BID – CITY OF ESCANABA WASTEWATER TREATMENT PLANT EQUIPMENT COATING - 2023

TO BIDDERS: **08/10/2023**

BID OPENING: **09/12/2023 @ 2:00 p.m. EST**

ADVERTISED: **WEEK OF 8/10/2023**

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Mandatory Site Pre-Bid Meeting

Insurance

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Attachments (Pictures)

NOTICE TO BIDDERS

Sealed bids will be received by the City of Escanaba at the office of the City Clerk, on or before:

2:00 p.m. EST, on: September 12, 2023.

The bids will be publicly opened and read in Room 101 in the City Hall located at 410 Ludington Street, Escanaba, Michigan at said date and time.

Bidder's proposals, and/or specifications may be obtained from the office of the City Clerk, located at 410 Ludington Street, Escanaba, Michigan, 49829. No bids will be considered unless the proposal form and /or specifications (furnished by the City of Escanaba, Michigan), are properly completed and enclosed in a sealed envelope, marked:

WASTEWATER TREATMENT PLANT EQUIPMENT COATING - 2023

In addition, the City of Escanaba, Michigan will not consider any proposal which has not been received prior to the published time, date, and year of bid opening. (FAX transmittals will not be accepted.)

A Certified Check, Cashier's Check, or Bidder's Bond, drawn payable, without condition, to the City of Escanaba, Michigan, in an amount not less than 10% of the bid, will be submitted with each proposal as a guarantee that if the bid is accepted, the bidder will furnish materials or services as stated in his or her proposal. On failure of the successful bidder to fulfill the conditions of his or her proposal, he or she shall forfeit said deposit to the City of Escanaba, Michigan as liquidated damages. The acceptance of the proposal will be contingent upon the bidder's acceptance of this provision.

The City of Escanaba, Michigan reserves the right to reject any or all bids, or any part thereof at its discretion, and to waive any irregularities in the bidding. The City of Escanaba, Michigan may also split bids at its discretion. The City further reserves the right to negotiate directly with any and all bidders concerning any matter related to any bid.

All City of Escanaba, Michigan bids are prepared to afford all vendors the equal opportunity for fair and equitable competition. The City of Escanaba, Michigan assumes no liability or responsibility for any errors or oversights in the preparation and/or publication of bids.

Jeff Lampi
W/WW Supt
City of Escanaba

SPECIFICATIONS FOR WWTP EQUIPMENT COATING BID

DESCRIPTION OF WORK REQUIRED

Through the course of the recent plant upgrade work, the coating of several pieces of equipment were mistakenly removed from the project through a change order. Time was not available to correct this mistake, so it was decided that the wastewater department would complete this work on its own at a later date. Within this request for bids, you will find the painting–coating specifications from the project. Along with photos of all the items in need of a coating.

Since the specifications are from a larger project, some care is needed to focus on the remaining items requiring a coating. All coating colors will be according to the Wastewater plants color code based on the associated process control or continents of plumbing. The plant process color code sheet will be provided after bid is awarded.

Since there is work required both inside and outside, we will be flexible in the completion of this work. However, all work must be completed no later than June 31st, 2024. All work must be coordinated with the WW Supt or Chief of Maintenance & Operations.

GENERAL

1.1 SECTION INCLUDES

A. Protective coating systems for wastewater treatment facilities. The work includes:

1. Recoating of existing surface previously coated.
2. Coating of surfaces of new equipment and material not finish coated in the factory.
3. Coating of existing concrete surfaces coal tar epoxy coated.

B. Surface preparation.

C. Field application of special coatings.

D. Surfaces to receive coating are indicated in the Surface Coating Schedules in the Drawings and are further clarified in this specification.

E. Coating system for new construction applies, but not limited to, primary settling tank rapid mix diversion chamber, primary effluent diversion chamber, primary settling tank no. 1 and 2, final settling tank no. 1 and 2, and final settling tank distribution chamber.

F. Construction impacts not included on Architectural drawing sheets are to be coordinated within this specification.

1.2 SUMMARY

A. The work includes surface preparation and application of protective coatings on existing and new surfaces throughout the Escanaba Wastewater Treatment Plant.

B. All newly installed equipment materials which is not finish coated in the factory shall be coated per this specification.

C. Selected existing, previously coated surface are being recoated under this specification.

1. Existing surfaces to be recoated are designated in the several Surface Coating Schedules on the Drawings. Each existing surface category designated for recoating shall be completed in conformance with the specific surface coating requirements of this specification.
2. When the Schedule designates a surface to be recoated, it shall be the responsibility of the Contract to interpret the specific coating system to be applied based on this Specification.

D. Confirm chemical compatibility of new coating systems with existing surfaces.

1.3 SUMBITTALS

A. Submit in accordance with Section 01 3000 - Administrative Requirements, and the General and Supplementary Conditions.

B. Product Data: Submit manufacturer's product data for each coating, including generic description, complete technical data, surface preparation, and application instructions.

1. Cross-reference products to coating system and locations of application areas. Use same designations indicated on Drawings and in schedules.

C. Schedule of surface preparation, by surface to be coated, for the project.

1. Cross-reference surface preparation to coating system and locations of application areas. Use same designations indicated on Drawings and in schedules.

D. Color Samples: Submit manufacturer’s color samples showing full range of standard colors.

E. Manufacturer’s Quality Assurance: Submit manufacturer’s certification that coatings comply with specified requirements and are suitable for intended application.

F. Submit color schedule and surface identification schedule.

1. Submit color schedule for all painted surfaces.
2. See article 3.7 for colors and identification associated with piping. Submit colors for piping not included in Ten State Standards.

