



ST. TAMMANY PARISH

PATRICIA P. BRISTER
PARISH PRESIDENT

April 26, 2019

Please find the following addendum to the below mentioned BID.

Addendum No.: 3

Bid#: 19-04-2

Project Name: Lakefront Pump Station Repair Ph.2

Bid Due Date: Wednesday, May 1, 2019

GENERAL INFORMATION:

1. Please delete Section 09800 of Section 10 Specifications and replace with Section 09800 – Protective Coatings REVISED (Attached). The section was revised to clarify coating system schedules.
2. Please delete Sheet 01-E1 from Section 11 Plans and replace with Sheet 01-E1 REVISED (Attached). The Run Schedule was revised on 04/20/2019.
3. Please replace Paragraph 2.2 A, Section 16200 – Detail Specifications for Electrical Installation of Section 10 Specifications with the following:
A-Revised. The CONTRACTOR shall furnish and install main circuit breaker as shown on drawings. Breakers shall be as follows:

Current	800 Amps with adjustable trip from 800 to 600 amps
Voltage	480 Volts
Poles	3
AIC	65 KA Minimum at Rated Voltage
Enclosure	NEMA 4x Stainless Steel
Additional Requirements	Provide ground fault detection and tripping features



ST. TAMMANY PARISH

PATRICIA P. BRISTER
PARISH PRESIDENT

QUESTIONS & ANSWERS:

Question #1: The main circuit breaker is described as a 1200A with adjustable trip and the feeder is only rated at 800A. Can an 800A breaker can be used in lieu of the 1200A?

Answer #1: **An 800A breaker, adjustable to 600A, will be acceptable. Please refer Addendum #3, General Information #3 for revisions to the contract specifications.**

Question #2: We are having difficulty obtaining pricing on a 1200A breaker, adjustable to 800A, in the 4X enclosure. Can an 800A to 600A breaker be utilized?

Answer #2: **An 800A breaker, adjustable to 600A, will be acceptable. The enclosure shall remain NEMA 4X. Please refer Addendum #3, General Information #3 for revisions to the contract specifications.**

Question #3: Can a location for delivery of the existing pump to the OWNER be provided?

Answer #3: **The delivery location is 701 N. Tyler Street Covington, LA 70433.**

Question #4: Will the CONTRACTOR or the OWNER be responsible for unloading the pump?

Answer #4: **The Owner will need 48 hours notice before delivery to ensure the proper equipment is there for unloading.**

Question #5: Can the coatings system required for the 54" Piping be clarified?

Answer #5: **The pump shall be coated with System 100 (submerged service) per Section 09800 – Protective Coatings REVISED. This may be shop applied. Discharge piping shall be coated with System 4 per Section 09800 – Protective Coatings REVISED. (Attached)**

Question #6: Can the coatings system required for the 20" piping be clarified?

Answer #6: **Discharge piping shall be coated with System 4 per Section 09800 – Protective Coatings REVISED. (Attached)**

Question #7: Can the coating system required for the handrails on the existing platform be clarified?

Answer #7: **Existing handrails on the existing platform shall be coated with System 4 per Section 09800 – Protective Coatings REVISED. New handrails on the new structure are to be aluminum as per Section 05500 – Miscellaneous**



ST. TAMMANY PARISH

PATRICIA P. BRISTER
PARISH PRESIDENT

Metalwork, and are not to be coated, except where in contact with dissimilar metal. When in contact with dissimilar metal, contact surfaces shall be coated per Section 09800 – Protective Coatings REVISED. (Attached)

Question #8: Can the coating system required for the grating on the new platform be clarified?

Answer #8: The grating on the new platform is to be aluminum and will not be coated, except where in contact with dissimilar metal. When in contact with dissimilar metal, contact surfaces shall be coated per Section 09800 – Protective Coatings REVISED. The grating on the existing platform shall be coated with System 4 per Section 09800 – Protective Coatings REVISED. (Attached)

Question #9: Can the coating system required for the new structure be clarified?

Answer #9: New structural steel shall be galvanized and not coated. New grating is to be aluminum per the plans, and shall not be coated. New handrails are to be aluminum per Section 05500 – Miscellaneous Metalwork, and shall not be coated.

ATTACHMENTS:

1. Section 09800 – Protective Coatings REVISED.pdf
2. Sheet 01-E1 REVISED.pdf

<< End of Addendum # 3 >>

Section 09800 – Protective Coatings REVISED

SECTION 09800 - PROTECTIVE COATINGS (REVISED 10/02/2017)

PART 1 -- GENERAL

1.1 THE REQUIREMENT

- A. The CONTRACTOR shall provide protective coatings, complete and in place, in accordance with the Contract Documents.
- B. Definitions
 - 1. The term "paint," "coatings," or "finishes" as used herein, shall include surface treatments, emulsions, enamels, paints, epoxy resins, and all other protective coatings, excepting galvanizing or anodizing, whether used as a pretreatment, primer, intermediate coat, or finish coat.
 - 2. The term "DFT" means minimum dry film thickness, without any negative tolerance.
- C. The following surfaces shall not be protective coated:
 - 1. Concrete, unless required by items on the concrete coating schedule below or the Drawings.
 - 2. Stainless steel
 - 3. Machined surfaces
 - 4. Grease fittings
 - 5. Glass
 - 6. Equipment nameplates
 - 7. Platform gratings, stair treads, door thresholds, and other walk surfaces, unless specifically indicated to be coated.
- D. The coating system schedules included herein and/or on the drawings summarize the surfaces to be coated, the required surface preparation, and the coating systems to be applied. Coating notes on the Drawings are used to show or extend the limits of coating schedules, to show exceptions to the schedules, or to clarify or show details for application of the coating systems.
- E. Where protective coatings are to be performed by a subcontractor, the subcontractor shall provide 5 references which show that the painting subcontractor has previous successful experience with the indicated or comparable coating systems. Include the name, address, and the telephone number for the owner of each installation for which the painting subcontractor provided the protective coating.

