos Removal
 120 House Mover

- 110 Building Demolition

Street, Utility and Site Construction

- 201 Asphalt Paving
 205 Blasting
 210 Boring/Pipe Jacking
 215 Concrete Paving
 220 Con. Sidewalk/Curb & Gutter/Misc. Flat Work
 221 Concrete Bases and Other Concrete Work
 222 Concrete Removal
 225 Dredging
 230 Fencing
 235 Fiber Optic Cable/Conduit Installation
 240 Grading and Earthwork
 241 Horizontal Saw Cutting of Sidewalk
 242 Infrared Seamless Patching
 245 Landscaping, Maintenance
 250 Landscaping, Site and Street
 251 Parking Ramp Maintenance
 252 Pavement Marking
 255 Pavement Sealcoating and Crack Sealing
 260 Petroleum Above/Below Ground Storage Tank Removal/Installation
 262 Playground Installer
 265 Retaining Walls, Precast Modular Units

- 270 Retaining Walls, Reinforced Concrete
 275 Sanitary, Storm Sewer and Water Main Construction
 276 Sawcutting
 280 Sewer Lateral Drain Cleaning/Internal TV Insp.
 285 Sewer Lining
 290 Sewer Pipe Bursting
 295 Soil Borings
 300 Soil Nailing
 305 Storm & Sanitary Sewer Laterals & Water Svc.
 310 Street Construction
 315 Street Lighting
 318 Tennis Court Resurfacing
 320 Traffic Signals
 325 Traffic Signing & Marking
 332 Tree pruning/removal
 333 Tree, pesticide treatment of
 335 Trucking
 340 Utility Transmission Lines including Natural Gas, Electrical & Communications
 399 Other _____

Bridge Construction

- 501 Bridge Construction and/or Repair

Building Construction

- 401 Floor Covering (including carpet, ceramic tile installation, rubber, VCT)
 402 Building Automation Systems
 403 Concrete
 404 Doors and Windows
 405 Electrical - Power, Lighting & Communications
 410 Elevator - Lifts
 412 Fire Suppression
 413 Furnishings - Furniture and Window Treatments
 415 General Building Construction, Equal or Less than \$250,000
 420 General Building Construction, \$250,000 to \$1,500,000
 425 General Building Construction, Over \$1,500,000
 428 Glass and/or Glazing
 429 Hazardous Material Removal
 430 Heating, Ventilating and Air Conditioning (HVAC)
 433 Insulation - Thermal
 435 Masonry/Tuck pointing

- 437 Metals
 440 Painting and Wallcovering
 445 Plumbing
 450 Pump Repair
 455 Pump Systems
 460 Roofing and Moisture Protection
 464 Tower Crane Operator
 461 Solar Photovoltaic/Hot Water Systems
 465 Soil/Groundwater Remediation
 466 Warning Sirens
 470 Water Supply Elevated Tanks
 475 Water Supply Wells
 480 Wood, Plastics & Composites - Structural & Architectural
 499 Other WATER TANK SURFACE PREPARATION AND COATING

State of Wisconsin Certifications

- 1 Class 5 Blaster - Blasting Operations and Activities 2500 feet and closer to inhabited buildings for quarries, open pits and road cuts.
 2 Class 6 Blaster - Blasting Operations and Activities 2500 feet and closer to inhabited buildings for trenches, site excavations, basements, underwater demolition, underground excavations, or structures 15 feet or less in height.
 3 Class 7 Blaster - Blasting Operations and Activities for structures greater than 15' in height, bridges, towers, and any of the objects or purposes listed as "Class 5 Blaster or Class 6 Blaster".
 4 Petroleum Above/Below Ground Storage Tank Removal and Installation (Attach copies of State Certifications.)
 5 Hazardous Material Removal (Contractor to be certified for asbestos and lead abatement per the Wisconsin Department of Health Services, Asbestos and Lead Section (A&LS).) See the following link for application: www.dhs.wisconsin.gov/Asbestos/Cert. State of Wisconsin Performance of Asbestos Abatement Certificate must be attached.
 6 Certification number as a Certified Arborist or Certified Tree Worker as administered by the International Society of Arboriculture
 7 Pesticide application (Certification for Commercial Applicator For Hire with the certification in the category of turf and landscape (3.0) and possess a current license issued by the DATCP)
 8 State of Wisconsin Master Plumbers License.

SECTION B: PROPOSAL

Please refer to the
Bid Express Website
at <https://bidexpress.com>
look up contract number
and go to
Section B: Proposal Page

You can access all City of Madison bid solicitations for FREE at www.bidexpress.com

Click on the "Register for Free" button and follow the instructions to register your company and yourself. You will be asked for a payment subscription preference, since you may wish to bid online someday. Simply choose the method to pay on a 'per bid' basis. This requires no payment until / unless you actually bid online. You can also choose the monthly subscription plan at this time. You will, however, be asked to provide payment information. Remember, you can change your preference at anytime. You will then be able to complete your free registration and have full access to the site. Your free access does not require completion of the 'Digital ID' process, so you will have instant access for viewing and downloading. To be prepared in case you ever do wish to bid online, you may wish to establish your digital ID also, since you cannot bid without a Digital ID.

If you have any problems with the free registration process, you can call the bidexpress help team, toll free at 1-888-352-2439 (option 1, option1).

SECTION C: SMALL BUSINESS ENTERPRISE

Instructions to Bidders City of Madison SBE Program Information

2 Small Business Enterprise (SBE) Program Information

2.1 Policy and Goal

The City of Madison reaffirms its policy of nondiscrimination in the conduct of City business by maintaining a procurement process which remains open to all who have the potential and ability to sell goods and services to the City. It is the policy of the City of Madison to allow Small Business Enterprises (SBE) maximum feasible opportunity to participate in City of Madison contracting. The bidder acknowledges that its bid has been submitted in accordance with the SBE program and is for the public's protection and welfare.

Please refer to the "ADVERTISEMENT FOR BIDS" for the goal for the utilization of SBEs on this project. SBEs may participate as subcontractors, vendors and/or suppliers, which provide a commercially useful function. The dollar value for SBE suppliers or 'materials only' vendors shall be discounted to 60% for purposes of meeting SBE goals.

A bidder which achieves or exceeds the SBE goal will be in compliance with the SBE requirements of this project. In the event that the bidder is unable to achieve the SBE goal, the bidder must demonstrate that a good faith effort to do so was made. Failure to either achieve the goal or demonstrate a good faith effort to do so will be grounds for the bidder being deemed a non-responsible contractor ineligible for award of this contract.

A bidder may count towards its attainment of the SBE goal only those expenditures to SBEs that perform a commercially useful function. For purposes of evaluating a bidder's responsiveness to the attainment of the SBE goal, the contract participation by an SBE is based on the percentage of the total base bid proposed by the Contractor. The total base bid price is inclusive of all addenda.

Work performed by an SBE firm in a particular transaction can be counted toward the goal only if it involves a commercially useful function. That is, in light of industry practices and other relevant considerations, does the SBE firm have a necessary and useful role in the transaction, of a kind for which there is a market outside the context of the SBE Program, or is the firm's role a superfluous step added in an attempt to obtain credit towards goals? If, in the judgment of the Affirmative Action Division, the SBE firm will not perform a commercially useful function in the transaction, no credit towards goals will be awarded.

The question of whether a firm is performing a commercially useful function is completely separate from the question of whether the firm is an eligible SBE. A firm is eligible if it meets the definitional criteria and ownership and control requirements, as set forth in the City of Madison's SBE Program.

If the City of Madison determines that the SBE firm is performing a commercially useful function, then the City of Madison must then decide what that function is. If the commercially useful function is that of an SBE vendor / supplier that regularly transacts business with the respective product, then the City of Madison will count 60% of the value of the product supplied toward SBE goals.

To be counted, the SBE vendor / supplier must be engaged in selling the product in question to the public. This is important in distinguishing an SBE vendor / supplier, which has a regular trade with a variety of customers, from a firm which performs supplier-like functions on an ad hoc basis or for only one or two contractors with whom it has a special relationship.

A supplier of bulk goods may qualify as an eligible SBE vendor / supplier if it either maintains an inventory or owns or operates distribution equipment. With respect to the distribution equipment; e.g., a fleet of trucks, the term "operates" is intended to cover a situation in which the supplier leases the equipment on a regular basis for its entire business. It is not intended to cover a situation in which the firm simply provides drivers for trucks owned or leased by another party; e.g., a prime contractor, or leases such a party's trucks on an ad hoc basis for a specific job.

If the commercially useful function being performed is not that of a qualified SBE vendor / supplier, but rather that of delivery of products, obtaining bonding or insurance, procurement of personnel, acting as a broker or manufacturer's representative in the procurement of supplies, facilities, or materials, etc., only the fees or commissions will apply towards the goal.

For example, a business that simply transfers title of a product from manufacturer to ultimate purchaser; e. g., a sales representative who re-invoices a steel product from the steel company to the Contractor, or a firm that puts a product into a container for delivery would not be considered a qualified SBE vendor / supplier. The Contractor would not receive credit based on a percentage of the cost of the product for working with such firms.

Concerning the use of services that help the Contractor obtain needed supplies, personnel, materials or equipment to perform a contract: only the fee received by the service provider will be counted toward the goal. For example, use of a SBE sales representative or distributor for a steel company, if performing a commercially useful function at all, would entitle the Contractor receiving the steel to count only the fee paid to the representative or distributor toward the goal. This provision would also govern fees for professional and other services obtained expressly and solely to perform work relating to a specific contract.

Concerning transportation or delivery services: if an SBE trucking company picks up a product from a manufacturer or a qualified vendor / supplier and delivers the product to the Contractor, the commercially useful function it is performing is not that of a supplier, but simply that of a transporter of goods. Unless the trucking company is itself the manufacturer or a qualified vendor / supplier in the product, credit cannot be given based on a percentage of the cost of the product. Rather, credit would be allowed for the cost of the transportation service.

The City is aware that the rule's language does not explicitly mention every kind of business that may contribute work on this project. In administering these programs, the City would, on a case-by-case basis, determine the appropriate counting formula to apply in a particular situation.

2.2 Contract Compliance

Questions concerning the SBE Program shall be directed to the Contract Compliance Officer of the City of Madison Department of Civil Rights, Affirmative Action Division, 210 Martin Luther King, Jr. Blvd., Room 523, Madison, WI 53703; telephone (608) 266-4910.

2.3 Certification of SBE by City of Madison

The Affirmative Action Division maintains a directory of SBEs which are currently certified as such by the City of Madison. Contact the Contract Compliance Officer as indicated in Section 2.2 to receive a copy of the SBE Directory or you may access the SBE Directory online at www.cityofmadison.com/dcr/aaTBDDir.cfm.

All contractors, subcontractors, vendors and suppliers seeking SBE status must complete and submit the **Targeted Business Certification Application** to the City of Madison Affirmative Action Division by the time and date established for receipt of bids. A copy of the Targeted Business Certification Application is available by contacting the Contract Compliance Officer at the address and telephone indicated in Section 2.2 or you may access the Targeted Business Certification Application online at www.cityofmadison.com/dcr/aaTBDDir.cfm. Submittal of the Targeted Business Certification Application by the time specified does not guarantee that the applicant will be certified as a SBE eligible to be utilized towards meeting the SBE goal for this project.

2.4 Small Business Enterprise Compliance Report

2.4.1 Good Faith Efforts

Bidders shall take all necessary affirmative steps to assure that SBEs are utilized when possible and that the established SBE goal for this project is achieved. A contractor who self performs a portion of the work, and is pre-qualified to perform that category of work, may subcontract that portion of the work, but shall not be required to do so. When a bidder is unable to achieve the established SBE goal, the bidder must demonstrate that a good faith effort to do so was made. Such a good faith effort should include the following:

- 2.4.1.1 Attendance at the pre-bid meeting.
- 2.4.1.2 Using the City of Madison's directory of certified SBEs to identify SBEs from which to solicit bids.
- 2.4.1.3 Assuring that SBEs are solicited whenever they are potential sources.
- 2.4.1.4 Referring prospective SBEs to the City of Madison Affirmative Action Division for certification.
- 2.4.1.5 Dividing total project requirements into smaller tasks and/or quantities, where economically feasible, to permit maximum feasible SBE participation.
- 2.4.1.6 Establishing delivery schedules, where requirements permit, which will encourage participation by SBEs.
- 2.4.1.7 Providing SBEs with specific information regarding the work to be performed.
- 2.4.1.8 Contacting SBEs in advance of the deadline to allow such businesses sufficient time to prepare a bid.
- 2.4.1.9 Utilizing the bid of a qualified and competent SBE when the bid of such a business is deemed reasonable (i.e. 5% above the lowest bidder), although not necessarily low.
- 2.4.1.10 Contacting SBEs which submit a bid, to inquire about the details of the bid and confirm that the scope of the work was interpreted as intended.

2.4.2 Reporting SBE Utilization and Good Faith Efforts

The Small Business Enterprise Compliance Report is to be submitted by the bidder with the bid. This report is due by the specified bid closing time and date. Bids submitted without a completed SBE Compliance Report as outlined below

shall be deemed non-responsible and the bidder ineligible for award of this contract.

2.4.2.1 If the Bidder meets or exceeds the goal established for SBE utilization, the Small Business Enterprise Compliance Report shall consist of the following:

2.4.2.1.1 **Cover Page**, Page C-6; and

2.4.2.1.2 **Summary Sheet**, C-7.

2.4.2.2 If the bidder does not meet the goal established for SBE utilization, the Small Business Enterprise Compliance Report shall consist of the following:

2.4.2.2.1 **Cover Page**, Page C-6;

2.4.2.2.2 **Summary Sheet**, C-7; and

2.4.2.2.3 **SBE Contact Report**, C-8 and C-9. (A separate Contact Report must be completed for each applicable SBE which is not utilized.)

2.5 Appeal Procedure

A bidder which does not achieve the established goal and is found non-responsible for failure to demonstrate a good faith effort to achieve such goal and subsequently denied eligibility for award of contract may appeal that decision to the Small Business Enterprises Appeals Committee. All appeals shall be made in writing, and shall be delivered to and received by the City Engineer no later than 4:30 PM on the third business day following the bidder's receipt of the written notification of ineligibility by the Affirmative Action Division Manager. Postmark not acceptable. The notice of appeal shall state the basis for the appeal of the decision of the Affirmative Action Division Manager. The Appeal shall take place in accordance with Madison General Ordinance 33.54.

2.6 SBE Requirements After Award of the Contract

The successful bidder shall identify SBE subcontractors, suppliers and vendors on the subcontractor list in accordance with the specifications. The Contractor shall submit a detailed explanation of any variances between the listing of SBE subcontractors, vendors and/or suppliers on the subcontractor list and the Contractor's SBE Compliance Report for SBE participation.

No change in SBE subcontractors, vendors and/or suppliers from those SBEs indicated in the SBE Compliance Report will be allowed without prior approval from the Engineer and the Affirmative Action Division. The contractor shall submit in writing to the City of Madison Affirmative Action Division a request to change any SBE citing specific reasons which necessitate such a change. The Affirmative Action Division will use a general test of reasonableness in approving or rejecting the contractor's request for change. If the request is approved, the Contractor will make every effort to utilize another SBE if available.

The City will monitor the project to ensure that the actual percentage commitment to SBE firms is carried out.

2.7 SBE Definition and Eligibility Guidelines

A Small Business Enterprise is a business concern awarded certification by the City of Madison. For the purposes of this program a Small Business Enterprise is defined as:

- A. An independent business operated under a single management. The business may not be a subsidiary of any other business and the stock or ownership may not be held by any individual or any business operating in the same or a similar field. In determining whether an entity qualifies as a SBE, the City shall consider all factors relevant to being an independent business including, but not limited to, the date the business was established, adequacy of its resources for the work in which it proposes to involve itself, the degree to which financial, equipment leasing and other relationships exist with other ineligible firms in the same or similar lines of work. SBE owner(s) shall enjoy the customary incidents of ownership and shall share in the risks and profits commensurate with their enjoyment interests, as demonstrated by an examination of the substance rather than form or arrangements that may be reflected in its ownership documents.
- B. A business that has averaged no more than \$4.0 million in annual gross receipts over the prior three year period and the principal owner(s) do not have a personal net worth in excess of \$1.32 million.

Firm and/or individuals that submit fraudulent documents/testimony may be barred from doing business with the City and/or forfeit existing contracts.

SBE certification is valid for one (1) year unless revoked.

**REPAINT MADISON WATER UTILITY RESERVOIRS 9, 115, AND 315
CONTRACT NO. 7729**

Small Business Enterprise Compliance Report

**This information may be submitted electronically through
Bid Express or submitted with bid in sealed envelope.**

Cover Sheet

Prime Bidder Information

Company: _____

Address: _____

Telephone Number: _____ Fax Number: _____

Contact Person/Title: _____

Prime Bidder Certification

I, _____, _____ of
Name Title
_____ certify that the information
Company

contained in this SBE Compliance Report is true and correct to the best of my knowledge and belief.

Witness' Signature

Bidder's Signature

Date

**REPAINT MADISON WATER UTILITY RESERVOIRS 9, 115, AND 315
CONTRACT NO. 7729**

Small Business Enterprise Compliance Report

SBE Contact Report

Submit separate copy of this form for each SBE which you are not able to utilize towards meeting the SBE goal for this project. Attach separate sheets if necessary.

SBE Information

Company: _____

Address: _____

Telephone Number: _____

Contact Person/Title: _____

1. Outline below all efforts to solicit a bid from the above SBE. Include date, means of contact, who from your company made this contact and the result.

2. Describe the information provided to the aforementioned SBE regarding the scope of work for which he/she was to provide a bid.

Is this the same scope of work on which the subcontractor you intend to utilize based his/her bid?

Yes No

3. Did this SBE submit a bid? Yes No

4. Is the General Contractor pre-qualified to self-perform this category of work?

Yes No

5. If you responded "Yes" to Question 3, please check the items below which apply and provide the requested detail. If you responded "No" to Question 3, please skip ahead to item 6 below.

- The SBE listed above is unavailable for work on this project for the following reasons. Provide specific detail for this conclusion.

- The SBE listed above is unqualified for work on this project. Provide specific details for this conclusion.

- The SBE listed above provided a price that was unreasonable (i.e. more than 5% above the lowest bidder). Provide specific detail for this conclusion including the SBE's price and the price of the subcontractor you intend to utilize.

- A contract with the SBE listed above may constitute a breach of the bidder's collective bargaining agreements. Provide specific detail for this conclusion including, but not limited to, correspondence from the SBE indicating it will not sign a project labor agreement and/or correspondence from the applicable trade union indicating a project labor agreement will not be allowed at the time of project bidding.

- Other; please specify reason(s) other than listed above which made it impossible for you to utilize this SBE on this project.

6. Describe any other good faith efforts:

SECTION D: SPECIAL PROVISIONS

REPAINT MADISON WATER UTILITY RESERVOIRS 9, 115, AND 315 CONTRACT NO. 7729

It is the intent of these Special Provisions to set forth the final contractual intent as to the matter involved and shall prevail over the Standard Specifications and plans whenever in conflict therewith. In order that comparisons between the Special Provisions can be readily made, the numbering system for the Special Provisions is equivalent to that of the Specifications.

Whenever in these Specifications the term "Standard Specifications" appears, it shall be taken to refer to the City of Madison Standard Specifications for Public Works Construction and Supplements thereto.

SECTION 102.1: PREQUALIFICATION OF BIDDER

The work associated with Contract 7729 - Repaint Madison Water Utility Reservoirs 9, 115, and 315 has necessitated a new prequalification category: **Category #499 – "Other: Water Tank Surface Preparation and Coating"**. General Contractors must be prequalified under this new category in order to bid on the project.

The contract shall be awarded to the lowest responsible bidder meeting the requirements of Category #499 – "Other: Water Tank Surface Preparation and Coating".

General Contractors interested in prequalifying for category #499 shall complete and submit the Prequalification Application, and the Affirmative Action Plan Application along with the items required below in Subsection 102.1.1 as soon as possible but no later than 1:00 PM on Friday, June 3, 2016 to be considered for PW Contract 7729 - Repaint Madison Water Utility Reservoirs 9, 115, and 315.

Submit Prequalification and Affirmative Action Plan applications online at the City of Madison Licenses & Permits website: <https://elam.cityofmadison.com/citizenaccess/>

Step-by-step instructions are available online at:

<http://www.cityofmadison.com/business/pw/documents/PrequalEntryScript.pdf>

If your company is currently prequalified to bid on City of Madison public works contracts, please submit an Amendment to Contractors Prequalification Application along with the required materials for Category #499. A detailed list of submission requirements to obtain prequalification under Category #499 is shown below in Subsection 102.1.1.

Questions relating to prequalification application requirements may be directed to Keana Bracey, City Engineering Division, by phone at (608) 266-4620 or by email at kbracey@cityofmadison.com, otherwise Michael Dailey, by phone at (608) 266-4058 or by email at mdailey@cityofmadison.com.

For any technical issues related to the permit website, such as registration, activation, password, or other account issues, please email: elamsupport@cityofmadison.com.

SUBSECTION 102.1.1:

CATEGORY #499 – "OTHER: WATER TANK SURFACE PREPARATION AND PAINTING" **QUALIFICATION REQUIREMENTS:**

Prequalification of Bidders:

- A. Coating projects require competent, financially solvent Contractors who complete projects on time. These projects deal with the health and safety of the public, have a short

availability time, and is dangerous work; therefore, the City will only consider prequalified Contractors. Bidders not prequalified may be considered non-responsive and bids may be returned unopened.

- B. Requirements for prequalification are:
1. On tanks of 1,000,000 gallons or smaller, successful completion of at least ten projects of like or larger size in the last five years. On tanks larger than 1,000,000 gallons, five projects of like size shall have been successfully completed in the last five years.
 2. All projects listed by a Bidder shall have been completed by that bidder under the company name in which he will be bidding this project. If the Bidder has completed the project(s) under a different company name, then the name under which the project(s) was completed shall be noted.
- C. Engineer will review submitted data to determine if Bidder meets prequalification requirements. QP1 or QP2 certification by Society of Protective Coatings (SSPC) is an alternate method of prequalification, except for the experience list. Any information found to be false or incorrect may be ample reason for disqualification.
- D. Bidders must provide a complete equipment list and a list of manpower, including work experience and the contractor(s) for whom they have worked. From this information, an evaluation and recommendation will be made by Engineer regarding project size, equipment, manpower available, and foreman's experience. A determination will then be made by the Owner as to whether or not the Bidder is qualified to perform the Project.
- E. Any prequalified Contractor (by Engineer or SSPC) who has pending litigation against him for work not completed on a project or for failed work on a project may be subject to disqualification.
- F. In addition, the Owner may make further investigations into the Bidder's prequalification, including compliance with human resource programs, as well as OSHA and environmental histories. The Owner also may review elements of the prequalification and determine if experience is generic to and specific to the project. Furnish the Owner information, data, or certifications requested.

Disqualification of Bidders:

- A. Prequalification status may be nullified if a Bidder is disqualified or by other means rejected from bidding in a state or subdivision of a state, or by the federal government.
- B. By submitting his bid, the Bidder certifies that he is not currently disqualified or rejected from submitting bids in the state or political subdivision of the state where the project is located.

SECTION 102.9: BIDDER'S UNDERSTANDING

Tax Exempt Status: Effective with all contracts executed after January 1, 2016, the sales price from the sale, storage, use or other consumption of tangible personal property that is used in conjunction with a public works improvement for a tax exempt entity (including the City of Madison), is exempt from State sales tax. Said property must become a component of the project owned by the tax exempt entity and includes: any building; shelter; parking lot; parking garage; athletic field; storm sewer; water supply system; or sewerage and waste water treatment facility, but does not include a highway, street or road.

The contractor shall ensure that the exemption for sales and use tax available under Wis. Stat. Sec. 77.54(9m) applies where available. The contractor shall provide all necessary documentation as required by the State of Wisconsin and the City of Madison to comply with this exemption.

SECTION 102.10: PREVAILING WAGE

For this project, payment of prevailing wages (white sheet) shall be required unless the box indicating prevailing wages are not required is checked below.

Prevailing wages shall not be required when this box is checked.

If prevailing wages (white sheets) are required, the wages and benefits paid on the contract shall not be less than those specified in the Prevailing Wage Determination included with these contract documents for the following types of work:

- Building or Heavy Construction
- Sewer, Water, or Tunnel Construction
- Local Street or Miscellaneous Paving Construction
- Residential or Agricultural Construction

When multiple boxes are checked, worker's wages may vary according to the type and area of work performed. It is the responsibility of the Contractor to determine and apply the appropriate wage rate for the specific work assigned.

SECTION 102.12: BEST VALUE CONTRACTING

This Contract shall be considered a Best Value Contract if the Contractor's bid is equal to or greater than \$56,500 for a single trade contract; or equal to or greater than \$277,000 for a multi-trade contract pursuant to MGO 33.07(7).

**SECTION 102.14 BAN THE BOX – ARREST AND CRIMINAL BACKGROUND CHECKS
(SEC. 39.08, MGO)**

This provision applies to all prime contractors on contracts entered into on or after January 1, 2016, and all subcontractors who are required to meet prequalification requirements under MGO 33.07(7)(I), MGO as of the first time they seek or renew pre-qualification status on or after January 1, 2016. The City will monitor compliance of subcontractors through the pre-qualification process.

A. Definitions. For purposes of this section, "Arrest and Conviction Record" includes, but is not limited to, information indicating that a person has been questioned, apprehended, taken into custody or detention, held for investigation, arrested, charged with, indicted or tried for any felony, misdemeanor or other offense pursuant to any law enforcement or military authority.

"Conviction record" includes, but is not limited to, information indicating that a person has been convicted of a felony, misdemeanor or other offense, placed on probation, fined, imprisoned or paroled pursuant to any law enforcement or military authority.

"Background Check" means the process of checking an applicant's arrest and conviction record, through any means.

B. Requirements. For the duration of this Contract, the Contractor shall:

1. Remove from all job application forms any questions, check boxes, or other inquiries regarding an applicant's arrest and conviction record, as defined herein.

2. Refrain from asking an applicant in any manner about their arrest or conviction record until after conditional offer of employment is made to the applicant in question.
3. Refrain from conducting a formal or informal background check or making any other inquiry using any privately or publicly available means of obtaining the arrest or conviction record of an applicant until after a conditional offer of employment is made to the applicant in question.
4. Make information about this ordinance available to applicants and existing employees, and post notices in prominent locations at the workplace with information about the ordinance and complaint procedure using language provided by the City.
5. Comply with all other provisions of Sec. 39.08, MGO.

C. Exemptions: This section shall not apply when:

1. Hiring for a position where certain convictions or violations are a bar to employment in that position under applicable law, or
2. Hiring a position for which information about criminal or arrest record, or a background check is required by law to be performed at a time or in a manner that would otherwise be prohibited by this ordinance, including a licensed trade or profession where the licensing authority explicitly authorizes or requires the inquiry in question.

To be exempt, Contractor has the burden of demonstrating that there is an applicable law or regulation that requires the hiring practice in question, if so, the contractor is exempt from all of the requirements of this ordinance for the position(s) in question.

ARTICLE 109.2 PROSECUTION OF THE WORK

The Contractor shall begin tank work on or after **August 15, 2016**; however, the Contractor may begin staging, rigging and some metal repairs prior to tank draining.

The Contractor shall notify the Engineer and Madison Water Utility a minimum of two weeks prior to the anticipated start of work date. The Engineer shall schedule a pre-construction meeting prior to the start of construction.

Completion dates for the project are dependent on the schedule option selected and submitted at the time of the bid proposal. See Special Provisions "Section 00 00 40 – Project Summary," page D-5, for complete descriptions of the schedule options, including the Substantial Completion dates and maximum out-of-service durations associated with each tank.

SECTION 00 00 40
PROJECT SUMMARY

PART 1 – GENERAL

Nothing stated in this Project Summary shall influence or override any of the conditions in the Instruction to Bidders, General Conditions, or Technical Specifications. It is included as a service to Bidders for explanation only.

1.01 SCHEDULE

The Contractor shall abide by the following schedule:

Contractor can begin staging, rigging and some metal repairs prior to tank draining.

Contractors will prepare one lump sum bid for the entire project based on their selected schedule option. Along with the bid proposal, Contractors will electronically submit their selected schedule through Bid Express (www.bidexpress.com) using the template form “7729- Attachment 1 – Schedule Section.”

Schedule Option 1

Commence work on the Cross Hill and Spaanem tanks on or after August 15, 2016 with substantial completion by October 28, 2016. Commence work on the Bunker Hill tank on or after April 17, 2017 with substantial completion by August 18, 2017.

Schedule Option 2

Commence work on the Cross Hill tank on or after August 15, 2016 with substantial completion by October 28, 2016. Commence work on the Spaanem and Bunker Hill tanks (work to be simultaneous) on or after April 17, 2017 with substantial completion by August 18, 2017.

Schedule Option 3

Commence work on the Cross Hill tank on or after August 15, 2016 with substantial completion by October 28, 2016. Commence work on the Spaanem tank on or after April 17, 2017 with the start of Bunker Hill upon completion of the Spaanem tank, substantial completion by October 27, 2017.

Substantial Completion by October 28, 2016 including cure and disinfection time.

The Cross Hill tank may be out-of-service a maximum of 50 days.

The Bunker Hill tank may be out-of-service a maximum of 80 days.

The Spaanem tank may be out-of-service a maximum of 80 days.

1.02 SCOPE of WORK

The work includes:

Cross Hill Tank: A 500,000 gallon elevated spheroid tank located at 3518 Cross Hill Dr. The tank was constructed in 1994. The overflow height is 116 ft. with a 30 ft. head range and a nominal diameter of 59 ft. The maximum height of the tank is 121 ft.

Bunker Hill Tank: A 3,000,000 gallon ground level reservoir located at 4701 Bunker Hill Ln. The tank was constructed in 1966. The tank is approximately 110 ft. in diameter with an overflow height of 42.5 ft. The sidewall height is 38.5 ft. with a maximum tank height of approximately 48 ft.

Spaanem Tank: A 3,000,000 gallon standpipe tank located at 4724 Spaanem Ave. The tank was constructed in 1951. The tank is approximately 75 ft. in diameter with an overflow height of 100 ft. The sidewall height is 90 ft. with a maximum tank height of 118 ft. at the cupola.

Cross Hill Tank (500,000 Gallon Spheroid)

Exterior: Abrasive blast clean to a SSPC-SP 6 commercial standard within containment, and apply a four (4) coat zinc epoxy urethane system with a fluoropolymer from the upper bowl down.

Wet Interior: Abrasive blast clean to a SSPC-SP 10 near white metal standard, apply a three (3) coat epoxy system, and apply a polyurethane caulk to the roof lap seams. The cathodic protection system shall be removed and reinstalled by the owner's vendor, coordination and payment is the contractor's responsibility.

Dry Interior: Abrasive blast clean the entire tops of the platforms (including 1 ft. up the riser wall), the bowl, access tube, baseplate and spot failures throughout to a SSPC-SP 6 commercial standard, and apply a three (3) coat epoxy system to the access tube and bowl and a spot two (2) coat epoxy system to the rest of the prepared surfaces.

Pit Piping: Abrasive blast clean to a SSPC-SP 6 commercial standard, and apply a two (2) coat epoxy system.

Foundation: Abrasive blast clean and apply a two (2) coat epoxy system.

Repairs:

- 1) Replace manway gasket.
- 2) Install handholds at the roof hatches.
- 3) Install overflow flap gate.
- 4) Install mud valve.
- 5) Replace roof vent screen.
- 6) Install roof painter's rail.

- 7) Replace dry interior and aviation light bulbs.
- 8) Weld safety attachment lug.
- 9) Install altitude valve.
- 10) Install aluminum jacket over the fill pipe insulation.

Bunker Hill Tank (3,000,000 Gallon Reservoir)

Exterior: Abrasive blast clean to a SSPC-SP 6 commercial standard with containment, and apply a four (4) coat zinc epoxy urethane system. Reseal the baseplate to foundation seam with a polyurethane caulk.

Wet Interior: Abrasive blast clean to a SSPC-SP 10 near white metal standard, apply a three (3) coat epoxy system, and apply a polyurethane caulk to the roof lap seams.

Dry Interior – Access Pilaster: Abrasive blast clean to a SSPC-SP 6 commercial standard, and apply a two (2) coat epoxy system.

Foundation: Spall repair, abrasive blast clean, and apply a two (2) coat epoxy system.

Cathodic Protection: Install an impressed current cathodic protection system.

Repairs:

- 1) Replace manway gaskets.
- 2) Reroute overflow pipe so it routes outside with air gap and catch basin.
- 3) Replace vent with a frost-free roof vent.
- 4) Remove antenna brackets and mounting poles.
- 5) Install roof safety couplings with clips.
- 6) Replace light bulbs in dry interior.

Spaanem Tank (3,000,000 Gallon Standpipe)

Exterior: High pressure water clean (5,000 to 10,000 psi), spot power tool clean to a SSPC-SP 11 standard, and apply a three (3) coat epoxy urethane fluoropolymer system. Reseal the baseplate to foundation seam with a polyurethane caulk.

Exterior Alternate: High pressure water clean (5,000 to 10,000 psi), spot power tool clean to a SSPC-SP 11 standard, and apply a three (3) coat epoxy urethane system. Reseal the baseplate to foundation seam with a polyurethane caulk.

Wet Interior: Abrasive blast clean to a SSPC-SP 10 near white metal standard, apply a three (3) coat epoxy system, and apply a polyurethane caulk to the roof lap seams. The cathodic protection system shall be removed, and reinstalled by the owner's vendor, coordination and payment is the contractor's responsibility.

Cupola Floor: Abrasive blast clean (including 6 inches up the wall) to a SSPC-SP 6 commercial standard, and apply a two (2) coat epoxy system.

Pit Piping: Abrasive blast clean to a SSPC-SP 6 commercial standard, and apply a two (2) coat epoxy system. Work includes underside of the access doors and stairs into the pit.

Foundation: Water clean and apply a two (2) coat epoxy system.

Repairs:

- 1) Replace manway gaskets.
- 2) Replace rungs inside access pilaster and install fall prevention device.
- 3) Replace vent with a frost-free roof vent and relocate.
- 4) Install roof handrail section.
- 5) Install roof safety couplings with clips.
- 6) Replace light bulbs in dry interior.
- 7) Replace altitude valve.
- 8) Replace three (3) butterfly valves in the pit.

1.03 MISCELLANEOUS

- A. Coordinate removal or protection of power lines with owner/utility company at the Bunker Hill tank.
- B. Coordinate with antenna companies any work to be done.
- C. Contractor to protect all sensitive equipment during all water cleaning, blasting, and painting.
- D. Contact information:
 - Madison Water Utility: Adam Wiederhoeft
awiederhoeft@madisonwater.org, 608-266-9121.
 - Dixon Engineering, Inc.: Jim Orr
jimorr@dixonengineering.net , 608-213-9163.

SECTION 00 43 73
SCHEDULE of VALUES

1.01 PART 1

NOTE: Schedule of Values to be prepared based on the lowest cost schedule option.

CROSS HILL TANK

A. Bidder agrees to perform all work in the following sections as described in the Contract Documents, including all labor and material for the following Schedule of Values – Section 05 00 00:

- 1. OVERFLOW FLAP GATE
_____ \$ _____

- 2. MUD VALVE
_____ \$ _____

- 3. PAINTER'S RAIL
_____ \$ _____

- 4. ALTITUDE VALVE - NEW
_____ \$ _____

- 5. INSULATION JACKETING
_____ \$ _____

TOTAL PRICE SECTION 05 00 00 INCLUDING #1 THROUGH #5:
_____ \$ _____

B. Bidder agrees to perform all work in the following sections as described in the Contract Documents, including all labor and material for the following Schedule of Values – Section 09 97 13:

- 1. EXTERIOR REPAINT with CONTAINMENT
_____ \$ _____

- 2. WET INTERIOR REPAINT
_____ \$ _____

3. SEAM SEALER – WET INTERIOR ROOF
_____ \$

4. DRY INTERIOR PARTIAL REPAINTING
_____ \$

5. PIT PIPING REPAINT
_____ \$

TOTAL PRICE SECTION 09 97 13 INCLUDING #1 THROUGH #5:
_____ \$

CROSS HILL TANK TOTAL PRICE SECTION 05 00 00 and 09 97 13:

SECTION 05 00 00: \$ _____

SECTION 09 97 13: \$ _____

CROSS HILL TANK TOTAL: \$ _____

BUNKER HILL TANK

A. Bidder agrees to perform all work in the following sections as described in the Contract Documents, including all labor and material for the following Schedule of Values – Section 05 00 00:

1. REROUTE OVERFLOW PIPE
_____ \$

2. ROOF VENT
_____ \$

3. ANTENNA BRACKET AND POLE REMOVAL
_____ \$

TOTAL PRICE SECTION 05 00 00 INCLUDING #1 THROUGH #3:
_____ \$

B. Bidder agrees to perform all work in the following sections as described in the Contract Documents, including all labor and material for the following Schedule of Values – Section 09 97 13:

1. EXTERIOR REPAINT with CONTAINMENT
_____ \$

2. SEAM SEALER – EXTERIOR BASEPLATE
_____ \$ _____

3. WET INTERIOR REPAINT
_____ \$ _____

4. SEAM SEALER – WET INTERIOR ROOF
_____ \$ _____

5. DRY INTERIOR ACCESS PILASTER REPAINT
_____ \$ _____

6. We intend to cut an access door through the sidewall. Yes No

If Yes, additional inspection fee of \$3,000 applies \$ _____

TOTAL PRICE SECTION 09 97 13 INCLUDING #1 THROUGH #6:
_____ \$ _____

C. Bidder agrees to perform all work in the following sections as described in the Contract Documents, including all labor and material for the following Schedule of Values – Section 26 42 23:

1. CATHODIC PROTECTION SYSTEM
_____ \$ _____

BUNKER HILL TANK TOTAL PRICE SECTION 05 00 00, 09 97 13 and 26 42 23:

SECTION 05 00 00: \$ _____

SECTION 09 97 13: \$ _____

SECTION 26 42 23: \$ _____

BUNKER HILL TANK TOTAL: \$ _____

SPAANEM TANK

A. Bidder agrees to perform all work in the following sections as described in the Contract Documents, including all labor and material for the following Schedule of Values – Section 05 00 00:

1. REPLACE RUNGS
_____ \$ _____

2. <u>ROOF VENT</u>	_____	\$

3. <u>ROOF RAILING SECTION</u>	_____	\$

4. <u>ALTITUDE VALVE - REPLACE</u>	_____	\$

5. <u>VALVE REPLACEMENT</u>	_____	\$

TOTAL PRICE SECTION 05 00 00 INCLUDING #1 THROUGH #5:
 _____ \$ _____

B. Bidder agrees to perform all work in the following sections as described in the Contract Documents, including all labor and material for the following Schedule of Values – Section 09 97 13:

1a. <u>EXTERIOR OVERCOAT – BASE BID (DARK COLOR)</u>	_____	\$

1b. <u>EXTERIOR OVERCOAT – ALTERNATE (SKY BLUE COLOR)</u>	_____	\$

2. <u>SEAM SEALER – EXTERIOR BASEPLATE</u>	_____	\$

3. <u>WET INTERIOR REPAINT</u>	_____	\$

4. <u>SEAM SEALER – WET INTERIOR ROOF</u>	_____	\$

5. <u>CUPOLA FLOOR REPAINT</u>	_____	\$

6. <u>PIT PIPING REPAINT</u>	_____	\$

7. We intend to cut an access door through the sidewall. Yes No

If Yes, additional inspection fee of \$3,000 applies \$ _____

TOTAL PRICE SECTION 09 97 13 INCLUDING #1a AND #2 THROUGH #7:
\$ _____

SPAANEM TANK TOTAL PRICE SECTION 05 00 00 and 09 97 13:

SECTION 05 00 00: \$ _____
SECTION 09 97 13: \$ _____
SPAANEM TANK TOTAL: \$ _____

C. ESTIMATED COST ALREADY 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.

\$ _____

CROSS HILL TANK TOTAL: \$ _____
BUNKER HILL TANK TOTAL: \$ _____
SPAANEM TANK TOTAL: \$ _____
PROJECT TOTAL: \$ _____

1.02 WEIGHTED BIDS

A. Bidder/contractor is advised that, if in the opinion of the owner or engineer, if the Schedule of Values is not an accurate reflection of cost of items, the owner will adjust individual costs to more balance costs. Total will not be changed.

1.03 MISTAKES

- A. Total of Schedule of Values should equal lump sum bid for lowest price project schedule option. If addition of individual items does not match total, then each individual items will be proportionately changed to reflect total of values to match lump sum bid.
- B. A mistake in addition for schedule items cannot be used to increase lump sum bid. Individual items will be proportionately changed downward to reflect lump sum price.
- C. A mistake in Schedule of Values may be used as evidence of error in any request to withdraw bids because of error. Approval of request to withdraw bids is covered in the prebid information. This section is not intended to conflict any portion of the bid package. This section is only to reflect one of the reasons to withdraw bids.

Approval of bid withdrawal will be based solely on the owner's interpretation of the severity of the mistake.

