EL PASO WATER UTILITIES
PUBLIC SERVICE BOARD

ADDENDUM NO. 2

FOR

NORTHWEST AND NORTHEAST RECLAIMED TANKS REHABILITATION BID NO. 60-23

August 25, 2023

In accordance with the Instruction to Bidders of the Contract Documents, the following revision to the Plans and/or Specifications shall become part of the Contract Documents and the Bidders shall acknowledge receipt thereof on their Bid Proposal.

EL PASO WATER UTILITIES

Mirtha Solis
Senior Purchasing Agent
August 25, 2023

*The EPWater representative's signature certifies that this Document shall become part of the Contract Documents for the referenced project. The signature is not a representation that the content of this document is technically correct.

PARKHILL, SMITH, AND COOPER

Keith Rutherford, P.E.
Principal/Project Manager
August 25, 2023

Receipt of this Addendum must be acknowledged in writing to El Paso Water Utilities as required by the bid documents.

VOLUME 1 – CONTRACT DOCUMENTS

BIDDING REQUIREMENTS, CONTRACT FORMS, AND CONDITIONS OF THE CONTRACT

AD-2.01. SECTION 00015 – TABLE OF CONTENTS

A. REMOVE Section 00015 – TABLE OF CONTENTS in its entirety and REPLACE with revised Section 00015 – TABLE OF CONTENTS, attached to this Addendum.

TECHNICAL SPECIFICATIONS

AD-2.02. SECTION 09 97 13 – STEEL TANK COATING SYSTEM

A. ADD Section 09 97 13, attached to this Addendum, in its entirety.

SUBMITTED QUESTIONS AND ANSWERS

The following are answers to questions that were received prior to the cutoff date for questions.

Q-2.01. Is there a way to isolate each tank for filling during disinfection?

A-2.01. No. These are reclaim water tanks and they do not need to be isolated from the system for filling as a potable water tank would.

Q-2.02. For the “leak test” per the bid schedule, how is each tank to be filled to ensure the floor is leak free? 4”- 6” of water for “leak test”?

A-2.02. The tank may be filled with reclaim water from the system in order to perform the leak test.

Q-2.03. What disinfection method is required for each tank? Method 2?

A-2.03. AWWA C652-19 METHOD 2 is required per the general notes on sheet G-003 of the plans.

Q-2.04. Who is required to fill each tank for the disinfection phase once all interior work scope is completed?

A-2.04. The contractor is responsible for disinfection including filling the tank.

Q-2.05. Per the drawings, is the subgrade detail correct regarding the depths of the existing materials? Is more investigation needed to confirm this?

A-2.05. The subgrade conditions shown on the drawings are per the record drawings and represent the best information available. Differences found in the field will be compensated accordingly.

Q-2.06. Can any of tanks be taken offline simultaneously? This will make it very difficult to complete all 5 takes with full floor replacements given the time frame.

A-2.06. Yes, Two tanks may be taken offline simultaneously but they may not be in consecutive pressure planes as described on sheet G-004.

Q-2.07. Will we be able to work weekends?

A-2.07. Regular working hours are outlined in the contract documents as Monday through Friday. Weekend work may be requested but overtime inspection costs will be the responsibility of the Contractor.

Q-2.08. Can you confirm the new ladders to be installed are to be steel, not aluminum?

A-2.08. No, new ladders will be aluminum per specifications section 05 50 00.

Q-2.09. Is there lead test results for the Club #1 Tank? Can you confirm the interior of the tank contains lead.

A-2.09. The CCC#1Tank was tested for presence of lead in 2020. The tank tested positive for lead on the inside and outside of the tank.

Q-2.10. It's stated a berm to be built around each of the tanks on the drawings for containing water from pressure washing. Are all tanks getting pressure washed? Do all tanks require a berm to be built around the tank with plastic?

A-2.10. The CCC#1Tank is the only one that will require a berm and plastic to contain any lead removed from the tank.

Q-2.11. Club #1 tank calls for replacement of all purlins, but there is not mention in the bid form. What line item should this be apart of?