1.4 QUALITY ASSURANCE

A. Applicator Qualifications: Engage an experienced applicator who has successfully completed coating system applications similar in material and extent to those indicated for the Project.
    1. Experienced in application of specified coatings for a minimum of 5 years on projects of similar size and complexity to this Work.
    2. Applicator's Personnel: Employ persons trained for application of specified coatings.

B. Manufacturer's Qualifications:
    1. Single-Source Responsibility: Provide primers, undercoat and finish coat materials from a single manufacturer for the entire project. Use only thinners recommended by the manufacturer and only within recommended limits.
    2. Specialize in manufacture of coatings with a minimum of 10 years' successful experience.
    3. Able to demonstrate successful performance on comparable projects.

C. Mockups: Apply benchmark samples of each coating system indicated to verify preliminary selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
    1. Engineer will select one surface to represent surfaces and conditions for application of each type of coating and substrate.
        a. Wall and Ceiling Surfaces: Provide samples of at least 100 sq. ft.
        b. Other Items: Engineer will designate items or areas required.
    2. Apply benchmark samples after permanent lighting and other environmental services have been activated.
    3. Final approval of color selections will be based on benchmark samples.
        a. If preliminary color selections are not approved, apply additional benchmark samples of additional colors selected by Engineer at no added cost to Owner.

1.5 PRE-INSTALLATION MEETING

A. Pre-application Meeting: Convene a pre-application meeting two (2) weeks before start of application of coating systems. Require attendance of parties directly affecting work of this section, including Contractor, Engineer, applicator, and manufacturer's representative. Review shall include the following:
    1. Environmental requirements.
    2. Protection of surfaces not scheduled to be coated.
    3. Surface preparation.
    4. Application.
    5. Disinfection.
    6. Repair.
    7. Field quality control.
    8. Cleaning.
    9. Protection of coating systems.
    10. One-year inspection.

11. Coordination with other work.

1.6 PROJECT CONDITIONS

A. Apply special coatings in accordance with the manufacturer's requirements.

B. Weather:

1. Apply coatings only when temperature of surfaces to be coated and surrounding air temperatures are within manufactures requirements.
2. Do not apply coatings in snow, rain, fog, or mist; when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.
3. Wind: Do not spray coatings if wind velocity is above manufacturer's limit.

C. Ventilation: Provide ventilation during coating evaporation stage in confined or enclosed areas in accordance with AWWA D 102. Dust and Contaminants:

1. Schedule coating work to avoid excessive dust and airborne contaminants.
2. Protect work areas from excessive dust and airborne contaminants during coating application and curing.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to the job site in the manufacturer's original, new, unopened packages, and containers bearing manufacturer's name and label, and the following information:

1. Coating or material name.
2. Manufacturer.
3. Color name and number.
4. Batch or lot number.
5. Date of manufacture.
6. Mixing and thinning instructions.

B. Storage:

1. Store materials in a clean dry area and within temperature range in accordance with manufacturer's instructions.
2. Keep containers sealed until ready for use.
3. Do not use materials beyond manufacturer's shelf-life limits.

C. Handling: Protect materials during handling and application to prevent damage or contamination.

PART 2 - PRODUCTS

2.1 SPECIAL COATINGS, GENERAL

A. Material Compatibility:

1. Provide products of a single manufacturer for the project.
2. It shall be the responsibility of the Contract to verify the compatibility of the proposed surface coatings with underlying substrates.

2.2 MANUFACTURERS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated in the Work include the following:

1. Tnemec Company Incorporated, 6800 Corporate Drive, Kansas City, Missouri 64120-1372. Toll Free (800) 863-6321. Phone (816) 483-3400. Fax (816) 483-3969. Web Site: www.tnemec.com.
2. Sherman Sherwin-Williams Company.
3. ICI Devoe.

2.3 COATING SYSTEMS FOR INTERIOR CONCRETE FLOORS AND STAIR TREADS

A. Two-Component, Polyamide-Epoxy Coatings for new construction.

1. Surface Preparation: SSPC-SP 13/NACE 6. Shot blast or mechanically abrade.
2. Primer: Series 201 Epoxoprime or SW Corobond 100. DFT 6.0 to 8.0 mils.
3. Finish Coat: Series 280 Tneme-Glaze or SW CorCote HCR. DFT 6.0 to 8.0 mils. Orange peel finish.
4. Total DFT: 12.0 to 16.0 mils.

B. Clear Sealer/Hardener for new construction.

1. First Coat: Series 629 CT Densifyer or SW H&C Hardener Densifier. 300-350 Sq.ft./Gal.
2. Second Coat: Series 629 CT Densifyer or SW H&C Hardener Densifier. 350-400 Sq.ft./Gal.
3. Or approved equal.

C. Two-Component, Polyamide-Epoxy Coatings for existing painted construction.

1. Surface Preparation: SSPC-SP 13/NACE 6. Shot blast or mechanically abrade.
2. Primer: Series 201 Epoxoprime or SW Corobond 100. DFT 6.0 to 8.0 mils.
3. Finish Coat: Series 280 Tneme-Glaze or SW CorCote HCR. DFT 6.0 to 8.0 mils. Orange peel finish.
4. Total DFT: 12.0 to 16.0 mils.

2.4 COATING SYSTEMS FOR INTERIOR CONCRETE

A. Two-Component, Polyamide-Epoxy Coatings for new construction.

1. Surface Preparation: SSPC-SP 13/NACE 6. Abrasive blast.
2. Primer: Series 218 MortarClad or Corobond 300. Patching and filling voids and bugholes.
3. Intermediate Coat: Series 66 Hi-Build Epoxoline or SW Macropoxy 646. DFT 4.0 to 6.0 mils.
4. Finish Coat: Series 66 Hi-Build Epoxoline or SW Macropoxy 646. DFT 4.0 to 6.0 mils.
5. Total DFT: 8.0 to 12.0 mils plus filler.

