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"JIB" Property Waterfront Amenity Phase II
Ottis' Landing
Town of Morehead City
Morehead City, NC 28557

Addendum No. 1

The following addendum supercedes all previous information and does hereby become a part of the Contract Documents.

GENERAL:

1. Project time for construction is extended to 180 days.

2. Delete 4.2.1, Article 4, Section 00510, Amendments to AIA Documents A701-1997, Instructions to Bidders. Bid Bond in the amount of 5% of Construction Cost is required. Reference Project Manual, Notice to Bidders.

3. Clarification regarding pressure-treated wood:
   a. All wood shall be pressure-treated, moisture content 19% or less.
   b. All PT Wood to be KDAT, except girders, joists, cross bracing and wood piles. See Sheet S-101, 1. Platform Material Table for additional requirements.

4. Concrete Piles may be drilled with the following stipulations:
   a. Holes must be well-placed to avoid reinforcing.
   b. Piles where reinforcing strands or spiral reinforcing are damaged must be pulled and replaced.
   c. Exposed concrete created by the drilling must be treated with an engineer-approved corrosion inhibitor.
   d. Debris created by drilling must be contained and not permitted to enter water or marsh.

5. Add the following note to detail 4/A-201.1
   PT 2X6 LOUVERS @ 45 DEGREE ANGLE IN PT 2X6 FRAME. RABBET ENDS OF LOUVERS; RECESS INTO ANGLED DADOS CUT INTO SIDE FRAMES. ENCLOSE EDGES WITH 2X4 CASING.

6. Add (2) security light poles at east edge of deck (Sheet A-101) if Bid Alternate G-1 is not constructed. See Electrical Plan Sheet E-001 for locations.

7. Delete Section 15145 Plumbing Piping in Project Manual. Add Revised Section 15145 (Revision 1) Plumbing Piping, Attached.

End of Addendum No. 1

SECTION 15145
PLUMBING PIPING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Pipe, pipe fittings, valves, and connections for piping systems.
   1. Sanitary sewer.
   2. Domestic water.
   3. Dry standpipe interconnect.

1.02 REFERENCE STANDARDS

A. ASTM D1785 - Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120; 2012.

B. ASTM D2241 - Standard Specification for Poly (Vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR Series); 2009.

C. ASTM D2564 - Standard Specification for Solvent Cements for Poly(Vinyl Chloride) (PVC) Plastic Piping Systems; 2012.

D. ASTM D2665 - Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings; 2012.

E. ASTM D2846/D2846M - Standard Specification for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Hot- and Cold-Water Distribution Systems; 2009b.

F. ASTM D2855 - Standard Practice for Making Solvent-Cemented Joints with Poly(Vinyl Chloride) (PVC) Pipe and Fittings; 1996 (Reapproved 2010).

G. ASTM D3034 - Standard Specification for Type PSM Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings; 2008.

H. ASTM F493 - Standard Specification for Solvent Cements for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe and Fittings; 2010.

I. ASTM F876 - Standard Specification for Crosslinked Polyethylene (PEX) Tubing; 2013a.

J. ASTM F877 - Standard Specification for Crosslinked Polyethylene (PEX) Plastic Hot- and Cold-Water Distribution Systems; 2011.

K. AWWA C900 - Polyvinyl Chloride (PVC) Pressure Pipe, 4 In. Through 12 In. (100 mm Through 300 mm), for Water Transmission and Distribution; American Water Works Association; 2007 (ANSI/AWWA C900).

L. PPI TR-4 - PPI Listing of Hydrostatic Design Basis (HDB), Hydrostatic Design Stress (HDS), Strength Design Basis (SDB), Pressure Design Basis (PDB), and Minimum Required Strength (MRS) Ratings For Thermoplastic Piping Materials or Pipe; Plastics Pipe Institute; 2013.

1.03 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Product Data: Provide data on pipe materials, pipe fittings, valves, and accessories. Provide manufacturers catalog information. Indicate valve data and ratings.

PART 2 PRODUCTS

2.01 SANITARY SEWER PIPING, BURIED BEYOND 5 FEET OF BUILDING

A. PVC Pipe: ASTM D2665 or ASTM D3034.
   1. Fittings: PVC.
   2. Joints: Solvent welded, with ASTM D2564 solvent cement.

2.02 SANITARY SEWER PIPING, BURIED WITHIN 5 FEET OF BUILDING

A. PVC Pipe: ASTM D2665 or ASTM D3034.
   1. Fittings: PVC.

2. Joints: Solvent welded, with ASTM D2564 solvent cement.

2.03 SANITARY SEWER PIPING, ABOVE GRADE

A. PVC Pipe: ASTM D2665.
1. Fittings: PVC.
2. Joints: Solvent welded, with ASTM D2564 solvent cement.

2.04 WATER PIPING, BURIED BEYOND 5 FEET OF BUILDING

A. PVC Pipe: AWWA C900.

2.05 WATER PIPING, BURIED WITHIN 5 FEET OF BUILDING

A. PVC Pipe: ASTM D1785 or ASTM D2241.
1. Fittings: ASTM D2665, PVC.
2. Joints: ASTM D2846/D2846M, solvent weld with ASTM F493 solvent cement.