1.04 CHANGES in SCHEDULE of VALUES by OWNER

- A. The owner reserves the right to delete any line item at their sole discretion for any reason, budgetary or other. All contract general costs should be evenly distributed over these items (mobilization, demobilization, bonds, etc.)
- B. The bidder/contractor is advised not to overload any specific deletable line item. It could result in loss of profit if the overload item is deleted.
- C. This deletion of items or not including additives is an expressly stated reservation (a contractually agreed automatic negotiation). This reservation applies to the three lowest responsible and responsive bidders. Any deletion of specific line item will be completed before selection of the lowest acceptable contractor. Change will be reflected in the Notice of Award.

1.05 NON-DELETABLE WORK

- A. Any adjustment to the items described above will require negotiation and acceptance by both the contractor and owner.
- B. Any deletion of line items, or increase or decrease in unit cost items deemed necessary after the Notice of Award will be completed through the Change Order procedure. Prices used in the Schedule of Values will be used in the Change Order adjustment. If work has begun on an item before being deleted by Change Order, the contractor is entitled to costs incurred.

1.06 TANK ACCESS BY CUTTING

- A. See Section 09 97 13.
- B. In the interest of parity between contractors who cut access through the steel tank wall or roof and contractors who do not, add the additional inspection cost into total cost if you as contractor intend to cut access.

1.07 SUBMITTAL

- A. All prospective bidders must submit their Category #499 Prequalification Application as soon as possible, see Section 102.1 on page D-1 for submittal deadlines and additional information.

SECTION 00 91 17
REVISIONS to GENERAL CONDITIONS

PART 1 – GENERAL

1.01 PURPOSE

A. These Modifications to the General Conditions were prepared by Dixon Engineering, Inc. The General Conditions were prepared by the owner. These Modifications are intended to supplement the General Conditions to clarify items more applicable to painting projects.

1.02 CONFLICTS between OWNER'S GENERAL CONDITIONS and these MODIFICATIONS

- A. If the conflict is administrative in nature, then the owner's General or Supplemental Conditions govern.
1. Examples would be liquidated damages, change orders, payment termination, etc.
- B. If the conflict is of a technical nature, then these Modifications govern.
1. Examples are 1.05 Discrepancies (in technical specifications and drawings), scheduling, hold points, non-conformance reports.
- C. An issue determined to be in conflict in a specific item does not void other non-conflicting items in the same item number.
- D. Bidders are cautioned to familiarize themselves with all the General and Supplemental Conditions of the contract, as well as these Modifications.

1.03 DEFINITIONS

- A. Contractor: Successful bidder awarded project.
- B. Owner: City of Madison, Wisconsin.
- C. Engineer: Dixon Engineering, Inc.
- D. 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, floor, bowl, exterior of the access tube within the tank.
- E. 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 pilaster, riser, and underside of the bowl above the riser.
- F. Exterior: External surfaces, excluding inaccessible areas, of the roof, sidewalls, riser, accessories, and appurtenances that are exposed to the elemental atmosphere.
- G. 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, underside of the floor plate for ground supported flat bottom tanks, and inside of risers less than a nominal 36 in. diameter.

- H. Sidewall: Vertical walls to the weld seam of the roof.
- I. Access Tube: Cylindrical tube extending from top of the riser to the roof through the tank, including all steel appurtenances (i.e. ladder, overflow pipe, brackets, etc.)
- J. Condensate Platform: Platform that covers entire area of the dry riser, and used to collect and stop condensation from entering the base-bell area or bottom of the riser.
- K. Top Platform: Landing area directly under tank's access tube.
- L. Basebell: Conical surfaces supporting the riser.
- M. Roof: Very top of the structure, including top seam of sidewall.
- N. Bottom: Lower area of the tank proper shaped like a bowl or flat floor.
- O. Riser: Center pipe whether wet or dry.
- P. Pilaster: Decorative exterior vertical enclosed sidewall stiffeners.
- Q. Cupola: Large exterior roof platform serving as a vented enclosure.

1.04 "OR EQUAL" CLAUSE

- 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 vender, 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.

1.05 DISCREPANCIES

- A. In all cases of discrepancies between the drawings and specifications, the engineer shall be notified. The specifications shall govern over the drawings. If work proceeds without obtaining proper interpretations of the conflicting drawings and specifications from the architect/engineer, the installed work that is not in accordance with the design and best practices must be replaced at no additional cost.

1.06 OMISSIONS/HIDDEN CONDITIONS

- 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 care, even though not specifically detailed or mentioned.
- B. The wet interiors of steel structures are subject to corrosion. Based on the age of the tank, maintenance history of the tank, and other factors, the inside of the tank may be pitted. The degree or severity or extent of this pitting will not be considered a hidden condition. No claim of extra for blasting or coating application will be accepted or reviewed. If pit welding or pit filling is completed, that will be done at the bid unit price or a negotiated price. The owner and engineer will determine and authorize the extent of pit filling. There will be as many or more unfilled pits than authorized for repair. Contractor cannot rely on pit filling to eliminate some of the application techniques needed for pitted tanks.

1.07 PROTECTION of PROPERTY

- A. 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 without additional cost.

1.08 BURIED UTILITIES

- 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 resulting from the contractor's operations shall be repaired or replaced by the contractor without additional cost.
- B. Contractor shall notify each utility before digging for anchors or for any reason. Before starting, call in advance as required by the individual agencies:
Diggers Hotline at 811 or 1-800-242-8511.

1.09 FIELD MODIFICATIONS

- 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 he fails 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.

1.10 SCHEDULING

- A. There is to be an on-site inspector during work completed by the contractor.
- B. Notify the owner of expected arrival a minimum of two (2) weeks, (14) days in advance.
- C. Direct all requests for inspection to the owner for notification of the inspector. Forty-eight (48) hours notice of all inspection requests is required.
- D. A written schedule (strictly followed) will substitute for the forty-eight (48) hours inspection notice. However, twelve (12) hours notice is still required if rain or weather interferes with the schedule.
- E. If the inspection visit is cancelled, notify the owner to notify the inspector to eliminate unnecessary travel time and expense. Twelve (12) hours notice is required.
- F. Be at the job site at the scheduled time of inspection if cancellation of the inspection visit is not possible.
- G. The engineer and owner will establish an inspection schedule with the contractor at the start of work.

1.11 SCHEDULING of HOLD POINTS/ACCESS to WORK

- A. Stop work and schedule inspections for the following hold points as a minimum.
- B. Schedule of Hold Points – Preliminary:
 - 1. Preconstruction Meeting: 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. Prior to draining tank:
 - a. To ensure all Sections of 01 50 00 and 01 53 43 environmental requirements are met.
 - b. To ensure all containment, ventilation, decontamination, and blasting equipment is on-site and in working order.
- C. Scheduling of Hold Points – Section 05 00 00 – Metal Repairs:

1. 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.
 - d. As may be specifically required in Section 05 00 00 of the specifications.
- D. Scheduling of Hold Points – Sections 09 97 13 – Steel Coating and 09 97 13.10 Steel Coating Surface Preparation:
 1. Section 09 97 13 – Wet Interior, Dry Interior, Exterior, and Pit Piping:
 - a. After completed erection of containment if applicable.
 - b. Prior to surface preparation to set the standard.
 - c. Prior to primer application to verify cleanliness, profile, thoroughness, and ambient conditions for coating application.
 - d. Prior to application of each successive coat for quality assurance and ambient conditions for the next coat.
 - e. Prior to final coat to verify all non-conformance issues have been resolved.
 - f. Scheduled pre-final inspection: 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 inspection and included as a punch list item.
 - g. Scheduled final inspection: After ALL punch list items have been completed (including painting ladders), provide access to all items on the punch list.
- F. Additional hold points scheduled at the preconstruction meeting or defined elsewhere in the specifications.
- G. If contractor fails to schedule hold point inspections, all work not inspected will be considered in non-conformance.
- H. Before applying a cover coat, remove failed work. Correct all non-conformance work and request an additional inspection before painting.
- I. Ensure that all work meets contract specifications and does not fail the initial inspection. All extra inspection visits from failure to cancel inspections, delays from inspection visits from failure to cancel inspections, delays from inspections scheduled before work completion, or additional time necessary to inspect failed work or work performed in non-compliance with the specifications, which causes an increase in the contract price between the engineer and the owner will be considered a contractor expense separate from and in addition to the daily liquidated damage assessment, where applicable, and shall be recovered from the contract price.
- J. Each hold point requires an inspection. If the contractor coats over or otherwise makes work inaccessible for inspection, the work will be considered failed. Remove work and repaint in accordance with this specification. At least two (2) new hold points, surface preparation and coating inspections, are created when work fails. All

work not inspected will be considered failed painting and not subject to the usual rules of “uncovered work” because work is destroyed during “uncovering” process.

- K. Provide owner, engineer, their consultants, and other representatives and personnel of owner, independent testing laboratories, and governmental agencies with jurisdictional interests access to the site and the work at reasonable times for their observation, inspecting, and testing. Provide them 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 therewith as applicable.

1.12 NON-CONFORMANCE REPORTS

- A. The engineer 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. Correct all work in non-conformance before proceeding.
- C. Do not start work until all required equipment 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 issued non-conformance reports are not corrected, the failure will be considered a breach of contract by the contractor entitling the owner to damages as follows:
 - 1. Work in non-conformance: If the contractor refuses to correct, the bonding company will be notified to finish the project. At that point, payment to the contractor for all completed work will stop until the bonding company authorizes payment, or payment may be made to the bonding company after they have proven assumption of the contract. This clause does not give either party rights to a greater payment than detailed elsewhere in these documents.
 - 2. Equipment specified but never supplied, or broken equipment not repaired or replaced:
 - 125% of the rental value of equipment in non-conformance (i.e. non-working decontamination trailer, hand wash facilities, are filtration units, etc.).
 - 3. Environmental issues: 125%* of the estimated cost of compliance.
*The costs of items 1 and 2 above are damage estimates. The cost of equipment will be the rental charge from a reputable local dealer with 25% extra being for operation cost. Cost of environmental compliance is the estimated cost of compliance. The extra 25% is potential risk to the owner for non-conformance. In no situation will the owner assume liability.

1.13 FIELD OPERATIONS and DEADLINES

- 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 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.

1.14 TERMINATION for BREACH

- 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-conforming report(s) indicate the contractor is unable or unwilling to complete the contract within the terms of the contract.

1.15 CONSTRUCTION SITE 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. Leave the site clean and ready for use by the owner. Restore to their original condition those portions of the site not designated for alteration by the Contract Documents.
- F. 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.
- G. 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.
- H. Restore site to preconstruction condition:

1. Refill holes and level area around the construction site for the site to the original grade.
2. 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.
3. Rake area to be seeded. Sow seed at a minimum rate of 220 lbs./acre.

1.16 SAFETY

- 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. Monitor and be responsible for all safety practices. The owner will not assume any responsibility for safety.

1.17 WARRANTY

- A. Approximately one (1) year from the date of completion, the tank will be inspected by the owner and/or his representative.
- B. The inspection will be performed in accordance with the applicable portions of AWWA D-102-11 Standard for Painting Steel Water Storage Tanks and industry standards.
- C. The owner will establish a date of inspection and shall notify the contractor ten (10) days 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. Contractor shall be notified in advance by the Engineer, the contractor waives all rights to dispute findings if not present for the 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. Except where noted in the Contract Documents, the contractor guarantees all material and equipment furnished and all work performed for a period of one (1) year from the date of substantial completion of the contract. 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 Bond.
 - I. The owner retains all contractual remedies. The warranty shall not be considered an exclusive remedy.

1.18 PAYMENT/PROGRESS PAYMENT

- A. Measurement of payment will be considered based on the schedule of values of the bid proposal sheet submitted to the engineer and the award of bids.
- B. This schedule of values will be reviewed by the engineer prior to final award of the contract.
- C. When evaluating the schedule of values, the engineer will consider that material delivered to the site has no value until properly applied.
- D. The owner also may decline to make payment because of subsequently discovered evidence or subsequent observations, as may be necessary in his/her opinion to protect against loss because of:
 - 1. Defective work not remedied;
 - 2. Third party claim filed or reasonable evidence indicating probable filing of such claims;
 - 3. Failure of the contractor to make payments properly to subcontractors, or for labor, materials, or equipment;
 - 4. Reasonable evidence that the work cannot be completed for the unpaid balance of the contract sum;
 - 5. Damage to the owner or other contractor;
 - 6. Reasonable evidence that the work cannot be completed within the contract time, or
 - 7. Persistent failure to carry out the work in accordance with the Contract Documents.
- E. Pay request(s) shall be made on form(s) supplied by the engineer.
- F. Owner shall make progress payments on account of the contract price on the basis of contractor's applications for payment once each month during performance of the work. All such payments will be measured by the schedule of values, or in the case of unit price work, based on the number of units completed, or in the event there is no schedule of values, as provided in the general requirements:
 - 1. On the wet interior, surface preparation by abrasive blast cleaning will be considered equal to 40% of the line item work and cost and each coat of paint 20%.

2. On the exterior, surface preparation by abrasive blast cleaning inside containment will be considered equal to 40% of the line item work and cost and each coat of paint 10%, with another 10% for lettering and demobilization, and 10% for waste disposal.
 3. 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 of paint 15%. The remainder will be for lettering, demobilization, and clean-up.
 4. Dry interior, pit piping, and repairs will not be broken down. 100% completion is required before they will be considered for payment.
 5. Mobilization is included in the surface preparation allotment for items 1, 2, and 3 above.
- G. 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. The contractor has five (5) days to appeal the reallocated schedule of values.

1.19 REGULATORY AGENCIES and BULLETIN BOARDS

- 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 environmental air quality, and permits from health agencies for interior painting.
- B. Display all wage requirements and other permits on a temporary board.
- C. Attach to the foreman's copy of the specifications copies of other permits that do not require display.

1.20 PROJECT MEETINGS

- A. Preconstruction Meetings:
 1. The engineer shall schedule a preconstruction conference to be attended by owner, engineer, and contractor, prior to beginning any work, shall meet with the engineer and arrange a work schedule for the project. Once the project has begun, the contractor shall carry it to completion without delay.
 2. Attend a preconstruction meeting that may be scheduled by the owner at a mutually agreeable time after contract preconditions, 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 foreman shall attend. If project foreman does not attend the meeting, it shall be

the contractor's responsibility to supply the information discussed at the meeting to the field foreman.

4. The owner will be represented by the project contact person, and the engineer by the project manager, or his principal.
 5. Submit all required materials prior to the preconstruction meeting.
 6. 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 engineer 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 is regard to all portions of the work.

1.21 EFFECTIVE DATE of LAWS, REGULATIONS and STANDARDS

- A. The laws and regulations in effect at the time of opening of bids, or effective date of agreement if no bids, are considered known to the contractor. There will be no adjustment in contract price or contract time for not being "known" to the contractor.
- B. Claims made for extra costs resulting from laws and regulations that become effective after the opening of bids or effective date of agreement, will be reviewed based on the exposure and publication of the law or regulation in advance. There will be no adjustment in contract price or contract time for environmental or safety regulations, or other laws and regulations with similar public notice and public hearing/review procedures.
- C. Regulations dealing with labor rates have a known expiration date. Everyone can safely assume there will be a cost increase with each new issue. If these rates are scheduled to expire during the contract time, then increase labor costs in bid for the expected manhours by local cost-of-living factor. If rates increase more than cost-of-living, a Change Order will be reviewed for exact increase of new rate above the adjusting old rate. Copy of payroll will be used to determine increase in wage only; not associated taxes, insurance, and benefits. The contractor is responsible for requesting extra and supplying documentation establishing extra. All consideration for an increase ends on date of substantial completion, either original or Change Order extended date.

1.22 RESPONSIBILITY of CONTRACTOR

- A. 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.

- B. Contractor is responsible for security, safety, etc. on the site until all his equipment is removed, and all keys are returned.

1.23 CONTRACTOR'S CREW/FOREMAN/CREW SIZE

- A. Resident superintendent shall be fluent in English to the level of competency to complete responsibilities of the contractor. Superintendent shall also be fluent or have access to a translator for the primary language of the majority of workers. Degree of fluency to be sufficient so that superintendent can adequately complete his duties.
- B. Minimum crew size is two (2) personnel and one (1) foreman for confined space work (on tanks up to 300,000 gallons), and three (3) personnel, plus one (1) foreman over 300,000 gallons.

1.24 POWER LINES/ANTENNAS/ELECTRICAL LINES

- A. If overhead power lines present an unsafe work condition as determined by OSHA, owner or utility, the contractor at his expense and coordination, shall have the utility temporarily relocate, move, or cover lines, eliminating the hazard.
- B. 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.
- C. Unless stated differently in the Contract Documents, protect all antenna controls, cables, electrical lines and controls, and associated property of private telecommunication companies from damage during work. Design construction procedures to maintain operation of telecommunication systems.

1.25 LIQUIDATED DAMAGES

- A. 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.
- B. 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 conference.
- C. 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.

D. Abnormal weather conditions are simply 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* 2013, 2014, 2015

Average number of rain/wind days: 9

Actual number of rain/wind days**: 12

Claim for time extension: 3 days

*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).

**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 measureable precipitation.

- E. 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 outside). Good weather days not used will count against claim.
- F. Claimed rain/wind days that extend beyond the scheduled substantial completion date or the extended substantial completion date will not be awarded. Days past substantial completion and good weather days that were not used because of sequencing of project work by contractor will be considered "days within the control of the contractor."
- G. On Change Orders for the extension of time because of weather conditions there will be no price increase for inspection services permitted.

**TABLE of CONTENTS
TECHNICAL SPECIFICATIONS**

Section 01 50 00 – Temporary Construction Facilities and Utilities..... 1-3

Section 01 53 43 – Protection of Environment..... 4-6

Section 03 01 00.1 – Foundation Repairs..... 7-8

Section 05 00 00 – Metal Repairs..... 9-19

Drawing 01a Overflow Alteration and Catch Basin

Drawing 01b 12 Inch Overflow Flap Gate

Drawing 02 10 Inch Overflow Flap Gate

Drawing 03 Mud Valve

Drawing 04 Ladder Rungs

Drawing 05a 24 Inch Frost Free Roof Vent with Painter’s Hatch

Drawing 05b 24 Inch Frost Free Roof Vent

Drawing 05c 24 Inch Frost Free Roof Vent

Drawing 05d 24 Inch Frost Free Roof Vent

Drawing 06a Safety Railing

Drawing 06b Safety Railing

Drawing 07 Painter’s Rail

Drawing 08 Rigging Coupling

Section 09 97 13 – Steel Coating..... 20-33

Section 09 97 13.10 – Steel Surface Preparation..... 34-39

Section 09 97 13.11.01 – Containment – Flexible Frame..... 40-43

Section 09 97 13.12 – Lead/Chrome Based Paint Removal and Disposal..... 44-46

Section 09 97 13.13.01 – Wet Interior Steel Coating – 3 Coat Epoxy..... 47-48

Section 09 97 13.13.14 – Wet Interior Steel Coating – 3 Coat Epoxy..... 49-51

Section 09 97 13.18.01 – Dry Interior Steel Coating – Epoxy System..... 52-53

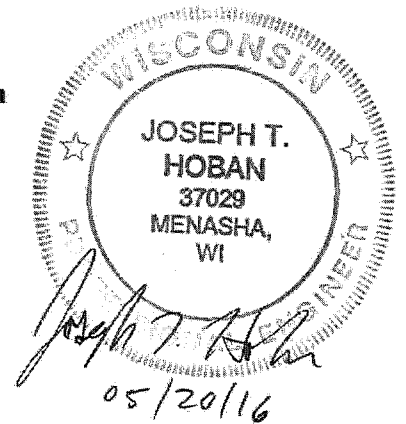
Section 09 97 13.21.01 – Pit Piping Steel Coating – 2 Coat Epoxy 54-55

Section 09 97 13.22.01 – Exterior Caulking.....56

**Section 09 97 13.23.01 – Exterior Steel Coating – 4 Coat Zinc Epoxy Urethane
Repaint..... 57-58**

**Section 09 97 13.23.02 – Exterior Steel Coating – 4 Coat Zinc Epoxy Urethane
Repaint..... 59-60**

Section 09 97 13.24.01 – Exterior Steel Coating – 3 Coat Epoxy Urethane



Overcoat.....	61-62
Section 09 97 13.24.02 – Exterior Steel Coating – 3 Coat Epoxy Urethane	
Overcoat.....	63-64
Section 09 97 23.23.01 – Concrete Foundation Coating – 2 Coat Epoxy	65
Section 26 42 23 – Impressed Current Cathodic Protection for Steel Reservoirs	66-71

SECTION 01 50 00
TEMPORARY CONSTRUCTION FACILITIES and UTILITIES

PART 1 – GENERAL

1.01 SUMMARY

- A. Contractor shall provide and maintain temporary facilities and utilities required for construction; remove at 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 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 shall be the responsibility of the contractor. No service available to 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 pays for 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 (2) 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 not allowed on project site unless designated or approved by owner.
B. Make arrangements for parking area for employees' vehicles.
C. Any costs involved in obtaining parking area shall be borne by the contractor.

PART 3 – EXECUTION

3.01 GENERAL

A. Contractor shall maintain and operate all temporary systems to ensure continuous service.
B. Contractor shall modify and extend systems as work progress requires.

3.02 REMOVAL

A. Completely remove temporary material 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 services to specified, or original condition.

3.03 BARRIERS and ENCLOSURES

A. The contractor shall furnish, install, and maintain as long as necessary, and remove no longer 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.

1.02 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.

1.03 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.

1.04 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 affect 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 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.
- E. Waste generated by abrasive blast cleaning is detailed in Section 09 97 13.

1.05 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.

1.06 PROTECTION from FUEL and SOLVENTS

- A. Note that the Spaanem Tank site contains a municipal drinking water well. Do not store any potentially hazardous materials on this site unless approved by engineer.
- B. Submit plans and photos, or drawings of all containment structures, planned paint storage procedures, planned paint mixing (as it relates to possible spillage), and paint waste disposal.
- C. All required material must be submitted prior to the precon meeting. No equipment may be delivered to the site without approval of submittals.
- D. The owner reserves the right to restrict equipment location.
- E. Protect the ground from spills of fuel, oils, petroleum distillates, or solvents by use of containment systems.
 - 1. Total paint, thinner, oils, and fuel delivered to and stored on-site cannot exceed supplied capacity of spill containment provided (i.e. fuel in compressor must have secondary containment to catch both fuel and oil to be sized to exceed possible spill).
 - 2. Do not leave nozzle while fueling.
 - 3. Provide a different containment unit under fuel tank and oil reservoirs for all equipment and fuel storage tanks.
 - 4. Barrels of solvents, even for cleaning, are prohibited. Do not deliver paint thinners in containers greater than five (5) gallons.
- F. Disposal of waste fluids shall be in conformance with federal, state, and local laws and regulations.

1.07 USE of CHEMICALS

- A. Chemicals used during project construction or furnished for project operations, 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.

1.08 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 7:00 p.m. and 7:00 a.m., or on 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 waste nationally.
- B. To use an off-site hazardous waste disposal facility, the contractor must use the Uniform Hazardous Waste Manifest (shipping paper).
- C. Federal, state, and local laws and regulations may apply to the storage, handling, and disposal of hazardous materials and waste.

SECTION 03 01 00.01
FOUNDATION REPAIRS

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Repair of concrete foundation.

1.02 REFERENCES

- A. Codes, specifications, and standards referred to by number or title shall form a part of this specification to the extent required by the references thereto. Latest revisions shall apply in all cases.
 - 1. “Building Code Requirements for Structural Concrete (ACI 318) and Commentary (ACI 318R),” American Concrete Institute.

1.03 PRODUCT DELIVERY, STORAGE and HANDLING

- A. The contractor shall be responsible for the delivery, storage, and handling of products.
- B. Deliver in accordance with ASTM C94.
- C. Promptly remove damaged or unsuitable products from the job site. Replace products with undamaged, suitable products.

1.04 WORK INCLUDED

Bunker Hill

- A. Repair foundation spalls.

1.05 ENVIRONMENTAL REQUIREMENTS

- A. Apply all repair material within manufacturer’s guidelines.

1.06 COORDINATION and SCHEDULING

- A. Contractor shall notify engineer a minimum of twenty-four hours before placing concrete or grout repair material.
- B. Do not place any repair material until surface preparation and/or routing has been reviewed by engineer.

1.07 SUBMITTALS

- A. 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, concrete, grouts admixtures, sealers.

- b. Provide for employees one (1) copy of all data sheets at the job site for employee access.
- c. Provide two (2) copies to the owner.
- d. Provide two (2) copies to the engineer.
- e. No work may commence without the complete filing. All SDS shall conform to requirements of SARA (EPCRA) Right-to-Know Act.

PART 2 – PRODUCTS

2.01 FOUNDATION REPAIR – SPALLS

- A. SikaTop 121 Plus 2 component, polymer modified, cementitious, trowel grade mortar, plus FerroGard 901 penetrating corrosion inhibitor.
- B. Mortar Clad Series 217 by Tnemec Co., Kansas City, MO. (repairs greater than ¼-in.)

PART 3 – EXECUTION

3.01 FOUNDATION REPAIR – SPALLS

- A. Remove all deteriorated concrete, dirt, oil and grease from the concrete.
- B. Remove all loose concrete using hand tools. The outer edge of repair area is to be cut a minimum of ½ inch all around using a saw.
- C. Abrasive blast clean the concrete surface to create a profile.
- D. Mix product in accordance with manufacturer's recommendations.
- E. Apply a scrub coat or bonding agent to the surface as required by the manufacturer.
- F. Fill all pores and voids. Force the material against the edge of the repair working toward the center. Finish to match the existing foundation.
- G. The repair area is to be cured per manufacturers recommendations.
- H. Amount of repair is less than 2 square feet and 1 inch deep, cost is incidental to exterior repainting

SECTION 05 00 00
METAL REPAIRS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Steel Repair.
- B. Surface Preparation of Lead Paint before Welding.

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, no transition.
- 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.

1.05 WORK INCLUDED

Cross Hill

- A. Replace manway gasket.
- B. Install handholds at the roof hatches.
- C. Install overflow flap gate.
- D. Install mud valve.
- E. Replace roof vent screen.
- F. Install roof painter's rail.
- G. Replace dry interior and aviation light bulbs.
- H. Weld safety attachment lug.
- I. Install altitude valve.
- J. Install aluminum jacket over the fill pipe insulation.

Bunker Hill

- A. Replace manway gaskets.
- B. Reroute overflow pipe so it routes outside with air gap and catch basin.
- C. Replace vent with a frost-free roof vent.

- D. Remove antenna brackets and mounting poles.
- E. Install roof safety couplings with clips.
- F. Replace light bulbs in dry interior.

Spaanem Tank

- A. Replace manway gaskets.
- B. Replace rungs inside access pilaster and install fall prevention device.
- C. Replace vent with a frost-free roof vent and relocate.
- D. Install roof handrail section.
- E. Install roof safety couplings with clips.
- F. Replace light bulbs in dry interior.
- G. Replace altitude valve.
- H. Replace butterfly valves in the pit.

1.06 WORKMANSHIP

- A. Provide material and workmanship necessary to produce a first class job.
- B. Complete work in a manner that is least offensive to neighbors.

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:
 - 1. Complete ahead of all cutting and welding all surface preparation, such as immediate area lead paint removal.
 - 2. Complete all welding repairs prior to commencement of any power washing or abrasive blast cleaning.
 - 3. Do not install non-painted items (i.e. vent, fall prevention devices, etc.) or store on or in the tank until after painting has been completed.
 - 4. Remove all fall prevention devices before painting, and reinstall after completion. Do not install new fall prevention devices until all painting has been completed. Supply temporary fall prevention devices with steel cables during blasting and painting.

PART 2 – PRODUCTS

2.01 STEEL PLATING and OTHER STRUCTURAL SHAPES

- A. ASTM – A36.

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 SCREEN

- A. Stainless steel wire mesh manufactured by McNichols Co. (800) 237-3820.
- B. For overflow screen use twenty four (24) mesh 0.063-in. diameter or larger.

2.05 MUD VALVE

- A. Babco Valves LLC P.O. Box 40 Plattsmouth, NE 68048, (402) 296-4155. Install a 3 in. x 2.5 in. No Freeze Valve with a wrench.
- B. Hose material to be Goodyear Engineered Products NutriFlo suction and discharge hose supplied by Veyance Technologies Fairlawn, OH 888-899-6354 or approved equal.

2.06 FALL PREVENTION DEVICE

- A. Cable-Type system as manufactured by DBI Sala, supplied by ITI Resources (941) 894-0564.
 - 1. System: Lad-Saf Model and all connecting clips, etc.
 - a. Cable to be 3/8 in. galvanized steel.
 - b. Top Bracket TB-1 #6116054.
 - c. Bottom Bracket BB-1 #6100090.
 - d. Cable Guides CG-3 #6100400.

2.07 INSULATION JACKET MATERIAL

- A. Corrugated aluminum jacketing 0.016 in. thick by ITW insulation systems Houston, Texas 1-800-231-1024 or approved equal.

2.08 ALTITUDE VALVE

- A. Valve to be manufactured by Cla-Val Costa Mesa, CA 800-942-6326. Local representative: Dorner Company, Mike Barreau, 262-932-2100 ext. 120.
- B. Spaanem: Model 210-16 altitude valve for 2-way flow.
- C. Cross Hill: Model 210-01 altitude valve for 1-way flow.
- D. Valves to be ductile iron body, bronze trim, 150# flanged ends and full-port design. Equipped with pilot system wye strainer, pilot system isolation locks, inlet gauge, reservoir level tester with gauge, X105LCW single limit switch, opening and closing speed controls, and fusion-bond epoxy coatings inside and out.

2.09 BUTTERFLY VALVES

- A. Butterfly valves shall be AWWA C504, short body, Class 150B. Provide certified drawings by manufacturer and Affidavit of Compliance.
- B. Valve bodies shall be cast iron (ASTM A126, Class B), or ductile iron ASTM A536. Valves shall be flanged interior exposed and mechanical joint underground and conform to ANSI 816.1, Class 125.
- C. Valve shaft shall be stainless steel.
- D. Valve disc shall be cast iron.
- E. Valve seat shall be constructed of synthetic rubber compound and shall be recess-mounted and bonded in the valve body or attached to the disc. Seat shall be mechanically-attached to the valve body or seat with screws, bolts, clamping rings, or similar devices.
- F. Valve shaft bearing shall be self-lubricating Teflon, nylon, or bronze.
- G. Shaft seals shall have split V-type packings that are replaceable without removing the valve from the line.
- H. Standard Operators:
 - 1. Except as noted below, butterfly valves shall be equipped with top-mounted handwheel operators with totally-enclosed, sealed and lubricated gear boxes.
 - 2. The rated torque capability of each operator shall be sufficient to seat, unseat, and hold any valve disc position with the maximum pressure differential across the valve without creep or fluttering.
 - 3. Exposed valves shall be equipped with handwheels and valve disc position indicators, and shall be equipped with field-adjustable mechanical stop limiting devices.

PART 3 - EXECUTION

3.01 SURFACE PREPARATION – PREWELDING – LEAD PAINT

- A. The existing dry interior coating in the Spaanem tank and the Bunker Hill tank is known to contain lead.

- B. Remove all coating 6-in. on both sides of welding area by abrasive blast cleaning or vacuum shrouded power tool cleaning prior to any cutting, welding, or disturbance of the lead paint.
- C. Chemical stripping or other method may be approved by the engineer.
- D. Absolutely do not begin any repair work until all adjacent lead is properly removed, cleaned, and stored.

3.02 CUTTING ACCESS for REPAIRS or PAINTING

- A. If the contractor determines that it is necessary to cut a hole in the roof or sidewall for equipment access, submit the desired location and size of opening to the engineer for review and authorization. Do not cut any steel without authorization.
- B. Sidewall reservoir door sheets shall be cut a minimum of 3 inches above the floor, to provide clearance for attachment of radiographic film on the bottom weld seam.
- C. The submittal drawing of the cut and repair method shall be sealed by a Professional Engineer registered in the State of Wisconsin. The submittal can be completed by any competent, registered engineer, including the project engineer. The owner has determined this is not a conflict of interest.
- D. Cutting access is recognized as a cost effective method to allow entry of large equipment into the tank. Cutting, however; creates additional inspection fees that the Owner would not have to pay if a contractor did not cut access. These costs include inspection during x-rays and review of x-ray technician's interpretation of x-rays, inspection of surface preparation of interior and exterior, and inspection of primer and each subsequent coat of paint. In the interests of parity with contractors cutting and contractors not cutting these additional inspection charges need to be evaluated with the bid comparisons. If you intend to cut access, mark the line on the Schedule of Values in Section 09 97 13 of the form marked Inspection for Cutting Access and transfer the \$3,000 to the included items and include the \$3,000 amount in your bid. If awarded the bid, this line item will be deducted from the contract price by Owner and paid directly to the Engineer. This line item does not need to be included in bond total. Failed inspections will be treated as detailed elsewhere in these specifications.
- E. Repair coatings per Section 09 97 13.
- F. Cost is the responsibility of the contractor.

3.03 RADIOGRAPHS - ACCESS OPENING REPLACEMENT

- A. Furnish all radiographic equipment, film, personnel, etc. necessary to perform radiographic inspection of completed welds in accordance with AWWA D100-11. Radiographic testing firm shall be approved by the Engineer.
- B. A minimum of four (4) radiographs will be required.
- C. The radiographs will all be taken in one day at locations identified by the engineer, and in the engineer's presence.
- D. The radiographs will be developed on-site by the radiographer, and interpreted by the radiographer, but reviewed by the Engineer.

- E. All developed film will become property of the owner.
- F. Cost for radiographic examination is the responsibility of the contractor.
- G. Cost for additional radiographic examination due to failed x-rays is also the responsibility of the contractor.

3.04 REPLACE MANWAY GASKETS – ALL TANKS

- A. Replace the access tube manway gasket in the Cross Hill tank, the two sidewall manway gaskets on the Bunker Hill tank and the two manway gaskets on the Spaanem tank.
- B. Use $\frac{3}{8}$ in. flat neoprene gasket material.
- C. Payment is incidental to wet interior painting.

3.05 HANDHOLD – CROSS HILL

- 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 $\frac{5}{8}$ in. diameter rod shaped into a 6 in. x 3 in. “U”. Weld using a $\frac{1}{4}$ -in. full fillet.
- C. Ladder extension to extend 5 rungs above the platform, keep spacing 12 inches between the existing ladder and new section.
- D. Location of to be on the ladder side of the opening.
- E. Surface prepare and coat in accordance with Sections 09 97 13 and 09 97 13.10.
- F. Cost is incidental to exterior painting.

3.06 REROUTE OVERFLOW PIPE – BUNKER HILL

- A. The overflow pipe currently routes from the high water line down the sidewall and through the floor.
- B. Cut and remove bottom 32 inches of the pipe (verify length of pipe to remove, final discharge to be 12-18 inches above grade), temporarily support the pipe during removal.
- C. Install a 90 degree long elbow and extend pipe out the sidewall. Pipe to extend 24 inches outside of the wall and elbow downward.
- D. Sidewall penetration to have stiffener collar.
- E. Weld a flange onto the discharge end of the overflow pipe. Use $\frac{1}{4}$ ” steel plate, flange size to match that of the flap gate outside diameter. Install flap gate on the discharge end.
- F. Weld a patch plate over the hole in the floor by welding a 14 inch by $\frac{1}{4}$ inch steel plate over the opening. Weld using $\frac{1}{4}$ -inch full fillet.
- G. Excavate and modify the overflow pipe drain so it extends up to a new catch basin under the new overflow discharge.
- H. Surface prepare and coat in accordance with Sections 09 97 13 and 09 97 13.10.
- I. See Drawing 01a-01b.

- J. Payment is a separate line item “Reroute Overflow Pipe” which the owner reserves the right to delete.

3.07 OVERFLOW FLAP GATE with SCREEN – CROSS HILL

- A. Construct and install a new overflow flap gate at the pipe discharge.
- B. Flap shall allow for closed positioning during non-flow conditions, and open operation during overflow conditions.
- C. Field verify existing overflow pipe dimensions. Lever arm configuration near hinge may vary if prior written approval is granted by the engineer.
- D. Use steel plates as weights attached to the lever arm to assure complete closure at end of cycle, number may need to be more than shown on the drawing to ensure complete closure.
- E. Use PVC or plastic washers and spacers between the hinge bolts and lever arm, use enough washers to ensure a snug fit without damaging the coating during movement.
- F. The width of the existing flange at the discharge to be replaced to match the designed 1.5 inch flange on the flap or the flap design modified to match the existing flange.
- G. Surface prepare and coat in accordance with Sections 09 97 13 and 09 97 13.10.
- H. See Drawing 02.
- I. Payment is a separate line item “Overflow Flap Gate” which the owner reserves the right to delete.

3.08 INSTALL MUD VALVE – CROSS HILL

- A. Install a frost-free mud valve in the lowest section of the mud settling area. Coupling shall be a heavy or extra heavy coupling, and shall not extend more than $\frac{3}{8}$ in. into wet interior surfaces.
- B. For the discharge, use hose attached to barbed fittings with band clamp and Schedule 40 pipe for connection to the overflow pipe. All threaded fittings to be covered with Teflon tape.
- C. Pipe to discharge into the overflow pipe. Cut a hole in the overflow and weld the pipe using $\frac{1}{4}$ in. full fillet.
- D. Attach a wrench on a chain to the valve for operating the valve. Chain to have a clip or clasp for easy removal and use.
- E. Surface prepare and coat in accordance with Sections 09 97 13 and 09 97 13.10.
- F. Weld one – 4 in. x 4 in. x $\frac{3}{8}$ in. angle iron (height – top of valve entry into tank, plus 2 in.) to act as ice shield.
- G. See Drawing 03.
- H. Payment is a separate line item “Mud Valve” which the owner reserves the right to delete.

3.09 REPLACE RUNGS - SPAANEM

- A. Remove the existing rungs in the access pilaster from the ladder section up to the center cupola. Remove the existing rail-type fall prevention from the ladder section in the pilaster.
- B. Removed items to become the property of the contractor for proper disposal.
- C. Install new rungs spaced every 12 in. with 7 in. toe clearance. Rungs to have a 1 in. bend on each end so climber's feet cannot slip off the end.
- D. Use ¾ in. rod. Weld using ¼ in. full fillet welds.
- E. Rungs to meet or exceed all OSHA requirements.
- F. Install new cable fall prevention device along the entire length of the rungs and remaining pilaster ladder. Device to be one continuous cable from the copula to the ground.
- G. Supply owner with two (2) cable glides.
- H. Surface prepare and coat in accordance with Sections 09 97 13 and 09 97 13.10.
- I. See Drawing 04.
- J. Payment is a separate line item "Replace Rungs" which the owner reserves the right to delete.

3.10 ROOF VENT SCREEN – CROSS HILL

- A. Remove the existing screen and furnish and install a new screen on the roof vent and.
- B. Attach screen to the vent neck using two (2) ½" wide stainless steel banding clamps using a make-a-clamp kit.
- C. Payment is incidental to exterior repainting.

3.11 REPLACE VENT with FROST-FREE ROOF VENT – BUNKER HILL

- A. Remove the existing roof vent. Vent to become property of the contractor for proper disposal.
- B. Furnish and install a new frost-free roof vent on a new bolted flange that has been cut and constructed as shown on the drawings.
- C. Contractor to verify roof stiffener location before installing vent.
- D. See Drawings 05a-05d.
- E. Payment is a separate line item "Roof Vent" which the owner reserves the right to delete.

3.12 ANTENNA EQUIPMENT REMOVAL

- A. The Owner is removing all antennas and cables from the tank prior to the start of the project.
- B. There are five (5) antennas on the roof (contractor to field verify). The cable routing is up a pilaster the along welded brackets on the roof.
- C. Contractor is to remove the antenna mounting poles and cable brackets left on the roof (pilaster brackets to remain).

- D. Antenna mounting poles to be removed down to the roof including support arms. Reinforcing pads can remain in-place.
- E. Contractor to seal the cable penetration no longer in use in pilaster using ¼ inch steel plate, overlap opening a minimum of ½ inch all around, weld on the exterior using ³/₁₆ inch full fillet weld (verify with the Owner which penetration is to remain).
- F. Payment is a separate line item “Antenna bracket and Pole Removal” which the owner reserves the right to delete.

3.13 REPLACE VENT with FROST-FREE ROOF VENT - SPAANEM

- A. Remove the existing roof vent inside of the cupola. Vent to become property of the contractor for proper disposal.
- B. Weld a patch plate over the hole in the cupola floor by welding a 14 inch by ¼ inch steel plate over the opening. Weld using ¼-inch full fillet.
- C. Furnish and install a new frost-free roof vent on a new bolted flange that has been cut and constructed as shown on the drawings. Locate vent outside of the cupola between pilasters (where accessible via existing cupola ladder).
- D. Contractor to verify roof stiffener location before installing vent.
- E. See Drawings 05a-05d.
- F. Payment is a separate line item “Roof Vent” which the owner reserves the right to delete.

3.14 INSTALL ROOF RAILING SECTION – SPAANEM

- A. Furnish and install a new safety railing between pilasters to encompass the new roof vent.
- B. Install a 12 ft. long section.
- C. Use 2.5 in. x 2.5 in. x ¼ in. angle iron for the vertical posts, supports, top rail, and mid-rail.
- D. Use 4 in. x ¼ in. steel plate for the kick plate.
- E. Use 6 in. x 6 in. x ¼ in. steel plates for the base-plates.
- F. All welds will be ³/₁₆ in. fillet welds.
- G. Comply with OSHA Standard 1910.23 for hand rail installation, and all other applicable federal, state, and local codes.
- H. Surface prepare and coat in accordance with Sections 09 97 13 and 09 97 13.10.
- I. See Drawing 06.
- J. Cost is a separate line item “Roof Railing Section” which the owner reserves the right to delete.