B. Two-Component, Polyamide-Epoxy Coatings for existing painted construction.

1. Surface Preparation: Clean, dry and free of oil, grease and other contaminants.
2. Primer: Series 218 MortarClad or SW Corobond 300. Patching and filling voids

and bugholes.
3. Intermediate Coat: 27 F.C. Typoxy or SW Macropoxy 646. DFT 4.0 to 6.0 mils.
4. Finish Coat: Series 66 Hi-Build Epoxoline or SW Macropoxy 646. DFT 4.0 to 6.0 mils.
5. Total DFT: 8.0 to 12.0 mils.

2.5 COATING SYSTEMS FOR SUBMERGED OR INTERMITTENTLY SUBMERGED CONCRETE

A. Two-Component, Polyamide-Epoxy, Coal Tar Coating for new construction.

1. Surface Preparation: SSPC-SP 13/NACE 6. Brush-off blast.
2. Primer: Series 218 MortarClad or Corobond 300. Patching and filling voids and bugholes.
3. Intermediate Coat: 46H-413 Hi-Build Tneme-Tar or SW HiMil Sher-Tar. DFT 14.0 to 20.0 mils.
4. Finish Coat: 46H-413 Hi-Build Tneme-Tar or SW HiMil Sher-Tar. DFT 14.0 to 20.0 mils.
5. Total DFT: 28.0 to 40.0 mils.

B. Two-Component, Polyamide-Epoxy, Coal Tar Coating for existing painted surfaces.

1. Surface Preparation: SSPC-SP 13/NACE 6. Abrasive blast. Completely remove existing coatings.
2. Primer: Series 218 MortarClad or SW Corobond 300. Patching and filling voids and bugholes.
3. Intermediate Coat: 46H-413 Hi-Build Tneme-Tar or SW HiMil Sher-Tar. DFT 14.0 to 20.0 mils.
4. Finish Coat: 46H-413 Hi-Build Tneme-Tar or SW HiMil Sher-Tar. DFT 14.0 to 20.0 mils.
5. Total DFT: 28.0 to 40.0 mils.

C. Two-Component, Polyamide-Epoxy, Coal Tar Coating for Spot Repair of Existing Coal Tar Surfaces.

1. Surface Preparation: Spot Tool Prepare. SSPC-SP 13/NACE 6. Abrasive blast.
2. Primer: Series 218 MortarClad or SW Corobond 300. Patching and filling voids and bugholes.
3. Intermediate Coat: 46H-413 Hi-Build Tneme-Tar or SW HiMil Sher-Tar. DFT 14.0 to 20.0 mils.
4. Finish Coat: 46H-413 Hi-Build Tneme-Tar or SW HiMil Sher-Tar. DFT 14.0 to 20.0 mils.
5. Total DFT: 28.0 to 40.0 mils.

2.6 COATING SYSTEMS FOR INTERIOR CONCRETE MASONRY

A. Two-Component, Polyamide-Epoxy Coatings for new construction.

1. Surface Preparation: SSPC-SP 13/NACE 6. Clean and dry.
2. Primer: Series 130 Envirofill or SW Cement Plex 875. Spreading rate 60 to 80 sq ft/gal.

3. Intermediate Coat: Series 66 Hi-Build Epoxoline or SW Macropoxy 646. DFT 4.0 to 6.0 mils.
4. Finish Coat: Series 66 Hi-Build Epoxoline or SW Macropoxy 646. DFT 4.0 to 6.0 mils.
5. Total DFT: 8.0 to 12.0 mils plus filler.

B. Two-Component, Polyamide-Epoxy Coatings for existing painted construction.
1. Surface Preparation: Clean, dry and free of oil, grease and other contaminants. Spot tool prepare where existing surface is lose, not full adhered, or otherwise unacceptable to receive finish coatings. Feather edges as suggested by manufacturer.
2. Primer: 27 F.C. Typoxy or SW Macropoxy 646. DFT 4.0 to 6.0 mils.
3. Finish Coat: Series 66 Hi-Build Epoxoline or SW Macropoxy 646. DFT 4.0 to 6.0 mils.
4. Total DFT: 8.0 to 12.0 mils.

2.7 COATING SYSTEMS FOR EXTERIOR CONCRETE

A. Two-component, modified epoxy coating for new construction.
1. Surface Preparation: Clean, dry and free of oil, grease, form release agents and other contaminants.
2. First Coat: Series 156 Enviro-Crete or SW Loxon Coating. DFT 4.0 to 8.0 mils.
3. Finish Coat: Series 156 Enviro-Crete or SW Loxon Coating. DFT 4.0 to 8.0 mils.

B. Two-component, modified epoxy coating for existing painted construction.
1. Surface Preparation: Remove chalk and old paint not tightly bonded to the surface. Apply test patch to check adhesion.
2. First Coat: Series 156 Enviro-Crete or SW Loxon Coating. DFT 4.0 to 8.0 mils.
3. Finish Coat: Series 156 Enviro-Crete or SW Loxon Coating. DFT 4.0 to 8.0 mils.

2.8 COATING SYSTEMS FOR INTERIOR FERROUS METAL

A. Two-Component, Polyamide-Epoxy Coatings for new construction.
1. Surface Preparation: SSPC-SP 13/NACE 6. Clean and dry.
2. Primer: Tneme-Zinc Series 90-97 or SW Corothane I Galvapac. DFT 2.5 to 3.5 mils.
3. Intermediate Coat: Series 66 Hi-Build Epoxoline or SW Macropoxy 646. DFT 4.0 to 6.0 mils.
4. Finish Coat: Series 66 Hi-Build Epoxoline or SW Macropoxy 646. DFT 4.0 to 6.0 mils.
5. Total DFT: 10.5 to 15.5 mils.