A-2.11. The CCC#1 purlin replacement is bid item number 6 on the bid form.

Q-2.12. Was the pre-bid meeting for the project mandatory?

A-2.12. No.

Q-2.13. What size manways are to be added to the tanks?

A-2.13. There are not any new manways being added to the tanks.

ATTACHMENTS:

Attachment No. 2.01 – SECTION 00015R – TABLE OF CONTENTS, 2 pages

Attachment No. 2.02 – SECTION 09 97 13 – STEEL TANK COATING SYSTEM

Addendum No. 2, pages 1 through 4, and referenced attachments shall become part of the Contract and all provisions of the Contract shall apply thereto. The time provided for completion

of the Contract is not changed. Bidders shall acknowledge receipt of all Addenda by number in the space provided in the Proposal.

*****END OF ADDENDUM NO. 2*****

TECHNICAL SPECIFICATIONS

SECTION 09 97 13 – STEEL TANK COATING SYSTEM

PART 1 - GENERAL

1.1 SUMMARY

Section Includes:

1. The following requirements apply to all exposed interior and exterior surfaces of the steel tank including accessories and appurtenances. Galvanized and stainless-steel surfaces are not to be coated.
2. This section covers the furnishing of materials, the preparation of surfaces, the application and the testing of the coating systems and for the disinfection and leak testing of the tank interior after the interior coating is completed and accepted.
3. This section also covers the furnishing of materials, the preparation of surfaces, the application and the testing of the coating systems for piping, piping supports, ladders, and miscellaneous metals attached to the tank.

Related Requirements

4. Division 01 Specification Sections apply to Work of this Section.

1.2 REFERENCES

American Water Works Association (AWWA) Standards:

1. D102-97, AWWA Standard for Coating Steel Water –Storage Tanks
2. C652-19, AWWA Standard for Disinfection of Water-Storage Facilities.

NSF International (NSF): 61/600, Drinking water System Components-Health Effects

Society for Protective Coatings (SSPC):

3. SSPC-PA 1 - Shop, Field, and Maintenance Painting of Steel.
4. SSPC-PA-2 - Measurement of Dry Film Thickness with Magnetic Gages.
5. SSPC-SP 6 - Commercial Blast Cleaning.
6. SSPC-SP 10 - Near-White Metal Blast Cleaning.

NACE International

1.3 DEFINITIONS

Coverage: Total minimum dry film thickness in mils, or square feet per gallon.
MDFT: Mils Dry Film Thickness
MDFTPC: Mils Dry Film Thickness Per Coat
MSDS: Material Safety Data Sheet
PSDS: Paint System Data Sheet
Mil: Thousandth of an inch
SP: Surface Preparation

1.4 PREINSTALATION MEETING

Convene Minimum one week prior to commencing work of this section.

1.5 SUBMITTALS

Data Sheets:

1. Paint System Data Sheet (PSDS), Submittal shall include:
    a. Manufacturer
    b. Product name and number
    c. Cross reference to specified coating system components
    d. NSF listings
    e. Percent solids
    f. Recommended surface preparation
    g. Application thickness and recoat window
2. Material Safety Data Sheets (MSDS)
3. Available colors for each product used in the paint system, except for products applied by equipment manufacturers. Submit required information on a system-by-system basis. Also provide copies of paint system submittals to the coating applicator.

Quality Control:

4. Anticipated tank coating sequence
5. Manufacturer’s written instructions for applying each type of coating
6. Field testing: Inspection and test reports
7. Manufacturer’s Certificate of Proper Installation

Quality Assurance:

8. Applicator’s Experience: Minimum five years’ experience in application of specified products.
9. Regulatory Requirement: Meet federal, state, and local requirements limiting the emission of volatile organic compounds.

Closeout:

10. Maintenance Data: Submit data on cleaning, touchup, and repair of painted surfaces.

1.6 DELIVERY, STORAGE AND HANDLING

Section 01 60 00 “Product Requirements:” Requirements for transporting, handling, storing, and protecting products.

Container Labeling: Include manufacturer's name, type of coating, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.