3.15 PAINTER’S RAIL – CROSS HILL

- A. Install a 42-ft. diameter painter’s rail on the roof. Field verify dimensions prior to fabrication.
- B. All butt weld sections on the painters railing to be at a stand-off.

- C. Install 2 in. diameter couplings with brass plugs for safety lines during wet interior work. Threading to be per NPT standard. Locate at every other painter's railing stand-off. Under side of coupling to be caulked.
- D. Surface prepare and coat in accordance with Sections 09 97 13 and 09 97 13.10.
- E. See Drawing 07.
- F. Payment is a separate line item "Painter's Rail" which the owner reserves the right to delete.

3.16 ROOF COUPLINGS – BUNKER HILL and SPAANEM

- A. Install extra heavy couplings with clips spaced approximately every 12 ft. and located approximately 16 ft. (estimated one half tank radius) from the center of the Spaanem tank and 27 ft. (estimated on half tank radius) from the center of the Bunker Hill tank.
- B. Install 8 couplings on the Spaanem tank and 12 on the Bunker Hill tank.
- C. Couplings to be plugged with brass hex head plugs, couplings and plugs to be threaded per NPT standard.
- D. The underside of the coupling is to be caulked.
- E. Install per Drawing 08.
- F. Surface prepare and coat in accordance with Sections 09 97 13 and 09 97 13.10.
- G. Cost is incidental to wet interior painting.

3.17 REPLACE LIGHT BULBS – ALL TANKS

- A. Replace all dry interior light bulbs with LED light bulbs, replace aviation light bulbs on the Cross Hill tank.
- 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.
- 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. Cost is incidental to the project.

3.18 WELD SAFETY LUG – CROSS HILL

- A. Install a lug to the tank's bowl above the top platform ladder opening for rigging rescue cable/rope.
- B. Lug to be 4 in. x 4 in. x $\frac{3}{8}$ in. steel plate with a 2 in. diameter hole.
- C. Weld using $\frac{3}{8}$ in. full fillet welds.
- D. Surface prepare and coat in accordance with Sections 09 97 13 and 09 97 13.10.
- E. Cost is incidental to wet interior repainting.

3.19 ALUMINUM JACKET for INSULATION – CROSS HILL

- A. Retape all loose insulation; replace any missing sections. Install aluminum jacketing minimum of 0.016 in. thick over all insulation.
- B. Stagger splices and fasten with self-taping stainless steel screws.
- C. Payment is a separate line item “Insulation Jacketing” which the owner reserves the right to delete.

3.20 ALTITUDE VALVE – CROSS HILL and SPAANEM

- A. Replace the altitude valve on the Spaanem tank and install a valve on the Cross Hill tank (there is currently no valve at Cross hill, replace existing check valve).
- B. Use bolts, gaskets, etc. as recommended by the manufacturer.
- C. Modify piping to accept valve as needed including installation of new pipe sections (if applicable). Any new pipe is to match existing type.
- D. Valve to remain shop coated, do not coat in the field.
- E. Payment is a separate line item “Altitude Valve” which the owner reserves the right to delete.

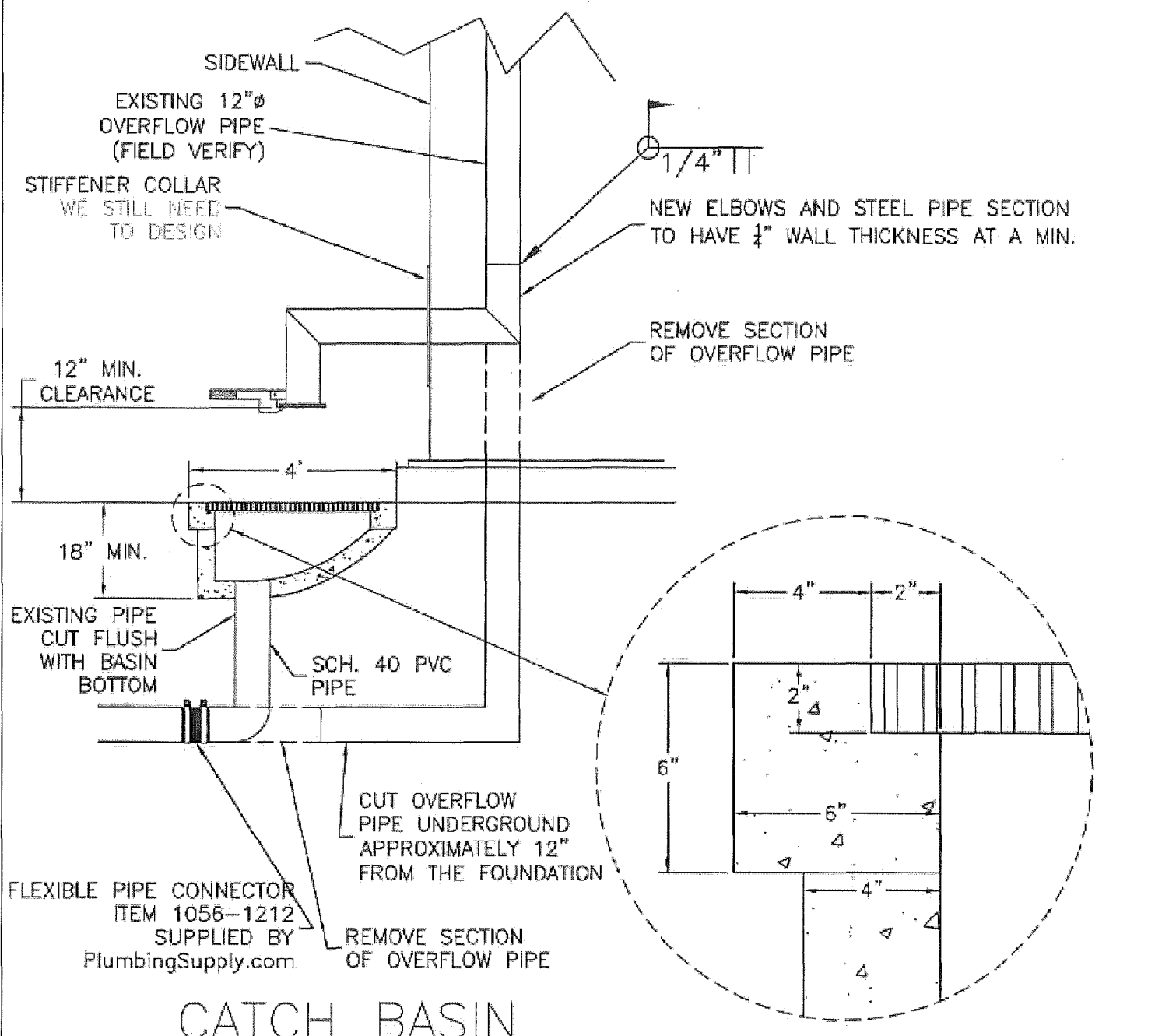
3.21 VALVE REPLACEMENT – SPAANEM

- A. Replace three (3) valves in the pit, removed valves to become the property of the contractor for proper disposal.
- B. Replace two (2) 12 inch and one (1) 16 inch valve.
- C. Use bolts, gaskets, etc. as recommended by the manufacturer.
- D. Valves to be overcoated using the specified system per section 09 97 13.21.01, scarify shop coating prior to application, repair any spot failures by power tool cleaning to a SSPC-SP 11 standard and apply one (1) spot coat of epoxy then overcoat with two coats of epoxy.
- E. Payment is a separate line item “Valve Replacement” which the owner reserves the right to delete.

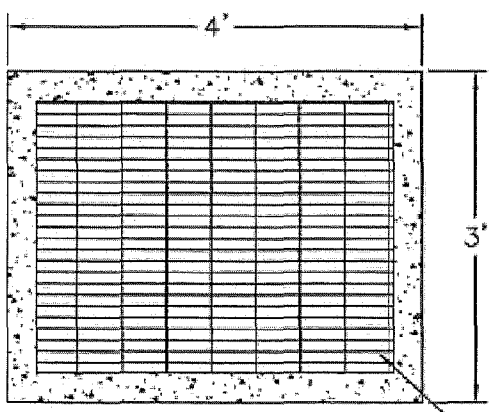
PART 4 – SPECIAL PROVISIONS

4.01 PAINT REPAIR – STEEL REPLACEMENT

- 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 repairs.
- E. Cost is incidental to metal repairs.



CATCH BASIN



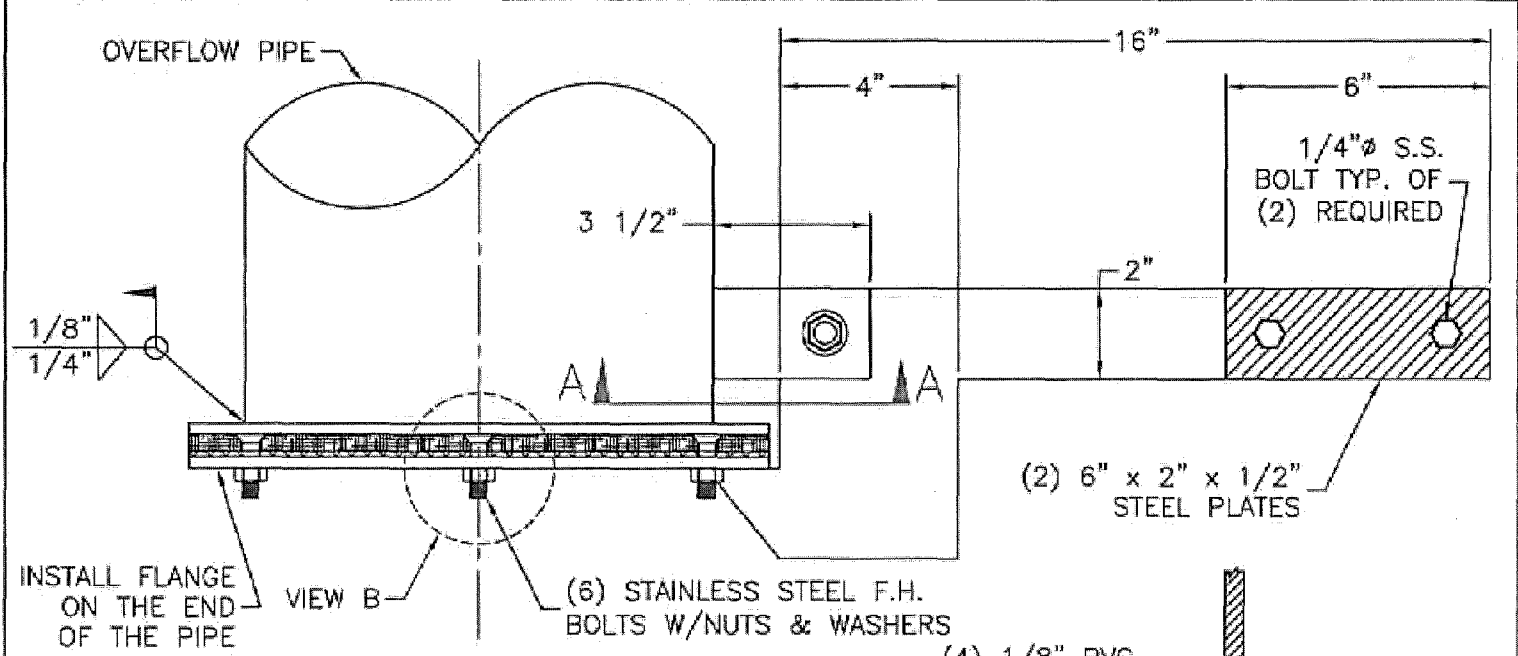
VIEW A-A

19-W-4 x 1 1/4" x 3/16" GRATING

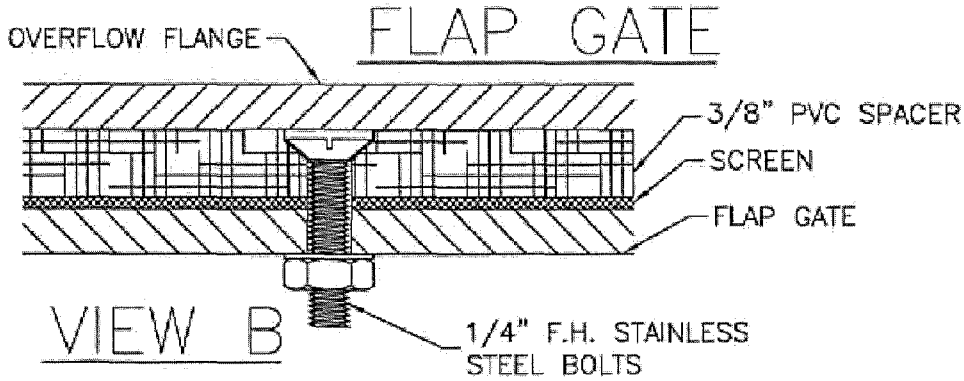
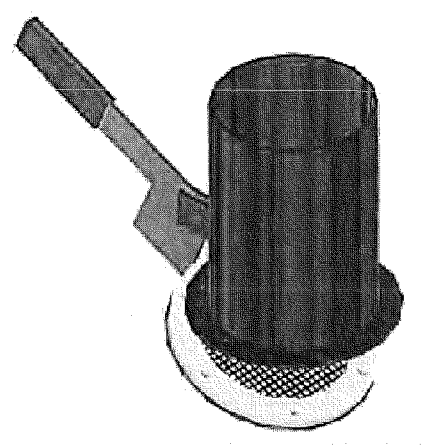
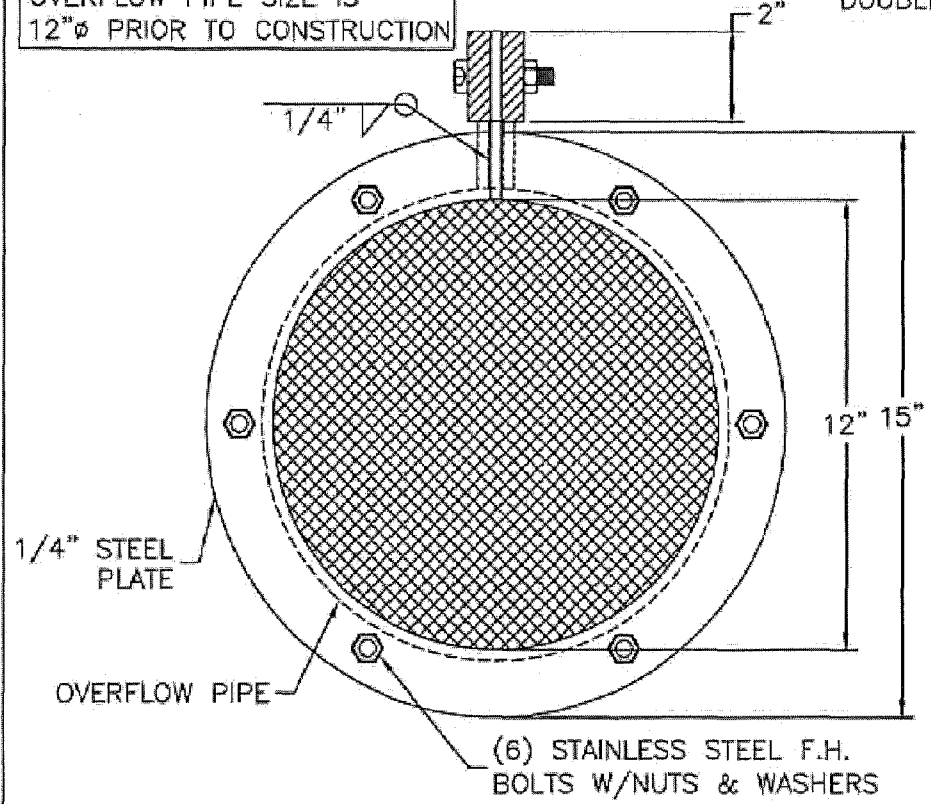
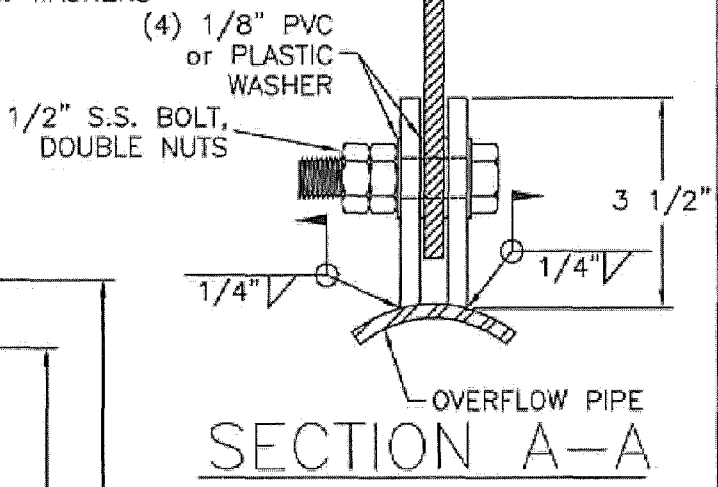
- NOTE:**
1. CONTRACTOR IS TO MAINTAIN 18" CLEARANCE BETWEEN GRATING AND OVERFLOW FLAPGATE. IT MAY BE NECESSARY TO REMOVE STEEL FROM EXISTING OVERFLOW PIPE.
 2. CONTRACTOR IS TO INSTALL FLANGE ON OVERFLOW PIPE.
 3. CONCRETE TO BE GRADE B AT A MINIMUM.
 4. USE PVC CEMENT ON PVC PIPE CONNECTIONS.

Note: Drawing Not to Scale.

DIXON ENGINEERING, INC.	
Madison, WI Bunker Hill	
Overflow Alteration and Catch Basin	
File Name: overflow&catchbasin.dwg	
Drawn By: TMF	Date: 03/24/16
Checked By: IMG	DWG: 01a



NOTE:
CONTRACTOR TO VERIFY
OVERFLOW PIPE SIZE IS
12"Ø PRIOR TO CONSTRUCTION



Note: Not to Scale

DIXON
ENGINEERING, INC.

Madison, WI Bunker Hill

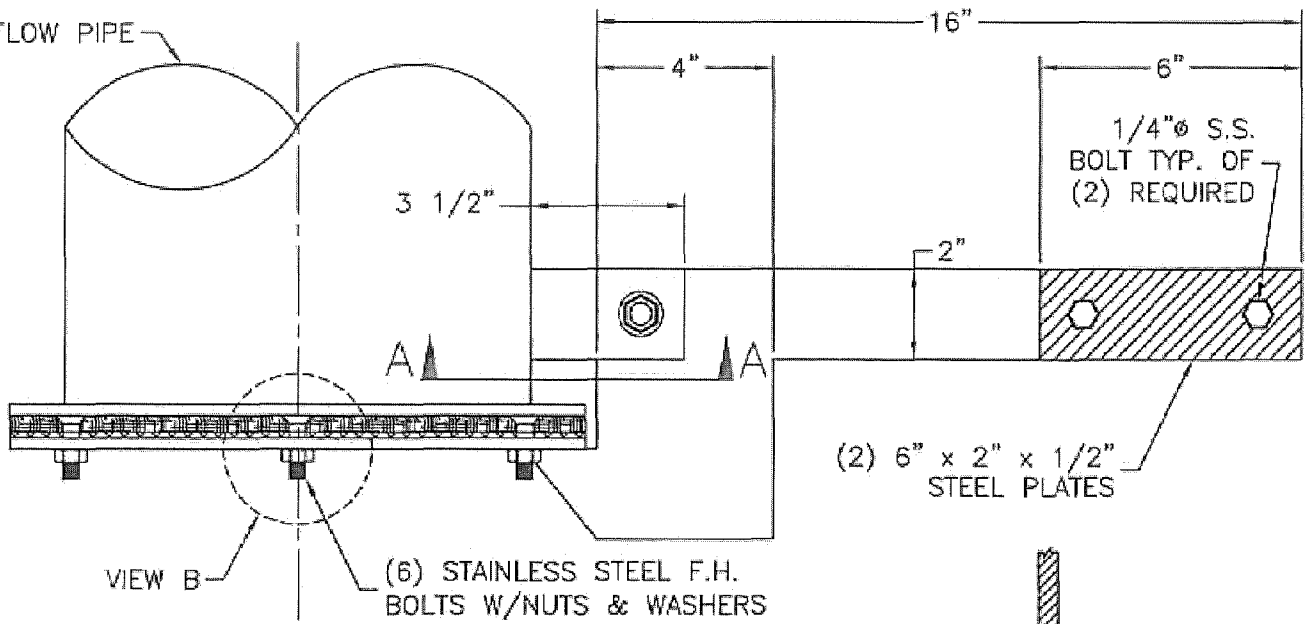
12" Overflow Flap Gate

File Name: 12in_flapgate.dwg

Drawn By: TMF Date: 03/24/16

Checked By: IMG DWG: 01b

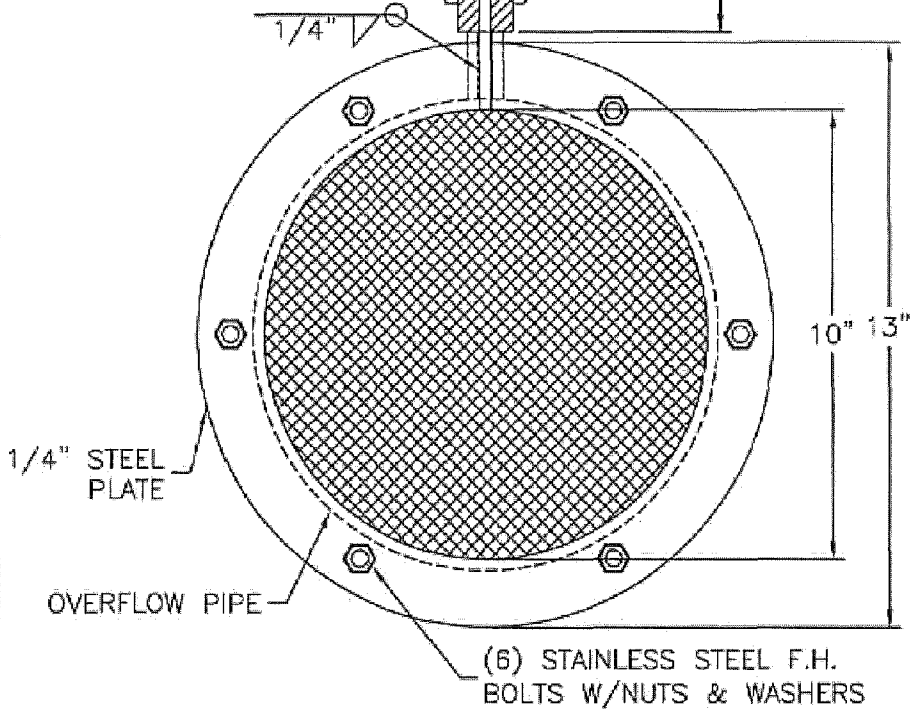
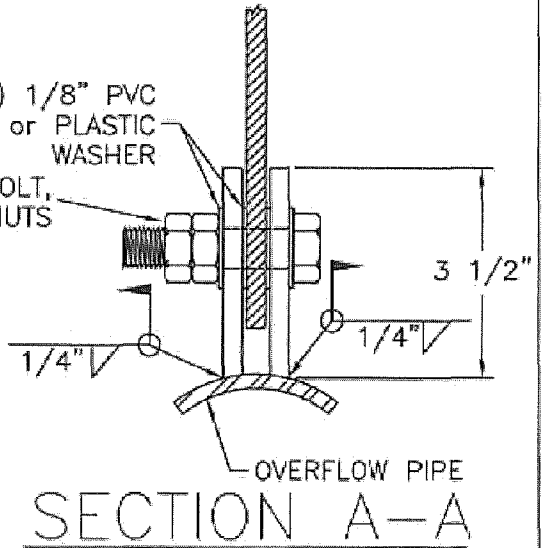
OVERFLOW PIPE



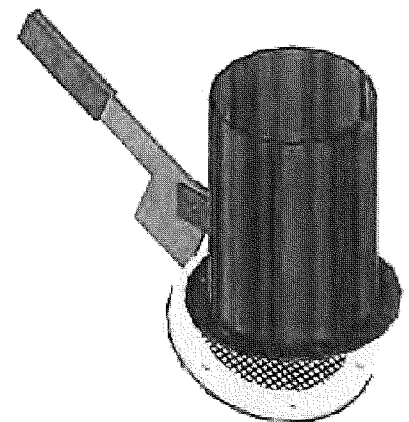
NOTE:
CONTRACTOR TO VERIFY
OVERFLOW PIPE SIZE IS
10"Ø PRIOR TO CONSTRUCTION

(4) 1/8" PVC
or PLASTIC
WASHER

1/2" S.S. BOLT,
DOUBLE NUTS

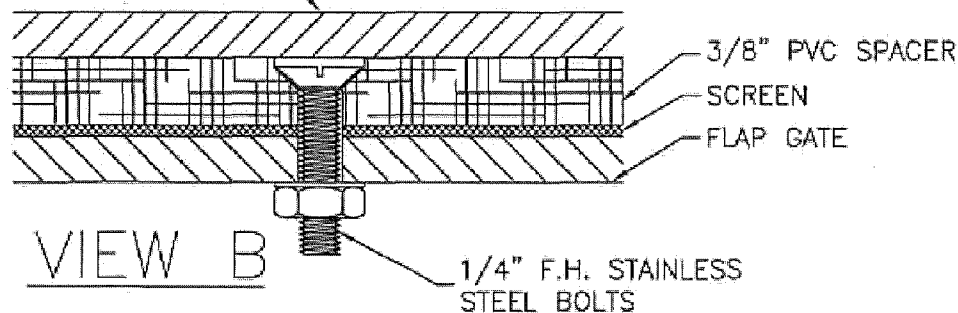


FLAP GATE



ISO VIEW

OVERFLOW FLANGE



Note: Not to Scale



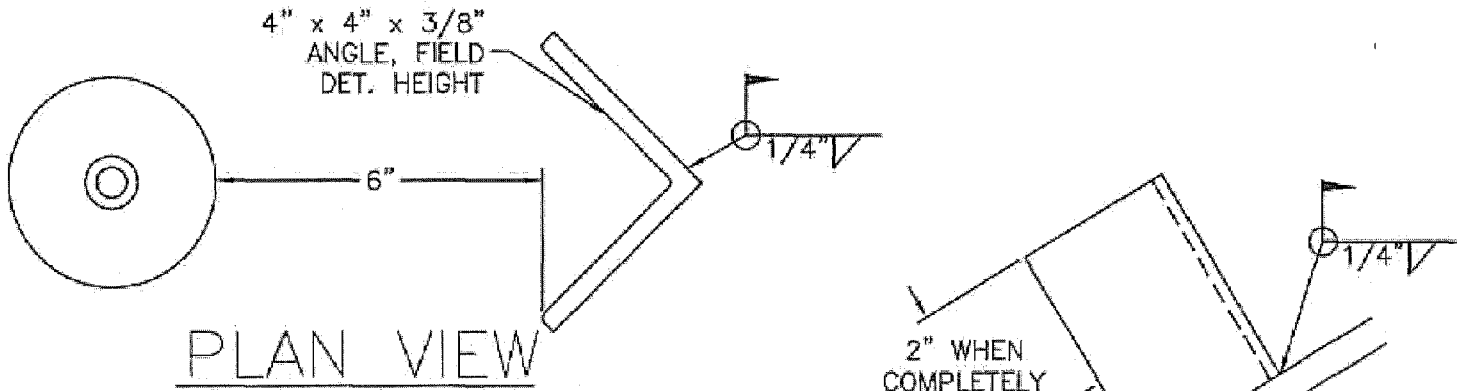
Madison, WI Cross Hill

10" Overflow Flap Gate

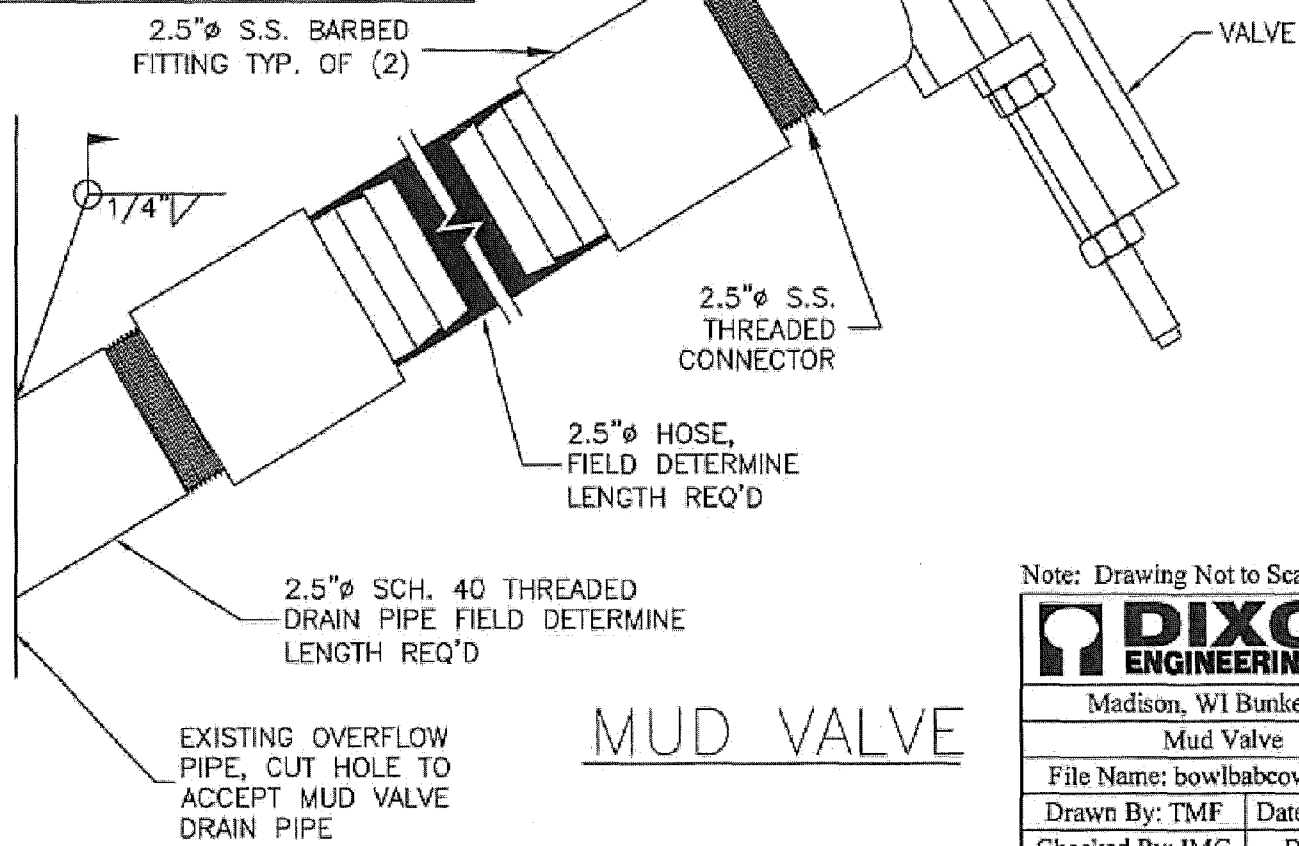
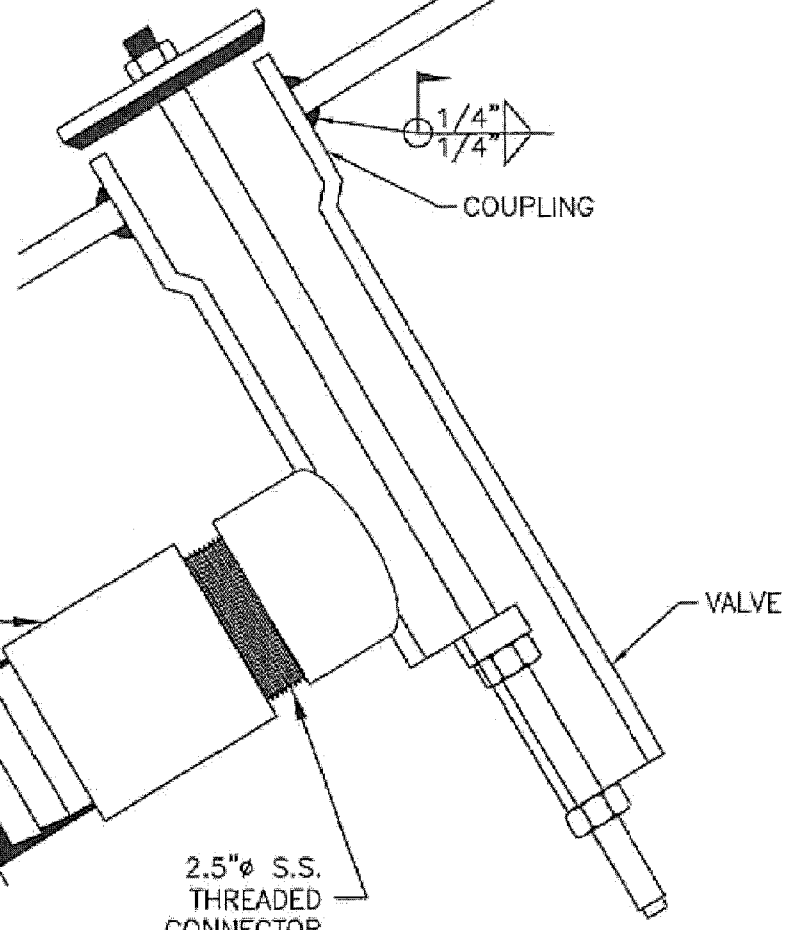
File Name: 10in_flapgate.dwg

Drawn By: TMF Date: 03/24/16

Checked By: IMG DWG: 02



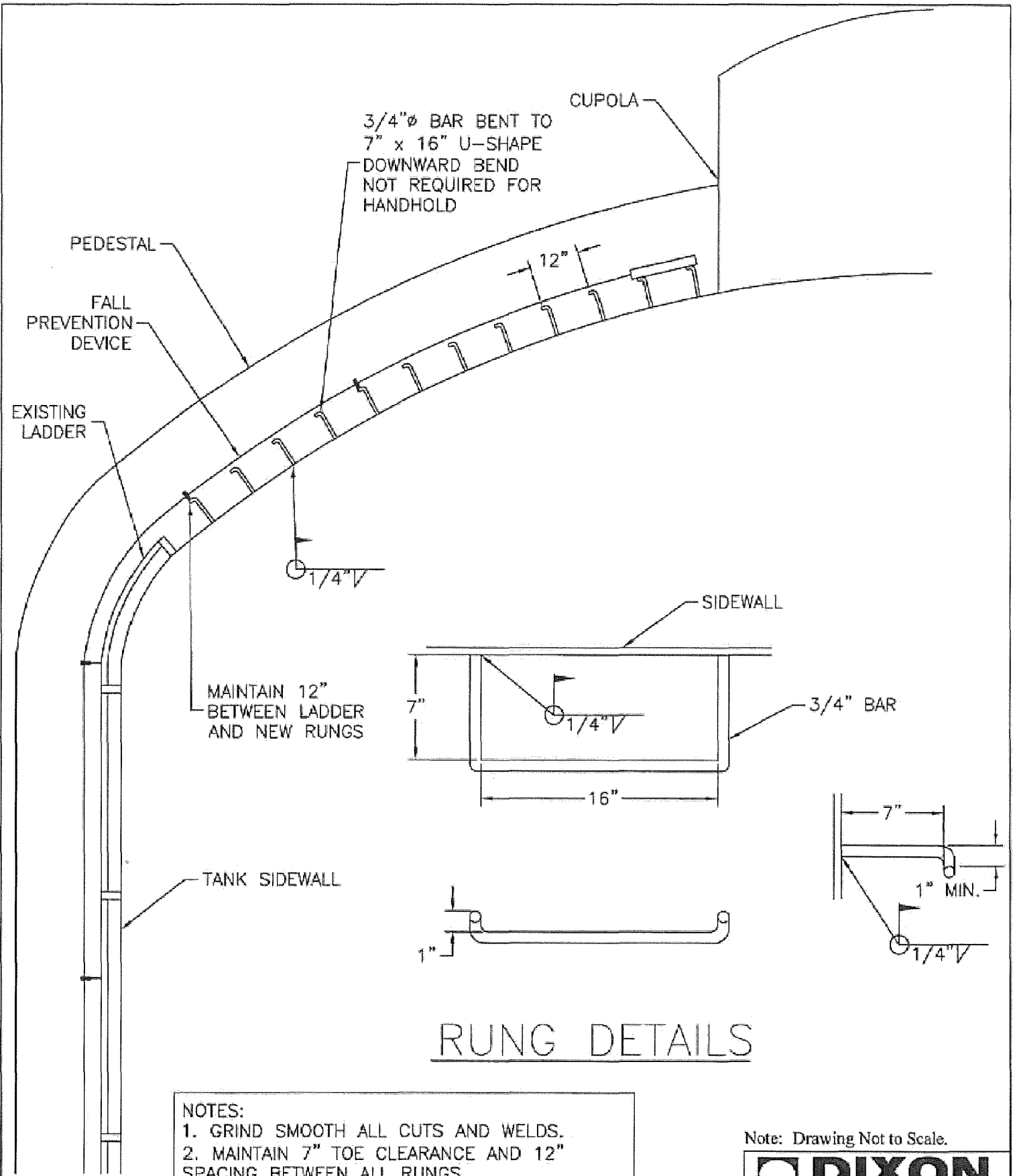
- NOTES:
1. COUPLING IS TO BE 2 1/2" LONG SCH. 80 FEMALE THREADED
 2. DRAIN PIPING IS TO BE SCH. 40 MALE THREADED LENGTH AS REQUIRED SLOPED TO OVERFLOW
 3. THREADED CONNECTIONS ARE TO BE SEALED WITH TEFLON TAPE ON ASSEMBLY.
 4. VALVE AND PIPING IS NOT TO INTERFERE WITH LADDER ACCESSIBILITY
 5. SUPPLY A 1 5/16" WRENCH FOR MUD VALVE OPERATION, ATTACH TO MUD VALVE WITH CHAIN AND CLASP FOR EASY REMOVAL OF THE WRENCH NO "HOME-MADE" WRENCHES WILL BE ACCEPTED



MUD VALVE

Note: Drawing Not to Scale.

DIXON ENGINEERING, INC.	
Madison, WI Bunker Hill	
Mud Valve	
File Name: bowlbabcovalue.dwg	
Drawn By: TMF	Date: 03/24/16
Checked By: IMG	DWG: 03



RUNG DETAILS

NOTES:

1. GRIND SMOOTH ALL CUTS AND WELDS.
2. MAINTAIN 7" TOE CLEARANCE AND 12" SPACING BETWEEN ALL RUNGS. INSTALL CABLE FALL PREVENTION ON THE NEW RUNGS AND EXISTING SIDEWALL LADDER.
3. INSTALL CABLE STAND-OFFS A MAX. OF 15 FT. MAX. INSTALL MORE STAND-OFFS AT THE CURVE TO KEEP CABLE FROM RUBBING ON THE RUNGS.

Note: Drawing Not to Scale.