B. Two-Component, Polyamide-Epoxy Coatings for existing painted construction.
1. Surface Preparation: Clean, dry and free of oil, grease and other contaminants.: Spot tool prepare where existing surface is lose, not full adhered, or other wise unacceptable to receive finish coatings. Feather edges as suggested by

manufacturer.
2. Additional Surface Preparation: In damp areas adjacent to expose liquid surfaces or subject to regular high moist content, provide light abrasive brush blast. SSPC-SP 13/NACE 6. Brush-off blast.
3. Primer: 27 F.C. Typoxy or SW Macropoxy 646. DFT 4.0 to 6.0 mils.
4. Finish Coat: Series 66 Hi-Build Epoxoline or SW Macropoxy 646. DFT 4.0 to 6.0 mils.
5. Total DFT: 8.0 to 12.0 mils.

2.9 COATING SYSTEMS FOR EXTERIOR FERROUS METAL

A. Two-component, pigmented, aliphatic, polyurethane coating for new construction.
1. Surface Preparation: SSPC-SP 6.
2. Primer: 90-97 Tneme-Zinc or SW Corothane I Galvapac. DFT 2.5 to 3.5 mils.
3. Intermediate Coat: Series 66 Hi-Build Epoxoline or SW Macropoxy 646. DFT 2.0 to 3.0 mils.
4. Finish Coat: Series 1074 Endura-Shield II or SW HiSolids Polyurethane. DFT 2.0 to 5.0 mils.
5. Total DFT: 6.5 to 11.5 mils.

B. Two-component, pigmented, aliphatic, polyurethane coating for existing painted construction.
1. Surface Preparation: In accordance with manufacturer's instructions. Spot tool prepare where existing surface is loose, not fully adhered, or otherwise unacceptable to receive finish coatings. Feather edges as suggested by manufacturer.
2. Primer: 27 F.C. Typoxy or SW Macropoxy 646. DFT 4.0 to 6.0 mils.
3. Intermediate Coat: Series 66 Hi-Build Epoxoline or SW Macropoxy 646. DFT 2.0 to 3.0 mils.
4. Finish Coat: Series 1074 Endura-Shield II or SW HiSolids Polyurethane. DFT 2.0 to 5.0 mils.
5. Total DFT: 8.0 to 14.0 mils.

2.10 COATING SYSTEMS FOR SUBMERGED OR INTERMITTENTLY SUBMERGED FERROUS METAL

A. Two-Component, Polyamide-Epoxy Coal Tar for new construction.
1. Surface Preparation: SSPC-SP 6.
2. Primer: 90-97 Tneme-Zinc or SW Corothane I Galvapac. DFT 2.5 to 3.5 mils.
3. Intermediate Coat: 46H-413 Hi-Build Tneme-Tar or SW HiMil Sher-Tar. DFT 14.0 to 20.0 mils.
4. Finish Coat: 46H-413 Hi-Build Tneme-Tar or SW HiMil Sher-Tar. DFT 14.0 to 20.0 mils.
5. Total DFT: 30.5 to 43.5 mils.

B. Two-Component, Polyamide-Epoxy Coal Tar for existing painted construction.
1. Surface Preparation: SSPC-SP 6. Completely remove existing coating.
2. Primer: 90-97 Tneme-Zinc or SW Corothane I Galvapac. DFT 2.5 to 3.5 mils.

3. Intermediate Coat: 46H-413 Hi-Build Tneme-Tar or SW HiMil Sher-Tar. DFT 14.0 to 20.0 mils.
4. Finish Coat: 46H-413 Hi-Build Tneme-Tar or SW HiMil Sher-Tar. DFT 14.0 to 20.0 mils.
5. Total DFT: 30.5 to 43.5 mils.

2.11 COATING SYSTEMS FOR INTERIOR CAST OR DUCTILE IRON PIPE AND FITTINGS

A. Two-Component, Polyamide-Epoxy Coatings for new construction.

1. Surface Preparation: In accordance with manufacturer's instructions.
2. Primer: Series 37H Chem-Prime HS or SW KemKromik Universal. DFT 2.0 to 3.0 mils.
3. Intermediate Coat: Series 66 Hi-Build Epoxoline or SW Macropoxy 646. DFT 4.0 to 6.0 mils.
4. Finish Coat: Series 66 Hi-Build Epoxoline or SW Macropoxy 646. DFT 4.0 to 6.0 mils.
5. Total DFT: 10.0 to 15.0 mils.

B. Two-Component, Polyamide-Epoxy Coatings for existing painted construction.

1. Surface Preparation: Clean, dry and free of oil, grease and other contaminants. Spot tool prepare where existing surface is loose, not fully adhered, or otherwise unacceptable to receive finish coatings. Feather edges as suggested by manufacturer.
2. Primer: 27 F.C. Typoxy or SW Macropoxy 646. DFT 4.0 to 6.0 mils.
3. Finish Coat: Series 66 Hi-Build Epoxoline or SW Macropoxy 646. DFT 4.0 to 6.0 mils.
4. Total DFT: 8.0 to 12.0 mils.

2.12 COATING SYSTEMS FOR EXTERIOR CAST OR DUCTILE IRON PIPE AND FITTINGS

A. Two-component, pigmented, aliphatic, polyurethane coating for new construction.

1. Surface Preparation: In accordance with manufacturer's instructions.
2. Primer: Series 66 Hi-Build Epoxoline or SW Macropoxy 646. DFT 3.0 to 5.0 mils.
3. Intermediate Coat: Series 66 Hi-Build Epoxoline or SW Macropoxy 646. DFT 4.0 to 6.0 mils.
4. Finish Coat: Series 1074 Endura-Shield II or SW HiSolids Polyurethane. DFT 2.0 to 3.0 mils.
5. Total DFT: 9.0 to 14.0 mils.