Inspection:

1. Accept materials on Site in manufacturer's sealed and labeled containers.
2. Inspect for damage and to verify acceptability.

Store materials in ventilated area and according to manufacturer instructions.

3. Minimum storage ambient temperature: 45 degrees Fahrenheit
4. Maximum storage ambient temperature: 90 degrees Fahrenheit

Protection:

5. Protect materials from moisture and dust by storing in clean, dry location remote from construction operations areas.
Provide additional protection according to manufacturer instructions.

1.7 ENVIRONMENTAL REQUIREMENTS

Do not apply paint in temperatures outside of manufacturer's recommended maximum or minimum allowable range, in dust, smoke-laden atmosphere, damp, fog, rain, or humid weather.
Do not perform abrasive blast cleaning whenever relative humidity exceeds 85 percent, or whenever surface temperature is less than 5 degrees F above dewpoint or ambient air.
Temperature of steel and paint must be within manufacturer recommended range to coat.
Verify surfaces are ready to receive work as indicated by product manufacturer.
Contractor shall provide and operate dehumidification and air handling equipment to allow the entire surface of the interior shell and roof to be abrasive blast prepared as specified. Contractor shall size the equipment for the project and weather conditions to maintain humidity within the reservoir below the level that will cause cleaned metals surfaces to flash rust. Dehumidification air handling equipment shall operate continuously throughout surface preparation, coating application, and cure process. The air turnover rate shall be such as to allow the curing process to proceed at an exposed ambient rate.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

Acceptable coatings manufacturers include:
1. PPG Industries.
2. Tnemec.
3. Sherwin-Williams Company.
4. Carboline Coatings Co.

Alternate coating suppliers shall be approved by the Engineer. Contractor must submit all pertinent product documentation for review.

2.2 MATERIALS

The coating products listed below are as manufactured by Sherwin Williams, Carboline or Tnemec Company, Inc. and are intended to establish a standard of quality. Paint products for this project shall be equal to the product listed. Coating systems that decrease the film thickness designated and/or the number of coats to be applied or which involve a change from the generic type of coating specified shall not be used. All coating used on metal surfaces which are to be in contact with potable water shall be approved by NSF-61/600.
Quality: Manufacturer's highest quality products and suitable for intended use.
Materials Including Primer and Finish Coats: Produced by same paint manufacturer.
Thinners, Cleaners, Driers, and Other Additives: As recommended by paint manufacturer of the particular coating. Solids content shall not be less than 65% for every product.

Blasting media shall be iron or copper slag material or other material containing no silica sand or free silica. **Silica sand shall not be used at any phase of this project.**

2.3 COLORS

Formulate with colorants free of lead and lead compounds.
For tank interior, shop primer coat can be any color. Intermediate and topcoat color shall be contrasting colors with tank white as the topcoat color.
For tank exterior, shop primer coat shall be gray or white. Intermediate and topcoat color shall be similar in color, tinted slightly to allow identification of the underlying primer. Topcoat color shall be a Tan shade to be approved by owner during submittal process.
Proprietary identification of colors is for identification only; selected manufacturer may supply matches.

2.4 MIXING

Multiple-Component Coatings:

1. Prepare using all the contents of the container for each component as packaged by the paint manufacturer.
2. No partial batches will be permitted.
3. Do not use multiple-component coatings that have been mixed beyond their pot life.
4. Furnish small quantity kits for touchup painting and for painting other small areas.
5. Mix only components specified and furnished by the paint manufacturer.
6. Do not intermix additional components for reasons of color or otherwise, even within the same generic type of coating.
7. Keep paint material containers sealed when not in use.

PART 3 - EXECUTION

3.1 EXAMINATION

Inspect and provide substrate surfaces prepared in accordance with these Specifications and the printed directions and recommendations of the paint manufacturer whose product is to be applied.
Provide Engineer minimum three days' advanced notice of start of surface preparation work and coating application work.
Perform such work only in presence of Engineer unless Engineer grants prior approval to perform such work in Engineer's absence.