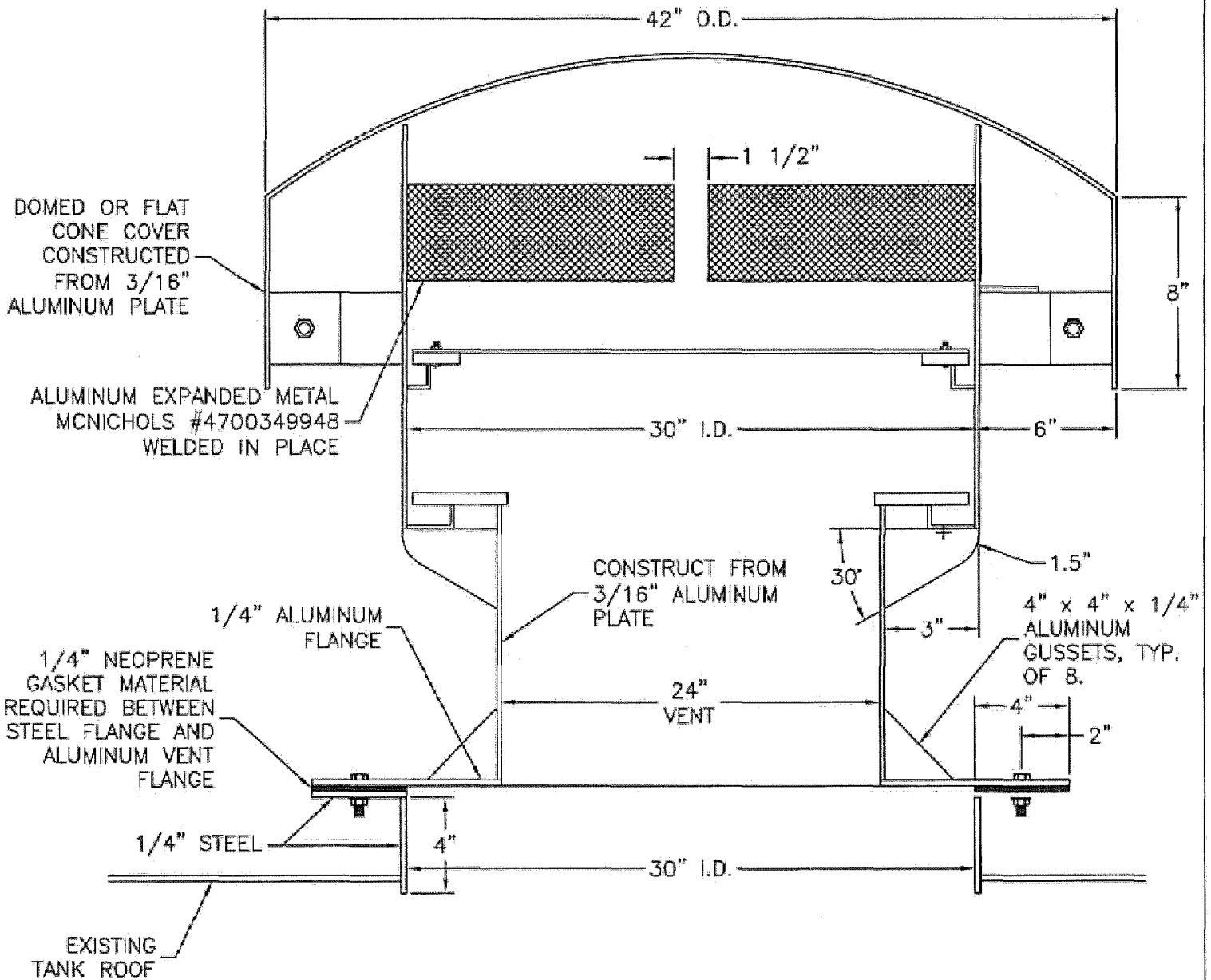
Madison, WI Bunker Hill & Spanner

Ladder Rungs

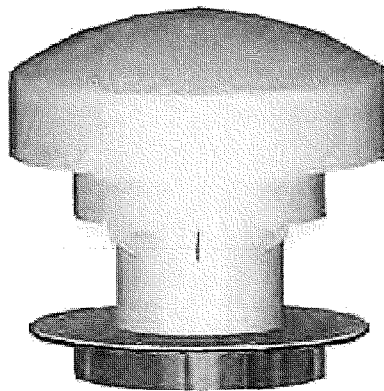
File Name: ladder rungs.dwg

Drawn By: TMF Date: 03/24/16

Checked By: IMG DWG: 04



ALUMINUM FROST FREE ROOF VENT w/ PAINTER'S HATCH



ISO VIEW

Note: Drawing Not to Scale.

DIXON
ENGINEERING, INC.

Madison, WI Bunker Hill & Spaanerr

24" Frost Free Roof Vent w/ Painter's Hatch

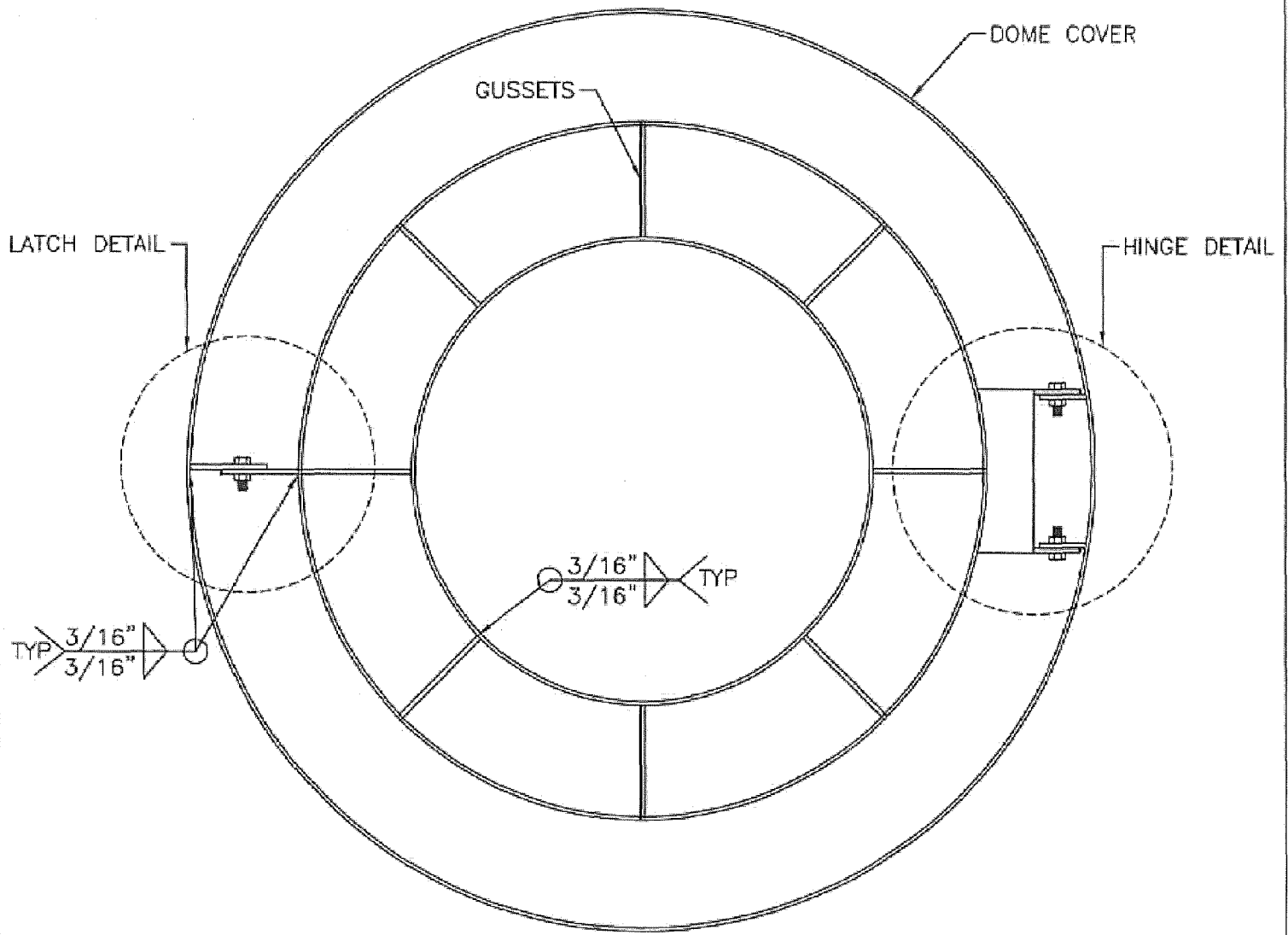
File Name: a vent.dwg

Drawn By: TMF

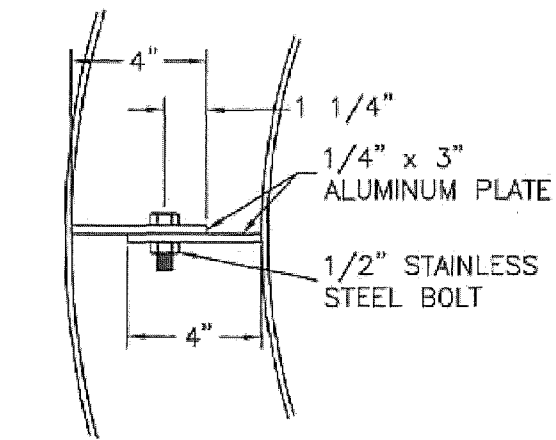
Date: 03/24/16

Checked By: IMG

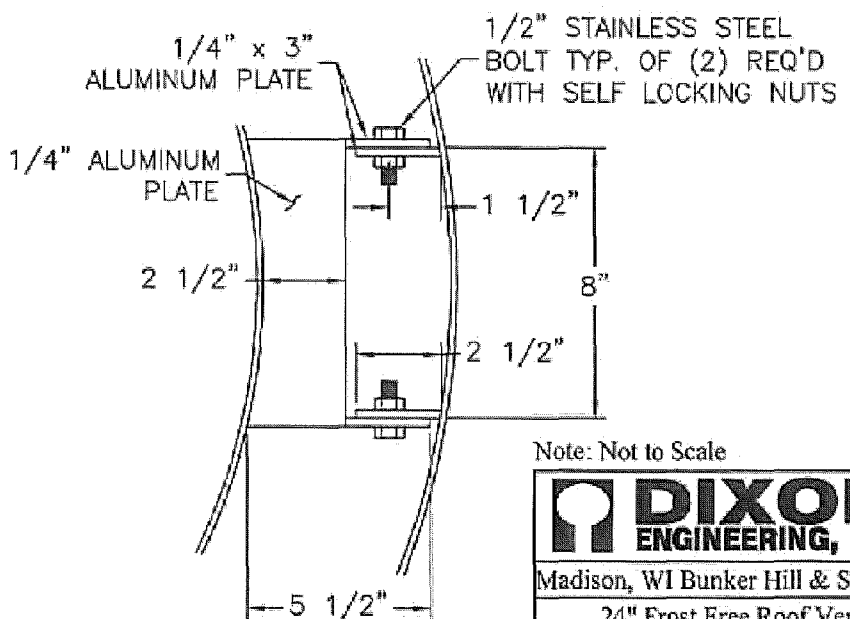
DWG: 05a



PLAN VIEW



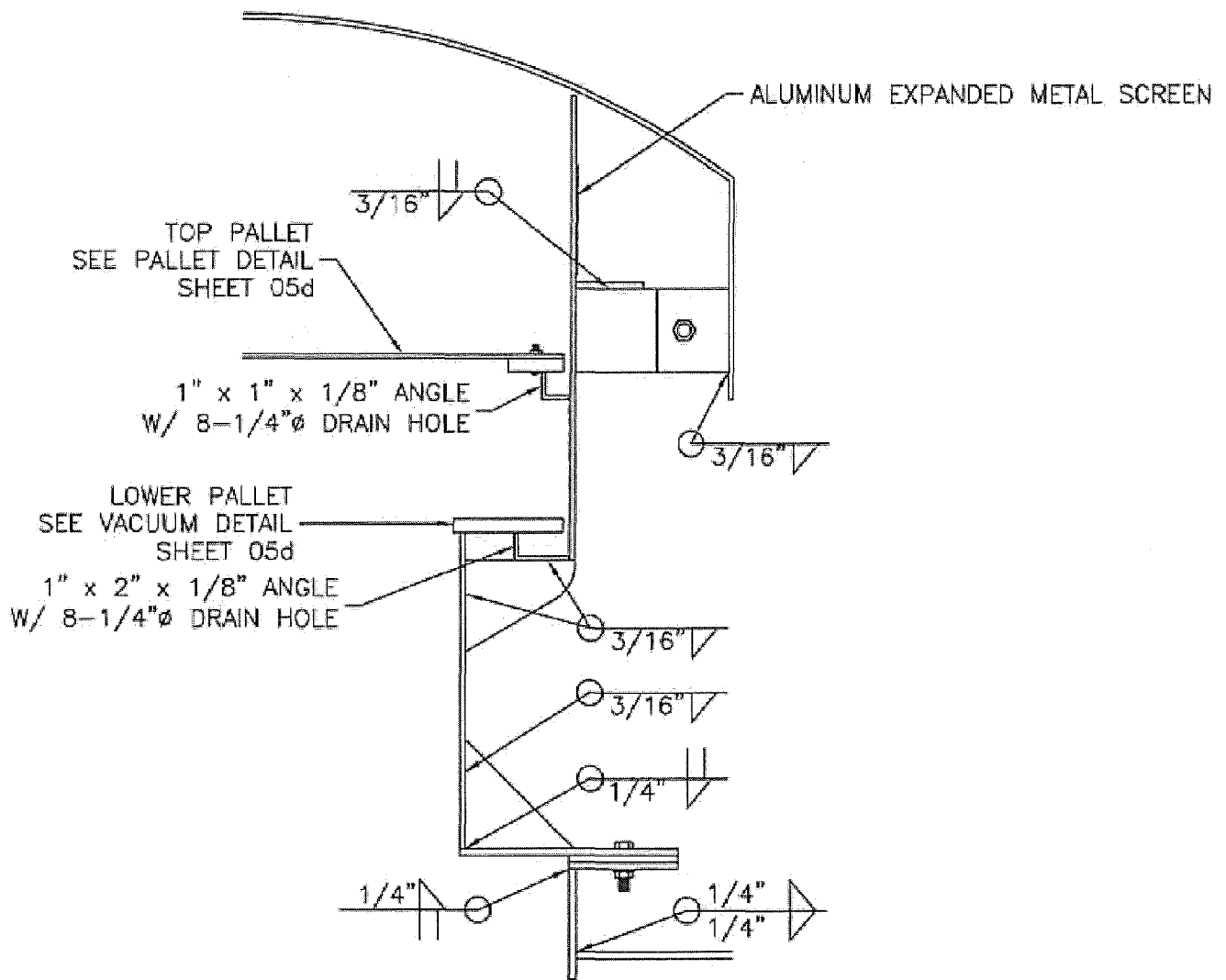
LATCH DETAIL



HINGE DETAIL


Note: Not to Scale

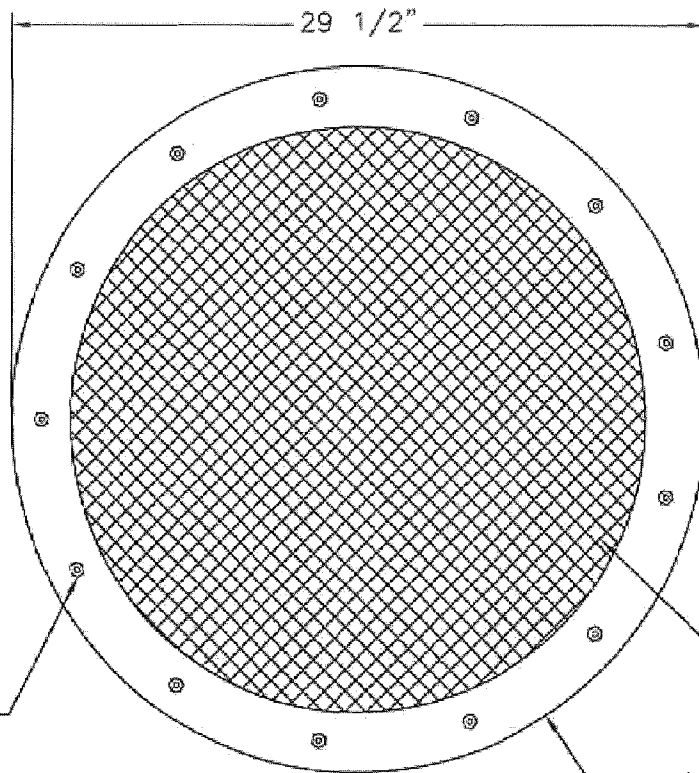
Madison, WI Bunker Hill & Spaaner	
24" Frost Free Roof Vent	
File Name: b_vent.dwg	
Drawn By: TMF	Date: 03/24/16
Checked By: IMG	DWG: 05b



WELDING DETAIL

Note: Not to Scale

	
Madison, WI Bunker Hill & Spaanerr	
24" Frost Free Roof Vent	
File Name: 05c_vent.dwg	
Drawn By: TMF	Date: 03/24/16
Checked By: IMG	DWG: 05c

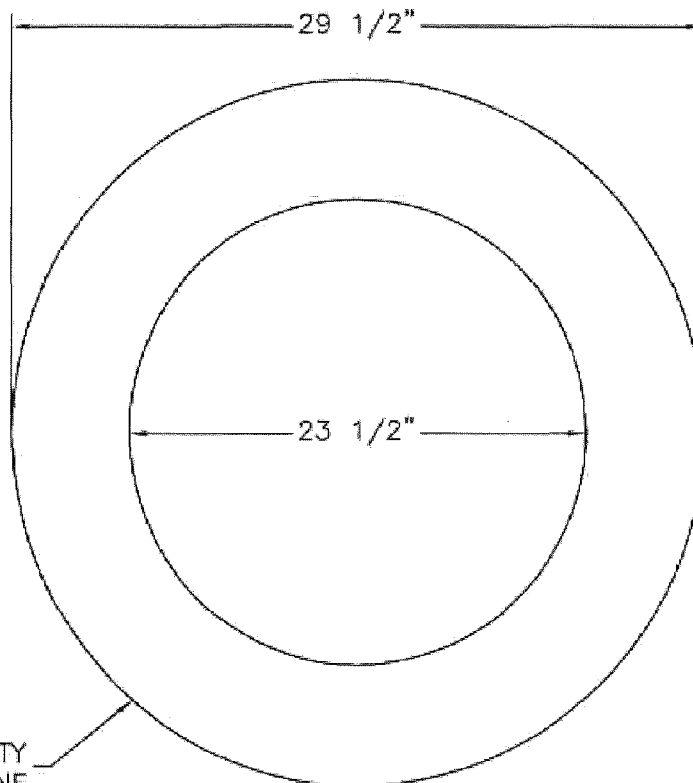


1/4" STAINLESS STEEL
BOLTS W/NUTS. 4"-6"
O.C. MAINTAIN UNIFORM
DISTANCE

HEAVY DUTY FIBERGLASS
SCREEN 18 x 14 MESH
0.013 DIAMETER

1/2" x 2" WIDE HIGH DENSITY
POLYETHELENE TYPICAL OF
TWO SECTIONS, SCREEN TO
BE SANDWICHED BETWEEN
THE TWO RINGS

TOP PALLET



1/2" HIGH DENSITY
POLYETHELENE

VACUUM PALLET

Note: Drawing Not to Scale.



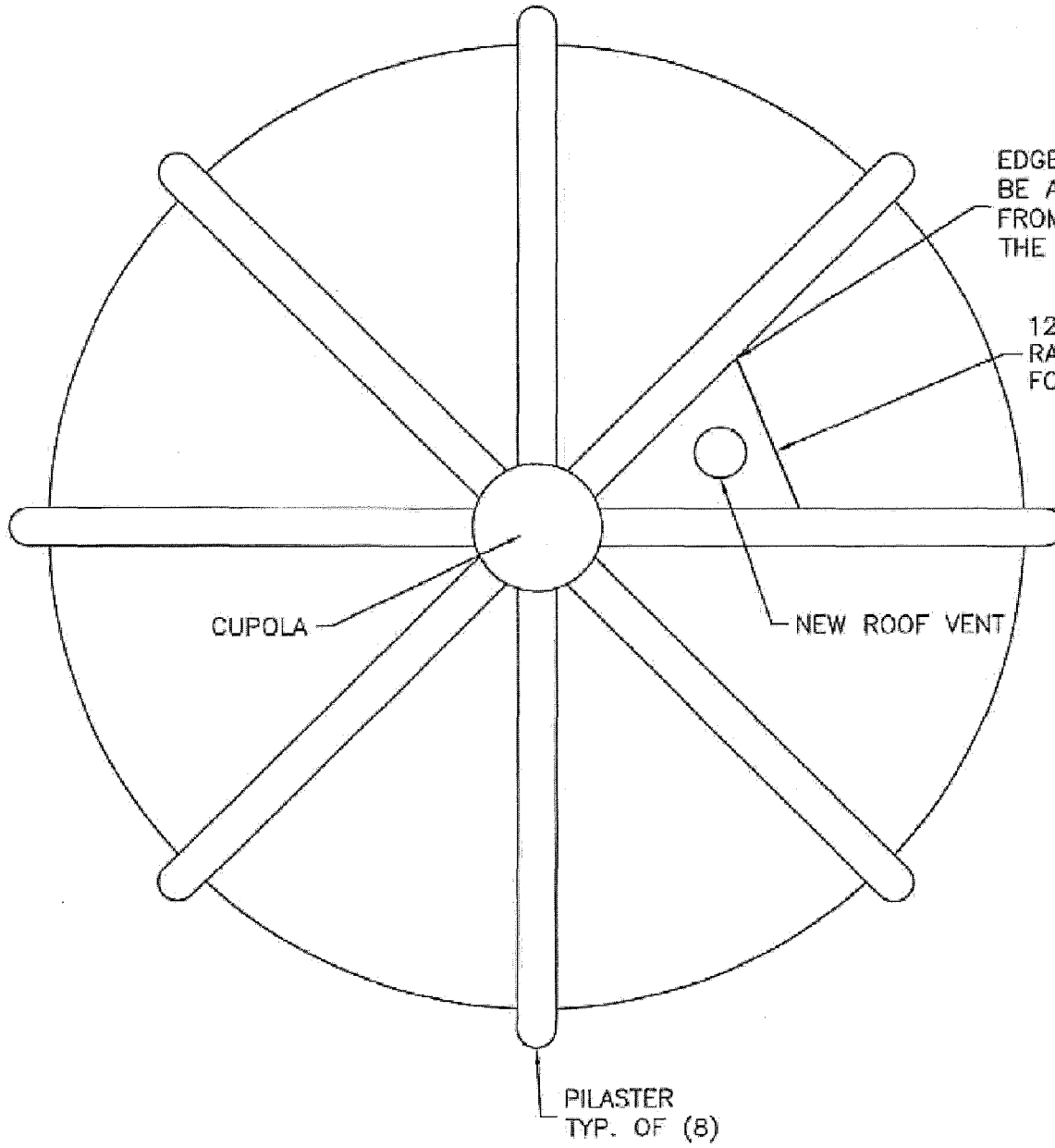
Madison, WI Bunker Hill & Spaanerr

24" Frost Free Roof Vent

File Name: 05d_vent.dwg

Drawn By: TMF Date: 03/24/16

Checked By: IMG DWG: 05d



EDGE OF RAILING TO
BE A MAX. OF 3"
FROM THE EDGE OF
THE PILASTER (BOTH SIDES)

12 FT. LONG SECTION OF
RAILING SEE DWG. 06b
FOR DETAIL

CUPOLA

NEW ROOF VENT

PILASTER
TYP. OF (8)

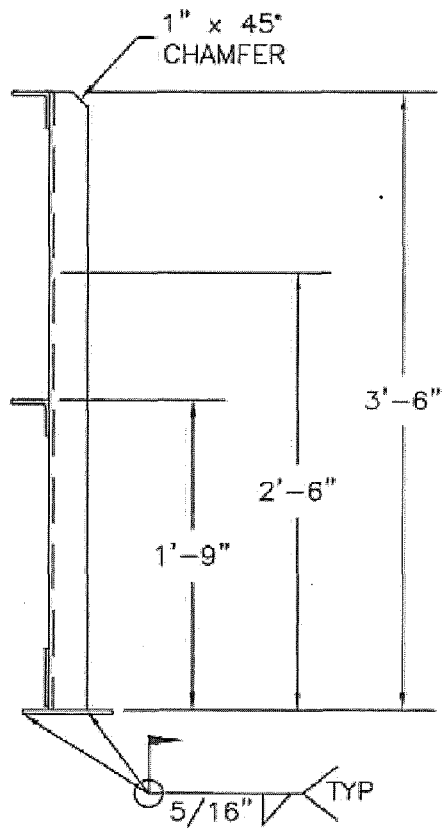
PLAN VIEW

D-58

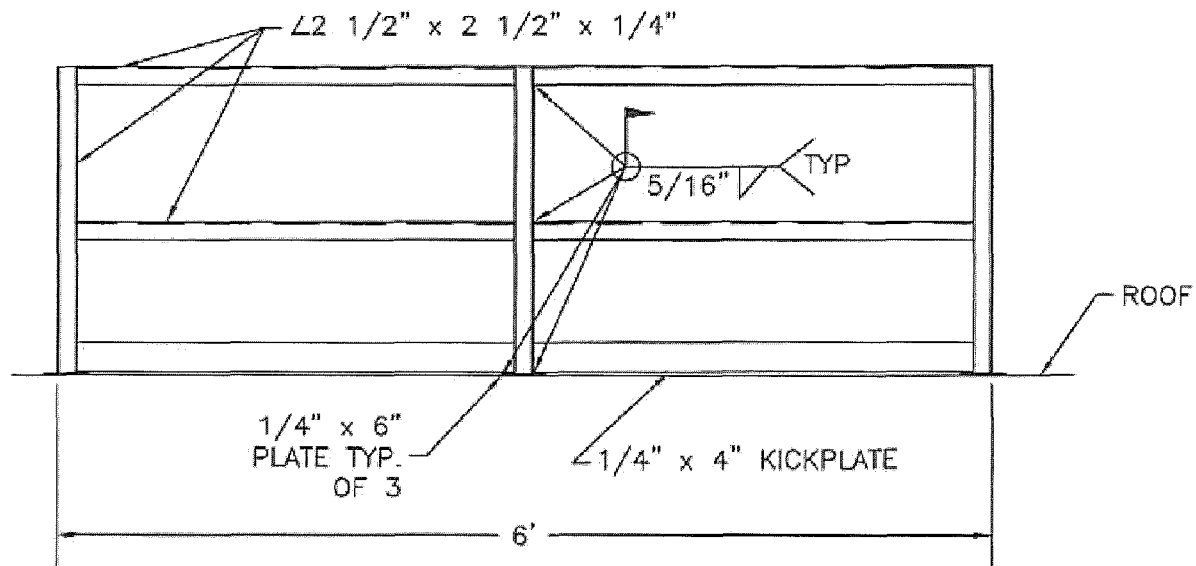
Note: Drawing Not to Scale.

Madison, WI Spaanem	
Safety Railing	
File Name: roofrail.dwg	
Drawn By: TMF	Date: 03/24/16
Checked By: IMG	DWG: 06a

D-59



SIDE VIEW



FRONT VIEW

Note: Drawing Not to Scale.



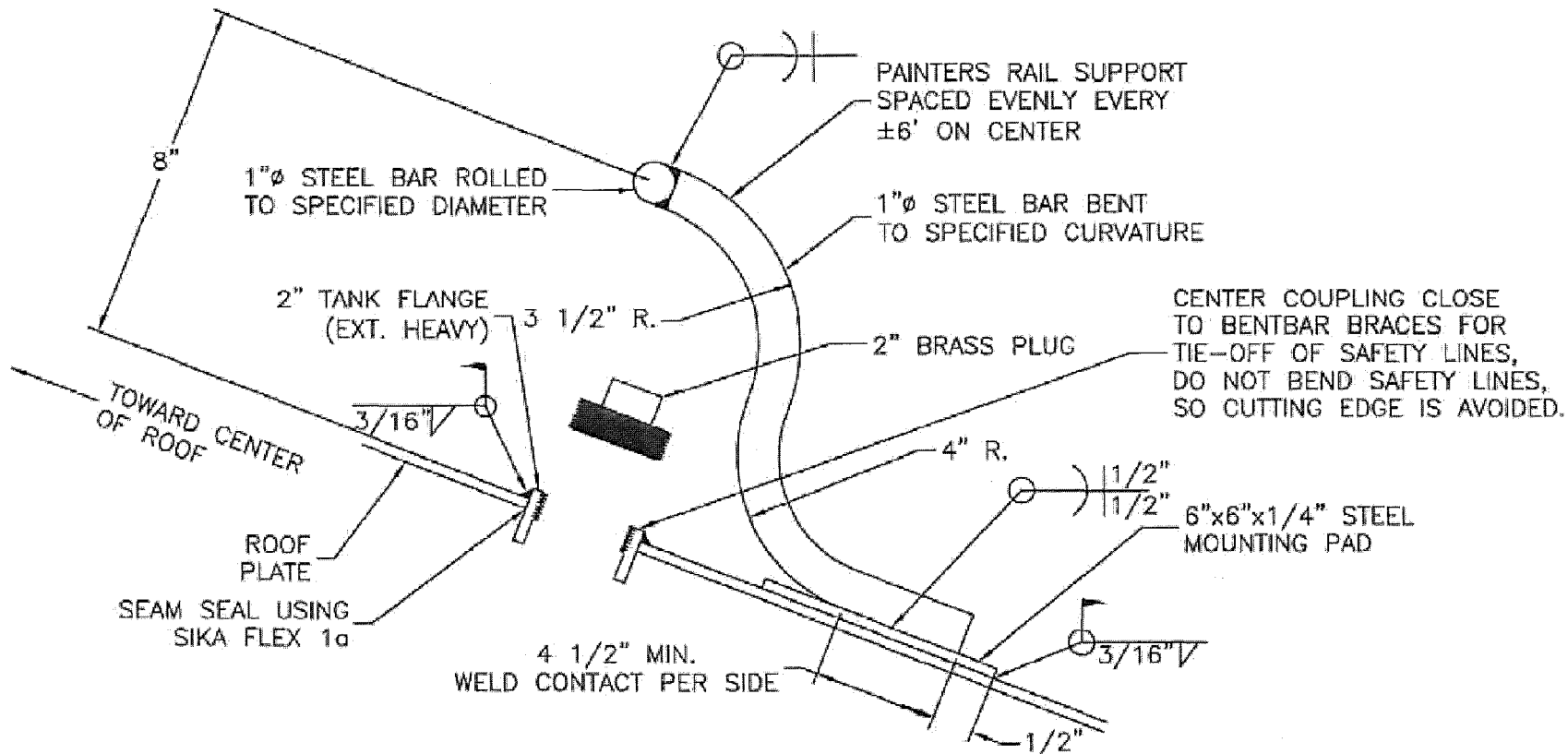
Madison, WI Bunker Hill

Safety Railing

File Name: roofhandrail.dwg

Drawn By: TMF Date: 03/24/16

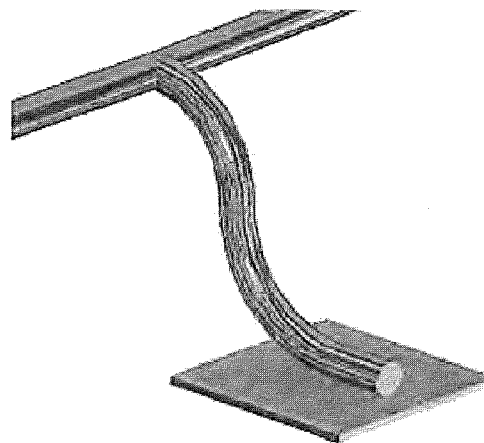
Checked By: IMG DWG: 06b



PAINTER'S RAIL WITH SAFETY COUPLINGS

NOTE:

1. PROVIDE COUPLING AT PAINTER'S RAIL BRACES (ONE AT EVERY OTHER BRACE).
2. ALL WELDED CONNECTION POINTS FOR THE 1" ROLLED STEEL BAR MUST BE COMPLETED AT A STAND-OFF POINT.



ISO VIEW

Note: Drawing Not to Scale.

DIXON
ENGINEERING, INC.

Madison, WI Bunker Hill

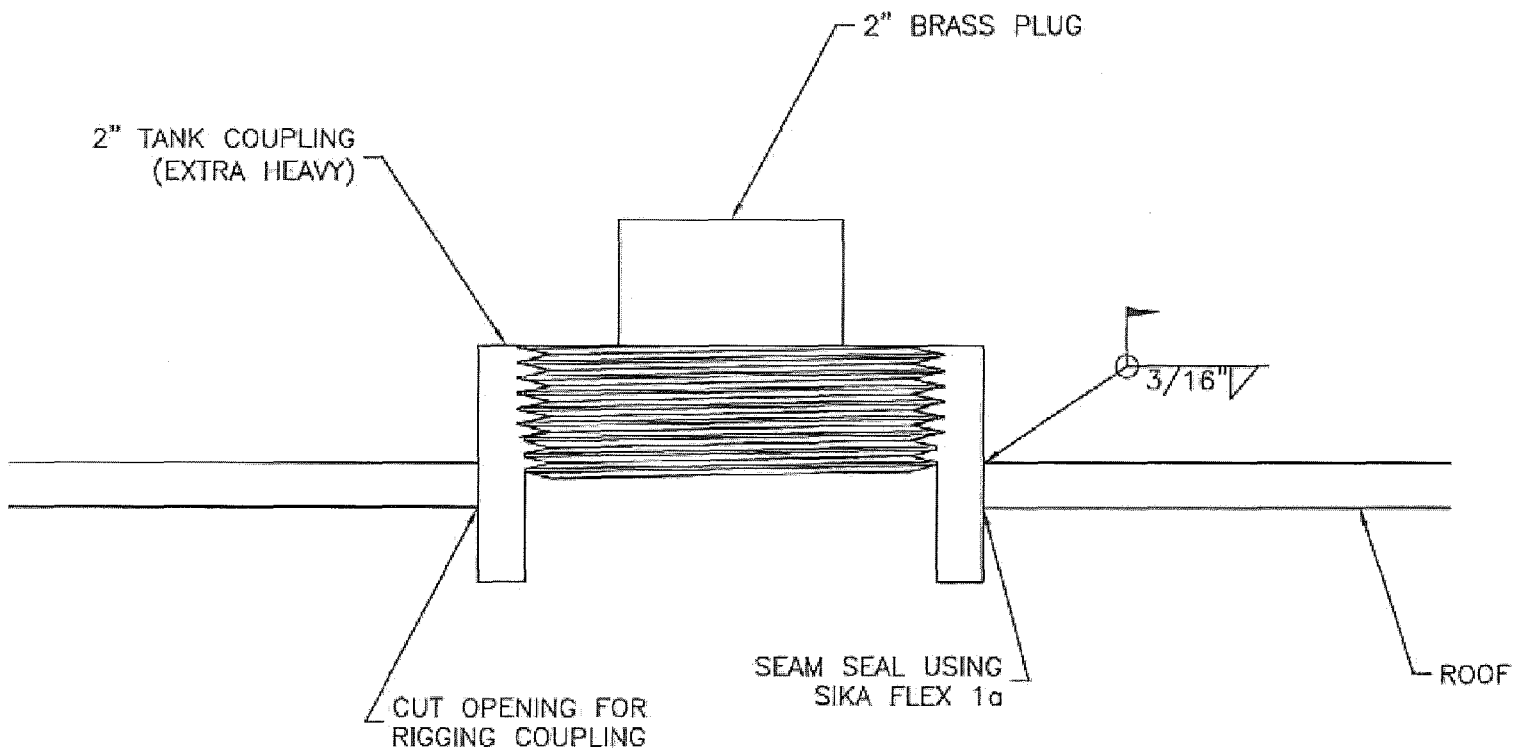
Painter's Rail

File Name: painter_rail.dwg

Drawn By: TMF Date: 03/24/16

Checked By: IMG DWG: 07

D-61



RIGGING COUPLING

NOTE:
 1. THREADED CONNECTIONS ARE TO BE SEALED WITH PIPE JOINT COMPOUND (OATEY GREAT WHITE OR APPROVED EQUAL)

Note: Drawing not to scale.

Madison, WI Bunker Hill & Spaanerr	
Rigging Coupling	
File Name: riggingcoupling.dwg	
Drawn By: TMF	Date: 05/17/16
Checked By: IMG	DWG: 08

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 – 11 Painting Steel Water Storage Tanks.
 - 2. C652 – Disinfection of Water Storage Facilities.

1.03 WORK INCLUDED

Cross Hill

- A. Exterior: Apply a four (4) coat zinc epoxy urethane system with a fluoropolymer from the upper bowl down.
- B. Wet Interior: Apply a three (3) coat epoxy system, and apply a polyurethane caulk to the roof lap seams. The cathodic protection system shall be removed, and reinstalled by the owner's vendor, coordination and payment is the contractor's responsibility.
- C. Dry Interior: Apply a three (3) coat epoxy system to the access tube and bowl and a spot two (2) coat epoxy system to the rest of the prepared surfaces.
- D. Pit Piping: Apply a two (2) coat epoxy system.

Bunker Hill

- A. Exterior: Apply a four (4) coat zinc epoxy urethane system. Reseal the baseplate to foundation seam with a polyurethane caulk.
- B. Wet Interior: Apply a three (3) coat epoxy system, and apply a polyurethane caulk to the roof lap seams.
- C. Dry Interior – Access Pilaster: Apply a two (2) coat epoxy system.

Spanem

- A. Exterior: Apply a three (3) coat epoxy urethane fluoropolymer system. Reseal the baseplate to foundation seam with a polyurethane caulk.
- B. Exterior Alternate: Apply a three (3) coat epoxy urethane system. Reseal the baseplate to foundation seam with a polyurethane caulk.
- C. Wet Interior: Apply a three (3) coat epoxy system, and apply a polyurethane caulk to the roof lap seams. The cathodic protection system shall be removed, and reinstalled by the owner's vendor, coordination and payment is the contractor's responsibility.
- D. Cupola Floor: Apply a two (2) coat epoxy system.
- E. Pit Piping: Apply a two (2) coat epoxy system.

1.04 EXISTING CONDITIONS

Cross Hill

- A. Exterior: Original urethane system applied in 1993.
- B. Wet Interior: Original epoxy system applied in 1993.
- C. Dry Interior: Original epoxy system applied in 1993.
- D. Pit Piping: Unknown system, presumed to be lead free.

Bunker Hill

- A. Exterior: Urethane overcoat applied over an SSPC-SP 11 standard in 2000, tested to contain lead and chromium at levels below 0.06% by weight.
- B. Wet Interior: Epoxy system applied over a SSPC-SP 10 near-white metal blast in 2000.
- C. Dry Interior: Spot epoxy system applied over a SSPC-SP 11 finish in 2000, original coating tested for lead at 0.054% and chromium at 0.57% by weight.
- D. Pit Piping: Unknown system, presumed to contain lead.

Spaanem

- A. Exterior: Urethane with clear coat applied over an SSPC-SP 6 commercial blast in 2002.
- B. Wet Interior: Epoxy system.
- C. Cupola Floor: Unknown system tested for lead at 26% by weight.

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 SUBMITTALS

- A. Submit the following to Owner and Engineer:
 - 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 two (2) copies to the owner.
 - d. Provide two (2) copies to the engineer.
 - e. No work may commence without the complete filing. All SDS shall conform to requirements of SARA (EPCRA) Right-to-Know Act.
2. Ventilation Design Plan. Include airflow calculations and model, and number of fans.
 3. Dehumidification/Heat Design Plan. Include airflow calculations, model, number of units used, connection details, and power source.
 4. 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.
 2. Waste hauler and disposal facility.
 3. Submit all power tools and attachments to be used during the project.
- D. Submit the following within two (2) weeks of completion with final pay request:
1. Waste manifest.
 2. Waivers of lien.
 3. Copies of any formal worker safety or environmental citations received on the project.

1.07 OWNER RESPONSIBILITY

- A. Drain the structure with seven (7) days notice, after contractor meets all precedent conditions of the contract.
- B. 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 rechlorination, cost of water, plus possible liquidated damages.

1.08 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.

1.09 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 for 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) to the interior roof for interior safety. Do not rig equipment from these points. Provide separate fall protection cables and safety grabs for each tie-off point.
- 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 of his personnel. 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.
- F. See Section 05 00 00 for specific locations of safety line tie-off points.

1.10 INSPECTION and TESTING

- A. Prior to the scheduled inspection, remove all dust, spent abrasive, and foreign material from the surface to be coated.
- B. Furnish an instrument for measuring the wet film thickness, and also 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. 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.
- D. Take all necessary steps, including dry stripping by brush or roller, to ensure a holiday-free coating system.
- E. The owner reserves the right to perform low voltage holiday tests on all areas including exterior, dry interior and pit piping. The interior coatings are subject to low voltage holiday testing.
- F. 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.

1.11 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 owner is satisfied the surfaces are dry.

1.12 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. Painting may be delayed because of poor coverage, the possibility of paint drying too rapidly, or the potential damage from overspray and/or dry spray. In all cases, responsibility for damages rests with the contractor.
- F. 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.

- G. Coatings shall be applied using methods to eliminate roller or spray marks in the finished product on the exterior.
- H. Stripe the wet interior, the dry interior platforms at the outer edge, the access tube, pilaster, cupola, and the bowl, in the dry interior prior to application of final coat.
- I. 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.
- J. Use of pole extension on spray guns is prohibited for all paint application.
- K. Mixing of partial kits is not permitted. All partial cans of coating must be removed from the site.
- L. 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).

PART 2 – PRODUCTS

2.01 COLOR

- A. Supply the engineer with a color chart to allow the owner ample time for the exterior topcoat color selection.
- B. 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.
- C. After evaluating the bids, the owner shall select the color. Bids shall be based on common “sky-blue” color on the Bunker Hill Tank, a dark color (Dark Blue or Forest Green) at the Spaanem tank, and a two-tone paint scheme on the Cross Hill tank using “sky-blue” with “dark blue” color on the underside of the bowl. The alternate bid on the Spaanem tank is to apply a light color based on common “sky blue”. If the owner elects to modify the tank color(s) after bids are evaluated, the owner recognizes the cost differential between dark and light color paints. After the color has been selected, document the difference in cost and quantity used for the selected color and the owner will issue a credit or Change Order for the exact cost differential only.
- D. Documentation of additional cost is the responsibility of the contractor, and must be supplied two (2) weeks before application. If necessary documentation is not supplied, any additional cost will be borne by the contractor. If selection/application time is less than two (2) weeks, then as soon as possible. The owner has the right to switch to a less expensive color; therefore, the contractor must submit cost before ordering paint.
- E. The owner reserves the right to paint the Cross Hill tank two, separate colors (i.e. white tank; green pedestal).