1.2 REFERENCE STANDARDS

- A. American Water Works Association (AWWA)
AWWA/ANSI C213 Fusion Bonded Epoxy Coating

- B. ASTM International (ASTM)
 - ASTM C309 Standard Specification for Liquid Membrane Forming Compounds for Curing Concrete
 - ASTM D412 Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers – Tension
 - ASTM D624 Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers
- C. Code of Federal Regulations
 - 29CFR1910.1200 Occupational Safety and Health Standards
- D. United States Environmental Protection Agency (US EPA)
 - Method 524.1 Measurement of Volatile Organic Compounds in Water by Purge and Trap Gas Chromatography/Mass Spectrometry
 - Method 524.2 Measurement of Purgeable Organic Compounds in Water by Capillary Column Gas Chromatography/Mass Spectrometry
- E. Federal Specifications
 - TT-P-28 Paint, Aluminum, Heat Resisting
- F. National Association of Corrosion Engineers (NACE)
 - TM-01-70 Standard Test Method – Visual Standard for Surfaces of New Steel Air – Blast Cleaned with Sand Abrasive
 - TM-01-75 Visual Standard for Surfaces of New Steel Centrifugally Blast Cleaned with Steel Grit and Shot
- G. National Sanitation Foundation (NSF)
 - NSF 61 Drinking Water System Components – Health Effects
- H. Society for Protective Coatings (SSPC)
 - SSPC SP1 Surface Preparation – Solvent Cleaning
 - SSPC SP2 Surface Preparation – Hand Tool Cleaning
 - SSPC SP3 Surface Preparation – Power Tool Cleaning
 - SSPC SP5 Surface Preparation – White Metal Blasting
 - SSPC SP6 Surface Preparation – Commercial Blasting
 - SSPC SP7 Surface Preparation – Brush Off Blasting
 - SSPC SP10 Surface Preparation – Near White Blasting

1.3 **CONTRACTOR SUBMITTALS, SAMPLING, AND TESTING**

- A. **General:** Submittals shall be furnished in accordance with Section 01010 unless indicated otherwise below.
- B. **Submittal/Source Approval:** Submittals shall include the following information and be submitted at least 30 days prior to protective coating work:
 - 1. **Coating Materials List:** Submit a coating materials list showing the manufacturer and the coating number, keyed to the coating systems herein.
 - 2. **Paint Manufacturer's Information:** For each coating system to be used, the following data:
 - 1. Paint manufacturer's data sheet for each product proposed, including statements on the suitability of the material for the intended use.
 - 2. Technical and performance information that demonstrates compliance with the system performance and material requirements.
 - 3. Paint manufacturer's instructions and recommendations on surface preparation and application.
 - 4. Colors available for each product (where applicable).
 - 5. Compatibility of shop and field applied coatings (where applicable).
 - 6. Material Safety Data Sheet for each product used.
- C. **Piping and Valve Identification:** Submit product information for piping and valve identification materials.

1.4 **SPECIAL CORRECTION OF DEFECTS REQUIREMENTS**

- A. **Warranty Inspection:** A warranty inspection may be conducted during the eleventh month following completion of all coating and painting work. The CONTRACTOR and a representative of the coating material manufacturer shall attend this inspection. All defective work shall be repaired in accordance with these specifications and to the satisfaction of the OWNER. The OWNER may, by written notice to the CONTRACTOR, reschedule the warranty inspection to another date within the one-year correction period, or may cancel the warranty inspection altogether. If a warranty inspection is not held, the CONTRACTOR is not relieved of its responsibilities under the Contract Documents.
- B. **Extended Maintenance of Chemical Tank Lining Systems:** The CONTRACTOR shall promptly repair any defects in the chemical resistant sheet lining system for a period of 2 years after the lining has been placed into service. Such maintenance shall include repair of the chemical tank and any equipment or facilities damaged by the corrosive action of the chemicals.

1.5 **PIPING AND VALVE IDENTIFICATION**

- A. The CONTRACTOR shall provide identification for exposed piping and valves, complete and in place, in accordance with the Contract Documents.

PART 2 -- PRODUCTS

2.1 GENERAL

- A. **Suitability:** The CONTRACTOR shall use suitable coating materials as recommended by the manufacturer. Materials shall comply with Volatile Organic Compound (VOC) limits applicable at the Site.
- B. **Material Sources:** Where manufacturers and product numbers are listed, it is to show the type and quality of coatings that are required. If a named product does not comply with VOC limits in effect at the time of bid opening, that product will not be accepted, and the CONTRACTOR shall propose a substitution product of equal quality that does comply. Unless indicated otherwise, proposed substitute materials will be considered as indicated above. Coating materials shall be materials that have a record of satisfactory performance in industrial plants, manufacturing facilities, and water and wastewater treatment plants.
- C. **Compatibility:** In any coating system only compatible materials from a single manufacturer shall be used in the work. Particular attention shall be directed to compatibility of primers and finish coats. If necessary, a barrier coat shall be applied between existing prime coat and subsequent field coats to ensure compatibility.
- D. **Containers:** Coating materials shall be sealed in containers that plainly show the designated name, formula or specification number, batch number, color, date of manufacture, and name of manufacturer, all of which shall be plainly legible at the time of use.
- E. **Colors:** All colors and shades of colors of all coats of paint shall be as indicated or selected by the ENGINEER. Each coat shall be of a slightly different shade, to facilitate inspection of surface coverage of each coat. Finish colors shall be as selected from the manufacturer's standard color samples by the ENGINEER.
- F. Substitute or "Or-Equal" Products
 - 1. To establish equality of products in accordance with the Contract Documents, the CONTRACTOR shall furnish satisfactory documentation from the manufacturer of the proposed substitute or "or-equal" product that the material meets the indicated requirements and is equivalent or better in the following properties:
 - 1. Quality
 - 2. Durability
 - 3. Resistance to abrasion and physical damage
 - 4. Life expectancy
 - 5. Ability to recoat in future
 - 6. Solids content by volume
 - 7. Dry film thickness per coat
 - 8. Compatibility with other coatings

9. Suitability for the intended service
 10. Resistance to chemical attack
 11. Temperature limitations in service and during application
 12. Type and quality of recommended undercoats and topcoats
 13. Ease of application
 14. Ease of repairing damaged areas
 15. Stability of colors
2. Protective coating materials shall be standard products produced by recognized manufacturers who are regularly engaged in production of such materials for essentially identical service conditions. Where requested, the CONTRACTOR shall provide the ENGINEER with the names of not less than 10 successful applications of the proposed manufacturer's products that comply with these requirements.
 3. If a proposed substitution requires changes in the WORK, the CONTRACTOR shall bear all such costs involved as part of the WORK.

2.2 INDUSTRIAL COATING SYSTEMS

- A. **System 4 - Aliphatic Polyurethane:** Two component aliphatic acrylic polyurethane coating material shall provide superior color and gloss retention, resistance to splash from acid and alkaline chemicals, resistance to chemical fumes and severe weathering and with a minimum solids content of 58 percent by volume. Primer shall be a rust inhibitive two component epoxy coating with a minimum solids content of 68 percent by volume.
 1. Prime coat DFT = 4 mils, **Ameron 385, Carboline 890, Tnemec 69, Sherwin – Williams Macropoxy 646 FC Epoxy B58-600 Series**, or equal.
 2. Finish coat (one or more, DFT = 3 mils), **Ameron Amershield, Carbothane 134 HG, Tnemec 1074U, Sherwin – Williams Acroline 218 HS Polyurethane B65-600 Series**, or equal.
 3. Total system DFT = 7 mils.
 4. More than one finish coat shall be applied as necessary to produce a finish with uniform color and texture.
- B. **System 5 - Inorganic Zinc/Polyurethane:** The inorganic zinc primer shall be a water or solvent based, self-curing, zinc silicate two-component inorganic coating which contains at least 85 percent of metallic zinc by weight in the dried film, and is recommended by the coating manufacturer as a primer for this system. The intermediate coat shall be a high-build two component epoxy with a solids content of at least 69 percent by volume. Finish coats shall be a 2-component aliphatic acrylic or polyester polyurethane coating material that provides superior color and gloss retention, resistance to chemical fumes and severe weathering, and a minimum solids content of 58 percent by volume.