3.2 PREPARATION

Notify Engineer at least seven days prior to start of shop blast cleaning to allow for inspection of the work during surface preparation and shop application of paints. Work shall be subject to Engineer's approval before shipment to site.
Items such as structural steel, metal floor, doors, manways, and frames, metal louvers, and similar fabricated items may be shop prepared and primed.
Remove, mask, or otherwise protect hardware, machined surfaces, nameplates and other surfaces not intended to be painted.
Cover miscellaneous tank openings, except as required for ventilation, to avoid accumulation of cleaning residue and paint material in overflows, inlet and outlet piping

3.3 PREPARATION OF SURFACES

Metal Surfaces: Meet requirements of the following SSPC Specifications:

1. SSPC - SP-1, Solvent Cleaning
2. SSPC - SP-2, Hand-Tool Cleaning
3. SSPC - SP-3, Power-Tool Cleaning
4. SSPC - SP-5/ NACE No 1, White Metal Blast Cleaning
5. SSPC - SP-6/ NACE No 3, Commercial Blast Cleaning
6. SSPC - SP-7/ NACE No 4, Brush-Off Blast Cleaning
7. SSPC - SP-10/ NACE No 2, Near-White Blast Cleaning

Whenever the words "solvent cleaning", "hand-tool cleaning"' "wire brushing" or "blast cleaning" or similar words of equal intent are used in these Specifications or in paint manufacturer's specifications, they shall be understood to refer to the applicable SSPC Specifications listed above.
Where OSHA or EPA regulations preclude standard abrasive blast cleaning, wet or vacu-blast methods may be required. Coating manufacturers' recommendations for wet blast additives and first coat application shall apply.
Pre-blast cleaning requirements:

8. Remove oil, grease, welding fluxes, and other surface contaminants prior to blast cleaning.
9. Cleaning methods: Steam, hot water, or cold water with appropriate detergent additives followed with clean water rinsing.
10. Clean small, isolated areas as above or solvent clean with suitable solvents and clean cloth.
11. Round or chamfer sharp edges and grind smooth burrs, jagged edges, and surface defects.
12. Welds and adjacent areas: Prepare such that there is: No undercutting or reverse ridges on weld bead. No weld spatter on or adjacent to weld or other area to be painted. No sharp peaks or ridges along weld bead. Grind embedded pieces of electrode or wire flush with adjacent surface of the weld.

Blast cleaning requirements:

13. Type of equipment and speed of travel: Design to obtain specified degree of cleanliness. Minimum surface preparation is as specified herein and takes precedence over coating manufacturer's recommendations.
14. Select type and size of abrasive to produce a surface profile that meets coating manufacturer's recommendations for primer to be used.
15. Use only dry blast-cleaning methods.
16. Do not reuse abrasive, except for designed, recyclable systems.
17. Meet applicable federal, state, and local air pollution and environmental control regulations for blast cleaning and disposition of spent aggregate and debris.

Post-blast cleaning and other cleaning requirements:

18. Clean surfaces of dust and residual particles from cleaning operations by dry (no oil or water vapor) air blast cleaning or other method prior to painting. Vacuum clean enclosed areas and other areas where dust settling is a problem and wipe with a tack cloth.
19. Paint surfaces the same day they are blast cleaned. Reblast surfaces that have started to rust before they are coated.

Shop Primed Surfaces:

20. Notify the Engineer one week in advance of the start of shop blasting work.
21. Engineer shall coordinate shop inspection as required.
22. Blast interior surface to SSPC-SP10, Near-White Metal Blast to a surface profile of 1.5-2.5 mils. Area shall then be shot with a minimum of 3-4 mils primer coating to cover the profile. Primer shall match the coating system product.
23. Blast interior and exterior surfaces to SSPC-SP10, Near-White Metal Blast to a surface profile of 1.5-2.5 mils. Area shall then be shot with a minimum of 3-4 mils primer coating to cover the profile. Primer shall match the coating system product.
24. Care shall be taken in handling and storage to minimize damage to the primer coating.

Stripe Coating

25. Stripe coat all field welds, edges, angles, fasteners, and other irregular surfaces located inside and outside the tank.
26. Stripe coat shall consist of one coat and brush applied to the coating thickness specified.
27. Apply stripe coat between prime and intermediate and final coats.