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 DEHUMIDIFICATION and HEATING – WET INTERIOR

- A. Supply dehumidification/heating units capable of maintaining dew point temperature lower than 15° below surface temperature during blasting and lower than 5° during coating application and cure, and steel temperature maintained above the manufacturer's printed requirements.
- B. Supply a dehumidifier designed with a solid desiccant having a single rotary desiccant bed capable of continuous operation, with full automatic operation. Do not use liquid desiccant, granular, or loose lithium chloride drying systems. Refrigerant systems may be used in conjunction with desiccant units.
- C. Plumbing, noise control, insulation, venting, and all incidental items needed to provide proper ambient conditions shall be included as one package.
- D. Supply and maintain a power source for the dehumidifier and heater, unless otherwise specified.

2.04 DUST COLLECTORS – AIR FILTRATION UNITS

- A. Furnish and use a dust collector during all blasting work.
- B. Units to be equal in filtration capacity to Eagle Industries dust collectors. Other units may be used, but their substitution will be evaluated on efficiency at 0.5 micron size and airflow movement.
- C. Use 6,000 cfm minimum for dry interior pilaster work.
- D. Use 30,000 cfm minimum for wet interior and dry interior work on the Cross Hill tank.
Use 40,000 cfm minimum for wet interior work on the Bunker Hill and Spanem tanks.
- E. Substitution of steel grit blasting may decrease the requirements above. New requirements will be defined by the engineer based on the efficiency of the contractor's equipment.

- F. Furnish HEPA filters for dust collection.
- G. Number of dust collectors shall be sufficient to supply a 50 ft./minute downward draft at most areas. An average may be considered. Determination of actual containment plan will be the deciding factor. Calculations of airflow shall be included in the containment submittal.
- H. Use only new filters or filters certified clean.

2.05 EQUIPMENT COVERING

- A. Use material that is 8 – 10 mils thick, and 100% impermeable to cover pumps, motors, and other 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.

2.06 AIR DRYER for COMPRESSOR

- A. Use air dryers sufficient to remove 98% of the moisture from the compressed air. Size the dryers on total cfm using manufacturer supplied charts. Upon request, supply charts to engineer for verification.
- B. If the fan is not operable, cease all blasting until the dryer is replaced or repaired.
- C. Supply air dryer with an air draw-off valve to check air for dryness, oil contamination, and cleanliness on the outlet side of the air dryer.
- D. For cleaning operations, draw clean air from the outlet side of the air dryer.

PART 3 – EXECUTION

3.01 DISINFECTION

- A. Coordinate disinfection plan with owner and engineer. Provide schedule and target date update at least two weeks prior to disinfection.
- B. Disinfect the completely painted structure in accordance with AWWA Standard C652 Chlorination Method No. 3, to be done only after complete curing of all applied coatings.
- C. Furnish the material and labor necessary to disinfect the structure in the required manner. Assist owner during filling and sampling. Promptly repair any defects in the work that may appear.
- D. Do not allow water to enter the distribution system until the structure is proven chemically and bacteriologically safe.

- E. Water vented 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.
- F. Pay all additional expenses if it is necessary to repeat the testing and disinfection procedure as a result of defective work or defective testing.

3.02 PROTECTION of NON-WORK AREAS

- A. Protect all non-blasted/painted surfaces prior to all abrasive blast cleaning/painting.
- B. Thoroughly cover the fill/drain pipe, overflow pipe, and all other openings. Do not permit abrasive or paint chips to enter into the piping or distribution system. Use watertight seals on the pipes.
- C. 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. Cross Hill Tank: All antennas and cables will be removed by the owner's prior to project start. Note: Between bidding and start of work, City of Madison and Motorola will be installing cable routs/brackets, etc. in preparation for city/county communication equipment to be installed after painting the Cross Hill Tank. There will be a new 12 x 26 ft. structure located in front of the existing AT&T structure, and there will be an approximately 25 x 25 ft. temporary pad with a temporary tower on site. City construction will be concurrent with this project at this site.
- B. Bunker Hill: Five (5) antennas are to be removed by the Owner prior to the start of the project.
- C. Spaanem: Fifteen (15) antennas are mounted on the pilasters and 15 antennas are mounted on the cupola roof (including City radio, MWU equipment, Supranet radios, and City dish antennas).
- D. The number of antennas listed are from the last known condition, the contractor is to field verify number of antennas.
- E. 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.
- F. Use material that is 100% impermeable to cover and protect all antennas, antenna cables, and antenna controls/buildings.
- G. Use material resistant to tear by mechanical action from abrasive blasting, power washing and coating application.
- H. Payment for damage to antennas, antenna cables, miscellaneous equipment and/or antenna controls/buildings is the responsibility of the contractor.
- I. 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.

- J. 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 including but not limited to: doghouses, conduit cover boxes on the roof, podmounts, brackets and mounting poles are to be surface prepared and coated to match the exterior tank in these specifications.
- B. Any galvanized materials are to be removed prior to tank surface preparation and reinstalled after the topcoat is dry to the touch. This applies for projects where the antenna equipment is removed from the structure by others prior to the start of the project, the contractor is not to remove items with antenna equipment attached.
- C. All previously coated items are to be removed surface prepared, coated and reinstalled with the original brackets after the topcoat is dry to the touch.
- D. Doghouses and conduit cover boxes are to be removed prior to surface preparation, the inside coated with a two coat epoxy system to match the dry interior specification and the exterior coated to match the exterior tank coating in these specifications. The doghouses and conduit cover boxes are to be reinstalled after the topcoat is dry to the touch.
- E. Cost is incidental to exterior painting.

3.05 DEHUMIDIFICATION/HEATING

- A. Control the environment with dehumidification equipment twenty-four (24) hours a day during blast cleaning, coating operations, and 48 hours after the topcoat (including holiday touch-ups and repairs are performed) as a minimum to maintain ambient conditions until cure completion.
- B. Supply sufficient dry air to assure the air adjacent to surfaces to be abrasive blast cleaned or coated does not exceed minimum required humidity at any time during the blasting, coating, or curing cycle.
- C. Monitor and record ambient conditions twenty-four (24) hours a day throughout abrasive blast cleaning and painting work (use Polygon Exact Aire, DRYCO ClimaTrack, DH Tech HOB0U30 data logger, or approved equal). Monitor to be capable of being programmed with condition parameters and of alerting contractor, engineer and owner via phone or e-mail of condition or equipment failures.
- D. Contractor to manually test interior ambient conditions three (3) times a day, or more often with rapid weather changes. Record daily readings. Adjust or add equipment as required to maintain steel temperatures, dew point, and humidity. (This is in addition to the monitor with recorder noted above).
- E. Use a minimum:
 - 2,000 cfm dehumidification capacity for wet interior work on the Cross Hill tank.
 - 9,000 cfm dehumidification capacity for wet interior work on the Bunker Hill and Spaanem tanks.

- F. Surround the units with noise suppressant enclosures, unless units are sound attenuated or have noise suppressants. More extensive enclosure requirements are required in residential areas where the machines must run all night. Noise suppressant level needed will depend on the size of the dehumidification units, their efficiency, and their locations. Provide noise suppressant enclosures of sufficient height and thickness to lower noise to an acceptable level for neighbors. Also provide noise suppressant enclosures for generators.
- G. Auxiliary heaters may be necessary to maintain the surface temperature at a level acceptable to the coating manufacturer's application parameters. The auxiliary equipment must be approved for use by the manufacturer of the dehumidification equipment and shall meet the following requirements. Auxiliary ventilation equipment and/or dust collection equipment can affect the exchange rate.
 - 1. Heaters shall be installed in the process air supply duct between the dehumidifier and the work, as close to the work as possible. Air heaters are not acceptable as a substitute for dehumidification without approval.
 - 2. Use only electric or indirect gas fired auxiliary heaters. No direct fired space heaters will be allowed during blasting, coating, or curing phase.
- H. Seal off the work, allowing air to escape at the bottom of the space away from the point where the dehumidified air is being introduced. Maintain a slight positive pressure in the work unless the dust from the blasting operation is hazardous.
- I. Where necessary to filter the air escaping the space, design the filtration system to match the air volume of the dehumidification equipment in such a way that it will not interfere with the dehumidification equipment's capacity to control the space as described herein. Do not re-circulate the air from the work or from filtration equipment back through the dehumidifier when coating or solvent vapors are present. Outside air is to be used during those periods.
- J. Securely attach duct work to the equipment and work to minimize air loss. Design hoses with sufficient capacity and minimal bends to reduce friction loss.
- K. Dehumidification and its operating power source are incidental to the respective painting project (wet or dry interior).
- L. Set-up and operate equipment twenty-four (24) hours (or earlier) prior to start of blasting.

3.06 DUST CONTAINMENT – INTERIOR

- A. Do everything within the contractor's power to minimize dust as a nuisance.
- B. No visible dust release is allowed from roof openings and other access openings. Seal or close all openings prior to blasting (see ventilation requirements).
- C. Connect the air filtration unit directly to a manhole extension.
- D. Design the manhole extension to allow access of hoses through a side exit that is sealable after hoses are in-place. Install the air filtration unit directly to the end of the extension.

- E. Seal of the side exit will be tested by holding a smoke agent 6 in. outside the seal with the air filtration unit operating. If smoke is drawn to the seal area, additional sealing will be necessary.
- F. The contractor may reverse this operation by connecting the air filtration unit to the roof manhole and sealing around the hose. Also seal the roof vent. A sealed semi-rigid structure also may be used where employees have access through a side door. 90% of the air draw must be from the tank proper.
- G. Construct the semi-rigid structure from 8 ft. x 8 ft. x 6 ft. high scaffold framing and cover with tarps, with all edges lapped 2 ft. minimum and an overlapped entranceway.

3.07 VENTILATION REQUIREMENTS

- A. Supply mechanical ventilation sufficient to change air in the tank six (6) times each hour.
- B. In calculating air exchange, the dust collector air capacity can be considered a part of the air being changed up to 50% of ventilation requirements.
- C. Use roof, riser, access tube or sidewall manholes with fans to move the required air.
- D. Ventilate wet interior areas a minimum of seven (7) days after completion of painting, or longer until the wet interior coating has fully cured. Maintain ventilation at the rate of two (2) complete air changes per hour. The owner reserves the right to perform a MEK Solvent Double Rub Test per ASTM D 4752 to verify the cure of the coating film prior to returning the tank to service.
- E. Cost of ventilation is incidental to respective paint project.
- F. Additional ventilation openings may have to be installed by the contractor. Submit size, details, and location(s) for approval by the owner prior to cutting any opening. All costs associated with repairs by a certified welder are incidental
- G. (Ventilation with exterior containment): All fans must blow into the structure unless the exterior containment is fully deployed. Air filtration unit for the exterior must be operating.
- H. (Ventilation using dry riser but no exterior containment): Connect the air filtration unit per this Section, Dust Containment – Interior. All fans at the bottom manhole may blow out into the dry interior if all manholes are shut, forcing the dust down. Zero release to the atmosphere will be permitted.
- I. (Ventilation using sidewall manways and no exterior containment): Connect the air filtration unit per this Section, Dust Containment – Interior. All fans on the roof and sidewalls must blow in. If all openings are not needed for ventilation, seal them. Zero release to the atmosphere will be permitted.

3.08 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.

3.09 LIGHTING of WORK SPACE

- 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 CATHODIC PROTECTION REMOVAL – CROSS HILL and SPAANEM

- A. Remove existing cathodic protection anode system from the tanks, including ropes and wires.
- B. Install new anode wires and mounting hardware as needed and replace all reference cells. Work shall be performed by existing owner supplier.
- C. Cost is incidental to wet interior repainting.

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 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 project manager. 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.

4.04 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., 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 owners 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 exterior painting.

SECTION 09 97 13.10
STEEL COATING SURFACE PREPARATION

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Full Field Abrasive Blasting.
- B. Power Tool Cleaning.
- C. High Pressure Water Cleaning.

1.02 REFERENCES

- A. AWWA Standards:
 - 1. D102-11 Painting Steel Water Storage Tanks.
- B. SSPC and NACE Standards:
 - 1. SP11 – Power Tool Cleaning to Bare Metal.
 - 2. SP6/NACE No. 3 – Commercial Abrasive Blast.
 - 3. SP10/NACE No. 2 – Near White Metal Abrasive Blast.
 - 4. SP12/NACE No. 5 – High and Ultra High Pressure Water Jetting.
 - 5. VIS 1 (Visual standard for abrasive blasted metal).
 - 6. VIS 3 (Visual standard for hand and power tool cleaned metal).

1.03 WORK INCLUDED – SURFACE PREPARATION

Cross Hill

- A. Exterior: Abrasive blast clean to a SSPC-SP 6 commercial standard with containment.
- B. Wet Interior: Abrasive blast clean to a SSPC-SP 10 near white metal standard.
- C. Dry Interior: Abrasive blast clean the entire tops of the platforms (including 1 ft. up the riser wall), the bowl, the access tube, baseplate and spot failures throughout to a SSPC-SP 6 commercial standard.
- D. Pit Piping: Abrasive blast clean to a SSPC-SP 6 commercial standard.

Bunker Hill

- A. Exterior: Abrasive blast clean to a SSPC-SP 6 commercial standard with containment.
- B. Wet Interior: Abrasive blast clean to a SSPC-SP 10 near white metal standard.
- C. Dry Interior – Access Pilaster: Abrasive blast clean to a SSPC-SP 6 commercial standard.

Spanem

- A. Exterior: High pressure water clean (5,000 to 10,000 psi) spot power tool clean to a SSPC-SP 11 standard.
- B. Wet Interior: Abrasive blast clean to a SSPC-SP 10 near white metal standard.

- C. Cupola Floor: Abrasive blast clean (including 6 inches up the wall), to a SSPC-SP 6 commercial standard.
- D. Pit Piping: Abrasive blast clean to a SSPC-SP 6 commercial standard.

Miscellaneous

- A. Lead/Chrome Paint: For additional requirements see Section 09 97 13.12
Lead/Chrome Disposal.
- B. Containment: For additional requirements see Section 09 97 13.11.01.

1.04 WASTE SAMPLING

- A. Sample waste from each portion of the project and keep waste segregated. Send to a NLLAP certified lab and test for TCLP for eight (8) metals (Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium and Silver).
- B. The owner reserves the right to collect samples and to send them to their selected lab. This will be determined at the preconstruction meeting.
- C. Pay all lab fees for eight (8) metals TCLP analysis on waste samples, total lead, and chrome on soil samples, and any subsequent testing if clean-up is warranted.

PART 2 – PRODUCTS

2.01 EXTERIOR TANK CLEANER

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

2.02 ABRASIVE – COAL SLAG – PRETREATED and NON-LEAD SURFACES

- A. The coal slag shall be 20-40 grade, or 30-60 grade.
- B. The abrasive shall be free of moisture, water soluble contaminants, dust, and oil.
- C. The abrasive shall be stored and covered to prevent moisture contamination.
- D. All leaking or spilling bags shall be removed, and affected areas properly cleaned.
- E. All slag abrasive shall meet the requirements of SSPC-AB1 “Mineral and Slag Abrasive” June 1, 1991-Grade 3.
- F. The use of silica sand, flint sand, and glass beads is prohibited.
- G. All abrasive and grit material used, and all equipment supplied shall be subject to approval of the engineer. The abrasive or grit shall be sharp enough and hard enough to remove the mill scale, rust, and paint.

2.03 ABRASIVE with BLASTOX – DRY INTERIOR and PIT PIPING – LEAD

- A. The abrasive shall be 20-40 grade, or 30-60 grade coal slag blended with Blastox. The mixture shall be proportioned by supplier, but not less than 15% Blastox.
- B. Other low dust abrasive may be used at the same proportion.
- C. The abrasive shall be free of moisture, water soluble contaminants, dust, and oil.
- D. The abrasive shall be stored and covered to prevent moisture contamination.

- E. All leaking or spilling bags shall be removed, and affected areas properly cleaned.
- F. All slag abrasive shall meet requirements of SSPC-AB1 “Mineral and Slag Abrasive” June 1, 1991-Grade 3.
- G. The use of silica sand, flint sand, and glass beads is prohibited.
- H. All abrasive and grit material used, and all equipment supplied shall be subject to approval of the engineer. The abrasive or grit shall be sharp enough and hard enough to remove the mill scale, rust, and paint.
- I. Blastox used for non-immersion surfaces only.

2.04 RECYCLABLE STEEL GRIT – ALTERNATE

- A. Use recyclable steel grit size G-25 or G-50.
- B. The abrasive is to be free of moisture, water soluble contaminants, dust, and oil.
- C. The abrasive is to be stored and covered to prevent moisture contamination.
- D. All leaking or spilling containers are to be removed, and affected areas properly cleaned.
- E. All recyclable steel grit shall meet requirements of SSPC-AB1 “Metallic Abrasive” June 1, 1991.
- F. All abrasive and grit material used, and all equipment supplied shall be subject to approval of the engineer. The abrasive or grit shall be sharp enough and hard enough to remove the mill scale, rust, and paint.

PART 3 – EXECUTION

3.01 SURFACE PREPARATION – WET INTERIOR

- A. Low pressure water clean at 4,000 psi all surfaces and appurtenances to remove sediment, minerals, soot, and other contaminants.
- B. Staining may remain in place prior to abrasive blast cleaning, engineer to approve cleanliness.

3.02 PRE-BLAST SURFACE PREPARATION – EXTERIOR – CROSS HILL AND BUNKER HILL

- A. Low pressure water clean at 4,000 psi all surfaces and appurtenances to remove mildew, soot, and other contaminants.
- B. Use a biodegradable algicide for the exterior approved by the engineer.
- C. Hand wash with a higher concentration of algicide any mildew not removed by power washing.
- D. Mix algicide at level recommended by the manufacturer, but not at a level that could result in an environmental problem.
- E. Hold water jet nozzle using a 0° or 15° tip perpendicular (90° to surface) at all times. Maintain a water jet nozzle distance of 2 in. – 10 in. from the surface.

- 3.03 NEAR WHITE METAL (SSPC-SP10) DRY BLAST – WET INTERIOR – ALL TANKS**
- A. Abrasive blast clean all surfaces and appurtenances to a near white metal finish (SSPC-SP10), latest edition thereof.
 - B. Maintain a profile of 2.0 – 3.0 mils on abrasive blast cleaned surfaces.
 - C. All interior abrasive blast cleaning is to be completed and all spent abrasive removed, and surfaces thoroughly cleaned prior to any primer application.
 - D. Once an area is acceptable for painting, apply all coats and allow coating to cure to touch prior to resumption of blasting or blast the entire tank before painting, use dehumidification to hold the blast. It is the contractor's discretion and responsibility to determine if the entire tank is to be blasted, or what size is to be blasted and coated (all coats).
 - E. The contractor is responsible for supplying heat and dehumidification to maintain blast conditions.
- 3.04 COMMERCIAL BLAST (SSPC-SP6) – EXTERIOR – DRY INTERIOR – PIT PIPING and CUPOLA FLOOR**
- A. Abrasive blast clean all surfaces and appurtenances to a commercial finish (SSPC-SP6), latest edition thereof.
 - B. Maintain a profile of 1.0 – 2.0 mils on abrasive blast cleaned surfaces.
- 3.05 COMMERCIAL BLAST (SSPC-SP6) DRY INTERIOR SPOT REPAINT – CROSS HILL**
- A. Abrasive blast clean all surfaces and appurtenances where steel is exposed or rusted, or where coating is abraded as specified to a commercial finish (SSPC-SP6), latest edition thereof.
 - B. Maintain a profile of 1.0 – 2.0 mils on abrasive blast cleaned surfaces.
 - C. Feather all edges of adjacent coating a minimum of ½ in. from the exposed steel with 3M Scotch-Brite Clean'n Strip discs.
- 3.06 POWER TOOL CLEAN (SSPC-SP11) – EXTERIOR - SPAANEM**
- 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.
 - E. Submit all power tools for approval prior to beginning of work. Approval will be based on quality of tool, functionality, and possibility of damage to steel or adjacent paint.

3.07 HIGH PRESSURE WATER CLEANING – EXTERIOR - SPAANEM

- 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.
- I. SURFACES WITH EXISTING CLEAR COAT MAY REQUIRE SANDING TO REMOVE SHARP EDGES BEFORE APPLICATION OF THE FIRST FULL COAT.

3.08 HAZARDOUS WASTE DISPOSAL

- A. Contract directly with a licensed hazardous waste hauler who is properly licensed in the State of Wisconsin to haul hazardous material.
- B. Transport the debris for treatment to a licensed hazardous waste disposal site.
- C. The contractor will not be paid any retainage until paperwork has been submitted, including submittal of the hazardous waste manifest. Any original of the hazardous waste manifest shall be returned to the owner.
- D. Remove all hazardous waste from the site within thirty (30) days of completion of the blasting portion of the project.
- E. Payment for disposal of hazardous waste is incidental to the project.

3.09 WASTE DISPOSAL – NON-HAZARDOUS

- A. If after testing of the spent abrasive material the TCLP tests indicate the abrasive is not a hazardous waste, dispose the abrasive in a waste disposal facility.
- B. All waste shall be handled by a licensed hauler. Supply the owner with all proper documentation of the final disposal site. The actual bill of lading and all manifests will be required prior to any payment.
- C. Payment for non-hazardous waste disposal is incidental to interior or exterior painting.

3.10 WASTE DOCUMENTATION

- A. Supply proper documentation of storage, transportation, and treatment, or disposal of the waste to the owner. The owner will retain sufficient funds to pay for hazardous waste transportation, treatment, and any possible fines until all documentation has been received. This retainage will be held, even if the waste has tested non-hazardous.

3.11 TESTING and CLEAN-UP of WASTE

- A. Daily collect all spent abrasive from the ground tarps and dispose in the required receptacles. Prior to receiving test results, spent abrasive shall be stored on ground tarps. The spent abrasive is to be covered and weighted down so no dust can be released.
- B. Furnish containers with proper labels for storage of the spent debris. Containers shall meet requirements of the EPA (or their local counterpart) for hazardous waste disposal. The spent abrasive will be moved directly from the tank into the waste containers. The containers will remain until final test results have been received. Furnishing containers with covers will be incidental to respective repaint, and will not be affected by the owner's final selection of respective interior or exterior disposal.
- C. Waste to remain on-site in covered receptacles until waste test results are received.

SECTION 09 97 13.11.01

CONTAINMENT – FLEXIBLE FRAME SYSTEM

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Flexible Frame Containment System Requirements – Cross Hill and Bunker Hill Tanks.

1.02 REFERENCES

- A. SSPC Guides:
 - 1. Guide 6 – Containing Debris Generated During Paint Removal Operations.

1.03 SUBMITTALS

- A. Containment Plan.

1.04 ENVIRONMENTAL SAMPLING for EXTERIOR CONTAINMENT

- A. Collect four (4) pre-project soil samples, compile a map, and collect four (4) post-project soil samples. Send samples to a NLLAP certified lab and test for total lead and chrome.
- B. Sample waste from each portion of the project, and keep waste segregated. Send to a NLLAP certified lab and test for TCLP 8 metals.
- C. The owner reserves the right to collect samples and to send them to their selected lab. This will be determined at the preconstruction meeting.
- D. Pay all lab fees for 8 metals TCLP analysis on waste samples, total lead and chrome on soil samples, and any subsequent testing fees if clean-up is warranted.
- E. Complete all sampling in accordance with EPA protocol.

1.05 PAYMENT

- A. Payment for Section 09 97 13.11.01 Containment is incidental to exterior painting unless otherwise stated in these specifications.

PART 2 – PRODUCTS

2.01 DUST COLLECTORS – AIR FILTRATION UNITS

- A. Furnish and use a dust collector during all blasting work.
- B. Units to be equal in filtration capacity to Eagle Industries dust collectors. Other units may be used, but their substitution will be evaluated on efficiency at 0.5 micron size and airflow movement.
- C. Use 30,000 cfm minimum for the Cross Hill tank.
Use 40,000 cfm minimum for the Bunker Hill tank.

- D. Substitution of steel grit blasting may decrease the requirements of above. New requirements will be defined by the engineer based on the efficiency of the contractor's equipment.
- E. Furnish HEPA filters for dust collection.
- F. Number of dust collectors shall be sufficient to supply a 50 ft./minute downward draft at most areas. An average may be considered. Determination of actual containment plan will be the deciding factor. Calculations of airflow shall be included in the containment submittal.
- G. Use only new filters or filters certified clean.

2.02 GROUND TARPS

- A. Use impermeable ground tarps, 20 mils thick.
- B. Use ground tarps able to withstand the anticipated construction traffic without tearing or separating.

2.03 CONTAINMENT SHROUDS

- A. All shroud material and superstructure shall be non-penetrating, nylon rip-stop material manufactured by Eagle Industries, or approved equal. Approval of alternate material will be based on density, weight, support strength, stitching, reinforcement, home office experience, and staff assistance.

2.04 CONTAINMENT CONNECTIONS to TANK

- A. Steel plating and other Structural Shapes – ASTM A36.
- B. Bolts – ASTM A307.
- C. Welds – E70XX Electrodes.

PART 3 – EXECUTION

3.01 DUST CONTAINMENT – EXTERIOR

- A. Do everything within industry standards to minimize dust as a nuisance. Required procedures include: angle of abrasive impact, direction of nozzle spray, orifice pressure, and work stoppage due to wind speed or direction.
- B. Complete any additional measures required in these specifications. There will be no negotiations for extra compensation for nuisance complaints and corrective measures.
- C. Fully inspect the area, land use, and other pertinent local conditions prior to bidding exterior work.
- D. Do not permit dust, abrasive, or paint chips to fall outside the containment system perimeter or ground cover.
- E. Do not permit any visual dust release when transferring abrasive from either the interior or exterior of the structure to the dumpsters. Suppress dust with tarps or water, or other preapproved method.

3.02 CONTAINMENT during ABRASIVE BLAST CLEANING – EXTERIOR – SSPC-GUIDE 6 – CLASS 1A

- A. Furnish and install a total containment system to be used during all dust generating work.
- B. This specification is intended to be performance based. Alternative procedures to accomplish the same purpose of dust or lead elimination may be submitted for review. The final determination if the alternate performs as well as total containment will rest solely with the engineer. Printed material and test results by independent firms will be considered, but not govern. Rejection of an alternative after bid opening will not relieve the contractor of any responsibility to complete the work as bid, unless his bid states that his bid is to be withdrawn if the alternate is rejected. Submit a sketch of the alternate containment procedures with bid.
- C. Contain waste abrasive and paint chips to the area immediately under the structure. No release outside the containment system will be permitted. The shrouds will be erected on all sides of the tank for 360°.
- D. Cover the roof with containment shrouds. Separate vertical tarps from the roof or sidewalls to allow waste from the roof to slip down the inside of the shields.
- E. Support the containment shields by temporary braces attached to the roof and ground. Leave space to allow rigging and equipment to be used within the shields. Extend the bracing out from the structure, and secure cables to the ground by use of deadmen. Design system, bracing, deadmen, shields, etc. depending on the size of the structure, availability of space, prevailing wind forces, and local restrictions.
- F. Immediately replace/repair any damaged shrouds. Discontinue blast operations until the damaged shrouds are repaired or replaced.
- G. Use air impenetrable walls and roof with either rigid or flexible framing.
- H. Overlap all seams by 2 ft. Completely seal all seams by stitching, taping, caulking, or other sealing measures.
- I. Any holes cut in steel platforms or the tank are to be rewelded, top and bottom, with 3/16 in. full fillet welds. Use reinforcements as required.
- J. Cost for structural reinforcement of the roof and/or any other part of the tank, to support the containment system, is incidental to exterior painting.

3.03 TANK CONNECTIONS

- A. In submittal, request approval of all welding and cutting on the tank.
- B. Cut all approved holes into the tank with rounded corners.
- C. Use a welder certified to complete the type and position weld necessary for attachment.
- D. All steel must be cleaned of lead paint by approved method before cutting or welding.

3.04 CONTAINMENT OPENINGS

- A. Design a means of ingress and egress of the containment structure. Access shall be through an overlapped door on each side of the chamber.
- B. Size of the structure shall be 8 ft. x 8 ft. x 6 ft. high. Fabricate the structure from scaffolding and cover with overlapping tarps secured in-place. Construct the chamber out of 6 ft. high scaffold sections. Install the scaffold so the majority of the scaffold is extended out from the containment. Minimum clear walking height shall be 54 in. Minimum width shall be 42 in.
- C. Fabricate the opening for exhaust air piping with a minimum 18 in. long tunnel firmly attached. Maintain the exhaust piping in as straight a line as possible to avoid restricting airflow. Exhaust air attachments may be elsewhere other than the entryway.
- D. Supply an operating HEPA vacuum in the entryway to vacuum off workers leaving the containment. Maintain the vacuum clean and serviced.

3.05 GROUND COVER

- A. Protect the ground from lead contamination. Include the area inside the containment, and a 10 ft. diameter around the outside of the containment.
- B. Lap all ground tarps a minimum of 2 ft. Lap the inside ground tarps up 2 ft. on the outside of the vertical shrouds. Lap the outside ground tarps 2 ft. under the inside tarps with slots for cables. This will prevent loss of abrasive material between the ground and vertical shrouds.

3.06 DAILY SHUTDOWN

- A. Clean all ground tarps daily. Collect all debris and store in barrels. Roll all tarps for storage, including all tarps inside containment. The purpose is to prevent the debris from being blown off the tarps.
- B. After blasting, clean all flat surfaces daily before the containment structure is lowered. Also clean all rigging and equipment before lowering containment, or removing the roof cover.

PART 4 – SPECIAL PROVISIONS

4.01 AVIATION LIGHTS

- A. Relocate the existing aviation lights or install temporary lights on the roof above the containment roof bonnet.
- B. Install before the roof bonnet is in place.
- C. The lights must be operational throughout the entire containment phase of the project.
- D. Cost is incidental to containment.

SECTION 09 97 13.12

LEAD/CHROME BASED PAINT REMOVAL and DISPOSAL

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Lead/Chrome Paint Removal and Disposal – Bunker Hill and Spaanem Tanks.

1.02 REFERENCES

- A. SSPC Guide-7 Disposal of Lead Contaminated Surface Preparation Debris.

1.03 PAINTER QUALIFICATIONS – LEAD/CHROMIUM PROJECTS

- A. Contractor shall complete all coating and surface preparation.
- B. Painter shall be specialized in industrial or heavy commercial painting, and experienced in removing lead based coatings.
- C. ALL CONTRACTORS SHALL BE PREQUALIFIED WITH Dixon Engineering.
- D. Submit five (5) successful paint projects of similar nature with the bid proposal if the engineer is not familiar with the contractor's work.

1.04 SUBMITTALS

- A. Lead, Health & Safety Plan (LH&SP).
- B. Site Specific LH&SP including:
 - 1. Work procedures for each job classification.
 - 2. Administration and engineering controls to be used during exposure assessment period and expected exposure.
 - 3. Personal hygiene procedure.
 - 4. Site personnel register (updated as needed).
 - 5. Qualifications of competent persons and responsibilities. At this point, multiple qualified people may be submitted.
 - 6. 24 hour job site contact person.
 - 7. Site map showing ingress/egress and locate all equipment.

PART 2 – PRODUCTS

2.01 LEAD REMOVAL PRETREATMENTS – DRY INTERIOR ALTERNATE

- A. PreTox 2000 FD, 4050 Westmark Drive, Dubuque, Iowa 52002, 1-800-338-8296.
- B. EnviroPrep Premium 33010 as manufactured by Hoffer's Coatings, Inc., Wausau, WI, 1-800-338-8296.

2.02 ABRASIVE with BLASTOX – DRY INTERIOR – PIT PIPING

- A. The abrasive shall be 20-40 grade, or 30-60 grade coal slag blended with Blastox. The mixture shall be proportioned by supplier, but not less than 15% Blastox.
- B. Other low dust abrasive may be used at the same proportion.
- C. The abrasive shall be free of moisture, water soluble contaminants, dust, and oil.
- D. The abrasive shall be stored and covered to prevent moisture contamination.
- E. All leaking or spilling bags shall be removed, and affected areas properly cleaned.
- F. All slag abrasive shall meet requirements of SSPC-AB1 Mineral and Slag Abrasive June 1, 1991-Grade 3.
- G. The use of silica sand, flint sand, and glass beads is prohibited.
- H. Blastox used for non-potable water tanks and structures only.

2.03 RECYCLABLE STEEL GRIT – ALTERNATE

- A. Use recyclable steel grit size G-25 or G-50.
- B. The abrasive is to be free of moisture, water soluble contaminants, dust, and oil.
- C. The abrasive is to be stored and covered to prevent moisture contamination.
- D. All leaking or spilling containers are to be removed, and affected areas properly cleaned.
- E. All recyclable steel grit shall meet requirements of SSPC-AB1 Metallic Abrasive June 1, 1991.

2.04 DECONTAMINATION FACILITY

- A. Provide a climatic controlled decontamination facility. The decontamination facility must include a minimum of three separate areas: a dirty area, a showering area, and a clean area. The unit shall be as manufactured by Eagle Industries of Louisiana, Inc.
- B. Entry and exit into the showering room must be through an approved airlock designed to prevent cross-contamination between any two areas.
- C. Equip the clean room with adequately sized lockers for each worker to secure and store clothing, valuables, and other personal belongings.
- D. Equip the decon facility with an onboard ion exchange lead filtration system capable of filtering all wastewater generated during hand washing operations, showering, laundering of towels and clothing, or from any other water used in cleaning.
- E. Recordkeeping log signed by each employee upon exiting that time was provided and decon procedures were followed.

PART 3 – EXECUTION

3.01 CLOTHING – CONTRACTOR

- A. Provide protective clothing for all personnel – disposal or laundered is acceptable.

3.02 NOTIFICATION of NEIGHBORS

- A. Enclose the entire project site, including the clean area, inside a yellow ribbon bearing the warning label of lead.
- B. Post signs around the project stating “**CAUTION – LEAD HAZARD – DO NOT ENTER**”
- C. If the neighbors are in close proximity, the contractor shall participate in any education notification program originated by the owner.

3.03 PERSONAL HYGIENE – LEAD/CHROMIUM PROJECTS

- A. Register all personnel on the site and try to maintain, as much as possible, the same crew.
- B. Any changes in crew size or personnel will require registration. Registration simply means notification to the owner or engineer of a new person on the job site.
- C. Inform all personnel of the dangers involved with lead from a health standpoint, and require use of washroom/decon facilities.
- D. Ensure proper use and compliance of personnel with health department and OSHA requirements.
- E. Complete contractor certification form that all employees complied with OSHA 1926.62 hygiene rules, and contractor, as employer, complied with their required OSHA housekeeping and compliance requirements.

SECTION 09 97 13.13.01

WET INTERIOR STEEL COATING – THREE COAT EPOXY

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Painting in the wet interior of the Cross Hill tank.

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 three (3) coat epoxy system.
- B. Application of a polyurethane elastomeric seam sealer.

PART 2 – PRODUCTS

2.01 EPOXY POLYAMIDE – 3 COAT SYSTEM – WET INTERIOR

- A. Three (3) coat epoxy polyamide system meeting all National Sanitation Foundation certification standards for potable water contact.

B. Approved suppliers and system:

<u>Manufacturer</u>	<u>System</u>
Tnemec	20/20/20(stripe)/20
Induron	PE-70/PE-70/PE-70(stripe)/PE-70
PPG	Amerlock 2/Amerlock 2/Amerlock 2(stripe)/Amerlock 2
Sherwin Williams	646PW/646PW/646PW(stripe)/646PW
Carboline	635/635/635(stripe)/635

C. Approved seam sealer

Sika Corporation	Sika Flex 1a
------------------	--------------

PART 3 – EXECUTION

3.01 EPOXY POLYAMIDE – 3 COAT SYSTEM – WET INTERIOR

- A. Apply a three (3) coat high build epoxy paint system to all prepared surfaces.
- B. Abrasive blast cleaning and paint requirements have 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>DFT (mils)</u>	<u>DFT (mils)</u>
Primer	4.0	5.0
Intermediate	4.0	5.0
Stripe Coat	1.5	2.5
Topcoat	<u>4.0</u>	<u>5.0</u>
Total	12.0*	15.0*

*Total does not include stripe coat.

- D. Stripe coat to be applied to all welds, angles, and sharp edges throughout the structure, including above the high water line and all roof beams, etc.
- E. 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.
- F. 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.
- G. Allow a minimum of twenty-four (24) hours between coats (including stripe coat). Additional time may be necessary if low temperatures require an increase in the necessary cure time.
- H. MAINTAIN FORCED VENTILATION A MINIMUM OF SEVEN (7) DAYS AFTER TOPCOAT APPLICATION, time required for cure is dependent on the coating manufacturer and temperature. Record variations of the standard procedures (roof hatch closure because of rain, etc.), and submit to the engineer. Heat is required if, in the opinion of the engineer, the integrity of the coating is endangered by cold weather, or if additional cure time will delay the project beyond the substantial completion date.

3.02 SEAM SEALING – WET INTERIOR ROOF

- A. Seam seal all roof lap seams on the interior after the topcoat is dry to the touch. Seal using a caulking gun filling all cracks less than 1 in. separation. Tool sealant as required.
- B. Payment will be on a lump sum basis.
- C. Payment will be a separate line item “Seam Sealer – Wet Interior Roof” which the owner reserves the right to delete.

3.03 SCHEDULE of WORK

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

SECTION 09 97 13.13.14

WET INTERIOR STEEL COATING – THREE COAT EPOXY

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Painting in the wet interior of the Bunker Hill and Spaanem tanks.

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 three (3) coat epoxy system.
- B. Application of a polyurethane elastomeric seam sealer.

PART 2 – PRODUCTS

2.01 EPOXY POLYAMIDE – 3 COAT SYSTEM – WET INTERIOR

- A. Three (3) coat epoxy polyamide system meeting all National Sanitation Foundation certification standards for potable water contact.
- B. Approved suppliers and system for roof coating down to the sidewall weld:

<u>Manufacturer</u>	<u>System</u>
Tnemec	20/20/20(stripe)/22
Sherwin Williams	646PW/646PW/646PW(stripe)/5500
- C. Approved suppliers and system for the sidewall and floor.

<u>Manufacturer</u>	<u>System</u>
Tnemec	20/20/20(stripe)/20
Sherwin Williams	646PW/646PW/646PW(stripe)/646PW
- D. Approved seam sealer

Sika Corporation	Sika Flex 1a
------------------	--------------

PART 3 – EXECUTION

3.01 EPOXY POLYAMIDE – 3 COAT SYSTEM – WET INTERIOR

- A. Apply a three (3) coat high build epoxy paint system to all prepared surfaces.
- B. Abrasive blast cleaning and paint requirements have been previously defined in Section 09 97 13.10.

C. Apply each coat at the following rates for the roof:

<u>Coat</u>	<u>Minimum</u>	<u>Maximum</u>
	<u>D.F.T.(mils)</u>	<u>D.F.T. (mils)</u>
Primer	4.0	5.0
Intermediate	4.0	5.0
Stripe Coat	1.5	2.5
Topcoat	<u>16.0</u>	<u>20.0</u>
Total	24.0*	30.0*

*Total does not include stripe coat.

D. Apply each coat at the following rates for the sidewall and floor.

<u>Coat</u>	<u>Minimum</u>	<u>Maximum</u>
	<u>D.F.T. (mils)</u>	<u>D.F.T. (mils)</u>
Primer	4.0	5.0
Intermediate	4.0	5.0
Stripe Coat	1.5	2.5
Topcoat	<u>4.0</u>	<u>5.0</u>
Total	12.0*	15.0*

*Total does not include stripe coat.

E. Stripe coat to be applied to all welds, angles, and sharp edges throughout the structure, including above the high water line and all roof beams, etc.

F. Each full coat to be a different color from the previous coat and is to be approved by the engineer. No color bleed through should occur if proper application rates are observed.

G. 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.

H. Allow a minimum of twenty-four (24) hours between coats (including stripe coat). Additional time may be necessary if low temperatures require an increase in the necessary cure time.

I. MAINTAIN FORCED VENTILATION A MINIMUM OF SEVEN (7) DAYS AFTER TOPCOAT APPLICATION, time required for cure is dependent on the coating manufacturer and temperature. Record variations of the standard procedures (roof hatch closure because of rain, etc.), and submit to the engineer. Heat is required if, in the opinion of the engineer, the integrity of the coating is endangered by cold weather, or if additional cure time will delay the project beyond the substantial completion date.

3.02 SEAM SEALING – WET INTERIOR ROOF

A. Seam seal all roof lap seams on the interior after the topcoat is dry to the touch. Seal using a caulking gun filling all cracks less than 1 in. separation. Tool sealant as required.

B. Payment will be on a lump sum basis.

C. Payment will be a separate line item “Seam Sealer – Wet Interior Roof” which the owner reserves the right to delete.

3.03 SCHEDULE of WORK

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

SECTION 09 97 13.18.01

DRY INTERIOR STEEL COATING – EPOXY SYSTEM

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Painting in the dry interior – All tanks.

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 two (2) coat or three (3) coat epoxy system.

PART 2 – PRODUCTS

2.01 EPOXY POLYAMIDE – DRY INTERIOR

- A. Two (2) coat or three (3) coat epoxy polyamide system.
- B. Approved suppliers and system: Access tube and dry interior bowl.

<u>Manufacturer</u>	<u>System</u>
Tnemec	66/66/66(stripe)/66
Induron	PE-70/PE-70/PE-70(stripe)/PE-70
PPG	Amerlock 2/Amerlock 2/Amerlock/2(stripe)/Amerlock 2
Sherwin Williams	646PW/646PW/646PW(stripe)/646PW
Carboline	635/635/635(stripe)/635

- C. Approved suppliers and system: Dry interior (all other surfaces).