1. Prime coat DFT = 3 mils, **Tnemec 90-98, Carboline Carbozinc 11, Sherwin Williams Zinc Clad II ES**, or equal.
2. Intermediate coat DFT = 4 mils, **Tnemec N69, Carboline Carboguard 890, Sherwin Williams Macropoxy 646 FC**, or equal.
3. Finish coats (one or more, DFT = 3 mils), **Tnemec 1074U, Carboline Carbothane 134HG, Sherwin Williams Acrolon 218 HS** or equal.
4. Total system DFT = 10 mils.
5. Intermediate coat shall be applied in excess of 4 mils DFT or in more than one coat as necessary to completely cover the inorganic zinc primer and prevent application bubbling of the polyurethane finish coat.
6. More than one finish coat shall be applied as necessary to produce a finish with uniform color and texture. If the inorganic zinc primer is used as a pre-construction or shop applied primer, all damaged and uncoated areas shall be spot abrasive blasted and coated after construction using the indicated material.

2.3 SUBMERGED AND SEVERE SERVICE COATING SYSTEMS

- A. **Material Sources:** The manufacturers' products listed in this paragraph are materials which satisfy the material descriptions of this paragraph and have a documented successful record for long term submerged or severe service conditions. Proposed substitute products will be considered as indicated above.
- B. **System 100 - Amine Cured Epoxy:** High build, amine cured, epoxy resin shall have a solids content of at least 80 percent by volume, and shall be suitable for long-term immersion service in potable water and municipal wastewater. For potable water service, the coating material shall be listed by the NSF International as in compliance with NSF Standard 61 - Drinking Water System Components - Health Effects.
 1. Prime coat and finish coats (3 or more, DFT = 16 mils), **Ameron 395, Tnemec 104 for Water or Tnemec N140 for all other, Carboline Carboguard 891 HS, Sherwin - Williams Macropoxy 5500**, or equal.

2.4 SPECIAL COATING SYSTEMS

- A. **System 205 - Polyethylene Encasement:** Application of polyethylene encasement shall be in accordance with ANSI/AWWA C105 using Method C.
- B. **System 208 - Aluminum Metal Isolation:** Two coats of a high build polyamide epoxy paint such as **Tnemec 66, PPG Amercoat 385, Carboguard 890, Sherwin Williams Macropoxy 646 FC**, or equal (8 mils). Total thickness of system DFT = 8.0 mils.

PART 3 -- EXECUTION

3.1 MANUFACTURER'S SERVICES

- A. The CONTRACTOR shall require the protective coating manufacturer to furnish a qualified technical representative to visit the Site for technical support as may be

necessary to resolve field problems attributable or associated with the manufacturer's products.

3.2 WORKMANSHIP

- A. Skilled craftsmen and experienced supervision shall be used on all WORK.
- B. Coating shall be done in a workmanlike manner so as to produce an even film of uniform thickness. Edges, corners, crevices, and joints shall receive special attention to insure thorough cleaning and an adequate thickness of coating material. The finished surfaces shall be free from runs, drops, ridges, waves, laps, brush marks, and variations in color, texture, and finish. The hiding shall be so complete that the addition of another coat would not increase the hiding. Special attention shall be given to insure that edges, corners, crevices, welds, and similar areas receive a film thickness equivalent to adjacent areas, and installations shall be protected by the use of drop cloths or other precautionary measures.
- C. All damage to surfaces resulting from the WORK shall be cleaned, repaired, and refinished to original condition.

3.3 STORAGE, MIXING, AND THINNING OF MATERIALS

- A. **Manufacturer's Recommendations:** Unless otherwise indicated, the coating manufacturer's printed recommendations and instructions for thinning, mixing, handling, applying, and protecting its coating materials, for preparation of surfaces for coating, and for all other procedures relative to coating shall be strictly observed.
- B. All protective coating materials shall be used within the manufacturer's recommended shelf life.
- C. **Storage and Mixing:** Coating materials shall be stored under the conditions recommended by the Material Safety Data Sheets, and shall be thoroughly stirred, strained, and kept at a uniform consistency during application. Coatings of different manufacturers shall not be mixed together.

3.4 PREPARATION FOR COATING

- A. **General:** All surfaces to receive protective coatings shall be cleaned as indicated prior to application of coatings. The CONTRACTOR shall examine all surfaces to be coated, and shall correct all surface defects before application of any coating material. All marred or abraded spots on shop-primed and on factory-finished surfaces shall receive touch-up restoration prior to any coating application. Surfaces to be coated shall be dry and free of visible dust.
- B. **Protection of Surfaces Not to be Coated:** Surfaces that are not to receive protective coatings shall be protected during surface preparation, cleaning, and coating operations.
- C. All hardware, lighting fixtures, switchplates, machined surfaces, couplings, shafts, bearings, nameplates on machinery, and other surfaces not to be painted shall be removed, masked or otherwise protected. Drop cloths shall be provided to prevent coating materials from falling on or marring adjacent surfaces. The working parts of all mechanical and electrical equipment shall be protected from damage during surface preparation and coating operations. Openings in motors shall be masked to prevent entry of coating or other materials.

- D. Care shall be exercised not to damage adjacent work during blast cleaning operations. Spray painting shall be conducted under carefully controlled conditions. The CONTRACTOR shall be fully responsible for and shall promptly repair any and all damage to adjacent work or adjoining property occurring from blast cleaning or coating operations.
- E. **Protection of Painted Surfaces:** Cleaning and coating shall be coordinated so that dust and other contaminants from the cleaning process will not fall on wet, newly coated surfaces.

3.5 SURFACE PREPARATION STANDARDS

- A. The following referenced surface preparation specifications of the Steel Structures Painting Council shall form a part of this specification:
 - 1. Solvent Cleaning (SSPC SP1): Removal of oil, grease, soil, salts, and other soluble contaminants by cleaning with solvent, vapor, alkali, emulsion, or steam.
 - 2. Hand Tool Cleaning (SSPC SP2): Removal of loose rust, loose mill scale, loose paint, and other loose detrimental foreign matter, by hand chipping, scraping, sanding, and wire brushing.
 - 3. Power Tool Cleaning (SSPC SP3): Removal of loose rust, loose mill scale, loose paint, and other loose detrimental foreign matter, by power tool chipping, descaling, sanding, wire brushing, and grinding.
 - 4. White Metal Blast Cleaning (SSPC SP5): Removal of all visible rust, oil, grease, soil, dust, mill scale, paint, oxides, corrosion products and foreign matter by blast cleaning.
 - 5. Commercial Blast Cleaning (SSPC SP6): Removal of all visible oil, grease, soil, dust, mill scale, rust, paint, oxides, corrosion products, and other foreign matter, except that staining shall be limited to no more than 33 percent of each square inch of surface area.
 - 6. Brush-Off Blast Cleaning (SSPC SP7): Removal of all visible oil, grease, soil, dust, loose mill scale, loose rust, and loose paint.
 - 7. Near-White Blast Cleaning (SSPC SP10): Removal of all visible oil, grease, soil, dust, mill scale, rust, paint, oxides, corrosion products, and other foreign matter, except that staining shall be limited to no more than 5 percent of each square inch of surface area.

