OSCEOLA FORCEMAIN AND ST. CLAIR LIFT STATION IMPROVEMENTS

ADDENDUM NO. 2

DATE: November 17, 2023 Bid Number: 142173504

This addendum forms a part of the Specifications and modifies the original Document as noted. Acknowledge receipt of this Addendum in the appropriate portion of Section 00300 with the submitted bid. Failure to do so may subject the proposer to disqualification.

1. Please provide Section 09900?

   Response: Please see Specification Section 09900 – Painting attached.

2. What is the current liner in the St. Clair Lift Station?

   Response: There currently is not a liner for the St. Clair wet well.

ATTACHMENTS: Section 09900 - Painting

END OF SECTION

SECTION 09900 - PAINTING

PART 1 - GENERAL

1.01 SCOPE

A. Contractor shall paint all above-ground piping and appurtenances in accordance with this specification.

B. Furnish all labor, surface preparation and coating material, tools, rigging, lighting, ventilation, and other related items of equipment and materials necessary to clean, prepare, coat, cure, and cleanup a complete coating system on all interior and exterior exposed items and surfaces throughout the project, except as otherwise specified or shown on the drawings.

1) Surface preparation, priming, and coats of paint specified are in addition to shop priming and surface treatment specified under other sections of the work.

2) The scope of work shall include the coating of existing equipment and surfaces that are modified by this project. Color shall match existing unless otherwise noted and shall not look like patchwork - coating shall be extended to the nearest break line, corner, etc. as may be necessary.

C. The work includes field painting of exposed bare and covered pipes and ducts, hangers, exposed steel and iron work, tanks, vessels, and primed metal surfaces of equipment installed, except as otherwise indicated.

D. Paint all exposed surfaces normally painted in the execution of a new project. Where items or surfaces are not specifically mentioned or are not specifically excluded from the painting work, paint these the same as adjacent materials or areas.

E. Clean, prepare, coat, and cure all surfaces in strict accordance with the manufacturer's published recommendations and specifications.

F. Perform all work using skilled work persons in a safe and productive manner using equipment and procedures consistent with good coating practices.

G. Colors are indicated on the Painting Schedule in this section or shown on the drawings. If color or finish is not designated, the Engineer will select these from standard colors available for the materials system specified.

1.02 PAINTING NOT INCLUDED

A. The following categories of work are not included as part of the field-applied finish work or are included in other sections of these specifications.

1) Shop Priming: Unless otherwise specified, shop priming of ferrous metal items is included under the various sections for structural steel, miscellaneous metal, metal fabrications, hollow metal work, and similar items. Also, for fabricated components such as shop-fabricated or factory-built mechanical and electrical equipment or accessories.

2) Pre-Finished Items: Unless the unit is part of an assembly to be painted to match, i.e. - motor, or otherwise shown or specified, do not include painting when factory-finishing or installer finishing is specified.

3) Concealed Surfaces: Unless otherwise shown or specified, painting is not required on surfaces such as walls or ceilings in concealed areas and generally inaccessible areas, foundation spaces, furred areas, utility tunnels, pipe spaces, duct shafts, and elevator shafts. Painting of galvanized work that will be concealed in the completed work is not required. Do not paint structural steel to be encased in concrete, nor structural steel specified not to be painted elsewhere. Except for touch-ups as specified in Part 3, painting of shop primed structural steel and ferrous metals that will be concealed in the completed work is not required.

4) Finished Metal Surfaces: Metal surfaces of anodized aluminum, stainless steel, chromium plate, copper, bronze, and similar finished materials will not require finish painting unless otherwise specified.

5) Operating Parts and Labels: Moving parts of operating units, mechanical and electrical parts such as valve and damper operators, linkages, sinkages, sensing devices, and motor and fan shafts will not require finish painting unless otherwise specified.

a. Do not paint over any code-required labels, such as Underwriters' Laboratories and Factory Mutual, or any equipment identification, performance rating, name, or nomenclature plates.

6) Other Surfaces: Do not paint sprinkler heads, fire detection heads, integrally colored stucco, brick masonry, cast stone, stone masonry, or architectural precast concrete, unless otherwise specified.

1.03 RELATED SECTIONS SPECIFIED ELSEWHERE

A. Section 01300 - Submittals

1.04 REFERENCES

A. ANSI/ASTM D16 - Definitions of terms relating to paint, varnish, lacquer, and related products.

B. ASTM D2016 - Test method for moisture content of wood.

C. Steel Structures Painting Council (SSPC).

1.05 DEFINITIONS

A. Conform to ANSI/ASTM D16 for interpretation of terms used in this section.

1.06 QUALITY ASSURANCE

A. Furnish all coating materials by a single manufacturer. Solvent, thinners, and other miscellaneous materials can be supplied by the same manufacturer or by a supplier approved by the manufacturer.