<u>Manufacturer</u>	<u>System</u>
Tnemec	66/66 (stripe)/66
Induron	PE-70/PE-70(stripe)/PE-70
PPG	Amerlock 2/Amerlock 2(stripe)/Amerlock 2
Sherwin Williams	646PW/646PW(stripe)/646PW
Carboline	635/635(stripe)/635

PART 3 – EXECUTION

3.01 EPOXY POLYAMIDE – DRY INTERIOR

- A. Apply to all prepared areas a two (2) or three (3) coat epoxy system.
- B. Surface preparation has been previously defined in Section 09 97 13.10.
- C. The access tube and dry interior bowl is to receive a three (3) coat system as follows:

<u>Coat</u>	Minimum <u>D.F.T.(mils)</u>	Maximum <u>D.F.T.(mils)</u>
Primer	3.5	5.5
Intermediate	3.5	5.5
Stripe	1.5	2.5
Topcoat	<u>3.5</u>	<u>5.5</u>
Total	10.5*	16.5*

*Stripe coat is not included in totals.

The coating in the access tube is to be brush and rolled.

- D. Apply each coat at the following rates for all other dry interior surfaces as defined:

<u>Coat</u>	Minimum <u>D.F.T.(mils)</u>	Maximum <u>D.F.T.(mils)</u>
Primer	3.5	5.5
Stripe	1.5	2.5
Topcoat:	<u>3.5</u>	<u>5.5</u>
Total	7.0*	11.0*

*Stripe coat is not included in totals.

- E. Stripe coat to be applied to all welds, angles, and sharp edges throughout the structure.
- F. 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.
- G. 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.
- H. Allow a minimum of twenty-four (24) hours between coats (including stripe coat). 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 13.21.01
PIT PIPING STEEL COATING – TWO COAT EPOXY

PART 1 – GENERAL

1.01 SECTION INCLUDES

A. Painting the pit piping – Cross Hill and Spannem tanks.

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 two (2) coat epoxy system.

PART 2 – PRODUCTS

2.01 EPOXY POLYAMIDE – 2 COAT SYSTEM – PIT PIPING

A. Two (2) coat epoxy polyamide system.

B. Approved suppliers and systems:

<u>Manufacturer</u>	<u>System</u>
Tnemec	66/66(stripe)/66
Induron	PE-70/PE-70(stripe)/PE-70
PPG	Amerlock 2/Amerlock 2(stripe)/Amerlock 2
Sherwin Williams	646PW/646PW(stripe)/646PW
Carboline	635/635(stripe)/635

PART 3 – EXECUTION

3.01 EPOXY POLYAMIDE – 2 COAT EPOXY – PIT PIPING

A. Apply to all prepared areas a 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	3.5	5.5
Stripe	1.5	2.5
Topcoat	<u>3.5</u>	<u>5.5</u>
Total	7.0*	11.0*

*Totals do not include the stripe coat.

- D. Stripe coat to be applied to all welds, angles, and sharp edges throughout the structure.
- E. 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.
- F. 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.
- G. Allow a minimum of twenty-four (24) hours between coats (including stripe coat). 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 13.22.01
EXTERIOR CAULKING

PART 1 – GENERAL

1.01 SECTION INCLUDES

A. Caulk application on the Bunker Hill and Spaanem tanks.

1.02 REFERENCES

A. SSPC and NACE Standards:

1. PA1 – Paint Application.

1.03 WORK INCLUDED

A. Application of a polyurethane elastomeric seam sealer.

PART 2 – PRODUCTS

2.01 POLYURETHANE ELASTOMERIC SEAM SEALER

A. Approved seam sealer is Sika Flex 1a.

PART 3 – EXECUTION

3.01 SEAM SEALING – EXTERIOR FOUNDATION

A. Remove all loose and cracked caulk between the baseplate and the foundation, remove any grass or plant growth in the gap.

B. Seam seal the baseplate-to-foundation gap. Seal using a caulking gun filling all cracks less than 1 in. separation. Tool sealant as required.

C. Payment will be a separate line item ‘Seam Sealer – Exterior Baseplate’ which the owner reserves the right to delete this item.

3.02 SCHEDULE of WORK

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

SECTION 09 97 13.23.01

**EXTERIOR STEEL COATING – FOUR COAT ZINC EPOXY URETHANE
REPAINT**

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Painting on the exterior of the Cross Hill tank with dark color from the upper bowl down.

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 four (4) coat zinc epoxy urethane system.

PART 2 – PRODUCTS

2.01 ZINC EPOXY URETHANE – 4 COAT SYSTEM – EXTERIOR

- A. The coating shall be an epoxy urethane system.
- B. The contractor is advised to follow all rules for safety while using 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 from the upper bowl up:

<u>Manufacturer</u>	<u>System</u>
Tnemec	90-97/66/1074/1074UV
Induron	Indurazinc MC-67/PE-70/I-6600 Plus/I-6600 Plus
Sherwin Williams	Corothane I galvapak/646PW/Acrolon Ultra/Acrolon Ultra
PPG	Amercoat 68HS/Amercoat 2/Pitthane Ultra/Pitthane Ultra

- E. Approved suppliers and systems from the upper bowl down:

<u>Manufacturer</u>	<u>System</u>
Tnemec	90-97/66/1075/700.
Induron	Indurazinc MC-67/PE-70/I-6600 Plus/Perma-Gloss
Sherwin Williams	Corothane I galvapak/Macropoxy 646/Acrolon Ultra /Fluorokem HS

PART 3 – EXECUTION

3.01 ZINC EPOXY URETHANE – 4 COAT SYSTEM – EXTERIOR

- A. Apply to all prepared surfaces and appurtenances a four (4) coat zinc epoxy urethane system.
- B. Surface preparation and paint requirements have been previously defined. Apply all coating by brush and roller. Spray application is prohibited.
- C. Apply coatings at the following rates (applies for all exterior surfaces):

<u>Coat</u>	<u>Minimum</u> <u>D.F.T. (mils)</u>	<u>Maximum</u> <u>D.F.T. (mils)</u>
Primer	2.5	3.5
Epoxy Intermediate	2.0	3.0
Urethane Intermediate	2.0	3.0
Topcoat	<u>2.0</u>	<u>3.0</u>
Total	8.5	12.5

- 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. The contractor is advised that Dixon Engineering, Inc. will take dry film thickness readings on the exterior per SSPC-PA2 which requires gauge adjustment from magnetic plane to peak plane.

3.02 SCHEDULE of WORK

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

SECTION 09 97 13.23.02

**EXTERIOR STEEL COATING – FOUR COAT ZINC EPOXY URETHANE
REPAINT**

PART 1 – GENERAL

1.04 SECTION INCLUDES

- B. Painting on the exterior of the Bunker Hill tank.

1.05 REFERENCES

- B. SSPC and NACE Standards:
 - 4. PA1 – Paint Application.
 - 5. PA2 – Measurements and Calibration.
 - 6. NACE RP 0178 Surface Finish Requirements.

1.06 WORK INCLUDED

- B. Application of a four (4) coat zinc epoxy urethane system.

PART 2 – PRODUCTS

2.02 ZINC EPOXY URETHANE – 4 COAT SYSTEM – EXTERIOR

- F. The coating shall be an epoxy urethane system.
- G. The contractor is advised to follow all rules for safety while using isocyanates.
- H. Ultraviolet protection additives mixed at factory only. There will be no tinting or addition of any material other than the manufacturer's thinners.
- I. Approved suppliers and systems:

<u>Manufacturer</u>	<u>System</u>
Tnemec	90-97/66/1074/1074UV
Induron	Indurazinc MC-67/PE-70/I-6600 Plus/I-6600 Plus
Sherwin Williams	Corothane I galvacpac/646PW/Acrolon Ultra/Acrolon Ultra
PPG	Amercoat 68HS/Amercoat 2/Pitthane Ultra/Pitthane Ultra

PART 3 – EXECUTION

3.03 ZINC EPOXY URETHANE – 4 COAT SYSTEM – EXTERIOR

- H. Apply to all prepared surfaces and appurtenances a four (4) coat zinc epoxy urethane system.
- I. Surface preparation and paint requirements have been previously defined. Apply all coating by brush and roller. Spray application is prohibited.
- J. Coat

	<u>Minimum</u>	<u>Maximum</u>
	<u>D.F.T. (mils)</u>	<u>D.F.T. (mils)</u>
Primer	2.5	3.5

Epoxy Intermediate	2.0	3.0
Urethane Intermediate	2.0	3.0
Topcoat	<u>2.0</u>	<u>3.0</u>
Total	8.5	12.5

- K. 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.
- L. 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.
- M. 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.
- N. The contractor is advised that Dixon Engineering, Inc. will take dry film thickness readings on the exterior per SSPC-PA2 which requires gauge adjustment from magnetic plane to peak plane.

3.04 SCHEDULE of WORK

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

SECTION 09 97 13.24.01

**EXTERIOR STEEL COATING – THREE COAT EPOXY
POLYURETHANE FLUOROPOLYMER OVERCOAT**

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Painting on the exterior of the Spaanem tank – Base Bid with dark color.

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 three (3) coat epoxy polyurethane fluoropolymer system.
- B. Application of a logo and lettering.

PART 2 – PRODUCTS

2.01 EPOXY POLYURETHANE FLUOROPOLYMER - 3 COAT OVERCOAT SYSTEM - EXTERIOR

- A. The coating shall be a epoxy polyurethane fluoropolymer 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)/66/1075/700
Induron	PE-70(spot)/PE-70/I-6600 Plus/Perma-Gloss
PPG	Amerlock 2-400(spot)/Amerlock 2-400/Amercoat 450H/ Cora Flon A D S
Sherwin Williams	646PW(spot)/646PW/Acrolon Ultra/Fluorokem HS

PART 3 – EXECUTION

3.01 EPOXY POLYURETHANE FLUOROPOLYMER - 3 COAT SYSTEM – EXTERIOR

- A. Apply to all prepared surfaces and appurtenances a three (3) coat epoxy polyurethane fluoropolymer 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	2.5	3.5
Urethane Intermediate	2.0	3.0
Topcoat	<u>2.0</u>	<u>3.0</u>
Total	8.5	12.5

- 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.

3.02 SCHEDULE of WORK

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

SECTION 09 97 13.24.02

**EXTERIOR STEEL COATING – THREE COAT EPOXY URETHANE
OVERCOAT**

PART 1 – GENERAL

1.04 SECTION INCLUDES

B. Painting on the exterior of the Spaanem tank – alternate bid with light color.

1.05 REFERENCES

B. SSPC and NACE Standards:

4. PA1 – Paint Application.

5. NACE RP 0178 Surface Finish Requirements.

1.06 WORK INCLUDED

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

PART 2 – PRODUCTS

2.02 EPOXY URETHANE – 3 COAT OVERCOAT SYSTEM – EXTERIOR

E. The coating shall be an epoxy urethane system.

F. The contractor is advised to follow all requirements for safety concerning isocyanates.

G. Ultraviolet protection additives mixed at factory only. There will be no tinting or addition of any material other than the manufacturer's thinners.

H. Approved suppliers and systems:

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

PART 3 – EXECUTION

3.03 EPOXY URETHANE – 3 COAT OVERCOAT SYSTEM – EXTERIOR

G. Apply to all prepared surfaces and appurtenances a three (3) coat epoxy urethane system.

H. 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.

I. 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)	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

J. 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.

K. 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.

L. 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.

3.04 SCHEDULE of WORK

B. Complete all exterior and interior welding prior to surface preparation.

SECTION 09 97 23.23.01

CONCRETE FOUNDATION COATING – TWO COAT EPOXY

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Painting of the concrete foundation of all three tanks.

1.02 REFERENCES

- A. SSPC and NACE Standards:
 - 1. PA1 – Paint Application.
 - 2. PA2 – Measurements and Calibration.

1.03 WORK INCLUDED

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

PART 2 – PRODUCTS

2.01 EPOXY POLYAMIDE – 2 COAT SYSTEM – FOUNDATION

- A. Two (2) coat epoxy polyamide system.
- B. Approved suppliers and manufacturers:

<u>Manufacturer</u>	<u>System</u>
Tnemec	66/66
Induron	PE-70/PE-70
PPG	Amerlock 2/Amerlock 2
Sherwin Williams	646PW/646PW
Carboline	635/635

PART 3 – EXECUTION

3.01 EPOXY POLYAMIDE – 2 COAT EPOXY – FOUNDATION

- A. Apply to all prepared areas a two (2) coat epoxy system.
- B. Foundations to be abrasive blast cleaned on the Cross Hill and Bunker Hill tanks and water cleaned on the Spaanem tank. Remove dirt 3” below grade around the entire foundation prior to coating, backfill once topcoat is dry to the touch.
- C. Apply each coat at the following rates:

<u>Coat</u>	<u>Min. D.F.T. (mils)</u>	<u>Max. D.F.T. (mils)</u>
Primer	3.5	5.5
Topcoat	<u>3.5</u>	<u>5.5</u>
Total	7.0	10.0

- D. Allow the manufacturer’s minimum time between coatings.
- E. Cost is incidental to exterior painting.

SECTION 26 42 23
IMPRESSED CURRENT CATHODIC PROTECTION for STEEL
RESERVOIRS

PART 1 – GENERAL

1.01 DESCRIPTION

- A. **SCOPE:** Furnish and install a complete automatic controlled impressed current cathodic protection system to prevent corrosion on the submerged interior surfaces of the water storage tank. All work and material are to meet the standards established in AWWA D104-11-Automatically Controlled Impressed-Current Cathodic Protection for the Interior of Steel Water Tanks.
- B. **CONFLICTS:** Requirements contained in these specifications apply to and govern the work under this section. All General Condition items and Information for Bidder items applicable or contained in these specifications apply. This Technical Specification is intended to expand the General Conditions and/or other Technical Specifications and is not intended to conflict or override any items unless specifically stated. If a conflict is noted, the engineer will review prior to proceeding with the project. If a conflict does exist, the Technical Specifications govern over any General Conditions or Information for Bidders.

1.02 QUALIFICATIONS of CATHODIC PROTECTION MANUFACTURER

- A. The bidder is to have a minimum of five (5) continuous years of successful experience in the manufacture, installation and servicing of automatic cathodic protection systems for water storage tanks. The bidder is to have a permanent service organization located within three hundred (300) miles of the tank location. The contractor (manufacturer) is to have a minimum of twenty-five (25) successful units installed in water storage tanks. The manufacturer and/or his subcontractor must own and maintain or lease the equipment necessary for installation and have proper training in regard to the safety requirements.
- B. New firms may also bid this project; however, they will be subjected to thorough review based on individual experiences of staff, proof of the continuation with firm (i.e. stock ownership, etc.) and financial stability of the firm. Essentially, they will be required to provide sufficient documentation to convince the owner they will be available throughout the ten (10) years to service the system, if needed.

1.03 SHOP DRAWINGS

- A. Within three (3) weeks after the contract is awarded, furnish six (6) sets of shop drawings detailing the proposed installation for review. Submit detailed shop drawings for all items specified.
- B. Submit three (3) sets of Operation/Maintenance Manuals directly to the owner.

1.04 GUARANTEE

- A. Guarantee the cathodic protection system against all defects in materials and workmanship and further guarantee to prevent corrosion, when maintained in a continuous operation in accordance with the contractor's instructions, as evidence by the absence of pitting (or additional pitting) below the high waterline in the tank for a period of one (1) year. The requirement of a maintenance contract may be beneficial, but cannot be made a precondition to this warranty. In the event corrosion is not prevented, the contractor is to readjust, repair, or replace the system. Guarantee the reference anodes for five (5) years. It is the intention of the owner to inspect the tank, as necessary, to review the performance of the cathodic protection system.

1.05 DESIGN and PERFORMANCE REQUIREMENTS

A. DESIGN CRITERIA:

1. The tank is a 3,000,000 gallon steel reservoir. It is approximately 38.25 ft. to the top of the sidewall.
 2. Total bare surface area to be protected shall be 50% of the tank surface up to the high waterline.
 3. Design tank-to-water potential is to be -900 mv with units capable of adjustment from -850 mv to -1050 mv. The design potential is to be IR drop-free (type A) and based on a copper/copper sulfate reference anode.
 4. Minimum current density is to be 0.5 MA/sq. ft. of the bare surface area.
 5. The minimum design anode system life is to be ten (10) years.
- B. The intent of these specifications is to procure a quality product by an established manufacturer of the latest design. Cost of the equipment is to include all royalty costs arising from patents and licenses associated with furnishing the specified equipment. Design all material to withstand the stresses created under ice conditions. Use the latest state-of-the-art "permanent" system which is designed to be ice-free and designed for use in tanks with ice conditions. Use corrosion resistant materials for all equipment, or protect with corrosion resistant industrial coating approved by the engineer.

PART 2 – PRODUCTS

2.01 CATHODIC PROTECTION SYSTEM

- A. Provide a cathodic protection system (ice-free) that is to be a suspended or floating ring-type system. Furnish all items, as necessary, for the complete operating system.

2.02 MATERIALS

- A. Furnish materials for the best quality, regularly used in commercial practice and conforming to the following specifications. Specifically design the cathodic protection system for operation in icing conditions and protect against damage from ice.

- B. Supply only material for use inside the wet interior (i.e. all material in contact with water that meets NSF 61 Standards and bears the NSF or UL label verifying compliance).
- C. Mount the power unit as directed in Part 3 – Execution in a stainless steel, waterproof cabinet suitable for outdoor use, adequately ventilated with stainless steel screens, and with provision for locking. Secure cabinet by using mounting brackets. If mounted on steel, electrically isolate from steel with non-conductive insulator.
- D. Use an electrical insulating material having suitable thickness and mechanical strength for the mounting board. Mount accurate D.C. meters with a D.C. voltmeter on the panel board for indicating output of rectifier.
- E. Include a potential indicating voltmeter on the panel board. This voltmeter is to be part of the sensing circuit, and is to continuously indicate the structure potential value that the control system is maintaining.
- F. Panel Board is to contain the following equipment:
 1. Power Unit: The power unit is to have the necessary circuit breakers, transformer, selenium or silicon rectifying elements, voltmeter(s), ammeter(s), lightning, surge, overload protection, wiring and appurtenances of adequate capacity to meet the requirements established by the Engineering Survey for each corrosion problem. Provide a power unit with voltage adjustments to regulate the current required for corrosion control. The unit is to be adjustable over the entire range of 0-100% of rated capacity. Design the power unit for Single Phase, 60 Hz, 110-120 volt A.C. rated to operate at an ambient temperature of 45° Centigrade. Include a circuit breaker for the A.C. and an overload relay in the D.C. circuit. The entire power unit is to be fully field serviceable. The overall efficiency of the power unit is to exceed 65%, and the power factor is to exceed 90% of full load and rated voltage to the power unit, in the conversion of A.C. to D.C. The power factor is to be greater than 85% at outputs exceeding 25% of the rated capacity.
 2. Automatic Controller: House the controller integrally with the rectifier unit. The automatic controller is to be completely solid state design having no moving parts and capable of automatically maintaining the tank-to-water potential at (-)900 millivolts with respect to a copper-copper sulphate reference electrode within an accuracy of 25 millivolts. The tank-to-water potential measured and maintained by the controller is to be free of “IR” drop error (Type A).
 3. Rectifier: Use non-aging tri-amp selenium or silicon rectifiers of the approved selenium type, as manufactured by General Instrument Corporations or equal for rectifier stacks. The rectifier stacks are to have adequate cooling fins so their normal temperature rise at rated capacity will not exceed that specified by the N.E.M.A. and by the manufacturer of the rectifier stacks for cathodic protection service. Use air-cooled rectifier stacks.
Design the transformer for use in cathodic protection rectifiers having separate primary and secondary copper windings. The rectifiers are to be capable of

automatically adjusting output to maintain potential within +/- 25mv of -900mv, and to be adjustable over 0-100% of its rated capacity.

4. Tank-to-Water Potential Meter: Equip the controller with a calibrated potential monitoring and display circuit having an integral impedance exceeding 1000 megohms which is to be so connected to read from the system reference cell the tank-to-water potential being maintained by the cathodic protection system.

This voltage reading is to be free of "IR" drop error.

NOTE: If digital readout is provided, provide access to all readings required above.

- G. Run positive wires from the power unit to the anode circuits in rigid steel conduits, as established by the National Electrical Code for the allowable current-carrying capacity. Use rigid, galvanized steel conduit. Use state code for underground wire. Use HMWPE (High Moly) wire from the rectifier to and in the tank.
- H. Equip the system with copper-copper sulfate reference electrode designed for a minimum five (5) year life. Install two (2) electrodes on opposite sides of the bowl. If either electrode fails within five (5) years, replace as often as necessary, free of charge to the owner.
- I. Design the anode system for a minimum life of ten (10) years and securely attach to the tank to prevent damage from ice conditions. Include all labor and material for installation of the anodes, and use submerged floating anodes. The anode system uses mixed metal oxide wire anodes. Attach the anodes to a buoyant submerged structure that is maintained in a totally submerged condition, down to the minimum water level by flexible attachment to the interior tank walls or columns. Connections to the floor are required in tanks subject to heavy icing. Anode and reference electrode lead wires are to enter the tank below the minimum water level through pressure tight fittings. Use 3,000 lb. couplings for fitting. Use a separate cord to encircle the supporting cord approximately 8 in. greater radius and design the cord to relieve tension in the loading. Use $\frac{5}{16}$ in. polyester or nylon rope.
- J. Protect all units, lightning arresters, surge protectors, and automatic overload protection is all modes and comply with all FCC regulations. All patent requirements are the responsibility of the contractor.

2.03 ALARM and TELEMETRY CONTROLS

- A. The alarm and telemetry circuits are to be a secondary system designed to read controls and not to interfere in any manner with the primary controls. Use four-to-twenty (4-20) milliamp sensors to read voltage, amperage and potential of both circuits. One alarm light shall be furnished on the cover of the rectifier box. The light shall be activated by a change in amperage, voltage or potential that would signal a possible system failure.

PART 3 – EXECUTION

3.01 REMOVAL OF THE EXISTING CATHODIC SYSTEM

- A. Remove the existing cathodic protection system including the old mounting brackets, clips and all wiring, anodes and floats, etc.
- B. Any remaining lugs or clips to be removed and ground flush with the surrounding metal. Any metal gouged during removal is to be rebuilt up to the existing plate thickness.
- C. All torching, cutting and grinding is to be performed before any surface preparation or coating is started.
- D. All removed items to become the property of the contractor for proper disposal.
- E. Removal of the existing system or left over parts of the old system is to be performed by the general contractor not the sub-contractor.

3.02 INSTALLATION

- A. The cathodic protection system is to be installed by full-time employees of the supplier of the system who are specifically trained to install and service water tank cathodic protection systems. Subcontractors who are specialized tank personnel may install the cathodic protection system under direct, on-site supervision by a responsible employee of the manufacturer.
- B. Install clips, pressure fittings, mounting supports, and brackets prior to abrasive blasting.
- C. Supply cathodic clips and coupling with location information.

3.03 WELDING

- A. Complete welding of attachment clips by a certified welder and use ¼ in. fillet welds all around. No area may be left which would be susceptible to crevice corrosion.
- B. Weld the pressure fitting with ¼ in. fillet continuous welds all around on both the tank's wet interior and exterior.
- C. Weld a control panel mounting bracket in-place with ¼ in. continuous fillet weld in the interior basebell, as designated by the owner and engineer.

3.04 INSTRUCTIONS

- A. After installation is complete, energize the system and adjust for optimum operations. After the unit is adjusted, take tank-to-water potential measurements using a copper-copper sulfate reference electrode. Submit a report to the engineer, including all the test results obtained.
- B. After supervising of inspection and start-up operations, provide one (1) additional day for training of the owner and/or his representative. The training is to include minor troubleshooting practices, recordkeeping, and methods used to determine the effectiveness of the system. The training period is at the owner's discretion within one (1) year of start-up.

3.05 MOUNTING PANEL

- A. Construct a mounting panel for the power unit. Use 2-8 ft. long, 2½ in. Schedule 40 galvanized steel pipe supports with threaded end caps.
- B. Dig 2-8 in. holes 3 ft. down and 3 ft. on center, lay a prefabricated concrete base pad or a layer of concrete a minimum of 2 inches deep into the bottom of each hole and allow the concrete to harden. Set pipes into the ground and pour remaining concrete into the hole.
- C. Pour a 3 ft. by 4 ft. concrete pad 3.5 inches deep around the control panel. Pad top to be level with the surrounding ground.
- D. Use ultraviolet protected plastic deck boards for the panel. Panel to consist of four (4) boards for the panel spaced ½ in apart. Attach to the pipes using 3/8 in. galvanized u-bolts, 4 per board.
- E. Work to be performed by the general contractor not the sub-contractor.

3.06 OPERATION of SYSTEM

- A. The owner reserves the right to leave the cathodic protection system out-of-service for one (1) full year.
- B. Complete item 3.03 – Instructions when scheduled by the owner (within 13 months).
- C. Extend one (1) year warranty of cathodic protection system one (1) year beyond date of energizing.

3.07 ELECTRICAL SUPPLY

- A. There is a 120 volt power available at the tank.
- B. Coordinate with owner and connect electrical source to cathodic protection controls.
- C. Bury all exterior wiring underground from electrical source to cathodic protection controls.

SECTION E: BIDDERS ACKNOWLEDGEMENT

REPAINT MADISON WATER UTILITY RESERVOIRS 9, 115, AND 315
CONTRACT NO. 7729

Bidder must state a Unit Price and Total Bid for each item. The Total Bid for each item must be the product of quantity, by Unit Price. The Grand Total must be the sum of the Total Bids for the various items. In case of multiplication errors or addition errors, the Grand Total with corrected multiplication and/or addition shall determine the Grand Total bid for each contract. The Unit Price and Total Bid must be entered numerically in the spaces provided. All words and numbers shall be written in ink.

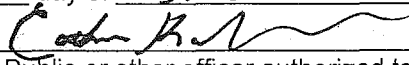
- The undersigned having familiarized himself/herself with the Contract documents, including Advertisement for Bids, Instructions to Bidders, Form of Proposal, City of Madison Standard Specifications for Public Works Construction - 2016 Edition thereto, Form of Agreement, Form of Bond, and Addenda issued and attached to the plans and specifications on file in the office of the City Engineer, hereby proposes to provide and furnish all the labor, materials, tools, and expendable equipment necessary to perform and complete in a workmanlike manner the specified construction on this project for the City of Madison; all in accordance with the plans and specifications as prepared by the City Engineer, including Addenda to the Contract Nos. _____ through _____ issued thereto, at the prices for said work as contained in this proposal. (Electronic bids submittals shall acknowledge addendum under Section E and shall not acknowledge here)
- If awarded the Contract, we will initiate action within seven (7) days after notification or in accordance with the date specified in the contract to begin work and will proceed with diligence to bring the project to full completion within the number of work days allowed in the Contract or by the calendar date stated in the Contract.
- The undersigned Bidder or Contractor certifies that he/she is not a party to any contract, combination in form of trust or otherwise, or conspiracy in restraint of trade or commerce or any other violation of the anti-trust laws of the State of Wisconsin or of the United States, with respect to this bid or contract or otherwise.
- I hereby certify that I have met the Bid Bond Requirements as specified in Section 102.5. (IF BID BOND IS USED, IT SHALL BE SUBMITTED ON THE FORMS PROVIDED BY THE CITY. FAILURE TO DO SO MAY RESULT IN REJECTION OF THE BID).
- I hereby certify that all statements herein are made on behalf of Tecorp, Inc. (name of corporation, partnership, or person submitting bid) a corporation organized and existing under the laws of the State of Illinois a partnership consisting of _____; an individual trading as _____; of the City of _____ State of _____; that I have examined and carefully prepared this Proposal, from the plans and specifications and have checked the same in detail before submitting this Proposal; that I have fully authority to make such statements and submit this Proposal in (its, their) behalf; and that the said statements are true and correct.



SIGNATURE
President

TITLE, IF ANY

Sworn and subscribed to before me this
10 day of June, 2016



(Notary Public or other officer authorized to administer oaths)

My Commission Expires 10/1/17



Bidders shall not add any conditions or qualifying statements to this Proposal.

SECTION F: DISCLOSURE OF OWNERSHIP & BEST VALUE CONTRACTING

**REPAINT MADISON WATER UTILITY RESERVOIRS 9, 115, AND 315
CONTRACT NO. 7729**

State of Wisconsin
Department of Workforce Development
Equal Rights Division
Labor Standards Bureau

Disclosure of Ownership

Notice required under Section 15.04(1)(m), Wisconsin Statutes. The statutory authority for the use of this form is prescribed in Sections 66.0903(12)(d) and 103.49(7)(d), Wisconsin Statutes. The use of this form is mandatory. The penalty for failing to complete this form is prescribed in Section 103.005(12), Wisconsin Statutes. Personal information you provide may be used for secondary purposes.

(1) On the date a contractor submits a bid to or completes negotiations with a state agency or local governmental unit, on a project subject to Section 66.0903 or 103.49, Wisconsin Statutes, the contractor shall disclose to such state agency or local governmental unit the name of any "other construction business", which the contractor, or a shareholder, officer or partner of the contractor, owns or has owned within the preceding three (3) years.

(2) The term "other construction business" means any business engaged in the erection, construction, remodeling, repairing, demolition, altering or painting and decorating of buildings, structures or facilities. It also means any business engaged in supplying mineral aggregate, or hauling excavated material or spoil as provided by Sections 66.0903(3), 103.49(2) and 103.50(2), Wisconsin Statutes.

(3) This form must **ONLY** be filed, with the state agency or local governmental unit that will be awarding the contract, if **both (A) and (B) are met.**

(A) The contractor, or a shareholder, officer or partner of the contractor:

(1) Owns at least a 25% interest in the "other construction business", indicated below, on the date the contractor submits a bid or completes negotiations.

(2) Or has owned at least a 25% interest in the "other construction business" at any time within the preceding three (3) years.

(B) The Wisconsin Department of Workforce Development (DWD) has determined that the "other construction business" has failed to pay the prevailing wage rate or time and one-half the required hourly basic rate of pay, for hours worked in excess of the prevailing hours of labor, to any employee at any time within the preceding three (3) years.

Other Construction Business			
Not Applicable <input checked="" type="checkbox"/>			
Name of Business			
Street Address or P O Box	City	State	Zip Code
Name of Business			
Street Address or P O Box	City	State	Zip Code
Name of Business			
Street Address or P O Box	City	State	Zip Code
I hereby state under penalty of perjury that the information, contained in this document, is true and accurate according to my knowledge and belief.			
Print the Name of Authorized Officer			
Signature of Authorized Officer: <i>NICK JHS VARDOK</i>			
Date Signed		6-10-16	
Name of Corporation, Partnership or Sole Proprietorship			
JBCORP, INC.			
Street Address or P O Box	City	State	Zip Code
2221 MULIELLE	JEOLIET	IL	60433

If you have any questions call (608) 266-0028

ERD-7777-E (R. 09/2003)

LIST APPRENTICABLE TRADES (check all that apply to your work to be performed on this contract)

- BRICKLAYER
- CARPENTER
- CEMENT MASON / CONCRETE FINISHER
- CEMENT MASON (HEAVY HIGHWAY)
- CONSTRUCTION CRAFT LABORER
- DATA COMMUNICATION INSTALLER
- ELECTRICIAN
- ENVIRONMENTAL SYSTEMS TECHNICIAN / HVAC SERVICE TECH/HVAC INSTALL / SERVICE
- GLAZIER
- HEAVY EQUIPMENT OPERATOR / OPERATING ENGINEER
- INSULATION WORKER (HEAT & FROST)
- IRON WORKER
- IRON WORKER (ASSEMBLER, METAL BLDGS)
- PAINTER & DECORATOR
- PLASTERER
- PLUMBER
- RESIDENTIAL ELECTRICIAN
- ROOFER & WATER PROOFER
- SHEET METAL WORKER
- SPRINKLER FITTER
- STEAMFITTER
- STEAMFITTER (REFRIGERATION)
- STEAMFITTER (SERVICE)
- TAPER & FINISHER
- TELECOMMUNICATIONS (VOICE, DATA & VIDEO) INSTALLER-TECHNICIAN
- TILE SETTER

REPAINT MADISON WATER UTILITY RESERVOIRS 9, 115, AND 315
CONTRACT NO. 7729

Small Business Enterprise Compliance Report

This information may be submitted electronically through
Bid Express or submitted with bid in sealed envelope.

Cover Sheet

Prime Bidder Information

Company: Tecorp, Inc.

Address: 2221 Muriel Court, Joliet, IL 60433

Telephone Number: 815-726-9192 Fax Number: 815-726-9245

Contact Person/Title: Nick Visvaris / President

Prime Bidder Certification

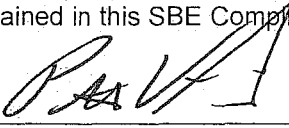
I, Nick Visvaris, President of

Name

Title

Tecorp, Inc. certify that the information
Company

contained in this SBE Compliance Report is true and correct to the best of my knowledge and belief.


Witness' Signature


Bidder's Signature

6-10-16
Date

SECTION 00 43 73
SCHEDULE of VALUES

1.01 PART 1

NOTE: Schedule of Values to be prepared based on the lowest cost schedule option.

CROSS HILL TANK

A. Bidder agrees to perform all work in the following sections as described in the Contract Documents, including all labor and material for the following Schedule of Values – Section 05 00 00:

1. <u>OVERFLOW FLAP GATE</u>	<u>\$3,400.00</u>
2. <u>MUD VALVE</u>	<u>\$9,800.00</u>
3. <u>PAINTER'S RAIL</u>	<u>\$28,000.00</u>
4. <u>ALTITUDE VALVE - NEW</u>	<u>\$25,000.00</u>
5. <u>INSULATION JACKETING</u>	<u>\$8,500.00</u>

TOTAL PRICE SECTION 05 00 00 INCLUDING #1 THROUGH #5:

\$74,700.00

B. Bidder agrees to perform all work in the following sections as described in the Contract Documents, including all labor and material for the following Schedule of Values – Section 09 97 13:

1. <u>EXTERIOR REPAINT with CONTAINMENT</u>	<u>\$277,000.00</u>
2. <u>WET INTERIOR REPAINT</u>	<u>\$115,000.00</u>

3. <u>SEAM SEALER – WET INTERIOR ROOF</u>	<u>\$ 3,500.00</u>
4. <u>DRY INTERIOR PARTIAL REPAINTING</u>	<u>\$ 35,000.00</u>
5. <u>PIT PIPING REPAINT</u>	<u>\$ 5,000.00</u>

TOTAL PRICE SECTION 09 97 13 INCLUDING #1 THROUGH #5: \$ 435,500.00

CROSS HILL TANK TOTAL PRICE SECTION 05 00 00 and 09 97 13:

SECTION 05 00 00:	<u>\$ 74,700.00</u>
SECTION 09 97 13:	<u>\$ 435,500.00</u>
CROSS HILL TANK TOTAL:	<u>\$ 510,200.00</u>

BUNKER HILL TANK

A. Bidder agrees to perform all work in the following sections as described in the Contract Documents, including all labor and material for the following Schedule of Values – Section 05 00 00:

1. <u>REROUTE OVERFLOW PIPE</u>	<u>\$ 29,000.00</u>
2. <u>ROOF VENT</u>	<u>\$ 8,400.00</u>
3. <u>ANTENNA BRACKET AND POLE REMOVAL</u>	<u>\$ 7,200.00</u>

TOTAL PRICE SECTION 05 00 00 INCLUDING #1 THROUGH #3: \$ 45,100.00

B. Bidder agrees to perform all work in the following sections as described in the Contract Documents, including all labor and material for the following Schedule of Values – Section 09 97 13:

1. <u>EXTERIOR REPAINT with CONTAINMENT</u>	<u>\$ 326,350.00</u>
---	----------------------

2. SEAM SEALER – EXTERIOR BASEPLATE
\$1,500.00

3. WET INTERIOR REPAINT
\$410,100.00

4. SEAM SEALER – WET INTERIOR ROOF
\$4,300.00

5. DRY INTERIOR ACCESS PILASTER REPAINT
\$5,000.00

6. We intend to cut an access door through the sidewall. Yes No

If Yes, additional inspection fee of \$3,000 applies \$ 3,000.00

TOTAL PRICE SECTION 09 97 13 INCLUDING #1 THROUGH #6: 750,250.00
\$ ~~750,250.00~~ M.D.

C. Bidder agrees to perform all work in the following sections as described in the Contract Documents, including all labor and material for the following Schedule of Values – Section 26 42 23:

1. CATHODIC PROTECTION SYSTEM
\$20,000.00

BUNKER HILL TANK TOTAL PRICE SECTION 05 00 00, 09 97 13 and 26 42 23:

SECTION 05 00 00: \$45,100.00
SECTION 09 97 13: \$750,250.00
SECTION 26 42 23: \$20,000.00
BUNKER HILL TANK TOTAL: \$815,350.00

SPAANEM TANK

A. Bidder agrees to perform all work in the following sections as described in the Contract Documents, including all labor and material for the following Schedule of Values – Section 05 00 00:

1. REPLACE RUNGS
\$39,000.00

2. ROOF VENT	\$ 18,000.00
3. ROOF RAILING SECTION	\$ 26,000.00
4. ALTITUDE VALVE - REPLACE	\$ 35,000.00
5. VALVE REPLACEMENT	\$ 29,000.00

TOTAL PRICE SECTION 05 00 00 INCLUDING #1 THROUGH #5: \$ 147,000.00

B. Bidder agrees to perform all work in the following sections as described in the Contract Documents, including all labor and material for the following Schedule of Values – Section 09 97 13:

1a. EXTERIOR OVERCOAT – BASE BID (DARK COLOR)	\$ 240,550.00
1b. EXTERIOR OVERCOAT – ALTERNATE (SKY BLUE COLOR)	\$ 210,550.00
2. SEAM SEALER – EXTERIOR BASEPLATE	\$ 2,500.00
3. WET INTERIOR REPAINT	\$ 435,000.00
4. SEAM SEALER – WET INTERIOR ROOF	\$ 4,000.00
5. CUPOLA FLOOR REPAINT	\$ 10,000.00
6. PIT PIPING REPAINT	\$ 5,000.00

7. We intend to cut an access door through the sidewall. Yes No

If Yes, additional inspection fee of \$3,000 applies \$ _____

TOTAL PRICE SECTION 09 97 13 INCLUDING #1a AND #2 THROUGH #7:
\$ 697,050.00

SPAANEM TANK TOTAL PRICE SECTION 05 00 00 and 09 97 13:

SECTION 05 00 00: \$ 147,000.00
SECTION 09 97 13: \$ 697,050.00
SPAANEM TANK TOTAL: \$ 844,050.00

C. ESTIMATED COST ALREADY 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.

\$ 5,000.00

CROSS HILL TANK TOTAL: \$ 510,200.00
BUNKER HILL TANK TOTAL: \$ 815,350.00
SPAANEM TANK TOTAL: \$ 844,050.00
PROJECT TOTAL: \$ 2,169,600.00

1.02 WEIGHTED BIDS

A. Bidder/contractor is advised that, if in the opinion of the owner or engineer, if the Schedule of Values is not an accurate reflection of cost of items, the owner will adjust individual costs to more balance costs. Total will not be changed.

1.03 MISTAKES

- A. Total of Schedule of Values should equal lump sum bid for lowest price project schedule option. If addition of individual items does not match total, then each individual items will be proportionately changed to reflect total of values to match lump sum bid.
- B. A mistake in addition for schedule items cannot be used to increase lump sum bid. Individual items will be proportionately changed downward to reflect lump sum price.
- C. A mistake in Schedule of Values may be used as evidence of error in any request to withdraw bids because of error. Approval of request to withdraw bids is covered in the prebid information. This section is not intended to conflict any portion of the bid package. This section is only to reflect one of the reasons to withdraw bids.

REPAINT MADISON WATER UTILITY RESERVOIRS 9, 115, AND 315
CONTRACT NO. 7729

ATTACHMENT 1 – SCHEDULE SELECTION

*** This document must be completed, scanned and uploaded at time of bid proposal ***

*** See Special Provisions 'Section 00 00 40 – Project Summary' for more information ***

Project Schedule Selection:

In addition to the bid proposal, Contractors must electronically submit their selected project schedule through Bid Express (www.bidexpress.com) using this template form. The selected schedule will designate the Contract start dates and substantial completion dates upon award.

Note:

Contractor can begin staging, rigging and some metal repairs prior to tank draining.

Substantial completion dates include cure and disinfection time.

See Special Provisions for more information including maximum tank out-of-service durations.

The Contractor shall select and abide by one of the following schedules:

Schedule Option 1

Commence work on the Cross Hill and Spaanem tanks on or after August 15, 2016 with substantial completion by October 28, 2016. Commence work on the Bunker Hill tank on or after April 17, 2017 with substantial completion by August 18, 2017.

Schedule Option 2

Commence work on the Cross Hill tank on or after August 15, 2016 with substantial completion by October 28, 2016. Commence work on the Spaanem and Bunker Hill tanks (work to be simultaneous) on or after April 17, 2017 with substantial completion by August 18, 2017.