3.6 METAL SURFACE PREPARATION (UNGALVANIZED)

- A. The minimum abrasive blasting surface preparation shall be as indicated in the coating system schedules included at the end of this Section. Where there is a conflict between these specifications and the coating manufacturer's printed recommendations for the intended service, the higher degree of cleaning shall apply.
- B. Workmanship for metal surface preparation shall be in conformance with the current SSPC Standards and this Section. Blast cleaned surfaces shall match the standard samples available from the National Association of Corrosion Engineers, NACE Standard TM-01-70 - Visual Standard for Surfaces of New Steel Airblast Cleaned with

Sand Abrasive and TM-01-75 - Visual Standard for Surfaces of New Steel Centrifugally Blast Cleaned with Steel Grit.

- C. All oil, grease, welding fluxes, and other surface contaminants shall be removed by solvent cleaning per SSPC SP1 - Solvent Cleaning prior to blast cleaning.
- D. All sharp edges shall be rounded or chamfered and all burrs, and surface defects and weld splatter shall be ground smooth prior to blast cleaning.
- E. The type and size of abrasive shall be selected to produce a surface profile that meets the coating manufacturer's recommendation for the particular coating and service conditions. Abrasives for submerged and severe service coating systems shall be clean, hard, sharp cutting crushed slag. Automated blasting systems shall not be used for surfaces that will be in submerged service. Metal shot or grit shall not be used for surfaces that will be in submerged service, even if subsequent abrasive blasting is planned to be one with hard, sharp cutting crushed slag.
- F. The abrasive shall not be reused unless an automated blasting system is used for surfaces that will be in non-submerged service. For automated blasting systems, clean oil-free abrasives shall be maintained. The abrasive mix shall include at least 50 percent grit.
- G. The CONTRACTOR shall comply with the applicable federal, state, and local air pollution control regulations for blast cleaning.
- H. Compressed air for air blast cleaning shall be supplied at adequate pressure from well maintained compressors equipped with oil and moisture separators that remove at least 95 percent of the contaminants.
- I. Surfaces shall be cleaned of all dust and residual particles of the cleaning operation by dry air blast cleaning, vacuuming, or another approved method prior to painting.
- J. Enclosed areas and other areas where dust settling is a problem shall be vacuum cleaned and wiped with a tack cloth.
- K. Damaged or defective coating shall be removed by the blast cleaning to meet the clean surface requirements before recoating.
- L. If the required abrasive blast cleaning will damage adjacent work, the area to be cleaned is less than 100 square feet, and the coated surface will not be submerged in service, then SSPC SP2 or SSPC SP3 be used.
- M. Shop applied coatings of unknown composition shall be completely removed before the indicated coatings are applied. Valves, castings, ductile or cast iron pipe, and fabricated pipe or equipment shall be examined for the presence of shop-applied temporary coatings. Temporary coatings shall be completely removed by solvent cleaning per SSPC SP1 before the abrasive blast cleaning work has been started.
- N. Shop primed equipment shall be solvent cleaned in the field before finish coats are applied.

3.7 SURFACE PREPARATION FOR GALVANIZED FERROUS METAL

- A. Galvanized ferrous metal shall be alkaline cleaned per SSPC SP1 to remove oil, grease, and other contaminants detrimental to adhesion of the protective coating system to be used, followed by brush off blast cleaning per SSPC SP7.
- B. Pretreatment coatings of surfaces shall be in accordance with the printed recommendations of the coating manufacturer.

3.8 SURFACE PREPARATION OF FERROUS SURFACES WITH EXISTING COATINGS

- A. **General:** All grease, oil, heavy chalk, dirt, or other contaminants shall be removed by solvent or detergent cleaning prior to abrasive blast cleaning. The generic type of the existing coatings shall be determined by laboratory testing.
- B. **Abrasive Blast Cleaning:** The CONTRACTOR shall provide the degree of cleaning indicated in the coating system schedule for the entire surface to be coated. If the degree of cleaning is not indicated in the schedule, deteriorated coatings shall be removed by abrasive blast cleaning to SSPC SP6. Areas of tightly adhering coatings shall be cleaned to SSPC SP7, with the remaining thickness of existing coating not to exceed 3 mils.
- C. **Incompatible Coatings:** If coatings to be applied are not compatible with existing coatings the CONTRACTOR shall apply intermediate coatings per the paint manufacturer's recommendation for the indicated coating system or shall completely remove the existing coating prior to abrasive blast cleaning. A small trial application shall be conducted for compatibility prior to painting large areas.
- D. **Unknown Coatings:** Coatings of unknown composition shall be completely removed prior to application of new coatings.
- E. **Water Abrasive or Wet Abrasive Blast Cleaning:** Where indicated or where Site conditions do not permit dry abrasive blasting for industrial coating systems due to dust or air pollution considerations, water abrasive blasting or wet abrasive blasting may be used. In both methods, paint-compatible corrosion inhibitors shall be used, and coating application shall begin as soon as the surfaces are dry. Water abrasive blasting shall be done using high pressure water with sand injection. In both methods, the equipment used shall be commercially produced equipment with a successful service record. Wet blasting methods shall not be used for submerged and severe service coating systems unless indicated.

3.9 PLASTIC, FIBER GLASS AND NONFERROUS METALS SURFACE PREPARATION

- A. Plastic and fiber glass surfaces shall be sanded or brush off blast cleaned prior to solvent cleaning with a chemical compatible with the coating system primer.
- B. Non-ferrous metal surfaces shall be solvent-cleaned to remove all soluble surface contaminants followed by brush-off blast cleaning to remove insoluble contaminants and to achieve a uniformly profiled surface.
- C. All surfaces shall be clean and dry prior to coating application.