B. Furnish a statement to the Engineer from the coatings manufacturer that materials to be used by the Contractor comply with the manufacturer's recommendations.

C. The Engineer reserves the right to require qualification of the product manufacturer and applicator, including satisfactory completion of at least two (2) projects of this nature.

D. Manufacturer's Inspection Meeting: After set-up for painting but before commencing work, conduct a meeting at the site among representatives of the paint manufacturer, contractor,

painting contractor, and Engineer to inspect the facility and review procedures recommended by the manufacturer for the prevailing conditions.

1.07 REGULATORY REQUIREMENTS

A. Comply with all federal, state, and local health and fire regulations when handling and applying paint and coating products.

1.08 SUBMITTALS

A. Manufacturer's Data: Submit manufacturer's technical information including paint label analysis, surface preparation and application instructions for each material proposed for use. Indicate the surfaces to which each material is to be applied.

B. Samples; Painting: Submit samples for Engineer's review of color and texture only. Provide a listing of material and application for each coat of each finish sample.

C. Manufacturer's Certificate: Submit a written certification from the paint manufacturer that materials furnished for the work meet or exceed specified requirements.

1.09 PRODUCT DELIVERY AND STORAGE

A. Store paint materials and painting tools and equipment, including solvents and cleaning material, in a well-ventilated, dry area away from high heat. Do not store in buildings or structures in use or being constructed, nor leave overnight therein. Follow manufacturer's recommendations for the safe storage of paints and solvents.

B. Take precautions to prevent fire hazards and spontaneous combustion.

1.10 SAFETY

A. Make all necessary provisions regarding materials, equipment, personnel, procedures, and practices, to assure that the work is done safely and that the working area is maintained free of all health and safety hazards.

B. Observe manufacturer's health and safety precautions when storing, handling, and applying coating materials and cleanup materials containing solvents and/or chemical ingredients.

C. Direct personnel's attention to all product warnings and information given on the labels of all products.

D. Ensure that personnel mixing and applying coating materials are equipped with adequate protective clothing and devices (including respirators).

E. Permit no smoking in the working area.

F. Permit no item that may produce sparks or open flames in the immediate working area.

G. Post warning signs outside of the work to apprise personnel of the hazards in the area. Erect barriers where necessary.

H. Return partially used coating materials that are to be retained in their original containers at the completion of each workday. Tightly reseal containers, wipe material spills, clean, and return the containers to the designated storage area.

I. Remove waste coating materials and contaminated disposable items from the job site and dispose of them at the completion of each workday. Dispose of all items and materials in strict accordance with local, state, and federal regulations.

1.11 JOB CONDITIONS

A. Apply water-based paints only when the temperature of the surfaces to be painted and the surrounding air temperatures are between 50°F and 90°F unless otherwise permitted by the paint manufacturer's printed instructions.

B. Apply solvent-thinned paints only when the temperature of surfaces to be painted and the surrounding air temperatures are between 45°F and 95°F unless otherwise permitted by the paint manufacturer's printed instructions.

C. Do not apply paint in rain, fog, mist, or when the relative humidity exceeds 85%; or to damp or wet surfaces unless otherwise permitted by the paint manufacturer's printed instructions.

D. Painting may be continued during inclement weather only if the areas and surfaces to be painted are enclosed and heated within the temperature limits specified by the paint manufacturer during application and drying periods.

E. Exercise caution when attempting to paint in windy conditions. The Contractor is responsible for all damage caused by windblown paint.

PART 2 - PRODUCTS

2.01 COLORS AND FINISHES

A. All exposed distribution/collection system piping and appurtenances shall be color coded in accordance with APWA uniform color standards.

B. All water and wastewater treatment plant exposed piping shall be color coded in accordance with the recommended standards for water works and/or wastewater works (Ten State Standards)

2.02 UNDERCOATS AND THINNERS

A. Undercoats: Provide undercoat paint produced by the same manufacturer as the finish coats.

B. Thinners: Use only thinners approved by the paint manufacturer and use only within recommended limits.

2.03 ACCEPTABLE MANUFACTURER'S

A. All coatings to be in contact with potable water must appear on the current Florida Department of Environmental Protection list of approved paint and protective coatings and be rated NSF approved for potable water.

2.04 PAINTING SYSTEMS

A. Provide a minimum dry film thickness (D.F.T.) for the applications listed in the schedule of finishes.

B. Touch-up shop-applied and field-applied prime coats wherever damaged or bare and keep touched-up as necessary before and after installation or erection of the items, to maintain protection of the metal from rust and corrosion. Clean and touch-up with the same type of primer as initially used.