Application

28. Coating application shall follow the manufacturer's recommendations and instructions. Paint materials shall be delivered in original containers with seals unbroken and labels intact. The Contractor shall coordinate prime coat materials and finish coat materials to ensure that they are from the same manufacturer.
29. All coating shall be thoroughly agitated prior to use and shall be kept agitated while using. All ready-mixed material shall be applied as received from the manufacturer, without addition of any kind of a drier or thinner except as permitted by the manufacturer. Coating shall be applied according to manufacturer's recommendations.
30. Each coating shall be applied at the rate specified and in manner specified by the manufacturer. Deficiencies in tested dry film thickness shall be corrected by application of additional coat(s).

31. Coating application shall not proceed when the temperature is below 50° F., during precipitation or fog, or if there is moisture on the surfaces to be painted. Exceptions to the temperature limit will be allowed in accordance with the manufacturer's printed literature.
32. Each coat shall dry thoroughly as specified by the manufacturer prior to application of successive coats. Do not immerse coating until appropriate dry film thickness has been obtained and finished coating system has been allowed to cure as recommended by the paint manufacturer.
33. All coating materials shall be evenly spread without runs, sags, skips or other faults. Finished surfaces shall be uniform in gloss, finish and color and shall be free from brush marks. All lines of demarcation between paints of different colors or shades shall be carefully drawn so as to be true and free from blurred edges.
34. Surface preparation blasting operations shall be separate from the coatings area. The coatings area shall have sufficient screens, partitions or physically separated such that freshly applied coatings shall not be contaminated. Materials moved from the blasting area to the coating area shall be compressed air cleaned and shall not contaminate the coatings area.

Film Thickness:

35. Number of coats: Minimum required without regard to coating thickness. Additional coats may be required to obtain minimum required paint thickness, depending on method of application, differences in manufacturers' products, and atmospheric conditions.
36. Maximum film build per coat shall not exceed coating manufacturer's recommendations.
37. Film thickness measurements and electrical inspection of coated surfaces: Perform with properly calibrated instruments. Recoat and repair as necessary for compliance with the Specifications. All coats are subject to inspection by Engineer and coating manufacturer's representative.
38. Give particular attention to edges, angles, flanges, and other similar areas, where insufficient film thickness are likely to be present and ensure proper millage in these areas.
39. Thickness testing: After repaired and recoated areas have dried sufficiently, final tests will be conducted by the Engineer. Measure coating thickness specified in mils with a magnetic type of dry film thickness gauge. Test finish coat for holidays and discontinuities with an electrical holiday detector, low voltage, wet sponge type. Check each coat for correct millage. Do not make measurement before a minimum of 8 hours after application of coating.

Damaged Coatings, Pinholes, and Holidays: Feather edges and repair in accordance with recommendations of paint manufacturer. Apply finish coats, including touchup and damage-repair coats in a manner, which will present a uniform texture and color-matched appearance.

Unsatisfactory Application: If item has an improper finish color, or insufficient film thickness, clean surface and topcoat with specified paint material to obtain specified color and coverage. Obtain specific surface preparation information from coating manufacturer. Hand or power-blast visible areas of chipped, peeled, or abraded paint, and feather the edges. Follow with primer and finish coat in accordance with the Specifications.

Depending on extent of repair and appearance, a finish sanding and topcoat may be required. Evidence of runs, bridges, shiners, laps, or other imperfections are cause for rejection. Repair defects in coating systems in accordance with written recommendations of the coating manufacturer. Leave all staging up until Engineer has inspected surface or coating. Replace staging removed prior to approval by Engineer.

Application Safety

40. Performed painting in accordance with recommendations of the following: Paint manufacturer's instructions. NACE recommended practices contained in the publication, Manual for Painter Safety. Federal, state, and local agencies having jurisdiction.
41. Contractor will be solely and completely responsible for condition of the project site, including safety of all persons (including employees) and property during performance of the work. This requirement will apply continuously and not be limited to normal working hours. Safety provisions will conform to U.S. Department of Labor, Occupational Safety and Health Act, any equivalent state law, and all other applicable federal, state, county, and local laws, ordinances, and codes.
42. Contractor will comply with all safety training requirements promulgated or required for this project.