3.10 SHOP COATING REQUIREMENTS

- A. Unless otherwise indicated, all items of equipment, or parts of equipment which are not submerged in service, shall be shop primed and then finish coated in the field after installation with the indicated or selected color. The methods, materials, application equipment and all other details of shop painting shall comply with this section. If the shop primer requires topcoating within a specified period of time, the equipment shall be finish coated in the shop and then touch-up painted after installation.
- B. All items of equipment, or parts and surfaces of equipment which are submerged or inside an enclosed hydraulic structure when in service, with the exception of pumps and valves, shall have all surface preparation and coating work performed in the field.
- C. The interior surfaces of steel water reservoirs, except for Part A surfaces, shall have all surface preparation and coating work performed in the field.
- D. For certain pieces of equipment it may be undesirable or impractical to apply finish coatings in the field. Such equipment may include engine generator sets, equipment such as electrical control panels, switchgear or main control boards, submerged parts of pumps, ferrous metal passages in valves, or other items where it is not possible to obtain the indicated quality in the field. Such equipment shall be primed and finish coated in the shop and touched up in the field with the identical material after installation. The CONTRACTOR shall require the manufacturer of each such piece of equipment to certify as part of its Shop Drawings that the surface preparation is in accordance with these specifications. The coating material data sheet shall be submitted with the Shop Drawings for the equipment.
- E. For certain small pieces of equipment the manufacturer may have a standard coating system that is suitable for the intended service conditions. In such cases, the final determination of suitability will be made during review of the Shop Drawing submittals. Equipment of this type generally includes only indoor equipment such as instruments, small compressors, and chemical metering pumps.
- F. Shop painted surfaces shall be protected during shipment and handling by suitable provisions including padding, blocking, and the use of canvas or nylon slings. Primed surfaces shall not be exposed to the weather for more than 2 months before being topcoated, or less time if recommended by the coating manufacturer.
- G. Damage to shop-applied coatings shall be repaired in accordance with this Section and the coating manufacturer's printed instructions.
- H. The CONTRACTOR shall make certain that the shop primers and field topcoats are compatible and meet the requirements of this Section. Copies of applicable coating manufacturer's data sheets shall be submitted with equipment Shop Drawings.

3.11 APPLICATION OF COATINGS

- A. The application of protective coatings to steel substrates shall be in accordance with SSPC PA1 - Paint Application Specification No. 1.
- B. Cleaned surfaces and all coats shall be inspected prior to each succeeding coat. The CONTRACTOR shall schedule such inspection with the ENGINEER in advance.

- C. Blast cleaned ferrous metal surfaces shall be painted before any rusting or other deterioration of the surface occurs. Blast cleaning shall be limited to only those surfaces that can be coated in the same working day.
- D. Coatings shall be applied in accordance with the manufacturer's instructions and recommendations, and this Section, whichever has the most stringent requirements.
- E. Special attention shall be given to edges, angles, weld seams, flanges, nuts and bolts, and other places where insufficient film thicknesses are likely to be present. Use stripe painting for these areas.
- F. Special attention shall be given to materials that will be joined so closely that proper surface preparation and application are not possible. Such contact surfaces shall be coated prior to assembly or installation.
- G. Finish coats, including touch-up and damage repair coats shall be applied in a manner that will present a uniform texture and color matched appearance.
- H. Coatings shall not be applied under the following conditions:
 - 1. Temperature exceeding the manufacturer's recommended maximum and minimum allowable.
 - 2. Dust or smoke laden atmosphere.
 - 3. Damp or humid weather.
 - 4. When the substrate or air temperature is less than 5 degrees F above dewpoint.
 - 5. When air temperature is expected to drop below 40 degrees F or less than 5 degrees F above the dewpoint within 8 hours after application of coating.
 - 6. When wind conditions are not calm.
- I. Dewpoint shall be determined by use of a sling psychrometer in conjunction with U.S. Dept. of Commerce, Weather Bureau psychrometric tables.
- J. Unburied steel piping shall be abrasive blast cleaned and primed before installation.
- K. The finish coat on all work shall be applied after all concrete, masonry, and equipment installation is complete and the work areas are clean and dust free.

3.12 **CURING OF COATINGS**

- A. The CONTRACTOR shall maintain curing conditions in accordance with the conditions recommended by the coating material manufacturer or by this Section, whichever is the most stringent, prior to placing the completed coating system into service.
- B. In the case of enclosed areas, forced air ventilation, using heated air if necessary, may be required until the coatings have fully cured.
- C. **Forced Air Ventilation of Steel Reservoirs and Enclosed Hydraulic Structures:** Forced air ventilation is required for the application and curing of coatings on the interior

surfaces of steel reservoirs and enclosed hydraulic structures. During application and curing periods, continuously exhaust air from a manhole in the lowest shell ring, or in the case of an enclosed hydraulic structure, from the lowest level of the structure using portable ducting. After all interior coating operations have been completed, provide a final curing period for a minimum of 10 days, during which the forced ventilation system shall operate continuously. For additional requirements, refer to the specific coating system requirements in Part 2 above.

3.13 SHOP AND FIELD INSPECTION AND TESTING

- A. General: The CONTRACTOR shall give the ENGINEER a minimum of 3 days advance notice of the start of any field surface preparation work or coating application work, and a minimum of 7 days advance notice of the start of any shop surface preparation work.
- B. All such work shall be performed only in the presence of the ENGINEER, unless the ENGINEER has granted prior approval to perform such work in its absence.
- C. Inspection by the ENGINEER, or the waiver of inspection of any particular portion of the WORK, shall not relieve the CONTRACTOR of its responsibility to perform the work in accordance with these Specifications.
- D. Scaffolding shall be erected and moved to locations where requested by the ENGINEER to facilitate inspection. Additional illumination shall be furnished to cover all areas to be inspected.
- E. **Inspection Devices:** The CONTRACTOR shall furnish, until final acceptance of such coatings, inspection devices in good working condition for the detection of holidays and measurement of dry-film thicknesses of protective coatings. Dry-film thickness gauges shall be made available for the ENGINEER'S use at all times while coating is being done, until final acceptance of such coatings. The CONTRACTOR shall furnish the services of a trained operator of the holiday detection devices until the final acceptance of such coatings. Holiday detection devices shall be operated only in the presence of the ENGINEER.
- F. **Holiday Testing:** The CONTRACTOR shall holiday test all coated ferrous surfaces inside a steel reservoir, other surfaces which will be submerged in water or other liquids, or surfaces which are enclosed in a vapor space in such structures and surfaces coated with any of the submerged and severe service coating systems. Areas that contain holidays shall be marked and repaired or recoated in accordance with the coating manufacturer's printed instructions and then retested.
 - 1. Coatings With Thickness Exceeding 20 Mils: For surfaces having a total dry film coating thickness exceeding 20 mils: pulse-type holiday detector such as **Tinker & Razor Model AP-W, D.E. Stearns Co. Model 14/20**, or equal shall be used. The unit shall be adjusted to operate at the voltage required to cause a spark jump across an air gap equal to twice the required coating thickness.
 - 2. Coatings With Thickness of 20 Mils or Less: For surfaces having a total dry film coating thickness of 20 mils or less: **Tinker & Razor Model M1 non-destructive type holiday detector, K-D Bird Dog**, or equal shall be used. The unit shall operate at less than 75-volts. For thicknesses between 10 and 20 mils, a non-sudsing type wetting agent, such as **Kodak Photo-Flo**, or equal, shall be added to the water prior to wetting the detector sponge.