Schedule Option 3

Commence work on the Cross Hill tank on or after August 15, 2016 with substantial completion by October 28, 2016. Commence work on the Spaanem tank on or after April 17, 2017 with the start of Bunker Hill upon completion of the Spaanem tank, substantial completion by October 27, 2017.

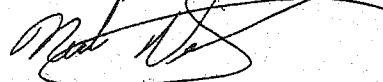
This Supplemental Attachment to the Bid Proposal has been prepared by:

Tecorp, Inc.

Bidding Contractor

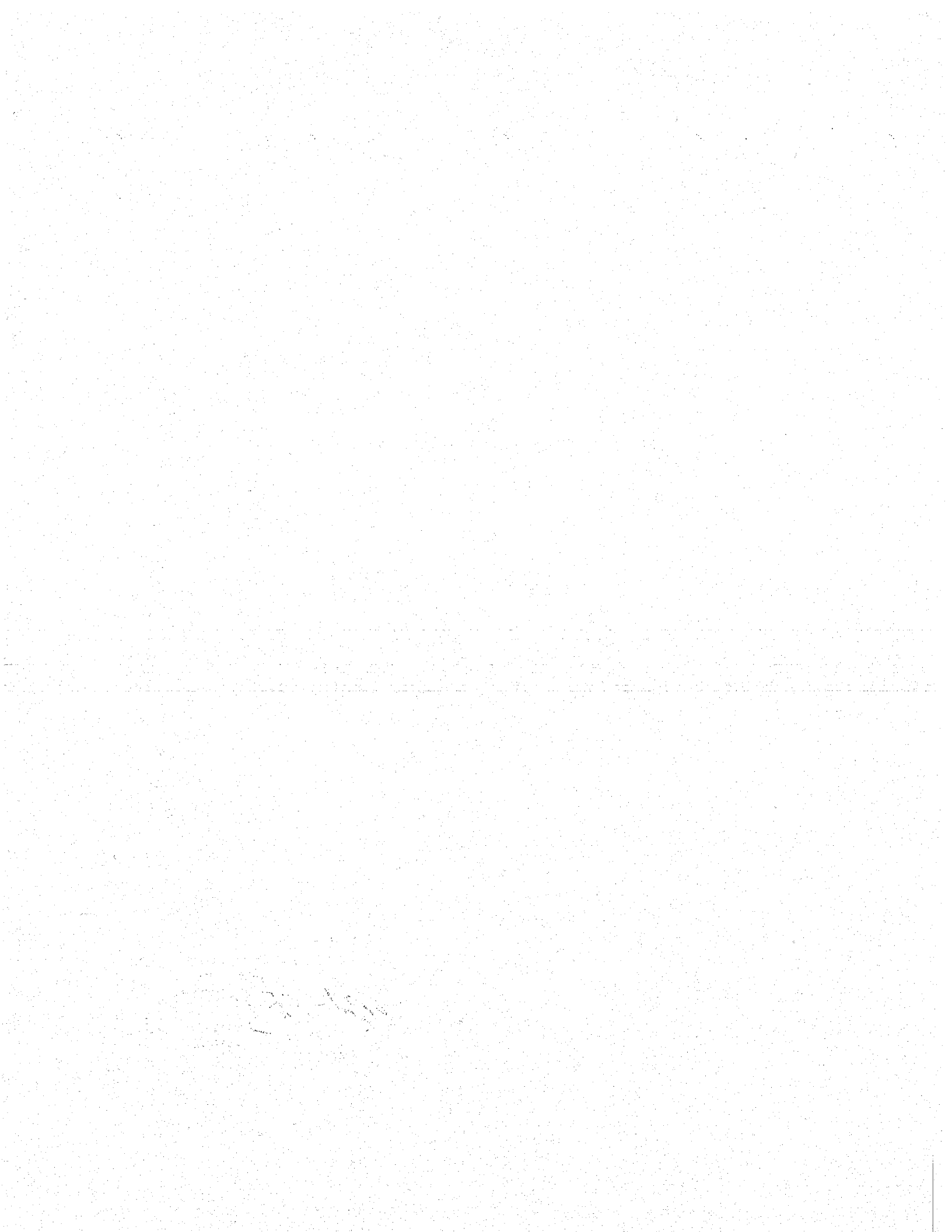
 President

Authorized Representative, Title



Signature

6-10-16
Date



SECTION G: BID BOND

KNOW ALL MEN BY THESE PRESENT, THAT Principal and Surety, as identified below, are held and firmly bound unto the City of Madison, (hereinafter referred to as the "Obligee"), in the sum of five per cent (5%) of the amount of the total bid or bids of the Principal herein accepted by the Obligee, for the payment of which the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

The conditions of this obligation are such that, whereas the Principal has submitted, to the City of Madison a certain bid, including the related alternate, and substitute bids attached hereto and hereby made a part hereof, to enter into a contract in writing for the construction of:

REPAINT MADISON WATER UTILITY RESERVOIRS 9, 115, AND 315 CONTRACT NO. 7729

1. If said bid is rejected by the Obligee, then this obligation shall be void.
2. If said bid is accepted by the Obligee and the Principal shall execute and deliver a contract in the form specified by the Obligee (properly completed in accordance with said bid) and shall furnish a bond for his/her faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said bid, then this obligation shall be void.

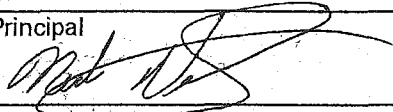
If said bid is accepted by the Obligee and the Principal shall fail to execute and deliver the contract and the performance and payment bond noted in 2. above executed by this Surety, or other Surety approved by the City of Madison, all within the time specified or any extension thereof, the Principal and Surety agree jointly and severally to forfeit to the Obligee as liquidated damages the sum mentioned above, it being understood that the liability of the Surety for any and all claims hereunder shall in no event exceed the sum of this obligation as stated, and it is further understood that the Principal and Surety reserve the right to recover from the Obligee that portion of the forfeited sum which exceed the actual liquidated damages incurred by the Obligee.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by an extension of the time within which the Obligee may accept such bid, and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, on the day and year set forth below.

Seal PRINCIPAL

Tecorp, Inc.
Name of Principal

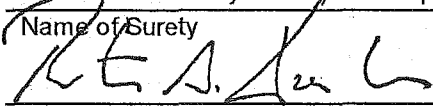


By
Nick Visvardis, President
Name and Title

06/10/2016
Date

Seal SURETY

The Ohio Casualty Insurance Company
Name of Surety

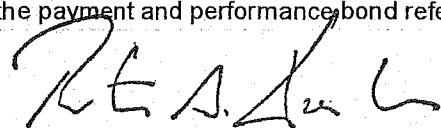


By
Peter S. Forker, Attorney-In-Fact
Name and Title

6/10/2016
Date

This certifies that I have been duly licensed as an agent for the above company in Wisconsin under National Provider No. 328914 for the year 2016, and appointed as attorney in fact with authority to execute this bid bond and the payment and performance bond referred to above, which power of attorney has not been revoked.

6/10/2016
Date


Agent

Two Pierce Place
Address

Itasca, IL 60143
City, State and Zip Code

312-497-4474
Telephone Number

NOTE TO SURETY & PRINCIPAL

The bid submitted which this bond guarantees shall be rejected if the following instrument is not attached to this bond:

Power of Attorney showing that the agent of Surety is currently authorized to execute bonds on behalf of the Surety, and in the amounts referenced above.

THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON RED BACKGROUND.

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Certificate No. 7063899

American Fire and Casualty Company
The Ohio Casualty Insurance Company

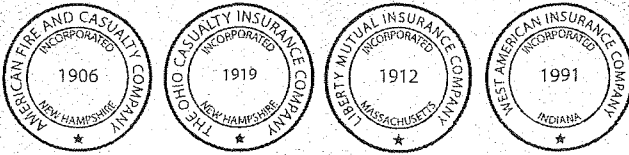
Liberty Mutual Insurance Company
West American Insurance Company

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That American Fire & Casualty Company and The Ohio Casualty Insurance Company are corporations duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Amy E. Callahan; Peter S. Forker

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

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 22nd day of July, 2015



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

By: David M. Carey
David M. Carey, Assistant Secretary

STATE OF PENNSYLVANIA ss
COUNTY OF MONTGOMERY

On this 22nd day of July, 2015, before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of American Fire and Casualty Company, Liberty Mutual Insurance Company, The Ohio Casualty Insurance Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

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



Notarial Seal
Teresa Pastella, Notary Public
Plymouth Twp., Montgomery County
My Commission Expires March 28, 2017
Member, Pennsylvania Association of Notaries

By: Teresa Pastella
Teresa Pastella, Notary Public

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

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

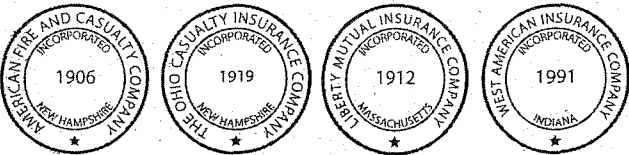
ARTICLE XIII – Execution of Contracts – SECTION 5. Surety Bonds and Undertakings. Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as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

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

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

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

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 10th day of June, 2016.



By: Gregory W. Davenport
Gregory W. Davenport, Assistant Secretary

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

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.

SECTION H: AGREEMENT

THIS AGREEMENT made this 7th day of JULY in the year Two Thousand and Sixteen between TECORP, INC. hereinafter called the Contractor, and the City of Madison, Wisconsin, hereinafter called the City.

WHEREAS, the Common Council of the said City of Madison under the provisions of a resolution adopted JULY 5, 2016, and by virtue of authority vested in the said Council, has awarded to the Contractor the work of performing certain construction.

NOW, THEREFORE, the Contractor and the City, for the consideration hereinafter named, agree as follows:

1. **Scope of Work.** The Contractor shall, perform the construction, execution and completion of the following listed complete work or improvement in full compliance with the Plans, Specifications, Standard Specifications, Supplemental Specifications, Special Provisions and contract; perform all items of work covered or stipulated in the proposal; perform all altered or extra work; and shall furnish, unless otherwise provided in the contract, all materials, implements, machinery, equipment, tools, supplies, transportation, and labor necessary to the prosecution and completion of the work or improvements:

REPAINT MADISON WATER UTILITY RESERVOIRS 9, 115, AND 315 CONTRACT NO. 7729

2. **Completion Date/Contract Time.** Construction work must begin within seven (7) calendar days after the date appearing on mailed written notice to do so shall have been sent to the Contractor and shall be carried on at a rate so as to secure full completion SEE SPECIAL PROVISIONS, the rate of progress and the time of completion being essential conditions of this Agreement.
3. **Contract Price.** The City shall pay to the Contractor at the times, in the manner and on the conditions set forth in said specifications, the sum of TWO MILLION ONE HUNDRED SIXTY-NINE THOUSAND SIX HUNDRED AND NO/100 (\$2,169,600.00) Dollars being the amount bid by such Contractor and which was awarded to him/her as provided by law.
4. **Wage Rates for Employees of Public Works Contractors**

General and Authorization. The Contractor shall compensate its employees at the prevailing wage rate in accordance with section 66.0903, Wis. Stats., DWD 290 of the Wisconsin Administrative Code and as hereinafter provided unless otherwise noted in Section D: Special Provisions, Subsection 102.10 – Minimum Rate of Wage Scale.

"Public Works" shall include building or work involving the erection, construction, remodeling, repairing or demolition of buildings, parking lots, highways, streets, bridges, sidewalks, street lighting, traffic signals, sanitary sewers, water mains and appurtenances, storm sewers, and the grading and landscaping of public lands.

"Building or work" includes construction activity as distinguished from manufacturing, furnishing of materials, or servicing and maintenance work, except for the delivery of mineral aggregate such as sand, gravel, bituminous asphaltic concrete or stone which is incorporated into the work under contract with the City by depositing the material directly in final place from transporting vehicle.

"Erection, construction, remodeling, repairing" means all types of work done on a particular building or work at the site thereof in the construction or development of the project, including without limitation, erecting, construction, remodeling, repairing, altering, painting, and decorating, the transporting of materials and supplies to or from the building or work done by the employees of the Contractor, Subcontractor, or Agent thereof, and the manufacturing or furnishing of

materials, articles, supplies or equipment on the site of the building or work, by persons employed by the Contractor, Subcontractor, or Agent thereof.

"Employees working on the project" means laborers, workers, and mechanics employed directly upon the site of work.

"Laborers, Workers, and Mechanics" include pre-apprentices, helpers, trainees, learners and properly registered and indentured apprentices but exclude clerical, supervisory, and other personnel not performing manual labor.

Establishment of Wage Rates. The Department of Public Works shall periodically obtain a current schedule of prevailing wage rates from DWD. The schedule shall be used to establish the City of Madison Prevailing Wage Rate Schedule for Public Works Construction (prevailing wage rate). The Department of Public Works may include known increases to the prevailing wage rate which can be documented and are to occur on a future specific date. The prevailing wage rate shall be included in public works contracts subsequently negotiated or solicited by the City. Except for known increases contained within the schedule, the prevailing wage rate shall not change during the contract. The approved wage rate is attached hereto.

Workforce Profile. The Contractor shall, at the time of signature of the contract, notify the City Engineer in writing of the names and classifications of all the employees of the Contractor, Subcontractors, and Agents proposed for the work. In the alternative, the Contractor shall submit in writing the classifications of all the employees of the Contractor, Subcontractors and Agents and the total number of hours estimated in each classification for the work. This workforce profile(s) shall be reviewed by the City Engineer who may, within ten (10) days, object to the workforce profile(s) as not being reflective of that which would be required for the work. The Contractor may request that the workforce profile, or a portion of the workforce profile, be submitted after the signature of the contract but at least ten (10) days prior to the work commencing. Any costs or time loss resulting from modifications to the workforce profile as a result of the City Engineer's objections shall be the responsibility of the Contractor.

Payrolls and Records. The Contractor shall keep weekly payroll records setting forth the name, address, telephone number, classification, wage rate and fringe benefit package of all the employees who work on the contract, including the employees of the Contractor's subcontractors and agents. Such weekly payroll records must include the required information for all City contracts and all other contracts on which the employee worked during the week in which the employee worked on the contract. The Contractor shall also keep records of the individual time each employee worked on the project and for each day of the project. Such records shall also set forth the total number of hours of overtime credited to each such employee for each day and week and the amount of overtime pay received in that week. The records shall set forth the full weekly wages earned by each employee and the actual hourly wage paid to the employee.

The Contractor shall submit the weekly payroll records, including the records of the Contractor's subcontractors and agents, to the City Engineer for every week that work is being done on the contract. The submittal shall be within twenty-one (21) calendar days of the end of the Contractor's weekly pay period.

Employees shall receive the full amounts accrued at the time of the payment, computed at rates not less than those stated in the prevailing wage rate and each employee's rate shall be determined by the work that is done within the trade or occupation classification which should be properly assigned to the employee.

An employee's classification shall not be changed to a classification of a lesser rate during the contract. If, during the term of the contract, an employee works in a higher pay classification than the one which was previously properly assigned to the employee, then that employee shall be considered to be in the higher pay classification for the balance of the contract, receive the appropriate higher rate of pay, and she/he shall not receive a lesser rate during the balance of the

contract. For purposes of clarification, it is noted that there is a distinct difference between working in a different classification with higher pay and doing work within a classification that has varying rates of pay which are determined by the type of work that is done within the classification. For example, the classification "Operating Engineer" provides for different rates of pay for various classes of work and the Employer shall compensate an employee classified as an "Operating Engineer" based on the highest class of work that is done in one day. Therefore, an "Operating Engineer's" rate may vary on a day to day basis depending on the type of work that is done, but it will never be less than the base rate of an "Operating Engineer". Also, as a matter of clarification, it is recognized that an employee may work in a higher paying classification merely by chance and without prior intention, calculation or design. If such is the case and the performance of the work is truly incidental and the occurrence is infrequent, inconsequential and does not serve to undermine the single classification principle herein, then it may not be required that the employee be considered to be in the higher pay classification and receive the higher rate of pay for the duration of the contract. However, the Contractor is not precluded or prevented from paying the higher rate for the limited time that an employee performs work that is outside of the employee's proper classification.

Questions regarding an employee's classification, rate of pay or rate of pay within a classification, shall be resolved by reference to the established practice that predominates in the industry and on which the trade or occupation rate/classification is based. Rate of pay and classification disputes shall be resolved by relying upon practices established by collective bargaining agreements and guidelines used in such determination by appropriate recognized trade unions operating within the City of Madison.

The Contractor, its Subcontractors and Agents shall submit to interrogation regarding compliance with the provisions of this ordinance.

Mulcting of the employees by the Contractor, Subcontractor, and Agents on Public Works contracts, such as by kickbacks or other devices, is prohibited. The normal rate of wage of the employees of the Contractor, Subcontractor, and Agents shall not be reduced or otherwise diminished as a result of payment of the prevailing wage rate on a public works contract.

Hourly contributions. Hourly contributions shall be determined in accordance with the prevailing wage rate and with DWD. 290.01(10), Wis. Admin. Code.

Apprentices and Subjourney persons. Apprentices and sub journeypersons performing work on the project shall be compensated in accordance with the prevailing wage rate and with DWD 290.02, and 290.025, respectively, Wis. Admin. Code.

Straight Time Wages. The Contractor may pay straight time wages as determined by the prevailing wage rate and DWD 290.04, Wis. Admin. Code.

Overtime Wages. The Contractor shall pay overtime wages as required by the prevailing wage rate and DWD 290.05, Wis. Admin. Code.

Posting of Wage Rates and Hours. A clearly legible copy of the prevailing wage rate, together with the provisions of Sec. 66.0903(10)(a) and (11)(a), Wis. Stats., shall be kept posted in at least one conspicuous and easily accessible place at the project site by the Contractor and such notice shall remain posted during the full time any laborers, workers or mechanics are employed on the contract.

Evidence of Compliance by Contractor. Upon completion of the contract, the Contractor shall file with the Department of Public Works an affidavit stating:

- a. That the Contractor has complied fully with the provisions and requirements of Sec. 66.0903(3), Wis. Stats., and Chapter DWD 290, Wis. Admin. Code; the Contractor has received evidence of compliance from each of the agents and subcontractors; and the

names and addresses of all of the subcontractors and agents who worked on the contract.

- b. That full and accurate records have been kept, which clearly indicate the name and trade or occupation of every laborer, worker or mechanic employed by the Contractor in connection with work on the project. The records shall show the number of hours worked by each employee and the actual wages paid therefore; where these records will be kept and the name, address and telephone number of the person who will be responsible for keeping them. The records shall be retained and made available for a period of at least three (3) years following the completion of the project of public works and shall not be removed without prior notification to the municipality.

Evidence of Compliance by Agent and Subcontractor. Each agent and subcontractor shall file with the Contractor, upon completion of their portion of the work on the contract an affidavit stating that all the provisions of Sec. 66.0903(3), Wis. Stats., have been fully complied with and that full and accurate records have been kept, which clearly indicate the name and trade or occupation of every laborer, worker or mechanic employed by the Contractor in connection with work on the project. The records shall show the number of hours worked by each employee and the actual wages paid therefore; where these records shall be kept and the name, address and telephone number of the person who shall be responsible for keeping them. The records shall be retained and made available for a period of at least three (3) years following the completion of the project of public works and shall not be removed without prior notification to the municipality.

Failure to Comply with the Prevailing Wage Rate. If the Contractor fails to comply with the prevailing wage rate, she/he shall be in default on the contract. In addition, if DWD finds that a contractor or subcontractor violated the prevailing wage law, DWD will assess liquidated damages of 100% of the wages owed to employees.

Establishment of Wage Rates. The Department of Public Works shall periodically obtain a current schedule of prevailing wage rates from DWD. The schedule shall be used to establish the City of Madison Prevailing Wage Rate Schedule for Public Works Construction (prevailing wage rate). The Department of Public Works may include known increases to the prevailing wage rate which can be documented and are to occur on a future specific date. The prevailing wage rate shall be included in public works contracts subsequently negotiated or solicited by the City. Except for known increases contained within the schedule, the prevailing wage rate shall not change during the contract. The approved wage rate and DWD prevailing wage requirements are attached hereto as Sec. I of the contract.

5. **Affirmative Action.** In the performance of the services under this Agreement the Contractor agrees not to discriminate against any employee or applicant because of race, religion, marital status, age, color, sex, disability, national origin or ancestry, income level or source of income, arrest record or conviction record, less than honorable discharge, physical appearance, sexual orientation, gender identity, political beliefs, or student status. The Contractor further agrees not to discriminate against any subcontractor or person who offers to subcontract on this contract because of race, religion, color, age, disability, sex, sexual orientation, gender identity or national origin.

The Contractor agrees that within thirty (30) days after the effective date of this agreement, the Contractor will provide to the City Affirmative Action Division certain workforce utilization statistics, using a form to be furnished by the City.

If the contract is still in effect, or if the City enters into a new agreement with the Contractor, within one year after the date on which the form was required to be provided, the Contractor will provide updated workforce information using a second form, also to be furnished by the City. The second form will be submitted to the City Affirmative Action Division no later than one year after the date on which the first form was required to be provided.

The Contractor further agrees that, for at least twelve (12) months after the effective date of this contract, it will notify the City Affirmative Action Division of each of its job openings at facilities in Dane County for which applicants not already employees of the Contractor are to be considered. The notice will include a job description, classification, qualifications and application procedures and deadlines. The Contractor agrees to interview and consider candidates referred by the Affirmative Action Division if the candidate meets the minimum qualification standards established by the Contractor, and if the referral is timely. A referral is timely if it is received by the Contractor on or before the date started in the notice.

Articles of Agreement

Article I

The Contractor shall take affirmative action in accordance with the provisions of this contract to insure that applicants are employed, and that employees are treated during employment without regard to race, religion, color, age, marital status, disability, sex, sexual orientation, gender identity or national origin and that the employer shall provide harassment free work environment for the realization of the potential of each employee. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation and selection for training including apprenticeship insofar as it is within the control of the Contractor. The Contractor agrees to post in conspicuous places available to employees and applicants notices to be provided by the City setting out the provisions of the nondiscrimination clauses in this contract.

Article II

The Contractor shall in all solicitations or advertisements for employees placed by or on behalf of the Contractors state that all qualified or qualifiable applicants will be employed without regard to race, religion, color, age, marital status, disability, sex, sexual orientation, gender identity or national origin.

Article III

The Contractor shall send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding a notice to be provided by the City advising the labor union or worker's representative of the Contractor's equal employment opportunity and affirmative action commitments. Such notices shall be posted in conspicuous places available to employees and applicants for employment.

Article V

The Contractor agrees that it will comply with all provisions of the Affirmative Action Ordinance of the City of Madison, including the contract compliance requirements. The Contractor agrees to submit the model affirmative action plan for public works contractors in a form approved by the Affirmative Action Division Manager.

Article VI

The Contractor will maintain records as required by Section 39.02(9)(f) of the Madison General Ordinances and will provide the City Affirmative Action Division with access to such records and to persons who have relevant and necessary information, as provided in Section 39.02(9)(f). The City agrees to keep all such records confidential, except to the extent that public inspection is required by law.

Article VII

In the event of the Contractor's or subcontractor's failure to comply with the Equal Employment Opportunity and Affirmative Action Provisions of this contract or Section 39.03 and 39.02 of the Madison General Ordinances, it is agreed that the City at its option may do any or all of the following:

1. Cancel, terminate or suspend this Contract in whole or in part.
2. Declare the Contractor ineligible for further City contracts until the Affirmative Action requirements are met.
3. Recover on behalf of the City from the prime Contractor 0.5 percent of the contract award price for each week that such party fails or refuses to comply, in the nature of liquidated damages, but not to exceed a total of five percent (5%) of the contract price, or five thousand dollars (\$5,000), whichever is less. Under public works contracts, if a subcontractor is in noncompliance, the City may recover liquidated damages from the prime Contractor in the manner described above. The preceding sentence shall not be construed to prohibit a prime Contractor from recovering the amount of such damage from the non-complying subcontractor.

Article VIII

The Contractor shall include the above provisions of this contract in every subcontract so that such provisions will be binding upon each subcontractor. The Contractor shall take such action with respect to any subcontractor as necessary to enforce such provisions, including sanctions provided for noncompliance.

Article IX

The Contractor shall allow the maximum feasible opportunity to small business enterprises to compete for any subcontracts entered into pursuant to this contract. (In federally funded contracts the terms "DBE, MBE and WBE" shall be substituted for the term "small business" in this Article.)

6. **Substance Abuse Prevention Program Required.** Prior to commencing work on the Contract, the Contractor, and any Subcontractor, shall have in place a written program for the prevention of substance abuse among its employees as required under Wis. Stat. Sec. 103.503.
7. **Contractor Hiring Practices.**

Ban the Box - Arrest and Criminal Background Checks. (Sec. 39.08, MGO)

This provision applies to all prime contractors on contracts entered into on or after January 1, 2016, and all subcontractors who are required to meet prequalification requirements under MGO 33.07(7)(I), MGO as of the first time they seek or renew pre-qualification status on or after January 1, 2016. The City will monitor compliance of subcontractors through the pre-qualification process.

- a. **Definitions.** For purposes of this section, "Arrest and Conviction Record" includes, but is not limited to, information indicating that a person has been questioned, apprehended, taken into custody or detention, held for investigation, arrested, charged with, indicted or tried for any felony, misdemeanor or other offense pursuant to any law enforcement or military authority.

"Conviction record" includes, but is not limited to, information indicating that a person has been convicted of a felony, misdemeanor or other offense, placed on probation, fined, imprisoned or paroled pursuant to any law enforcement or military authority.

“Background Check” means the process of checking an applicant’s arrest and conviction record, through any means.

b. Requirements. For the duration of this Contract, the Contractor shall:

1. Remove from all job application forms any questions, check boxes, or other inquiries regarding an applicant’s arrest and conviction record, as defined herein.
2. Refrain from asking an applicant in any manner about their arrest or conviction record until after conditional offer of employment is made to the applicant in question.
3. Refrain from conducting a formal or informal background check or making any other inquiry using any privately or publicly available means of obtaining the arrest or conviction record of an applicant until after a conditional offer of employment is made to the applicant in question.
4. Make information about this ordinance available to applicants and existing employees, and post notices in prominent locations at the workplace with information about the ordinance and complaint procedure using language provided by the City.
5. Comply with all other provisions of Sec. 39.08, MGO.

c. Exemptions: This section shall not apply when:

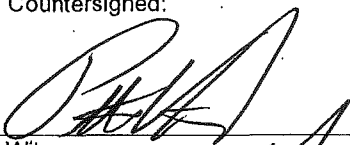
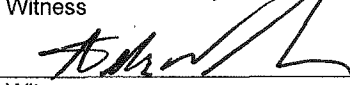
1. Hiring for a position where certain convictions or violations are a bar to employment in that position under applicable law, or
2. Hiring a position for which information about criminal or arrest record, or a background check is required by law to be performed at a time or in a manner that would otherwise be prohibited by this ordinance, including a licensed trade or profession where the licensing authority explicitly authorizes or requires the inquiry in question.

To be exempt, Contractor has the burden of demonstrating that there is an applicable law or regulation that requires the hiring practice in question, if so, the contractor is exempt from all of the requirements of this ordinance for the position(s) in question.

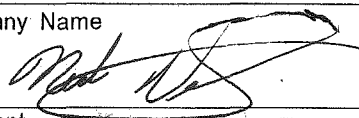
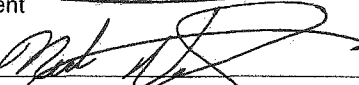
REPAINT MADISON WATER UTILITY RESERVOIRS 9, 115, AND 315
CONTRACT NO. 7729

IN WITNESS WHEREOF, the Contractor has hereunto set his/her hand and seal and the City has caused these presents to be sealed with its corporate seal and to be subscribed by its Mayor and City Clerk the day and year first above written.

Countersigned:


Witness _____ Date 7-17-16

Witness _____ Date 7-11-16

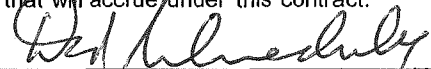
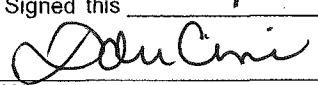

TECORP, INC.


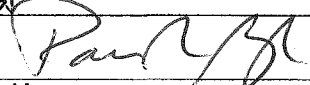

Company Name _____

President _____ Date 7-11-16

Secretary _____ Date 7-11-16

CITY OF MADISON, WISCONSIN

Provisions have been made to pay the liability that will accrue under this contract.

Approved as to form:


Finance Director _____
Signed this 9th day of August, 2016

Witness _____

Witness _____


City Attorney _____

Mayor _____ Date _____

City Clerk _____ Date 7-18-2016

SECTION 1: PAYMENT AND PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that we TECORP, INC. as principal, and
The Ohio Casualty Insurance Company

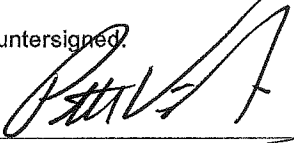
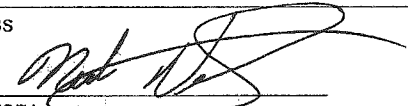
Company of New Hampshire as surety, are held and firmly bound unto the City of
Madison, Wisconsin, in the sum of TWO MILLION ONE HUNDRED SIXTY-NINE THOUSAND SIX
HUNDRED AND NO/100 (\$2,169,600.00) Dollars, lawful money of the United States, for the payment of
which sum to the City of Madison, we hereby bind ourselves and our respective executors and
administrators firmly by these presents.

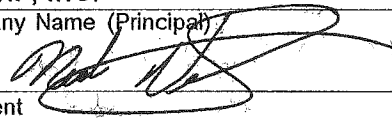
The condition of this Bond is such that if the above bounden shall on his/her part fully and faithfully
perform all of the terms of the Contract entered into between him/herself and the City of Madison for the
construction of:

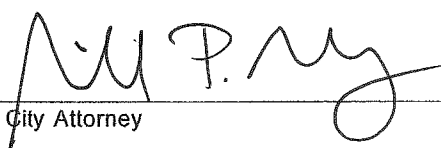
REPAINT MADISON WATER UTILITY RESERVOIRS 9, 115, AND 315
CONTRACT NO. 7729

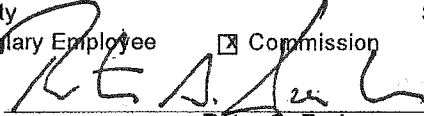
in Madison, Wisconsin, and shall pay all claims for labor performed and material furnished in the
prosecution of said work, and save the City harmless from all claims for damages because of negligence
in the prosecution of said work, and shall save harmless the said City from all claims for compensation
(under Chapter 102, Wisconsin Statutes) of employees and employees of subcontractor, then this Bond is
to be void, otherwise of full force, virtue and effect.

Signed and sealed this 7th day of July 2016

Countersigned:

Witness

Secretary

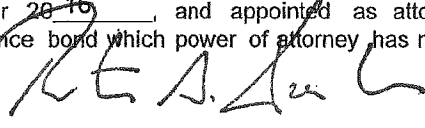
TECORP, INC.
Company Name (Principal)

President Seal

Approved as to form:

City Attorney

The Ohio Casualty Insurance Company
Surety Seal
 Salary Employee Commission
By 
Attorney-in-Fact Peter S. Forker

This certifies that I have been duly licensed as an agent for the above company in Wisconsin under
National Provider No. 328914 for the year 2016, and appointed as attorney-in-
fact with authority to execute this payment and performance bond which power of attorney has not been
revoked.

7/7/2016
Date


Agent Signature

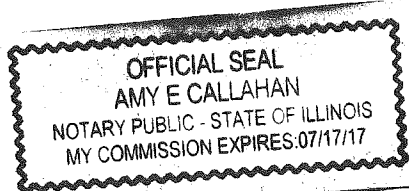


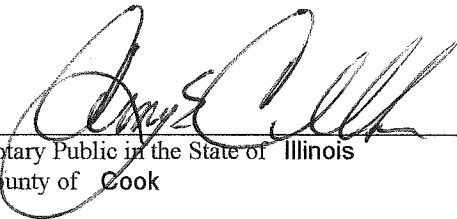
ACKNOWLEDGMENT BY SURETY

STATE OF Illinois }
County of Cook } ss.

On this 7th day of July, 2016, before me personally
appeared Peter S. Forker, known to, me to be the Attorney-in-Fact of
The Ohio Casualty Insurance Company, the corporation
that executed the within instrument, and acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, at my office in the aforesaid County, the day and
year in this certificate first above written.





Notary Public in the State of Illinois
County of Cook

THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON RED BACKGROUND.

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Certificate No. 7063907

American Fire and Casualty Company
The Ohio Casualty Insurance Company

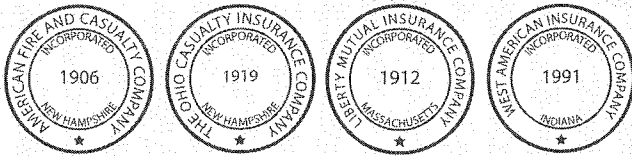
Liberty Mutual Insurance Company
West American Insurance Company

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That American Fire & Casualty Company and The Ohio Casualty Insurance Company are corporations duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Amy E. Callahan; Peter S. Forker

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

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 22nd day of July, 2015.



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

By: David M. Carey
David M. Carey, Assistant Secretary

STATE OF PENNSYLVANIA ss
COUNTY OF MONTGOMERY

On this 22nd day of July, 2015, before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of American Fire and Casualty Company, Liberty Mutual Insurance Company, The Ohio Casualty Insurance Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

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



COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Teresa Pastella, Notary Public
Plymouth Twp., Montgomery County
My Commission Expires March 28, 2017
Member, Pennsylvania Association of Notaries

By: Teresa Pastella
Teresa Pastella, Notary Public

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

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

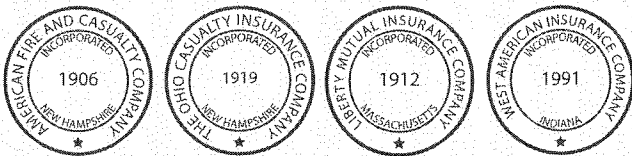
ARTICLE XIII – Execution of Contracts – SECTION 5. Surety Bonds and Undertakings. Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as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

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

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

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

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 7th day of July, 2014.



By: Gregory W. Davenport
Gregory W. Davenport, Assistant Secretary

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

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.

SECTION J: PREVAILING WAGE RATES

State of Wisconsin
Department of Workforce Development
Equal Rights Division

DEPARTMENTAL ORDER

ISSUE DATE: 1/8/2016

PROJECT:

ALL PUBLIC WORKS PROJECTS UNDER SEC. 66.0903, STATS-CITY OF MADISON
MADISON CITY, DANE COUNTY, WI
Determination No. 201600001

PROJECT OWNER:

ROBERT F PHILLIPS, INTERIM CITY ENGINEER
CITY OF MADISON - ENGINEERING
210 M L KING JR BLVD, RM 115
MADISON, WI 537033342

REQUESTER:

ROBERT F PHILLIPS, INTERIM CITY ENGINEER
CITY OF MADISON - ENGINEERING
210 M L KING JR BLVD, RM 115
MADISON, WI 537033342

ADDITIONAL CONTACT:

NORMAN DAVIS, CONTRACT COMPLIANCE
CITY OF MADISON-DEPT OF CIVIL RTS-AA DIV
210 MARTIN L KING JR BLVD, RM 523
MADISON, WI 537033342

The department received an application for prevailing wage rate determination for the above-captioned project. The department conducted a survey to determine the prevailing wage rate for the trade(s) or occupation(s) needed to complete the project. The survey's findings appear in the attached project determination.

If you believe that the wage rate for any trade or occupation does not accurately reflect the prevailing wage rate in the city, village or town where the project is located, you may ask the department to conduct an administrative review of such wage rate. You must submit this request in writing within 30 days from the date indicated above. Additionally, your request must include wage rate information from at least three similar projects in the city, village or town where the proposed project is located and on which some work has been performed by the contested trade(s) during the current survey period and was previously considered by the department in issuing the attached determination. See DWD 290.10 of the Wisconsin Administrative Code and either s. 66.0903(3)(br), Stats., or s. 103.49(3)(c), Stats., for a complete explanation of the administrative review process.

Enclosures

It is hereby ordered that the prevailing wage rates set forth in the attached project determination shall only be applicable to the above referenced project. This order is a **FINAL ORDER** of the department unless a timely request for an administrative review is filed with the department.

ISSUED BY:

Equal Rights Division
Labor Standards Bureau
Construction Wage Standards Section
P.O. Box 8928, Madison, WI 53708-8928
(608)266-6861

Web Site: <http://dwd.wisconsin.gov/er/>

PREVAILING WAGE RATE DETERMINATION

Issued by the State of Wisconsin
Department of Workforce Development
Pursuant to s. 66.0903, Wis. Stats.
Issued On: 01/08/2016
Amended On: 01/28/2016

DETERMINATION NUMBER: 201600001

EXPIRATION DATE: Prime Contracts MUST Be Awarded or Negotiated On Or Before 12/31/2016. If NOT, You MUST Reapply.

PROJECT NAME: ALL PUBLIC WORKS PROJECTS UNDER SEC. 66.0903, STATS-CITY OF MADISON

PROJECT LOCATION: MADISON CITY, DANE COUNTY, WI

CONTRACTING AGENCY: CITY OF MADISON - ENGINEERING

CLASSIFICATION:	Contractors are responsible for correctly classifying their workers. Either call the Department of Workforce Development (DWD) with trade or classification questions or consult DWD's Dictionary of Occupational Classifications & Work Descriptions on the DWD website at: dwd.wisconsin.gov/er/prevailing_wage_rate/Dictionary/dictionary_main.htm .
OVERTIME:	Time and one-half must be paid for all hours worked: <ul style="list-style-type: none">- over 10 hours per day on prevailing wage projects- over 40 hours per calendar week- Saturday and Sunday- on all of the following holidays: January 1; the last Monday in May; July 4; the 1st Monday in September; the 4th Thursday in November; December 25;- The day before if January 1, July 4 or December 25 falls on a Saturday;- The day following if January 1, July 4 or December 25 falls on a Sunday. Apply the time and one-half overtime calculation to whichever is higher between the Hourly Basic Rate listed on this project determination or the employee's regular hourly rate of pay. Add any applicable Premium or DOT Premium to the Hourly Basic Rate before calculating overtime. A DOT Premium (discussed below) may supersede this time and one-half requirement.
FUTURE INCREASE:	When a specific trade or occupation requires a future increase, you MUST add the full hourly increase to the "TOTAL" on the effective date(s) indicated for the specific trade or occupation.
PREMIUM PAY:	If indicated for a specific trade or occupation, the full amount of such pay MUST be added to the "HOURLY BASIC RATE OF PAY" indicated for such trade or occupation, whenever such pay is applicable.
DOT PREMIUM:	This premium only applies to highway and bridge projects owned by the Wisconsin Department of Transportation and to the project type heading "Airport Pavement or State Highway Construction." DO NOT apply the premium calculation under any other project type on this determination.
APPRENTICES:	Pay apprentices a percentage of the applicable journey person's hourly basic rate of pay and hourly fringe benefit contributions specified in this determination. Obtain the appropriate percentage from each apprentice's contract or indenture.
SUBJOURNEY:	Subjourney wage rates may be available for some of the trades or occupations indicated below with the exception of laborers, truck drivers and heavy equipment operators. Any employer interested in using a subjourney classification on this project MUST complete Form ERD-10880 and request the applicable wage rate from the Department of Workforce Development PRIOR to using the subjourney worker on this project.

This document **MUST BE POSTED** by the **CONTRACTING AGENCY** in at least one conspicuous and easily accessible place **on the site of the project**. A local governmental unit may post this document at the place normally used to post public notices if there is no common site on the project. This document **MUST** remain posted during the entire time any worker is employed on the project and **MUST** be physically incorporated into the specifications and all contracts and subcontracts. If you have any questions, please write to the Equal Rights Division, Labor Standards Bureau, P.O. Box 8928, Madison, Wisconsin 53708 or call (608) 266-6861.

The following statutory provisions apply to local governmental unit projects of public works and are set forth below pursuant to the requirements of s. 66.0903(8), Stats.

s. 66.0903 (1) (f) & s. 103.49 (1) (c) "PREVAILING HOURS OF LABOR" for any trade or occupation in any area means 10 hours per day and 40 hours per week and may not include any hours worked on a Saturday or Sunday or on any of the following holidays:

1. January 1.
2. The last Monday in May.
3. July 4.
4. The first Monday in September.
5. The 4th Thursday in November.
6. December 25.
7. The day before if January 1, July 4 or December 25 falls on a Saturday.
8. The day following if January 1, July 4 or December 25 falls on a Sunday.

s. 66.0903 (10) RECORDS; INSPECTION; ENFORCEMENT.

(a) Each contractor, subcontractor, or contractor's or subcontractor's agent performing work on a project of public works that is subject to this section shall keep full and accurate records clearly indicating the name and trade or occupation of every person performing the work described in sub. (4) and an accurate record of the number of hours worked by each of those persons and the actual wages paid for the hours worked.

s. 66.0903 (11) LIABILITY AND PENALTIES.