B. Two-component, pigmented, aliphatic, polyurethane coating for existing painted construction.

1. Surface Preparation: In accordance with manufacturer's instructions.
2. Primer: 27 F.C. Typoxy or SW Macropoxy 646. DFT 4.0 to 6.0 mils.
3. Intermediate Coat: Series 66 Hi-Build Epoxoline or SW Macropoxy 646. DFT 2.0 to 3.0 mils.

4. Finish Coat: Series 1074 Endura-Shield II or SW HiSolids Polyurethane. DFT 2.0 to 5.0 mils.
5. Total DFT: 8.0 to 14.0 mils.

2.13 COATING SYSTEMS FOR SUBMERGED OR INTERMITTENTLY SUBMERGED CAST OR DUCTILE IRON PIPE AND FITTINGS

A. Two-Component, Polyamide-Epoxy Coal Tar for new construction.

1. Surface Preparation: In accordance with manufacturer's instructions.
2. Primer: Series 37H Chem-Prime HS. DFT 2.0 to 3.0 mils.
   Note: this primer – nor its SW equivalent - is not for immersion.
3. Intermediate Coat: 46H-413 Hi-Build Tneme-Tar or SW HiMil Sher-Tar. DFT 14.0 to 20.0 mils.
4. Finish Coat: 46H-413 Hi-Build Tneme-Tar or SW HiMil Sher-Tar. DFT 14.0 to 20.0 mils.
5. Total DFT: 30.5 to 43.5 mils.

B. Two-Component, Polyamide-Epoxy Coal Tar for existing painted construction.

1. Surface Preparation: In accordance with manufacturer's instructions.
2. Primer: Series 37H Chem-Prime HS. DFT 2.0 to 3.0 mils.
3. Intermediate Coat: 46H-413 Hi-Build Tneme-Tar. DFT 14.0 to 20.0 mils.
4. Finish Coat: 46H-413 Hi-Build Tneme-Tar. DFT 14.0 to 20.0 mils.
5. Total DFT: 30.5 to 43.5 mils.

2.14 COATING SYSTEMS FOR SECONDARY CONTAINMENT

A. Two-Component, Cycloaliphatic Amine Epoxy Coatings for Sodium Hypochlorite Containment: Provide two coats with a total dry film thickness of 16 to 24 mils.

1. Surface Preparation: SSPC-SP 13/NACE 6. Brush-off blast.
2. Primer: Series 218 MortarClad or SW Corobond 300. Patching and filling voids and bugholes.
3. First and Finish Coats: Tnemec: Series 61 Tneme-Liner SW Shelcote II

2.15 COATING SYSTEMS FOR SECONDARY CONTAINMENT

A. Two-Component, Polyamide-Epoxy and pigmented, aliphatic, polyurethane coatings for ferric or ferrous chloride containment.

1. Surface Preparation: SSPC-SP 13/NACE 6. Brush-off blast.
2. Primer: Series 218 MortarClad or Corobond 300. Patching and filling voids and bugholes.
3. First Coat: Series 66 Hi-Build Epoxoline SW Shelcote II. DFT 4.0 to 6.0 mils.
4. Second Coat: Series 66 Hi-Build Epoxoline SW Shelcote II. DFT 4.0 to 6.0 mils.
5. Finish Coat: Series 290 CRU SW Shelcote II. DFT 2.0 to 3.0 mils.
6. Total DFT: 10.0 to 15.0 mils plus filler.

2.16 COATING SYSTEMS FOR PLASTER AND GYPSUM BOARD

A. Two-Component, Polyamide-Epoxy Coatings for new construction.

1. Surface Preparation: Clean and dry.

2. Primer-sealer: Series 115 Uni Bond DF or SW PrepRite Primer. DFT 1.0 to 2.0 mils.
3. Intermediate Coat: Series 66 Hi-Build Epoxoline or SW Macropoxy 646. DFT 4.0 to 6.0 mils.
4. Finish Coat: Series 66 Hi-Build Epoxoline or SW Macropoxy 646. DFT 4.0 to 6.0 mils.
5. Total DFT: 5.0 to 8.0 mils.

B. Two-Component, Polyamide-Epoxy Coatings for existing painted construction.
1. Surface Preparation: Clean and dry.
2. Primer: 27 F.C. Typoxy or SW Macropoxy 646. DFT 4.0 to 6.0 mils.
3. Finish Coat: Series 66 Hi-Build Epoxoline or SW Macropoxy 646. DFT 4.0 to 6.0 mils.
4. Total DFT: 8.0 to 12.0 mils.

2.17 COATING SYSTEMS FOR GALVANIZED STEEL, NONFERROUS METALS, STAINLESS STEEL, INSULATED PIPE AND PVC

A. Exterior Exposed: Two-component, pigmented, aliphatic, polyurethane coating.
1. Surface Preparation: In accordance with manufacturer's instructions.
2. Primer: Series 66 Hi-Build Epoxoline or SW Macropoxy 646. DFT 2.0 to 3.0 mils.
3. Finish Coat: Series 1074 Endura-Shield II or SW HiSolids Polyurethane. DFT 2.0 to 3.0 mils.
4. Total DFT: 4.0 to 6.0 mils.

B. Interior Exposed: Two-Component, Polyamide-Epoxy Coatings.
1. Surface Preparation: In accordance with manufacturer's instructions.
2. Primer: Series 66 Hi-Build Epoxoline or SW Macropoxy 646. DFT 2.0 to 3.0 mils.
3. Finish Coat: Series 66 Hi-Build Epoxoline or SW Macropoxy 646. DFT 2.0 to 3.0 mils.
4. Total DFT: 4.0 to 6.0 mils.