- G. **Film Thickness Testing:** On ferrous metals, the dry film coating thickness shall be measured in accordance with the SSPC "Paint Application Specification No. 2" using a magnetic-type dry film thickness gauge such as **Mikrotest model FM, Elcometer model 111/1EZ**, or equal. Each coat shall be tested for the correct thickness. No measurements shall be made until at least 8 hours after application of the coating. On non-ferrous metals and other substrates, the coating thicknesses shall be measured at the time of application using a wet film gauge.
- H. **Surface Preparation:** Evaluation of blast cleaned surface preparation work will be based upon comparison of the blasted surfaces with the standard samples available from the NACE, using NACE standards TM-01-70 and TM-01-75.

3.14 COATING SYSTEM SCHEDULES - FERROUS METALS

- A. Coating System Schedule, Ferrous Metal - Not Galvanized:

	Item	Surface Prep.	System No.
FM-1	All surfaces indoors and outdoors, exposed or covered, except those included below.	Near white metal blast cleaning SSPC SP10	(5) inorganic zinc/polyurethane
FM-3	Surfaces of equipment and ferrous surfaces submerged or intermittently submerged in potable water, utility water, and wastewater including all surfaces lower than 2 feet above high water level in hydraulic structures, and all surfaces inside enclosed hydraulic structures and vents (excluding shop-coated valves, couplings, pumps).	White metal blast cleaning SSPC SP5	(100) amine-cured epoxy
FM-6	Buried small steel pipe and conduit.	Removal of dirt, grease, oil	(200) PVC tape

FM-14	New Structural Steel for the new platform.	Per Section 05500	Galvanize per Section 05500
-------	--	-------------------	-----------------------------

- B. **Coating System Schedule, Ferrous Metal - Galvanized:** Pretreatment coatings, barrier coatings, or washes shall be applied as recommended by the coating manufacturer. All galvanized surfaces shall be coated.

	Item	Surface Prep.	System No.
FMG-1	All exposed surfaces	Solvent cleaning SSPC SP1	(4)

	indoors and outdoors, except those included below. (Inclusive of existing platform grating, handrails, and structural steel indicated to be coated).		aliphatic polyurethane
FMG-3	Buried small steel pipe.	Removal of dirt, grease, oil	(200) PVC tape

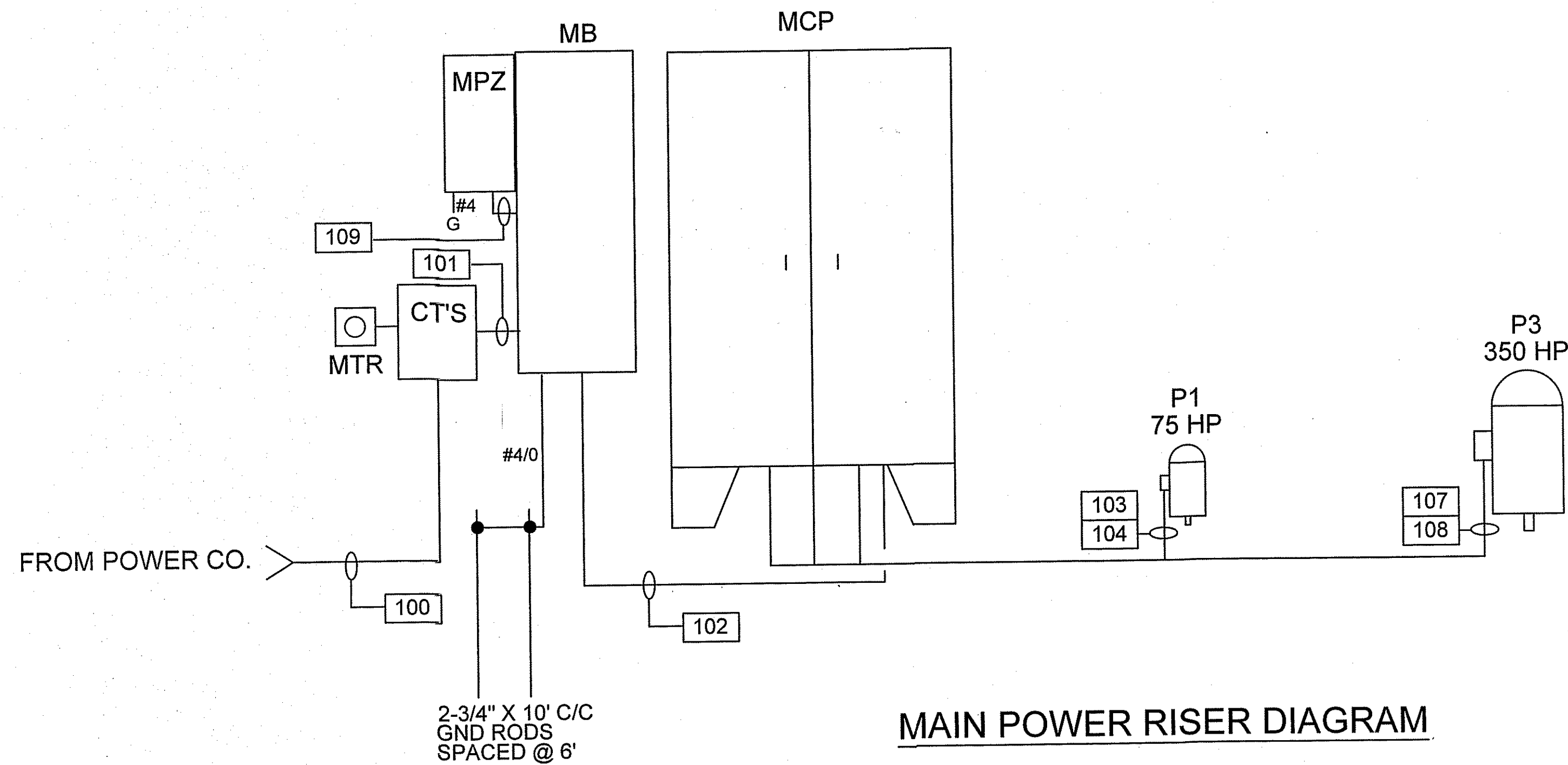
3.15 COATING SYSTEM SCHEDULE, NON-FERROUS METAL, PLASTIC, FIBER GLASS

- A. Where isolated non-ferrous parts are associated with equipment or piping, the CONTRACTOR shall use the coating system for the adjacent connected surfaces. Do not coat handrails, gratings, frames or hatches. Only primers recommended by the coating manufacturer shall be used.