2.06 WATER PIPING, ABOVE GRADE

A. Cross-Linked Polyethylene Pipe: ASTM F876 or ASTM F877.
1. PPI TR-4 Pressure Design Basis:
   a. 100 psig at maximum 180 degrees F.
2. Fittings: Brass and copper.
3. Joints: Mechanical compression fittings.

2.07 DRY STANDPIPE INTERCONNECT

A. High Density Polyethylene (HDPE) Pipe.
1. 3 Inch and smaller pipe.
   a. Made from HDPE material having a material designation code of PE3608 or PE4710 listed with the Plastic Pipe Institute (PPI) as TR-4.
   b. Comply with ASTM D3350 with a minimum cell classification of PE345464C with a minimum of 2% carbon black as UV stabilizer.
   c. Comply with AWWA C901, Pressure Class 160.
      1) SDR 11 for PE3608 pipe.
      2) SDR 13.5 for PE4710 pipe.
2. 4 Inch and larger pipe.
   a. Made from HDPE material having a material designation code of PE3408 listed with the Plastic Pipe Institute (PPI) as TR-4.
   b. Comply with ASTM D3350 with a minimum cell classification of PE334434C with a minimum of 2% carbon black as UV stabilizer.
   c. Comply with AWWA C906, Pressure Class 160, DR 11.
3. Fittings
   a. For 3 inch pipe and smaller - Butt Fusion Fittings made of either PE4710 or PE3608, with a minimum Cell Classification of PE345464C with a minimum of 2% carbon black as a UV stabilizer. Butt Fusion Fittings shall meet the requirements of ASTM D3261. Molded and fabricated fittings shall have a pressure rating equal to the pipe.
      1) Markings for molded fittings shall comply with the requirements of ASTM D3261. Fabricated fittings shall be marked in accordance with ASTM F2206. Socket fittings shall meet ASTM D2683.
   b. For 4 inch and larger - Butt Fusion Fittings made of HDPE material with a minimum material designation code of PE3608 and with a minimum Cell Classification PE334434C with a minimum of 2% carbon black as a UV stabilizer. Butt Fusion Fittings shall meet the requirements of ASTM D3261. Molded and fabricated fittings shall have a pressure rating equal to the pipe. All fittings shall meet the requirements of AWWA C906.
      1) Markings for molded fittings shall comply with the requirements of ASTM D3261. Fabricated fittings shall be marked in accordance with ASTM F2206. Socket fittings shall meet ASTM D2683.

2.08 PIPE HANGERS AND SUPPORTS

A. All hangers and supports shall be fiberglass or 316 stainless steel.

PART 3 EXECUTION

3.01 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Provide clearance in hangers and from structure and other equipment for installation of insulation and access to valves and fittings. Refer to Section 22 0719.

C. PVC Pipe: Make solvent-welded joints in accordance with ASTM D2855.

D. HDPE Pipe

1. Butt Fusion: The pipe shall be joined by the butt fusion procedure outlined in ASTM F2620 or PPI TR-33. All fusion joints shall be made in compliance with the pipe and fitting manufacturer's recommendations. Fusion joints shall be made by qualified fusion technicians per PPI TN-42.
2. Joint Recording - A datalogger shall be used to record the critical parameters of each fusion join, as required by the manufacturer and these requirements. All fusion joint data shall be included in the Fusion Technicians joint report. Data to be recorded includes temperature, fusion pressure, and graphic representation of the fusion cycle. Additional data shall be recorded as recommended by the pipe manufacturer. The datalogger information shall be downloaded weekly and provided to the Engineer.
3. When construction of the standpipe is complete, the contractor shall perform a pre-test inspection and a hydrostatic test.
   a. Inspection - Verify that the pipe is restrained at each end. Visually inspect the piping installation with particular attention to each joint. Visually inspect and compare the joint against the manufacturer's recommended appearance guidelines. The width of butt fusion beads should be approximately 2-2 1/2 times the bead height above the pipe and the beads should be rounded and uniformly sized all around the pipe circumference. The v-groove between the beads should not be deeper than the bead height above the pipe surface. When butt fusing to molded fittings, the fitting-side bead may display shape irregularities such as minor indentations, deflections and non-uniform bead rollover from molded part cooling and knit lines. In such cases, visual evaluation is based mainly on the size and shape of the pipe-side bead.
   b. Hydrostatic Test
      1) Test in accordance to Local Fire Marshall's requirements.

END OF SECTION 15145