3.4 FIELD QUALITY CONTROL

Testing Gauges

1. Adequate illumination shall be provided while work is in progress, including explosion proof lights and electrical equipment. Temporary ladders and scaffolds shall conform to applicable safety requirements. They shall be erected to facilitate inspection and moved by the Contractor as required.
2. Inspection and testing shall generally be in accordance with AWWA D102. The Contractor shall furnish inspection devices in good working condition for measurement of dry film thickness of coatings. Contractor shall also furnish U.S. Department of Commerce, National Bureau of Standards certified thickness calibration plates to test the accuracy of dry film thickness measurement device.
3. A nondestructive holiday detector shall be used for inspecting the interior coating below the overflow level. All holidays shall be marked, repaired in accordance with the manufacturer's printed recommendations and retested. No holidays or other irregularities shall be permitted in the final coating
4. Provide an electronic film thickness gauge to test coating thickness specified in mils, as manufactured by PosiTector
5. Provide an electrical holiday detector, low voltage, wet sponge type and galvanizing, for holidays and discontinuities as manufactured by Tinker and Rason, San Gabriel, CA; Model M-1. Testing shall be in accordance with NACE SP-0188.

3.5 MANUFACTURER'S SERVICES

The manufacturer's representative shall be available for installation assistance, inspection of surface preparation and coatings application, and to issue Manufacturer's Certificate of

Proper Installation. Manufacturer's representative shall be on site and available at the Work Start Meeting and the following minimum Hold points:

1. At the beginning of shop prime work
2. At a midpoint through the shop prime work
3. At beginning of interior field work to verify recoat window and primer surface preparation.
4. At a midpoint during interior field coating work.
5. At the completion of interior field coating to certify coating application and special warranty.
6. At beginning of exterior field work to verify recoat window and primer surface preparation.
7. At a midpoint during exterior field painting work.
8. At the completion of exterior field painting to certify coating application and warranty.

3.6 CLEANUP

Place clothes and waste that might constitute a fire hazard in closed metal containers and remove from site at the end of each day.

Upon completion of the work, remove staging, scaffolding, and containers from the site. Dispose of trash and discard materials in a legal manner.

Completely remove paint spots, oil, or stains upon adjacent surfaces and floors and leave entire job clean.

3.7 PROTECTIVE COATINGS SYSTEMS

System for Submerged Metal – Potable Water: Manufacturer's recommendations for surface preparation and coating thickness shall govern. Shall comply with **AWWA D102-17Coating System No.5, OSC-5-S.**

1. After erection, all surfaces that have been welded, abraded or otherwise damaged shall be cleaned and primed in the field in accordance with the system requirements.
2. Shop primed components that are not painted with successive coats within the manufacturer's recommended recoat cycle, shall be cleaned to SSPC-SP7, Brush-Off Blast Cleaning, in accordance with the manufacturer's recommendations.
3. Shop primed components coated with zinc-rich primers shall be removed completely and new primer coating applied after fabrication processes are completed.

Application	Surface Preparation	Product	Coating, mils
Prime/ Prime Coatings	SSPC-SP-10/ NACE No. 2, 1.5-2.5 mils profile	Sherwin Williams-SW Corothane I Galvapac NSF	3-4 mils
		Tnemec Series 91H_2O Hydro-Zinc	2.5-3.5 mils
		Carboline Carboguard 61	5-6 mils
Intermediate	SSPC-SP 10/ NACE No. 2 uncoated metal	Sherwin Williams-Macropoxy 646 (NSF)	5-6 mils total
	SSPC-SP-7/ NACE No. 4 Recoat profiling	Tnemec Series L140 Pota Pox Contrasting color to topcoat	4-5 mils total
Topcoat	SSPC-SP-7/ NACE No. 4 as required to Recoat	Sherwin Williams- Macropoxy 646 (NSF)	5-6 mils
		Tnemec Series L140-15BL Pota Pox	4- 5 mils
		Carboline Phenoline 341	20-25 mils