2.18 COATING SYSTEMS FOR GLASS-FIBER REINFORCED STRUCTURAL SHAPES (FRP)

A. Exterior Exposed: Two-component, Polyamide-Epoxy, Acrylic Polyurethane Coating for existing construction. This section includes exterior protective coating on FRP clarifier domes.
1. Surface Preparation: Hand sand plastics surfaces to be coated with medium grit sandpaper to provide tooth for coating system. Large areas may be power sanded or brush-off blasted, provided sufficient controls are employed so surface is roughened without removing excess material.
    a. Control operation to roughen surface for adhesion while minimizing removal of material.
2. Primer: Tnemec Series 27 or Macropoxy 646 Fast Cure Epoxy – Polyamide Epoxy. DFT 3-4 mils on areas of exposed glass fibers or noticeable

discoloration.

3. Intermediate Coat: Tnemec Series 27 or Macropoxy 646 Fast Cure Epoxy – Polyamide Epoxy. DFT 2-4 mils.
4. Finish Coat: Tnemec Series 73U or Acrolon 218 HS - Acrylic Polyurethane. DFT 2-4 mils. As recommended by the manufacturer the finish coat can be thinned 10% maximum.
5. Total DFT 10 mils.
6. Full coating thickness shall be placed on all surfaces including concaved and irregular surfaces. Use stiff bristle brush where necessary to coat crevasses and steep concaved surfaces.

B. Interior Exposed: None

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of work.

1. Maximum Moisture Content of Substrates: In accordance with the manufacturer's requirements.
2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
3. Verify that new concrete surfaces have been properly cured.
4. Begin coating application only after unsatisfactory conditions have been corrected and surfaces are dry.
5. Coating application indicates acceptance of surfaces and conditions.

3.2 PREPARATION

A. Comply with manufacturer's written instructions and recommendations applicable to substrates indicated.

B. Protect existing fiberglass surfaces from damage due to construction activities. Assess existing surface conditions and provide supporting systems for personnel as required.

C. Remove plates, machined surfaces, and similar items already in place that are not to be coated. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and coating.

1. After completing coating operations, reinstall items that were removed; use workers skilled in the trades involved.

D. Clean substrates of substances that could impair bond of coatings, including dirt, oil, grease, and incompatible paints and encapsulants.

1. Remove incompatible primers and reprime substrate with compatible primers as required to produce coating systems indicated.

E. Concrete Substrates: Remove release agents, curing compounds, efflorescence, and chalk. Do not coat surfaces if moisture content or alkalinity of surfaces to be coated exceeds that permitted in manufacturer's written instructions.

F. CMU Substrates: Remove efflorescence and chalk. Do not coat surfaces if moisture content or alkalinity of surfaces to be coated exceeds that permitted in manufacturer's written instructions.

G. Steel Substrates: Remove rust and loose mill scale.
    1. Clean using methods recommended in writing by coating manufacturer.

3.3 APPLICATION

A. Apply special coatings according to manufacturer's written instructions.
    1. Use applicators and techniques suited for coating and substrate indicated.
    2. Coat surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, coat surfaces behind permanently fixed equipment or furniture.
    3. Coat back sides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.

B. If undercoats or other conditions show through final coat, apply additional coats until cured film has a uniform coating finish, color, and appearance.

C. Apply coatings to produce surface films without cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections. Produce sharp glass lines and color breaks.

D. Galvanized Steel, Nonferrous Metals, Stainless Steel, Insulated Pipe And PVC:
    1. Surfaces to be painted unless otherwise approved by the Owner in writing:
        a. Insulated pipe and surface-mounted conduit and boxes shall be coated to match the adjacent surfaces.
        b. Piping shall be color coded.
    2. Surfaces not to be painted unless otherwise approved by the Owner in writing:
        a. All remaining galvanized steel, nonferrous metals, stainless steel and PVC surfaces.

E. Allow curing times as recommended by the manufacturer between coats and prior to submerging surfaces.

3.4 FIELD QUALITY CONTROL

A. Manufacturer’s Field Services: Manufacturer’s representative shall provide technical assistance and guidance for surface preparation and application of coating systems.

3.5 CLEANING AND PROTECTION

A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.

B. After completing coating application, clean spattered surfaces. Remove spattered coatings by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.

C. Protect work of other trades against damage from coating operation. Correct damage by cleaning, repairing, replacing, and recoating, as approved by Engineer, and leave in an undamaged condition.

D. At completion of construction activities of other trades, touch up and restore damaged or defaced coated surfaces.

E. Protect equipment manufacturer's nameplates, tags, labels, etc.

3.6 COATING APPLICATION SCHEDULE

A. Provide the following coating systems for substrates indicated:

1. See Coating Schedules on individual Drawing Sheets for additional clarification. Notes and designations in the Drawings shall govern when provision of the Drawings and Specifications are in conflict.
2. Where undercoats or other conditions show through final coat, apply additional coats until the cured film is of uniform coating finish, color, and appearance.

B. Interior Concrete Floors and Stair Treads:

1. Two-Component, Polyamide-Epoxy Coating.
    a. All new construction.
    b. All existing construction.
2. Apply hardener to all new construction.

C. Interior Concrete:

1. All new and existing construction.

D. Interior Concrete Masonry:

1. All new and existing construction.

E. Exterior concrete:

1. All new and existing construction. See Article 1.1.E above.

F. Submerged or Intermittently Submerged Concrete:

1. See Article 1.1.E above. Interior surface of tanks to be coated, 2'-0" above water elevation.

G. Interior Ferrous Metal, Cast and Ductile Iron Pipe and Fittings:

1. All new and existing construction.

H. Exterior Ferrous Metal, Cast and Ductile Iron Pipe and Fittings:

1. All new and existing construction.

I. Submerged or Intermittently Submerged Ferrous Metal, Cast and Ductile Iron Pipe and Fittings:
1. All new and existing construction.