- (a) 1. Any contractor, subcontractor, or contractor's or subcontractor's agent who fails to pay the prevailing wage rate determined by the department under sub. (3) or who pays less than 1.5 times the hourly basic rate of pay for all hours worked in excess of the prevailing hours of labor is liable to any affected employee in the amount of his or her unpaid wages or his or her unpaid overtime compensation and in an additional amount as liquidated damages as provided under subd. 2., 3., whichever is applicable.
2. If the department determines upon inspection under sub. (10) (b) or (c) that a contractor, subcontractor, or contractor's or subcontractor's agent has failed to pay the prevailing wage rate determined by the department under sub. (3) or has paid less than 1.5 times the hourly basic rate of pay for all hours worked in excess of the prevailing hours of labor, the department shall order the contractor to pay to any affected employee the amount of his or her unpaid wages or his or her unpaid overtime compensation and an additional amount equal to 100 percent of the amount of those unpaid wages or that unpaid overtime compensation as liquidated damages within a period specified by the department in the order.
3. In addition to or in lieu of recovering the liability specified in subd. 1. as provided in subd. 2., any employee for and in behalf of that employee and other employees similarly situated may commence an action to recover that liability in any court of competent jurisdiction. If the court finds that a contractor, subcontractor, or contractor's or subcontractor's agent has failed to pay the prevailing wage rate determined by the department under sub. (3) or has paid less than 1.5 times the hourly basic rate of pay for all hours worked in excess of the prevailing hours of labor, the court shall order the contractor, subcontractor, or agent to pay to any affected employee the amount of his or her unpaid wages or his or her unpaid overtime compensation and an additional amount equal to 100 percent of the amount of those unpaid wages or that unpaid overtime compensation as liquidated damages.
5. No employee may be a party plaintiff to an action under subd. 3. unless the employee consents in writing to become a party and the consent is filed in the court in which the action is brought. Notwithstanding s. 814.04 (1), the court shall, in addition to any judgment awarded to the plaintiff, allow reasonable attorney fees and costs to be paid by the defendant.

BUILDING OR HEAVY CONSTRUCTION

Includes sheltered enclosures with walk-in access for the purpose of housing persons, employees, machinery, equipment or supplies and non-sheltered work such as canals, dams, dikes, reservoirs, storage tanks, etc. A sheltered enclosure need not be "habitable" in order to be considered a building. The installation of machinery and/or equipment, both above and below grade level, does not change a project's character as a building. On-site grading, utility work and landscaping are included within this definition. Residential buildings of four (4) stories or less, agricultural buildings, parking lots and driveways are NOT included within this definition.

SKILLED TRADES

Fringe Benefits Must Be Paid On All Hours Worked

<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u> \$	<u>HOURLY FRINGE BENEFITS</u> \$	<u>TOTAL</u> \$
101	Acoustic Ceiling Tile Installer Future Increase(s): Add \$1.42/hr on 6/1/2016.	33.02	17.12	50.14
102	Boilermaker	33.35	28.29	61.64
103	Bricklayer, Blocklayer or Stonemason Future Increase(s): Add \$1.45 on 06/06/2016 Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	32.86	20.03	52.89
104	Cabinet Installer Future Increase(s): Add \$1.42/hr on 6/1/2016.	33.02	17.12	50.14
105	Carpenter Future Increase(s): Add \$1.42/hr on 6/1/2016. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	33.02	17.12	50.14
106	Carpet Layer or Soft Floor Coverer Future Increase(s): Add \$1.42/hr on 6/1/2016.	33.02	17.12	50.14
107	Cement Finisher	33.15	16.40	49.55
108	Drywall Taper or Finisher	29.97	20.08	50.05
109	Electrician Future Increase(s): Add \$1.25/hr on 6/1/16. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	35.75	19.97	55.72
110	Elevator Constructor	46.05	27.09	73.14
111	Fence Erector	18.72	5.78	24.50

Fringe Benefits Must Be Paid On All Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
112	Fire Sprinkler Fitter	36.78	19.97	56.75
113	Glazier	38.27	14.42	52.69
114	Heat or Frost Insulator	33.53	27.31	60.84
115	Insulator (Batt or Blown) Future Increase(s): Add \$1.42/hr on 6/1/2016.	33.02	17.12	50.14
116	Ironworker	32.50	20.58	53.08
117	Lather	32.72	16.00	48.72
118	Line Constructor (Electrical)	40.81	18.06	58.87
119	Marble Finisher	25.72	18.54	44.26
120	Marble Mason	32.82	18.67	51.49
121	Metal Building Erector	22.40	6.27	28.67
122	Millwright Future Increase(s): Add \$1.47/hr on 6/1/2016.	34.79	17.17	51.96
123	Overhead Door Installer	31.93	13.39	45.32
124	Painter	26.70	16.65	43.35
125	Pavement Marking Operator	30.00	18.81	48.81
126	Piledriver Future Increase(s): Add \$1.44/hr on 6/1/2016. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	33.56	17.12	50.68
127	Pipeline Fuser or Welder (Gas or Utility)	44.20	18.26	62.46
129	Plasterer	32.82	18.81	51.63
130	Plumber	38.82	18.02	56.84
132	Refrigeration Mechanic	45.55	18.71	64.26
133	Roofer or Waterproofer	29.65	1.71	31.36
134	Sheet Metal Worker	35.55	24.67	60.22
135	Steamfitter	45.55	18.71	64.26
137	Teledata Technician or Installer	22.50	12.74	35.24
138	Temperature Control Installer	34.97	19.67	54.64
139	Terrazzo Finisher	25.72	18.54	44.26

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
140	Terrazzo Mechanic Future Increase(s): Add \$1.60 on 06/06/2016	33.98	18.96	52.94
141	Tile Finisher	30.00	0.00	30.00
142	Tile Setter Future Increase(s): Add \$1.45/hr on 6/06/2016.	31.59	19.61	51.20
143	Tuckpointer, Caulker or Cleaner Future Increase(s): Add \$1.45 on 06/06/2016 Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	32.86	20.03	52.89
144	Underwater Diver (Except on Great Lakes)	36.74	16.00	52.74
146	Well Driller or Pump Installer Future Increase(s): Add \$1/hr on 6/1/2016; Add \$1/hr on 6/1/2017.	25.32	16.40	41.72
147	Siding Installer	17.00	6.71	23.71
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	36.73	20.41	57.14
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	32.65	15.52	48.17
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	28.57	13.71	42.28
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	26.53	13.55	40.08
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	25.00	12.55	37.55
TRUCK DRIVERS				

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
201	Single Axle or Two Axle	33.69	19.78	53.47
203	Three or More Axle	18.25	21.61	39.86
204	Articulated, Euclid, Dumptor, Off Road Material Hauler Future Increase(s): Add \$1.60/hr on 6/3/2016.	34.69	20.38	55.07
205	Pavement Marking Vehicle	18.25	21.61	39.86
207	Truck Mechanic	18.25	21.61	39.86

LABORERS

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
301	General Laborer Future Increase(s): Add \$1.25/hr eff. 06/06/2016 Premium Increase(s): Add \$1.00/hr for certified welder and pipelayer; Add \$.25/hr for mason tender.	25.81	15.63	41.44
302	Asbestos Abatement Worker	17.00	4.22	21.22
303	Landscaper	21.90	9.83	31.73
310	Gas or Utility Pipeline Laborer (Other Than Sewer and Water)	20.83	18.39	39.22
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	19.35	0.00	19.35
314	Railroad Track Laborer	17.00	3.96	20.96
315	Final Construction Clean-Up Worker	29.01	7.20	36.21

**HEAVY EQUIPMENT OPERATORS
SITE PREPARATION, UTILITY OR LANDSCAPING WORK ONLY**

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
501	Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Milling Machine; Boring Machine (Directional, Horizontal or Vertical); Backhoe (Track Type) Having a Mfgr's Rated Capacity of 130,000 Lbs. or Over; Backhoe (Track Type) Having a Mfgr's Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bulldozer or Endloader (Over 40 hp); Compactor (Self-Propelled 85 Ft Total Drum Width & Over, or Tractor Mounted, Towed & Light Equipment); Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Crane, Shovel, Dragline, Clamshells; Forklift (Machinery Moving or Steel Erection, 25 Ft & Over); Gradall (Cruz-Aire Type); Grader or Motor Patrol; Master Mechanic; Mechanic or Welder; Robotic Tool Carrier (With or Without Attachments); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Tractor or Truck Mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane (10 Tons or Under); Tractor (Scraper, Dozer, Pusher, Loader); Trencher (Wheel Type or Chain Type Having Over 8 Inch Bucket). Future Increase(s): Add \$1.60/hr on 6/3/2016.	35.22	20.38	55.60
502	Backfiller; Broom or Sweeper; Bulldozer or Endloader (Under 40 hp); Environmental Burner; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Jeep Digger; Screed (Milling Machine); Skid Rig; Straddle Carrier or Travel Lift; Stump Chipper; Trencher (Wheel Type or Chain Type Having 8 Inch Bucket & Under). Future Increase(s): Add \$1.60/hr on 6/3/2016.	34.69	20.38	55.07

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
503	Air Compressor (&/or 400 CFM or Over); Augers (Vertical & Horizontal); Compactor (Self-Propelled 84 Ft Total Drum Width & Under, or Tractor Mounted, Towed & Light Equipment); Crusher, Screening or Wash Plant; Farm or Industrial Type Tractor; Forklift; Generator (&/or 150 KW or Over); Greaser; High Pressure Utility Locating Machine (Daylighting Machine); Mulcher; Oiler; Post Hole Digger or Driver; Pump (3 Inch or Over) or Well Points; Refrigeration Plant or Freeze Machine; Rock, Stone Breaker; Skid Steer Loader (With or Without Attachments); Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add \$1.60/hr on 6/3/2016.	32.62	20.38	53.00
504	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	41.65	21.71	63.36
505	Work Performed on the Great Lakes Including Crane or Backhoe Operator; Assistant Hydraulic Dredge Engineer; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder; 70 Ton & Over Tug Operator. Future Increase(s): Add \$1.25/hr on 1/1/2017. Premium Increase(s): Add \$.50/hr for Friction Crane, Lattice Boom or Crane Certification (CCO).	44.05	23.24	67.29
506	Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or More); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery. Future Increase(s): Add \$1.25/hr on 1/1/2017.	39.20	23.09	62.29
507	Work Performed on the Great Lakes Including Deck Equipment Operator, Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under); Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks - Great Lakes ONLY.	36.72	21.15	57.87

**HEAVY EQUIPMENT OPERATORS
EXCLUDING SITE PREPARATION, UTILITY, PAVING LANDSCAPING WORK**

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
508	Boring Machine (Directional); Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity of Over 4,000 Lbs., Crane With Boom Dollies; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Master Mechanic. Future Increase(s): Add \$1.60/hr on 6/3/2016. Premium Increase(s):	37.67	20.38	58.05

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
	Add \$.50/hr for >200 Ton; Add \$1/hr at 300 Ton; Add \$1.50/hr at 400 Ton; Add \$2/hr at 500 Ton & Over.			
509	Backhoe (Track Type) Having a Mfgr's Rated Capacity of 130,000 Lbs. or Over; Boring Machine (Horizontal or Vertical); Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With A Lifting Capacity Of 4,000 Lbs. & Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Pile Driver; Versi Lifts, Tri-Lifts & Gantrys (20,000 Lbs. & Over). Future Increase(s): Add \$1.60/hr on 6/3/2016. Premium Increase(s): Add \$.25/hr for all >45 Ton lifting capacity cranes.	36.42	20.38	56.80
510	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Laser/Screen; Concrete Paver (Slipform); Concrete Pump (Over 46 Meter), Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Dredge (NOT Performing Work on the Great Lakes); Forklift (Machinery Moving or Steel Erection, 25 Ft & Over); Gradall (Cruz-Aire Type); Hydro-Blaster (10,000 PSI or Over); Milling Machine; Skid Rig; Traveling Crane (Bridge Type). Future Increase(s): Add \$1.60/hr on 6/3/2016.	35.22	20.38	55.60
511	Air, Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Bulldozer or Endloader (Over 40 hp); Compactor (Self-Propelled 85 Ft Total Drum Width & Over, or Tractor Mounted, Towed & Light Equipment); Concrete Pump (46 Meter & Under), Concrete Conveyor (Rotec or Bidwell Type); Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Environmental Burner; Gantrys (Under 20,000 Lbs.); Grader or Motor Patrol; High Pressure Utility Locating Machine (Daylighting Machine); Manhoist; Material or Stack Hoist; Mechanic or Welder; Railroad Track Rail Leveling Machine, Tie Placer, Extractor, Tamper, Stone Leveler or Rehabilitation Equipment; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yd or More Capacity; Screed (Milling Machine); Sideboom; Straddle Carrier or Travel Lift; Tining or Curing Machine; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane (10 Tons or Under); Trencher (Wheel Type or Chain Type Having Over 8-Inch Bucket). Future Increase(s): Add \$1.60/hr on 6/3/2016.	34.69	20.38	55.07

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
512	Backfiller; Broom or Sweeper; Bulldozer or Endloader (Under 40 hp); Compactor (Self-Propelled 84 Ft Total Drum Width & Under, or Tractor Mounted, Towed & Light Equipment); Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Conveyor System; Concrete Finishing Machine (Road Type); Fireman (Pile Driver & Derrick NOT Performing Work on the Great Lakes); Grout Pump; Hoist (Tugger, Automatic); Industrial Locomotives; Jeep Digger; Lift Slab Machine; Mulcher; Roller (Rubber Tire, 5 Ton or Under); Screw or Gypsum Pumps; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Stump Chipper; Trencher (Wheel Type or Chain Type Having 8-Inch Bucket & Under); Winches & A-Frames. Future Increase(s): Add \$1.60/hr on 6/3/2016.	32.62	20.38	53.00
513	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Boatmen (NOT Performing Work on the Great Lakes); Boiler (Temporary Heat); Crusher, Screening or Wash Plant; Elevator; Farm or Industrial Type Tractor; Fireman (Asphalt Plant NOT Performing Work on the Great Lakes); Forklift; Generator (&/or 150 KW or Over); Greaser; Heaters (Mechanical); Loading Machine (Conveyor); Oiler; Post Hole Digger or Driver; Prestress Machine; Pump (3 Inch or Over) or Well Points; Refrigeration Plant or Freeze Machine; Robotic Tool Carrier (With or Without Attachments); Rock, Stone Breaker; Skid Steer Loader (With or Without Attachments); Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add \$1.60/hr on 6/3/2016.	31.99	20.38	52.37
514	Gas or Utility Pipeline, Except Sewer & Water (Primary Equipment). Future Increase(s): Add \$1/hr on 5/30/2016.	37.04	22.44	59.48
515	Gas or Utility Pipeline, Except Sewer & Water (Secondary Equipment).	33.82	20.30	54.12
516	Fiber Optic Cable Equipment	29.50	0.68	30.18

SEWER, WATER OR TUNNEL CONSTRUCTION
--

Includes those projects that primarily involve public sewer or water distribution, transmission or collection systems and related tunnel work (excluding buildings).

SKILLED TRADES

<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u> \$	<u>HOURLY FRINGE BENEFITS</u> \$	<u>TOTAL</u> \$
Fringe Benefits Must Be Paid On All Hours Worked				
103	Bricklayer, Blocklayer or Stonemason	32.82	18.67	51.49
105	Carpenter	32.72	16.00	48.72
107	Cement Finisher Future Increase(s): Add \$1.75 on 6/1/16. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.40/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.	35.97	17.85	53.82
109	Electrician	52.00	1.50	53.50
111	Fence Erector	18.72	5.78	24.50
116	Ironworker	32.50	20.58	53.08
118	Line Constructor (Electrical)	40.81	18.06	58.87
125	Pavement Marking Operator	30.00	18.81	48.81
126	Piledriver	33.24	16.00	49.24
130	Plumber Future Increase(s): Add \$1.50 on 6/1/16	39.95	19.45	59.40
135	Steamfitter	44.20	18.26	62.46
137	Teledata Technician or Installer	22.50	12.74	35.24
143	Tuckpointer, Caulker or Cleaner	32.82	18.67	51.49
144	Underwater Diver (Except on Great Lakes)	31.00	20.43	51.43
146	Well Driller or Pump Installer Future Increase(s): Add \$1/hr on 6/1/2016; Add \$1/hr on 6/1/2017.	25.32	16.40	41.72
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	36.73	15.92	52.65
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	32.65	15.52	48.17

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	28.57	13.71	42.28
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	26.53	13.55	40.08
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	12.97	34.72

TRUCK DRIVERS

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
201	Single Axle or Two Axle	19.00	0.00	19.00
203	Three or More Axle	19.00	0.00	19.00
204	Articulated, Euclid, Dumptor, Off Road Material Hauler	33.69	19.78	53.47
205	Pavement Marking Vehicle	19.00	0.00	19.00
207	Truck Mechanic	19.00	0.00	19.00

LABORERS

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
301	General Laborer Future Increase(s): Add \$1.25/hr eff. 06/06/2016 Premium Increase(s): Add \$.20 for blaster, bracer, manhole builder, caulker, bottomman and power tool; Add \$.55 for pipelayer; Add \$1.00 for tunnel work 0-15 lbs. compressed air; Add \$2.00 for over 15-30 lbs. compressed air; Add \$3.00 for over 30 lbs. compressed air.	27.18	15.64	42.82
303	Landscaper	41.00	0.00	41.00
304	Flagperson or Traffic Control Person	20.92	14.80	35.72
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	19.35	0.00	19.35
314	Railroad Track Laborer	17.00	3.96	20.96

**HEAVY EQUIPMENT OPERATORS
SEWER, WATER OR TUNNEL WORK**

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
521	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Master Mechanic; Pile Driver. Premium Increase(s): Add \$.25/hr for operating tower crane.	38.09	20.80	58.89
522	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Boring Machine (Directional); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump (Over 46 Meter), Concrete Conveyor (Rotec or Bidwell Type); Concrete Spreader & Distributor; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With a Lifting Capacity of 4,000 Lbs. & Under; Dredge (NOT Performing Work on the Great Lakes); Milling Machine; Skid Rig; Telehandler; Traveling Crane (Bridge Type). Future Increase(s): Add \$1.60/hr on 6/3/2016.	35.22	20.38	55.60
523	Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Boring Machine (Horizontal or Vertical); Bulldozer or Endloader (Over 40 hp); Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Concrete Pump (46 Meter & Under), Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Hydro-Blaster (10,000 PSI or Over); Manhoist; Material or Stack Hoist; Mechanic or Welder; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yd or More Capacity; Screed (Milling Machine); Sideboom; Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane (10 Tons or Under); Trencher (Wheel Type or Chain Type Having Over 8-Inch Bucket). Future Increase(s): Add \$1.60/hr on 6/3/2016.	34.69	20.38	55.07

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
524	Backfiller; Broom or Sweeper; Bulldozer or Endloader (Under 40 hp); Compactor (Self-Propelled 85 Ft Total Drum Width & Over, or Tractor Mounted, Towed & Light Equipment); Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Conveyor System; Concrete Finishing Machine (Road Type); Environmental Burner; Fireman (Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Hoist (Tugger, Automatic); Grout Pump; Jeep Digger; Lift Slab Machine; Mulcher; Power Subgrader; Pump (3 Inch or Over) or Well Points; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Screw or Gypsum Pumps; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Stump Chipper; Tining or Curing Machine; Trencher (Wheel Type or Chain Type Having 8-Inch Bucket & Under); Winches & A-Frames.	33.69	21.75	55.44
525	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Compactor (Self-Propelled 84 Ft Total Drum Width & Under, or Tractor Mounted, Towed & Light Equipment); Crusher, Screening or Wash Plant; Farm or Industrial Type Tractor; Fireman (Asphalt Plant NOT Performing Work on the Great Lakes); Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Loading Machine (Conveyor); Post Hole Digger or Driver; Refrigeration Plant or Freeze Machine; Rock, Stone Breaker; Skid Steer Loader (With or Without Attachments); Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add \$1.60/hr on 6/3/2016.	31.99	20.38	52.37
526	Boiler (Temporary Heat); Forklift; Greaser; Oiler.	30.99	19.78	50.77
527	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	41.65	21.71	63.36
528	Work Performed on the Great Lakes Including 70 Ton & Over Tug Operator; Assistant Hydraulic Dredge Engineer; Crane or Backhoe Operator; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder.	41.65	21.71	63.36
529	Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or More); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery.	36.72	21.15	57.87
530	Work Performed on the Great Lakes Including Deck Equipment Operator; Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under), Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks - Great Lakes ONLY.	36.72	21.15	57.87

AIRPORT PAVEMENT OR STATE HIGHWAY CONSTRUCTION

Includes all airport projects (excluding buildings) and all projects awarded by the Wisconsin Department of Transportation (excluding buildings).

SKILLED TRADES

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
103	Bricklayer, Blocklayer or Stonemason	31.55	18.52	50.07
105	Carpenter Future Increase(s): Add \$1.42/hr on 6/1/2016. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	33.02	17.12	50.14
107	Cement Finisher Future Increase(s): Add \$1.75 on 6/1/16. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.40/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.	35.97	17.85	53.82
109	Electrician Future Increase(s): Add \$1.25/hr on 6/1/16. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	35.75	19.97	55.72
111	Fence Erector	35.62	0.00	35.62
116	Ironworker	32.50	20.58	53.08
118	Line Constructor (Electrical)	40.81	18.06	58.87
124	Painter	29.87	18.79	48.66
125	Pavement Marking Operator	31.24	17.30	48.54
126	Piledriver	30.11	21.09	51.20
133	Roofer or Waterproofer	30.40	2.23	32.63
137	Teledata Technician or Installer	22.50	12.74	35.24
143	Tuckpointer, Caulker or Cleaner	32.82	18.67	51.49

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
144	Underwater Diver (Except on Great Lakes)	36.74	16.00	52.74
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	36.73	15.92	52.65
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	32.65	17.37	50.02
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	28.57	13.71	42.28
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	26.53	13.09	39.62
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	12.97	34.72

TRUCK DRIVERS

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
201	Single Axle or Two Axle	36.72	21.15	57.87
203	Three or More Axle Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	25.78	18.96	44.74
204	Articulated, Euclid, Dumptor, Off Road Material Hauler Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/prevaling-wage-compliance.aspx .	30.82	21.85	52.67
205	Pavement Marking Vehicle	23.82	17.72	41.54
206	Shadow or Pilot Vehicle	25.28	18.31	43.59
207	Truck Mechanic	25.28	18.31	43.59

LABORERS

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
301	General Laborer Future Increase(s): Add \$1.00/hr eff. 06/01/2016; Add \$1.00/hr eff. 06/01/2017 Premium Increase(s): Add \$.10/hr for topman, air tool operator, vibrator or tamper operator (mechanical hand operated), chain saw operator and demolition burning torch laborer; Add \$.15/hr for bituminous worker (raker and luteman), formsetter (curb, sidewalk and pavement) and strike off man; Add \$.20/hr for blaster and powderman; Add \$.25/hr for bottomman; Add \$.35/hr for line and grade specialist; Add \$.45/hr for pipelayer. / DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).	30.95	15.65	46.60
302	Asbestos Abatement Worker	17.00	4.22	21.22
303	Landscaper Future Increase(s): Add \$1.00/hr eff. 06/01/2016; Add \$1.00/hr eff. 06/01/2017 Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).	30.95	15.65	46.60
304	Flagperson or Traffic Control Person Future Increase(s): Add \$1.00/hr eff. 06/01/2016; Add \$1.00/hr eff. 06/01/2017 Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.	27.30	15.65	42.95

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked				
CODE	TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
		\$	\$	\$
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	19.35	0.00	19.35
314	Railroad Track Laborer	17.00	3.96	20.96

**HEAVY EQUIPMENT OPERATORS
AIRPORT PAVEMENT OR STATE HIGHWAY CONSTRUCTION**

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked				
CODE	TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
		\$	\$	\$
531	Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Traveling Crane (Bridge Type). Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsin.gov/Doing-Bus-Civil-Rights/Labor-Wage-Prevailing-Wage-Compliance.aspx .	38.27	21.85	60.12
532	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With A Lifting Capacity Of 4,000 Lbs., & Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver. Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsin.gov/Doing-Bus-Civil-Rights/Labor-Wage-Prevailing-Wage-Compliance.aspx .	37.77	21.85	59.62

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
533	<p>Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Automatic Subgrader (Concrete); Backhoe (Track Type) Having a Mfr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boatmen (NOT Performing Work on the Great Lakes); Boring Machine (Directional, Horizontal or Vertical); Bridge (Bidwell) Paver; Bulldozer or Endloader; Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A-Frames.</p> <p>Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.</p> <p>Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/prevailing-wage-compliance.aspx.</p>	37.27	21.85	59.12

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
534	<p>Belting, Burlap, Texturing Machine; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Asphalt Plant, Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Hoist (Tugger, Automatic); Jeep Digger; Joint Sawyer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Self Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or Without Attachments); Telehandler; Tining or Curing Machine.</p> <p>Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.</p> <p>Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsin.gov/Page s/doing-bus/civil-rights/labornwage/prevaling-wage-compliance.aspx.</p>	37.01	21.85	58.86
535	<p>Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Concrete Proportioning Plant; Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oiler; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack.</p> <p>Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.</p> <p>Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsin.gov/Page s/doing-bus/civil-rights/labornwage/prevaling-wage-compliance.aspx.</p>	36.72	21.85	58.57
536	Fiber Optic Cable Equipment.	29.50	0.68	30.18
537	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	41.65	21.71	63.36
538	Work Performed on the Great Lakes Including 70 Ton & Over Tug Operator; Assistant Hydraulic Dredge Engineer; Crane or Backhoe Operator; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder.	41.65	21.71	63.36

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
539	Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or More); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery.	36.72	21.15	57.87
540	Work Performed on the Great Lakes Including Deck Equipment Operator, Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under); Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks-Great Lakes ONLY.	36.72	21.15	57.87

LOCAL STREET OR MISCELLANEOUS PAVING CONSTRUCTION

Includes roads, streets, alleys, trails, bridges, paths, racetracks, parking lots and driveways (except residential or agricultural), public sidewalks or other similar projects (excluding projects awarded by the Wisconsin Department of Transportation).

SKILLED TRADES

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
103	Bricklayer, Blocklayer or Stonemason	32.82	18.67	51.49
105	Carpenter Future Increase(s): Add \$1.42/hr on 6/1/2016. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	33.02	17.12	50.14
107	Cement Finisher Future Increase(s): Add \$1.75 on 6/1/16. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.40/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.	35.97	17.85	53.82
109	Electrician Future Increase(s): Add \$1.25/hr on 6/1/16. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	35.75	19.97	55.72
111	Fence Erector	18.72	5.78	24.50
116	Ironworker	32.50	20.58	53.08
118	Line Constructor (Electrical)	40.81	18.06	58.87
124	Painter	26.70	16.65	43.35
125	Pavement Marking Operator	30.00	18.81	48.81
126	Piledriver Future Increase(s): Add \$1.44/hr on 6/1/2016. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	33.56	17.12	50.68

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
133	Rofer or Waterproofer	29.65	1.71	31.36
137	Teledata Technician or Installer	22.50	12.74	35.24
143	Tuckpointer, Caulker or Cleaner	32.82	18.67	51.49
144	Underwater Diver (Except on Great Lakes)	36.74	16.00	52.74
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	36.73	15.92	52.65
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	32.65	15.52	48.17
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	28.57	13.71	42.28
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	26.53	13.55	40.08
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	12.97	34.72

TRUCK DRIVERS

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
201	Single Axle or Two Axle	18.00	0.00	18.00
203	Three or More Axle	18.00	0.00	18.00
204	Articulated, Euclid, Dumptor, Off Road Material Hauler Future Increase(s): Add \$1.60/hr on 6/3/2016.	34.69	20.38	55.07
205	Pavement Marking Vehicle	18.00	0.00	18.00
206	Shadow or Pilot Vehicle	18.00	0.00	18.00
207	Truck Mechanic	18.00	0.00	18.00

LABORERS

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
301	General Laborer	26.34	15.17	41.51

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
303	Landscaper Future Increase(s): Add \$1.00/hr eff. 06/01/2016; Add \$1.00/hr eff. 06/01/2017 Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).	30.67	15.65	46.32
304	Flagperson or Traffic Control Person	20.92	14.80	35.72
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	19.35	0.00	19.35
314	Railroad Track Laborer	17.00	3.96	20.96

**HEAVY EQUIPMENT OPERATORS
CONCRETE PAVEMENT OR BRIDGE WORK**

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
541	Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Master Mechanic. Future Increase(s): Add \$1.60/hr on 6/3/2016. Premium Increase(s): Add \$.50/hr for >200 Ton; Add \$1/hr at 300 Ton; Add \$1.50/hr at 400 Ton; Add \$2/hr at 500 Ton & Over.	37.67	20.38	58.05

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
542	<p>Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With a Lifting Capacity of 4,000 Lbs. & Under; Crane, Tower Crane Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver.</p> <p>Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.</p> <p>Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/prevailing-wage-compliance.aspx.</p>	37.77	21.85	59.62
543	<p>Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Automatic Subgrader (Concrete); Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Boring Machine (Directional, Horizontal or Vertical); Bridge (Bidwell) Paver; Bulldozer or Endloader; Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Manhoist; Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A-Frames.</p> <p>Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.</p> <p>Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/prevailing-wage-compliance.aspx.</p>	37.27	21.85	59.12

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
544	<p>Backfiller; Belting, Burlap, Texturing Machine; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Jeep Digger; Joint Sawyer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Self Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or Without Attachments); Telehandler; Tining or Curing Machine.</p> <p>Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.</p> <p>Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsin.gov/Pages/doing-bus/civil-rights/labornwage/prevaling-wage-compliance.aspx.</p>	37.27	21.85	59.12
545	<p>Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Concrete Proportioning Plant; Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oiler; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack.</p>	31.62	19.78	51.40
546	Fiber Optic Cable Equipment.	29.50	0.68	30.18
547	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	41.65	21.71	63.36
548	<p>Work Performed on the Great Lakes Including 70 Ton & Over Tug Operator; Assistant Hydraulic Dredge Engineer; Crane or Backhoe Operator; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder.</p> <p>Future Increase(s): Add \$1.25/hr on 1/1/2017.</p> <p>Premium Increase(s): Add \$.50/hr for Friction Crane, Lattice Boom or Crane Certification (CCO).</p>	44.05	23.24	67.29
549	Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or more); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery.	36.72	21.15	57.87

550	Work Performed on the Great Lakes Including Deck Equipment Operator; Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under); Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks - Great Lakes ONLY.	36.72	21.15	57.87
-----	---	-------	-------	-------

**HEAVY EQUIPMENT OPERATORS
ASPHALT PAVEMENT OR OTHER WORK**

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	\$	\$	\$
551	Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self Erecting Tower Crane With a Lifting Capacity of Over 4,000 Lbs., Crane With Boom Dollies; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads and/or Jib Lengths Measuring 176 Ft or Over; Master Mechanic.	36.67	19.78	56.45
552	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With a Lifting Capacity Of 4,000 Lbs. & Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver. Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/prevaling-wage-compliance.aspx .	37.77	21.85	59.62

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
553	Air, Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boring Machine (Directional, Horizontal or Vertical); Bulldozer or Endloader; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Conveyor System; Concrete Laser/Screed; Concrete Slipform Placer Curb & Gutter Machine; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Manhoist; Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Railroad Track Rail Leveling Machine, Tie Placer, Extractor, Tamper, Stone Leveler or Rehabilitation Equipment; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A-Frames. Future Increase(s): Add \$1.60/hr on 6/3/2016.	34.69	20.38	55.07
554	Backfiller; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Asphalt Plant, Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Hoist (Tugger, Automatic); Jeep Digger; Joint Sawyer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Self-Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or Without Attachments); Telehandler.	36.17	19.19	55.36
555	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oiler; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add \$1.60/hr on 6/3/2016.	32.62	20.38	53.00
556	Fiber Optic Cable Equipment.	29.50	0.68	30.18

RESIDENTIAL OR AGRICULTURAL CONSTRUCTION

Includes single family houses or apartment buildings of no more than four (4) stories in height and all buildings, structures or facilities that are primarily used for agricultural or farming purposes, excluding commercial buildings. For classification purposes, the exterior height of a residential building, in terms of stories, is the primary consideration. All incidental items such as site work, driveways, parking lots, private sidewalks, private septic systems or sewer and water laterals connected to a public system and swimming pools are included within this definition. Residential buildings of five (5) stories and above are NOT included within this definition.

SKILLED TRADES

CODE	TRADE OR OCCUPATION	FRINGE BENEFITS MUST BE PAID ON <u>All</u> HOURS WORKED	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
			\$	\$	\$
101	Acoustic Ceiling Tile Installer		37.41	0.00	37.41
102	Boilermaker		33.35	28.29	61.64
103	Bricklayer, Blocklayer or Stonemason		32.82	9.93	42.75
104	Cabinet Installer		20.00	0.46	20.46
105	Carpenter		25.39	5.03	30.42
106	Carpet Layer or Soft Floor Coverer		24.04	4.89	28.93
107	Cement Finisher		23.86	3.43	27.29
108	Drywall Taper or Finisher		27.00	0.00	27.00
109	Electrician		20.00	12.47	32.47
110	Elevator Constructor		46.05	27.09	73.14
111	Fence Erector		19.45	4.70	24.15
112	Fire Sprinkler Fitter		33.00	18.96	51.96
113	Glazier		38.27	14.42	52.69
114	Heat or Frost Insulator		17.00	0.00	17.00
115	Insulator (Batt or Blown)		20.00	12.35	32.35
116	Ironworker		24.30	14.25	38.55
117	Lather		25.39	5.03	30.42
119	Marble Finisher		25.72	18.54	44.26
120	Marble Mason		32.82	9.93	42.75
121	Metal Building Erector		13.60	6.57	20.17
123	Overhead Door Installer		18.00	0.00	18.00
124	Painter		26.24	0.00	26.24
125	Pavement Marking Operator		30.00	18.81	48.81

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
129	Plasterer	30.00	9.21	39.21
130	Plumber	30.00	11.56	41.56
132	Refrigeration Mechanic	22.50	9.03	31.53
133	Roofer or Waterproofer	21.00	4.10	25.10
134	Sheet Metal Worker	23.22	5.45	28.67
135	Steamfitter	17.05	0.94	17.99
137	Teledata Technician or Installer	22.50	12.74	35.24
138	Temperature Control Installer	22.50	2.36	24.86
139	Terrazzo Finisher	25.72	18.54	44.26
140	Terrazzo Mechanic	33.67	17.82	51.49
141	Tile Finisher	30.00	0.00	30.00
142	Tile Setter Future Increase(s): Add \$1.45/hr on 6/06/2016.	31.59	19.61	51.20
143	Tuckpointer, Caulker or Cleaner	25.00	2.99	27.99
146	Well Driller or Pump Installer	29.00	0.64	29.64
147	Siding Installer	14.00	0.00	14.00

TRUCK DRIVERS

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
201	Single Axle or Two Axle	16.50	0.50	17.00
203	Three or More Axle	21.53	3.34	24.87
205	Pavement Marking Vehicle	21.53	3.34	24.87
207	Truck Mechanic	21.53	3.34	24.87

LABORERS

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
301	General Laborer	17.20	9.26	26.46
302	Asbestos Abatement Worker	18.00	3.22	21.22

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
303	Landscaper	15.00	4.03	19.03
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	19.35	0.00	19.35
315	Final Construction Clean-Up Worker	15.00	0.00	15.00

**HEAVY EQUIPMENT OPERATORS
RESIDENTIAL OR AGRICULTURAL CONSTRUCTION**

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
557	Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Backhoe (Track Type); Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boring Machine (Directional, Horizontal or Vertical); Bulldozer or Endloader; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Crane, Shovel, Dragline, Clamshells; Forestry Equipment, Timberco, Tree Shear, Tub Grinder, Processor; Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Manhoist; Material or Stack Hoist; Mechanic or Welder; Milling Machine; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane (10 Tons or Under); Trencher (Wheel Type or Chain Type); Winches & A-Frames.	34.22	19.55	53.77
558	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Backfiller; Belting, Burlap, Texturing Machine; Boiler (Temporary Heat); Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Farm or Industrial Type Tractor; Forklift; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Jeep Digger; Lift Slab Machine; Mulcher; Oiler; Post Hole Digger or Driver; Power Subgrader; Pump (3 Inch or Over) or Well Points; Robotic Tool Carrier (With or Without Attachments); Rock, Stone Breaker; Roller (Rubber Tire, 5 Tons or Under); Screed (Milling Machine); Self Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or Without Attachments); Stump Chipper; Telehandler; Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add \$1.60/hr on 6/3/2016.	31.99	20.38	52.37

***** END OF RATES *****

THE 2015-17 BUDGET BILL MADE SIGNIFICANT CHANGES TO WISCONSIN'S PREVAILING WAGE LAWS. HOWEVER, THOSE CHANGES DO NOT GO INTO EFFECT UNTIL JANUARY 1, 2017.

During calendar year 2016, DWD will continue to enforce prevailing wage laws for local governmental unit and state agency public works projects under current prevailing wage laws.

2015 Wisconsin Act 55 (the budget bill) repealed the state prevailing wage law for **local governmental units** such as villages, towns, cities, school districts, or sewerage districts effective January 1, 2017. However, if a local governmental unit:

- issues a Request for Bids before January 1, 2017, for a project of public works that is subject to bidding or,
- enters into a contract before January 1, 2017, for a project of public works that is not subject to bidding,

then those public works projects are subject to the current prevailing wage law (§66.0903, Wis. Stats.) through the life of the project. Projects of public works with prevailing wage project determinations issued prior to 2017 continue to be subject to the current prevailing wage law through the life of the project even though the project may have work going on in 2017 or subsequent years.

Contractors working on local governmental unit projects with prevailing wage rate determinations must continue to pay employees the appropriate prevailing wage and maintain required prevailing wage payroll records. For instance, if a contractor is working in 2018 on a public works project with a project determination issued prior to 2017, then the contractor is required to comply with the "old" prevailing wage rate law (§66.0903, Wis. Stats.). After January 1, 2017, DWD will continue to enforce prevailing wage requirements for projects with DWD prevailing wage determinations issued under the "old" prevailing wage laws (§§ 66.0903 & 103.49, Wis. Stats.).

For new public works projects starting on January 1, 2017, state prevailing wage law will only apply to **state agency** and **state highway** projects. Prevailing wage rates applicable to state agencies will be those issued by the U.S. Department of Labor under the Davis-Bacon Act, 40 U.S.C. 3142. The Wisconsin Department of Administration will enforce the new state agency prevailing wage law (§16.856, Wis. Stats.) and the Wisconsin Department of Transportation will continue to enforce prevailing wage on state highway projects (under a law renumbered as §84.062, Wis. Stats.).

POST THE WHITE SHEET

As the public entity receiving this prevailing wage rate determination, **YOU ARE REQUIRED** by law to post the prevailing wage rate determination (i.e., white sheet) in at least one conspicuous and easily accessible place on the project site that is available to all construction workers. The white sheet must remain posted from the onset of the project until all construction labor on the project has been completed.

[See, Wis. Admin. Code §DWD 290.12(1)]

Posting the white sheet inside the general contractor's trailer does not meet this requirement. That placement is not available/accessible to all workers and is not a location over which you have control.

If you have questions about posting, please call (608)266-6861 and ask for prevailing wage intake.

PREVAILING WAGE – Contractors

Any public works project that has a total estimated project cost that equals or exceeds prevailing wage project thresholds requires a prevailing wage rate determination issued by the Department of Workforce Development (DWD). Public works include erecting, constructing, remodeling, repairing, demolishing, alterations, painting and decorating projects for a local governmental unit or state agency. State law excludes minor service or maintenance work, warranty work, or work under a supply-and-installation contract. There is a statutory definition for most of these exclusions. The prevailing wage laws that apply to local governmental units and their contractors are §§66.0903 and 103.503, Wis. Stats. The prevailing wage laws that apply to state agencies and their contractors are §§103.49 and 103.503, Wis. Stats. The applicable administrative rules for all prevailing wage projects are DWD 290 and DWD 294, Wis. Adm. Code. These laws include provisions that apply to all contractors and subcontractors working on prevailing wage projects.

Any contractor or subcontractor working on a local governmental unit or state agency's public works project that equals or exceeds current prevailing wage project thresholds must do all of the following:

- Receive and review the project's prevailing wage rate determination (i.e., white sheet).
- Tell subcontractors the project is subject to state prevailing wage law and include the prevailing wage rate determination in the construction contract, or if there is no written contract, provide a copy of the project determination to each subcontractor.
- Hire subcontractors who do *not* appear on the "Consolidated List of Debarred Contractors."
- Have a written substance abuse testing program in place that fulfills the requirements of §103.503, Wis. Stats., before commencing work on the project.

- Notify subcontractors that if DWD finds that a contractor or subcontractor violated the prevailing wage law, DWD will assess liquidated damages of 100% of the wages owed to employees.
- Apply to DWD for subjourney wage rates prior to employing these individuals on the project.
- Receive and retain a completed Affidavit of Compliance from each subcontractor brought on to the project before providing final payment to those subcontractors.
- Submit a completed Affidavit of Compliance to the contractor who brought the subcontractor on to the project before receiving final payment for the project.
- Maintain payroll records for 3 years that comply with §§66.0903(10)(a) or 103.49(5)(a), Stats. and DWD 274.06.
- Respond to requests from DWD or the project owner to provide payroll records and/or respond to prevailing wage complaints filed by employees or third parties.

For more information, visit the prevailing wage website: http://dwd.wisconsin.gov/er/prevailing_wage_rate/default.htm. For further assistance, call the Equal Rights Division at 608-266-6861 and ask for prevailing wage.