4. Application schedule: Use this system on all metal surfaces inside tanks, including, but not limited to, steel plates and structural steel; interior and exterior surfaces of the inlet, outlet, and overflow piping; manhole covers; non-galvanized ladders; landings; couplings; and vents.
5. Provide full coating thickness to the top of all structural steel that will be covered by the roof plates, or otherwise shielded from full coating thickness before the structural steel members is installed. Remove coating in areas to be welded.

System for Exposed Metal: Manufacturer's recommendations for surface preparation and coating thickness shall govern. Shall comply with **AWWA D102-17 Coating System No.2, ICS-2-W.**

6. After erection, all surfaces that have been welded, abraded or otherwise damaged shall be cleaned and primed in the field in accordance with the system requirements.
7. Shop primed components that are not painted with successive coats within the manufacturer's recommended recoat cycle, shall be cleaned to SSPC-SP7, Brush-Off Blast Cleaning.

Application	Surface Preparation	Product	Coating, mils
Shop Prime	SSPC-SP-10/ NACE No. 2, 1.5-2.5 mils profile	Sherwin Williams- SW Corothane I Galvapac NSF	3-4 mils
		Tnemec Series 91H_2O Hydro-Zinc	2.5-3.5 mils
		Carboline Carboguard 61	5-6 mils
Intermediate	SSPC-SP 10/ NACE No. 2 uncoated metal	Sherwin Williams-Acrolon 218HS	4-6 mils total
	SSPC-SP-7/ NACE No. 4 Recoat profiling	Tnemec Series 73 Endura-Shield	3-5 mils total
		Carboline Carboguard 61 Contrasting color to topcoat	5-6 mils total
Topcoat	SSPC-SP-7 as required to Recoat	Sherwin Williams FlouroKem	2-3 mils
		Tnemec Series 700 Hydroflon	2-3 mils
		Carboline Carbothane	3-5 mils

8. Application schedule: Use this system on exposed exterior metal surfaces of tanks.
9. Tank coating sequence anticipated:
    a. Shop prime all surfaces of shell plates and roof and floor plates and structural steel associated with the exterior of the tank; hold back shop primer where required for field welding.
    b. Shop priming of galvanized steel surfaces is not required.
    c. After tank erection, abrasive blast welds (SSPC SP 6) and damaged areas; apply primer.
    d. Clean primed surfaces and brush blast.
    e. Apply finish coats.
    f. Touch up as required.

System for Galvanized Metal Conditioning: Manufacturer's recommendations for surface preparation and coating thickness shall govern.

Surface Prep.	Paint Material	Min. Coats, Cover
Solvent Clean (SP 1)	Wash Primer	1 coat
Followed by Hand-tool (SP 2), or Power-tool (SP 3) 10.	Finish Coats to Match Paint System Specified for Exposure	As specified for Paint System Finish Coats

10. Application Schedule:
    a. Use this system on galvanized surfaces requiring painting.
    b. Finish coats and millage shall be as specified for the substrate exposure conditions.

Contractor shall complete and attach manufacturer's Technical Data Sheet to the Paint System Data Sheet (PSDS). A PSDS shall be submitted for each coating system for each tank.

3.8 FINAL ACCEPTANCE BY THE ENGINEER:

Final approval of the coating systems by the Engineer will not be given until all repair, touch-ups, recoating, etc, of all parts of the reservoir is complete. The Contractor shall inform the Engineer in writing when all of the coating is complete and ready for final review.

3.9 AIR POLLUTION CONTROL

To assure compliance with Texas Air Control Board regulations and to prevent the occurrence of air pollution nuisances during any abrasive blasting of the tank or other surfaces, the Contractor shall provide and use as necessary, shrouding or other emission control measures approved by the Texas Air Control Board.

3.10 COATING WARRANTY

Contractor to provide 3-Year Coating Warranty from date of Substantial Completion.

END OF SECTION