C. Note: Color for all surfaces in contact with potable water to be white or ivory to conform to the State of Florida, EPA, and FDA Regulations for contact with potable water.

2.05 SCHEDULE OF FINISHES

A. Coat exposed ductile iron fittings as specified in System No. 1.

1) System No. 1—Submerged Metal—Raw Sewage:

a. Type: Tnemec Series 446 Perma-Shield MCU Modified Aromatic Polyurethane at 8.0 to 10.0 mils per coat with a minimum of 71% solids by volume (sbv).

b. Service Conditions: For use with metal pipes submerged in raw sewage and exposed to a moist saturated hydrogen sulfide atmosphere, as in raw sewage wet wells. The minimum temperature resistance of the coating shall be 140°F for moist heat conditions.

c. Surface Preparation: Average blast profile to be 1.5 to 2.5 mils. Solvent clean per SSPC-SP1 to remove contaminants from the surface. Abrasive blast per SSPC SP-10, Near White Metal Blast Cleaning.

d. Prime Coat: Tnemec Series 446 Perma-Shield MCU Modified Aromatic Polyurethane at 8.0 to 10.0 mils per coat; or approved equal.

e. Finish Coat: Tnemec Series 446 Perma-Shield MCU Modified Aromatic Polyurethane at 8.0 to 10.0 mils per coat; or approved equal.

PART 3 - EXECUTION

3.01 FIELD OBSERVATION

A. Verify that surfaces are ready to receive work as instructed by the product manufacturer. Do not paint over conditions detrimental to the formation of a durable paint bond and film.

B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application. Do not proceed with the work until unsatisfactory conditions have been corrected.

C. Provide all necessary equipment, labor, rigging, lighting, and other equipment to facilitate inspections.

D. The Engineer may inspect the Work at any time for compliance with the requirements of the specifications.

E. The Engineer reserves the right to approve each phase of the Work before further work is done, to halt all Work deemed to be improper or not in compliance with the specification, and to require the Contractor to promptly correct all improper practices or deficient Work.

F. The Contractor is responsible for any expenses incurred in association with corrective measures required as the result of improper practices and/or defective or deficient work.

3.02 GENERAL REQUIREMENTS

A. Provide adequate explosion-proof lighting sufficient to clearly illuminate the working area without shadows during all surface preparation and coating operations.

B. Maintain adequate and continuous explosion-proof ventilation in confirmed areas during all surface preparation and coating operations and during all recoat and curing periods. Provide ventilation of sufficient capacity to maintain a clear atmosphere that is well below

explosive and toxic limits. Arrange the ventilation system, including all fans and temporary duct work, so that no still air spaces exist in any area.

C. Heating devices used to create and/or maintain temperature conditions in compliance with the specification requirements are to be explosion-proof and of the type that does not exhaust sooty or oily residues or any other contaminants into the air. Heating devices are not to be used when existing temperature and humidity conditions may create dew point conditions.

D. Use equipment that is explosion-proof and non-sparking. Spray equipment must be recommended by or acceptable to the coatings manufacturer.

E. Apply caulking material only after the last coat of paint has been applied and has dried hard. Caulking material used must be of a type that is compatible with the specified coating system.

3.03 SURFACE PREPARATION

A. Perform preparation and cleaning procedures in strict accordance with the paint manufacturer's instructions and as herein specified, for each substrate condition.

B. Surface preparation shall be conducted to prevent material from contaminating the existing water treatment process.

C. Fiberglass and PVC materials shall be solvent-cleaned according to SSPC-SP1 and scarified by best practical means. Every precaution should be taken to ensure that no sanding dust is drawn into the degasifiers. Painting contractor to furnish all necessary barriers, drapes, etc. to prevent contamination of the Finish Water.

3.04 MATERIAL PREPARATION

A. Mix and prepare painting materials in accordance with manufacturer's direction.

B. Store materials not in actual use in tightly covered containers. Maintain containers used in storage, mixing, and application of paint in a clean condition, free of foreign materials and residue.

C. Stir materials before application to produce a mixture of uniform density and stir as required during the application of the materials. Do not stir surface film into the materials. Remove the film and if necessary, strain the material before using.

3.05 APPLICATION

A. General

1) Conform to articles "General Requirements" and "Surface Preparation" prior to beginning coating application.

2) Apply paint as specified and in accordance with the manufacturer's printed instructions. Unless otherwise recommended in the manufacturer's printed instructions or specified elsewhere (e.g. Bid Form, Painting System) use brushes for applying first coat on wood and use standard industrial spray equipment, either airless or conventional for applying first coat on metals other than sheet metal and items fabricated from sheet metal. For other coats on wood, metal, and other substrates, use applicators and techniques best suited for the type of material being applied.