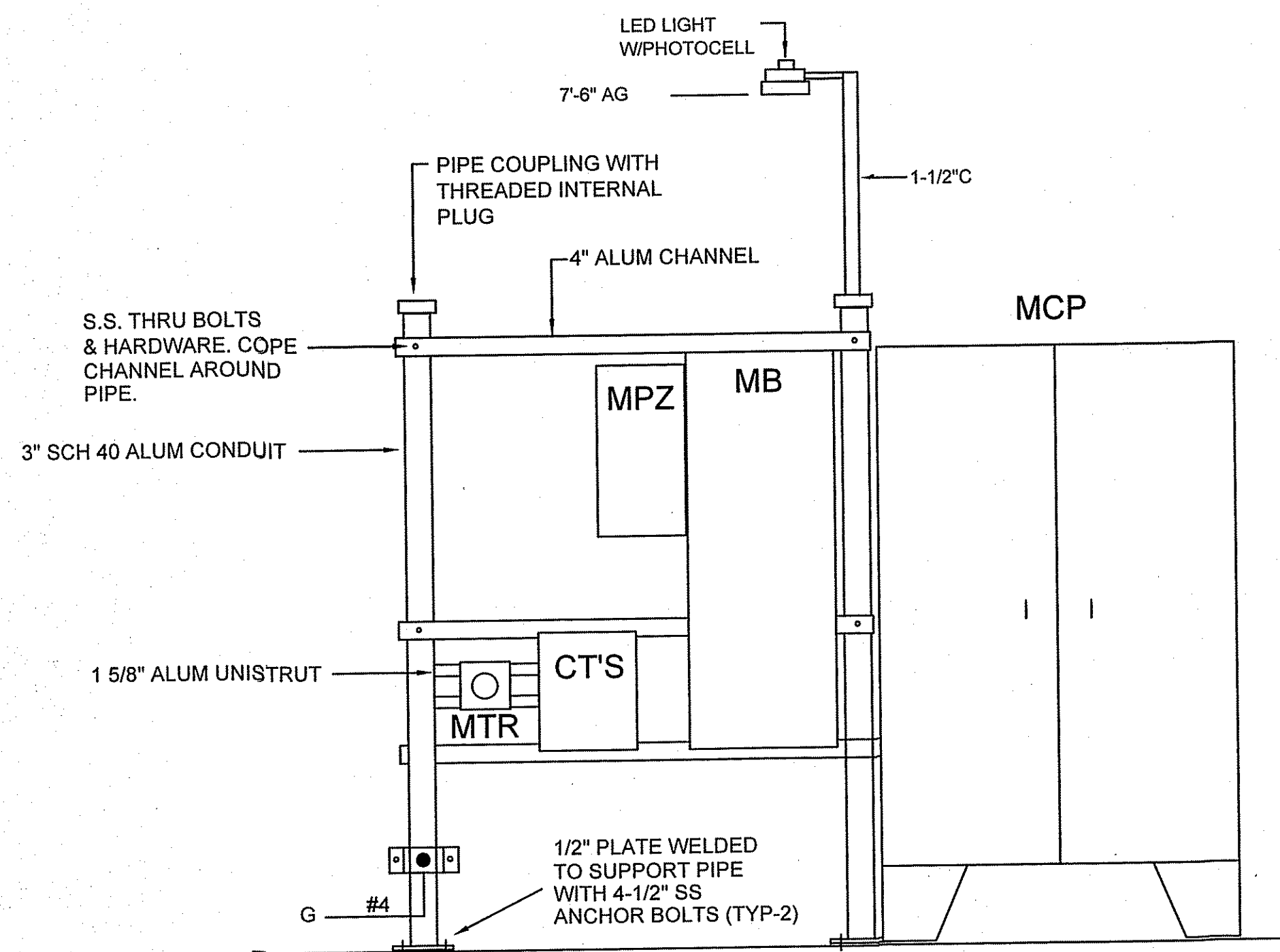
	Item	Surface Prep.	System No.
NFM-1	All exposed surfaces, indoors and outdoors, except those included below.	Solvent cleaned SSPC SP1	(4) aliphatic polyurethane
NFM-3	Aluminum surfaces in contact with concrete, or with any other metal except galvanized ferrous metal.	Solvent cleaned SSPC SP1	(208) aluminum metal isolation
NFM-6	Buried non-ferrous metal pipe and conduit.	Removal of dirt, grease, oil	(200) PVC tape