J. Interior Gypsum Board and Wood Trim:
1. All new construction.

K. Interior Galvanized Steel, Nonferrous Metals, Stainless Steel, Insulated Pipe And PVC:
1. All new and existing construction.

3.7 PIPE COLOR CODE

A. All piping that is not buried shall be color coded in accordance Section 54.5 of "Recommended Standards for Wastewater Facilities" 2004 Edition and the Owner's existing color code system unless otherwise indicated. Final color selection by Owner.

Color codes will be provided prior to work being done.

SITE VISIT: (Mandatory for Acceptance of bid)

A mandatory site meeting will be conducted.

Date: **08/28/23 @ 1:00 p.m. EST**

Location: Escanaba Wastewater Plant
1900 Willow Creek Road
Escanaba, MI 49829

INSURANCE

The Contractor shall provide the City of Escanaba with the following evidence of insurance before the commencement of the work:

Workers Compensation

Coverage A	Statutory – Michigan
Coverage B	$100,000

Comprehensive General Liability

Bodily Injury	$1,000,000 Combined Single Limits (minimum)
Property Damage	$1,000,000 Combined Single Limits (minimum)

Comprehensive Auto Liability

Auto Liability $1,000,000 Combined Single Limits (minimum)

INSPECTION

Owner reserves the right to inspect Contractor's work at any phase of the operation. Owner reserves the right to require the Contractor to coordinate various phases so as to facilitate the inspection process. If the Owner determines that any of the Contractor's painting work is unsatisfactory, the Contractor shall correct the work at his own expense.

PAYMENT

Payment shall be one lump sum upon the satisfactory completion of the painting.

WARRANTY

The Contractor guarantees materials and workmanship for one year from the date of acceptance.

PROJECT COORDINATOR

Jeff Lampi, Superintendent
Water Department
410 Ludington Street
Escanaba, MI 49829
Telephone: (906) 786-3291

BIDDER'S PROPOSAL
CITY OF ESCANABA WASTEWATER TREATMENT PLANT EQUIPMENT COATING - 2023

DATE: _____

City of Escanaba
P.O. Box 948
Escanaba, Michigan 49829

We, the undersigned, do hereby agree to furnish all materials and labor for the Wastewater Treatment Plant Equipment Coating in conformance with the attached specifications.

BID:

Bid Total For:
Interior and Exterior Equipment Coating **$_____**

CERTIFIED CHECK, CASHIER'S CHECK OR
10% BIDDER'S BOND ENCLOSED IN THE
AMOUNT OF: **$_____**
(must be included to qualify)

All work must be completed by June 30th, 2024 _____

SUBMITTED BY:

FIRM:_____
ADDRESS:_____
BY:_____
PRINTED:_____
TITLE:_____
PHONE:_____
E-MAIL:_____

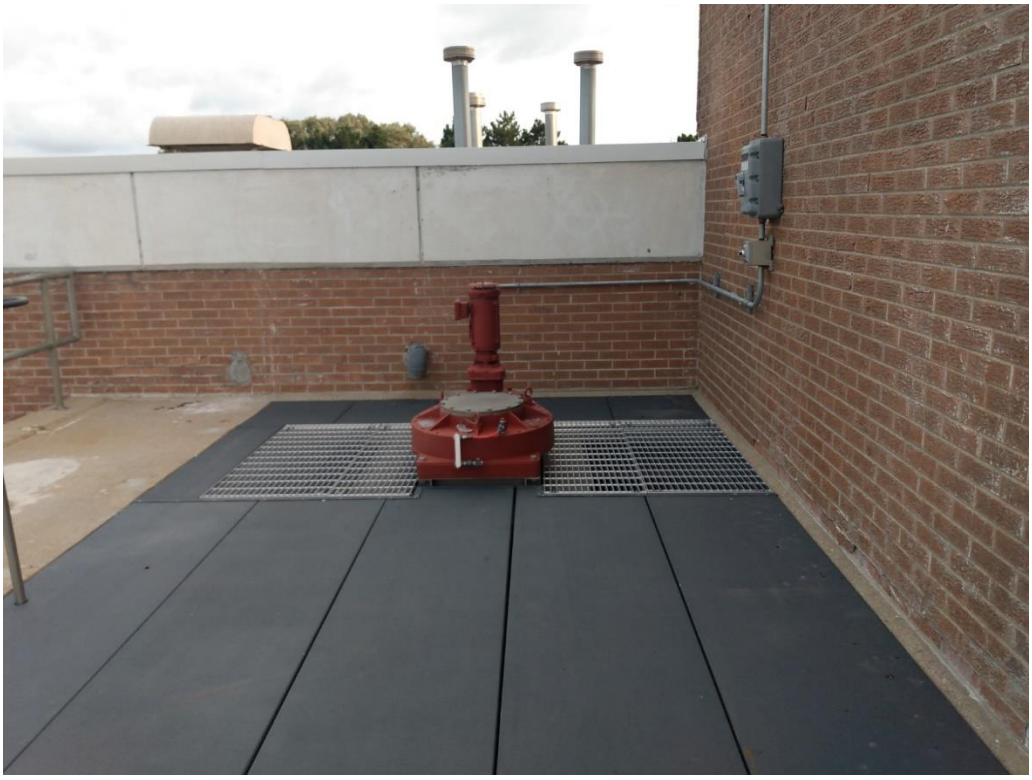
ATTACHMENTS

Aeration Mixer Motor

Aeration Weir Actuators

Blower Valves

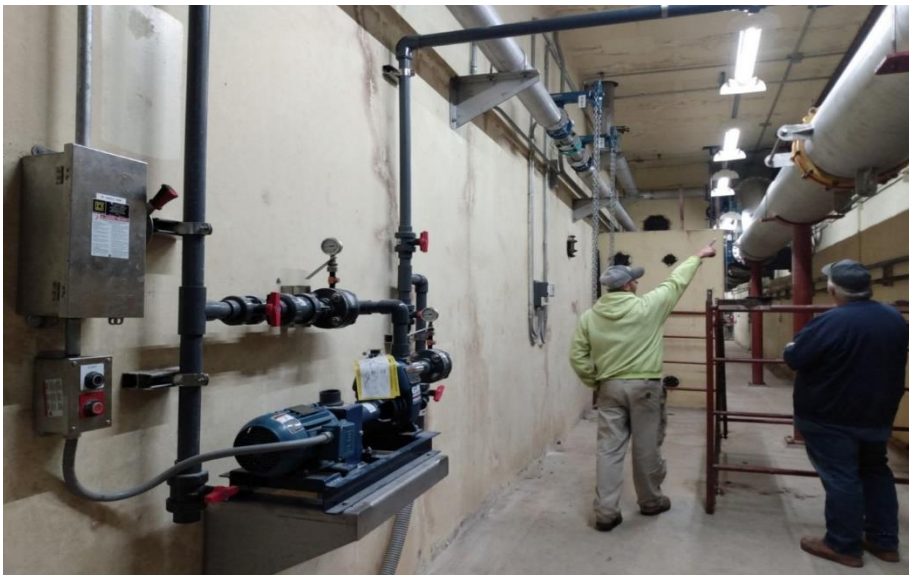

Grit Cyclone



Grit Vortex Motor

Grit Pumps Sampler

Nonpot Pipe



PE Sample Pumps

PE Valves

Primary Valves


Primary Valves Couplings

Primary Valves

Rapid Mix Gates Motor

RAS Pumps

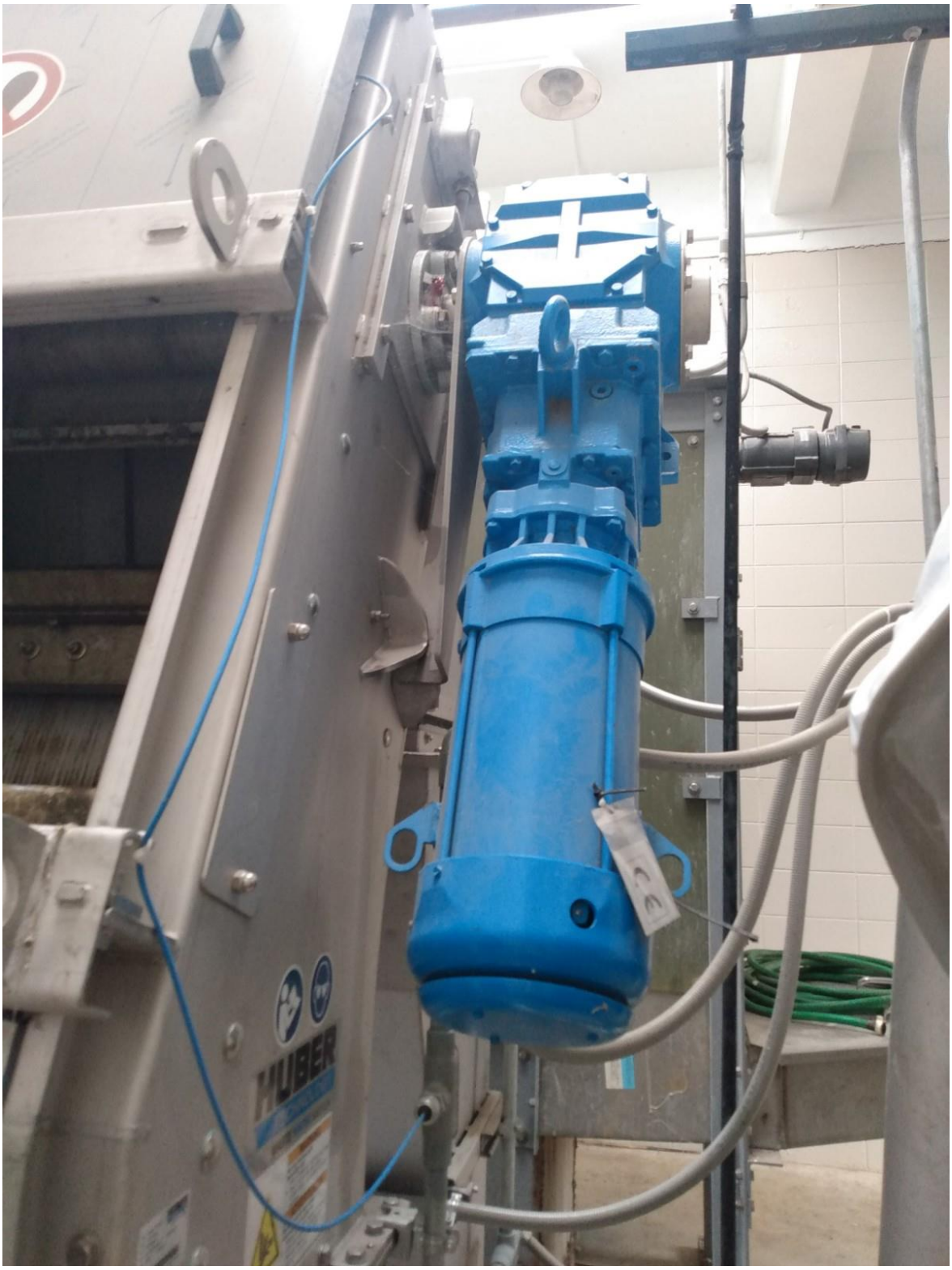
RAS Pumps Valves

RAS Valves

RAS Valves Couplings

RAS Pump Valves

Screen Gates



Screen Motor

SE Caps

Secondary Sample Pumps

WS Pumps Valves