3) Apply additional coats when undercoats, stains, or other conditions show through the final coat of paint until the paint film is of uniform finish, color, and appearance. Give special attention to ensure that all surfaces, including edges, corners, crevices, welds, and exposed fasteners receive a dry film thickness equivalent to that of flat surfaces.

4) Paint surfaces behind movable equipment and furniture the same as similar exposed surfaces.

5) Paint surfaces behind permanently fixed equipment or furniture with a prime coat only before the final installation of equipment.

6) Paint interior surfaces of ducts, where visible through registers or grilles, with a flat, non-specular black paint.

7) Paint the back sides of access panels, and removable or hinged covers to match the exposed surfaces.

8) Finish exterior doors on tops, bottoms, and side edges the same as the exterior faces, unless otherwise indicated or specified.

9) Sand lightly between each succeeding enamel or varnish coat.

10) Omit the field prime coat on shop-primed and touch-up painted metal surfaces which are not to be finish painted and will not be exposed to view in the completed work. Do not omit primer on metal surfaces specified to be finish coated or on metal surfaces that will be exposed to view in the completed work.

11) Putty nail holes and joints after prime coat is dry.

12) Change colors at corner of stop where colors differ between adjoining rooms or spaces and where door frames match wall colors.

13) Provide a finished coating system free of all runs, sags, cracks, blisters, pinholes, excessive or deficient fill thickness, or any other defects. Correct any such deficiencies by proper removal of the defect and/or recoating.

14) Apply the first-coat material to surfaces that have been cleaned, pretreated, or otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration. Sandblasted surfaces are not to be left uncoated overnight.

15) Allow sufficient time between successive coatings to permit proper drying. Do not recoat until paint has dried to where it feels firm, does not deform, or feel sticky under moderate thumb pressure, and the application of another coat of paint does not cause lifting or loss of adhesion of the undercoat.

16) Provide minor tinting to each coat of paint to differentiate between coats.

B. Minimum Coating Thickness

1) Apply each material at not less than the manufacturer's recommended spreading rate, to establish a total dry film thickness as specified or, if not specified, as recommended by the coating manufacturer.

C. Painting of Mechanical and Electrical Work

Limit painting of mechanical and electrical work to those items exposed in equipment rooms and occupied spaces, and on the exterior of buildings or structures.

1) Mechanical items to be painted include, but are not limited to, the following:

a. Piping, pipe hangers, and supports.

b. Accessory items

D. Prime Coats

1) Apply a prime coat of material, which is required to be painted or finished, and which has not been prime coated by others.

2) Clean and prime unprimed ferrous metals as soon as possible after delivery of the metals to the job site.

3) Recoat primed and sealed surfaces where there is evidence of suction spots or unsealed areas in the first coat, to ensure a finish coat with no burn-through or other defects due to insufficient sealing.

E. Completed Work

1) Match approved samples for color, texture, and coverage.

2) Remove, refinish, or repaint work not in compliance with specified requirements.

F. Dry Film Gauge

1) Provide "Noroson Magnetic Dry Film Thickness Gauge" as supplied by the coatings manufactured.

3.06 CLEAN-UP AND PROTECTION

A. Clean-up

1) During the progress of the work, remove from the site all discarded paint materials, rubbish, cans, and rags at the end of each workday.

2) Upon completion of painting work, clean window glass and other paint-spattered surfaces. Remove spattered paint by proper methods of washing and scraping, using care not to scratch or damage finished surfaces.

B. Protection

1) Protect open water holding tanks and basins of the existing water treatment plant.

2) Protect work of other trades, whether to be painted or not, against damage from painting and finishing work.

3) Protect surfaces that might otherwise be damaged by dripping, splashing, or spraying of paint. Correct any damage by cleaning, repairing, or replacing and repainting as acceptable to the Engineer.

4) Provide "Wet Paint" signs as required to protect newly painted finishes. Remove temporary protective wrappings provided by others for protection of their work, after the completion of paint operations.

5) At the completion of work of other trades, touch up, and restore all damaged or defaced painted surfaces.

6) Repair of damage caused by overspray is the contractor's responsibility.

3.07 WARRANTY

A. If within one year after the date of Substantial Completion, any Work is found to be defective, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER'S written instructions, either correct such defective Work, or, if it has been rejected by OWNER, remove it from the site and replace it with non-defective Work. If CONTRACTOR does not promptly comply with terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, OWNER may have the defective Work corrected or the rejected Work removed and replaced, and all direct and indirect costs of such removal and replacement, including compensation for additional professional services, will be charged to the CONTRACTOR.

END OF SECTION