- END OF SECTION -

THIS PAGE INTENTIONALLY LEFT BLANK

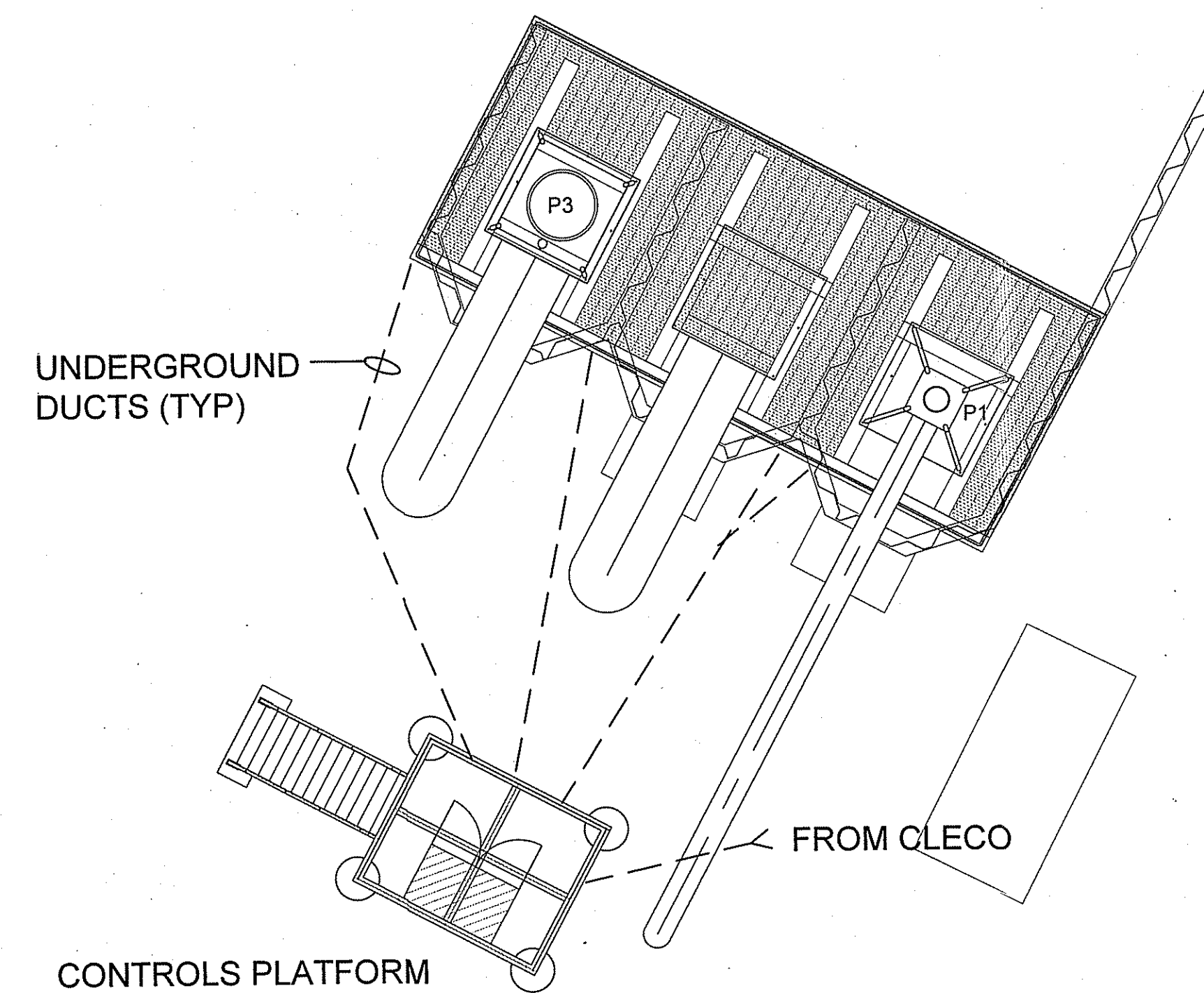


MAIN POWER RISER DIAGRAM

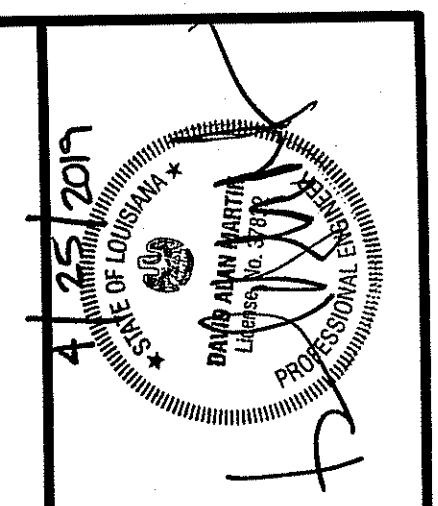


EQUIPMENT RACK

RUN SCHEDULE					
RUN #	FROM	TO	CONDUIT	WIRE	REMARKS
100	SERVICE POLE	CT CAN	2-3"	EACH WITH 3-500MCM, 1#1/0	
101	CT CAN	MAIN BREAKER	2-3"	EACH WITH 3-500MCM, 1#1/0	
102	MAIN BREAKER	MCP	2-3"	EACH WITH 3-500MCM, 1#1/0	
103	MCP	PUMP 1	2"	3#1/0, 1#2	
104	MCP	PUMP 1	3/4"	6#12	HTR, TS, SOL VA
105	NOT USED	NOT USED			
106	NOT USED	NOT USED			
107	MCP	PUMP 3	2-2-1/2"	6#4/0, 1#1/0	
108	MCP	PUMP 3	3/4"	4#12	HTR, TS, SOL VA
109	MCP	MPZ	3/4"	2#10, 1#12	
110	MCP	FLOATS	1"	FACTORY CABLES	
111					
112					

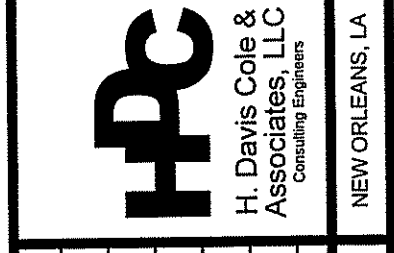


ELECTRICAL SITE



SUBMITTED BY:
DAVID A. MARTIN
PROJECT MANAGER
LICENSE NO. 37832

SUBMITTED BY:
H. DAVIS COLE
COMPANY OFFICER
LICENSE NO. 38219



MARK	DESCRIPTION	DATE	BY	CHKD.
Δ	RELEASED FOR BIDS & CONSTRUCTION	1/20/19	ARF	DAM
		4/20/19	ARF	DAM

DESIGNED BY:	DAM	DRAWN BY:	ARF	CHECKED BY:	HDC
DATE:	JAN, 2019	DETAILED BY:	ARF	HDC PROJECT NO.:	2016-13

LAKEFRONT PUMP STATION REPAIR PH. 2
ST. TAMMAY PARISH
LOUISIANA

ST TAMMANY PARISH GOVERNMENT
21454 KOOP DRIVE
MANDEVILLE, LA 70471

ELECTRICAL ONE LINE DIAGRAM & SITE PLAN



ST. TAMMANY PARISH

PATRICIA P. BRISTER
PARISH PRESIDENT

April 22, 2019

Please find the following addendum to the below mentioned BID.

Addendum No.: 2

Bid#: 19-04-2

Project Name: Lakefront Pump Station Repair Ph.2

Bid Due Date: Wednesday, May 1, 2019

GENERAL INFORMATION:

Please note the Bid Opening has been pushed to Wednesday, May 1, 2019. Time and location remains the same.

End of Addendum # 2



ST. TAMMANY PARISH

PATRICIA P. BRISTER
PARISH PRESIDENT

April 15, 2019

Please find the following addendum to the below mentioned BID.

Addendum No.: 1

Bid#: 19-04-2

Project Name: Lakefront Pump Station Repair Ph. 2

Bid Due Date: Thursday, April 18, 2019

QUESTIONS & ANSWERS:

Question 1: For the pump repairs (Lakefront P.S) is St. Tammany ok with having other pump manufacturers do the repairs if they can meet specifications?

Answer 1: Yes, the Parish will allow other pump manufacturers to do the repairs if they can meet specifications.

Question 2: What is the parish doing for By-Pass when these pumps are pulled for repairs and what flow (gpm) has to be maintained at pump station.

Answer 2: There will be an existing 20" pump while the 54" pump is being repaired.

Question 3: Is the 20" pump and pump motor going to be repaired by others and in place before Phase 2 begins? It currently is not at the pump station.

Answer 3: The 20" pump is currently the subject of a repair project and will be re-installed by others before or during the work of the Phase 2 project.

Question 4: If so we would only be responsible to modify the 20" pump motor height?

Answer 4: Yes, you would only be responsible to modify the 20" pump motor height.

Question 5: Painting of the exposed structural steel deck, does this consist of painting the underside of the steel beams?

Answer 5: That is correct. All surfaces of the steel beams should be coated.

Question 6: Site Cleanup. They have a bunch of old timbers at the site, will they all need to be removed from site?

Answer 6: The timbers are to remain in place unless they obstruct the work of Phase 2.

Question 7: Is there any back fill/dirt to be put on site?

Answer 7: There is no fill work as a part of the project except what is disturbed as a part of the Contractor's operations.

Question 8: Will the 54" pump be consider a complete rebuild? Or is there spec specifying the parts to be replaced?

Answer 8: The scope of work for the 54" pump is contained within the Specifications.

Question 9: In the specs it says on Page 11178-11 H. "3 pumps are to be removed, rebuilt and reinstalled under this contract." The bid sheet and the drawings do not indicate this. Please confirm.

Answer 9: There are two 54" pumps to be removed as a part of this contract. One 54" pump will be returned to the Parish. The other 54" pump will be refurbished and reinstalled. The 20" pump will be modified as indicated.

Question 10: On drawing sht. 01-S1 there is no dimension on how wide the stairs are and no grating size callout, can this information please be provided?

Answer 10: The stairs shall be 4'0" clear width. Grating size shall be as selected by the grating supplier to match the deflection criteria indicated in Section 05500 Miscellaneous Metalwork.

Question 11: Is there any specs on the 54" pump? Length and weight?

Answer 11: Unfortunately we do not know the length or weight.

End of Addendum # 1