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February 9, 2018

TO: PLANHOLDERS

SUBJECT: MAINTENANCE MEZZANINE AND SHED HEATING
PROJECT NO. 101140.01
CONTRACT NO. 070735

ADDENDUM NUMBER 05

This addendum is issued to amend the following:

SPECIFICATIONS

A. SECTION 10 56 13.16 – POST-AND-SHELF METAL STORAGE SHELFING

1. **DELETE** and **REPLACE** Section 10 56 13.16 – POST-AND-SHELF METAL STORAGE SHELFING from Addendum No. 03 with the attached Section 10 56 13.16 – POST-AND-SHELF METAL STORAGE SHELFING (Attachment A).

DRAWINGS

A. 070735 MEZZANINE DRAWINGS

1. **DELETE** and **REPLACE** the issued Sheet E4.1 SHED ELECTRICAL PLAN with the attached Sheet E4.1 SHED ELECTRICAL PLAN Addendum 05 (Attachment B).

Receipt for this addendum shall be indicated in the space provided in Section 00 41 00, Bid Form.

ATTACHMENTS:

- A. Section 10 56 13.16 – POST-AND-SHELF METAL STORAGE SHELFING
- B. Drawing Sheet E4.1 – SHED ELECTRICAL PLAN Addendum 05

END OF SECTION

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and ~~Supplementary Conditions~~ other sections regarding related specifications, apply to this Section.

1.02 SUMMARY

- A. This section includes the following:
1. 4-Post closed, fixed shelving units, fabrication and installation including leveling.
- B. Related Sections: 05 50 00 - PRE-ENGINEERED STEEL MEZZANINE

1.03 PERFORMANCE REQUIREMENTS

- A. Seismic Performance: Provide fixed shelving ~~capable of withstanding the effects of earthquake motions as determined according to IBC 2006 and local building codes~~ with all attachments and bracing as recommended by the manufacturer for seismic stability.
- B. Design Requirements: Provide ~~73~~ 72" minimum height shelving units, 18" deep, as shown on the drawings. Provide shelving units to match length shown on drawings +/- 1 foot on each section of shelves.
1. Each unit shall have 5 shelves, with at least 3 shelves adjustable. Shelves shall be clip supported.
 2. Each shelf shall be rated to support ~~2500~~ 200 lbs. minimum.
- C. Color Samples: Provide sample for each exposed product and for each color required.
- D. Selection Samples: For selection of colors ~~and textures~~, submit manufacturer's color charts consisting of actual product samples, showing full range of colors ~~and textures available.~~ Vendors must provide a minimum of 12 color selections in powder coat paint finish.
- E. Installer Qualifications: Employ an experienced installer who is the manufacturer's authorized and certified representative.
1. Minimum Qualifications: 1-year experience installing systems of similar size and complexity to specified project requirements
 - ~~2. Manufacturer Certification: Required by manufacturer on manufacturer's letterhead required at time of bid. Certifications by sales representatives, dealers, or distributors are unacceptable. Qualification must include resume of certified installation supervisor.~~
 32. Provide support ~~within 24 hours~~ for service call.
- F. Warranty: See 01 77 00 for warranty requirements. ~~Submit a written warranty, executed by the contractor, installer and manufacturer, agreeing to repair or replace units that fail in materials or workmanship within the specified warranty period. This warranty shall be in addition to, no limitations of other rights the owner may have against the contractor under contract documents.~~
- ~~Lifetime Limited Warranty: The entire shelving installation will be warranted against defects in materials for the life of the installation from the date of acceptance by the Owner.~~

1.04 SUBMITTALS

- A. Product Data: Submit manufacturer's product literature, schematics, testing data, and other items as described in this specification. Include data substantiating that products to be furnished

comply completely with requirements of the contract documents and specifications. Include installed weight, load criteria, furnished specialties, and accessories.

- B. Shop Drawings: Prepared and detailing fabrication, assembly, and installation of storage shelving, as well as procedures and diagrams. Include details of layout and installation, as well as clearances, spacing, relation to adjacent construction in plan, elevation, and section, components, assemblies, connections, attachments, reinforcements, and anchorage. Furnish floor layouts, technical, and installation manuals for every unit shipment.

~~1.05 QUALITY ASSURANCE~~

- ~~A. Manufacturer Certifications: Provide written certification by manufacturer on manufacturer's letterhead at time of bid required stating compliance with all specifications of shelving systems. Shelving certifications must confirm compliance with all shelf sizes and gauges as noted in these specifications.~~

1.0605 PROJECT CONDITIONS

- A. Field Measurements: Verify shelving unit location by field measurements before fabrication and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- B. Delivery, Storage, & Handling: Comply with instructions and recommendations of manufacturer for special delivery, storage and handling requirements.
- C. Sequence & Scheduling: Sequence storage shelving system installation with other work to minimize possibility of damage and soiling during remainder of construction period.
- D. Pre-installation Conference: Conduct conference at project site. Review methods and procedures related to installation of fixed storage units including, but not limited to, the following:
 - 1. Inspect and discuss condition and levelness of flooring and other preparatory work.
 - 2. In addition to the Contractor and the installer, arrange for the attendance of the following :
 - ~~a. Other installers affected by the work of this section.~~
 - ~~ba. The Engineer.~~
 - ~~cb. Design consultant representative Manufacturer's representative.~~

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Shelving:
 - 1. [MontelRepublic](#)
 - 2. [TennscoTriBoro Shelving](#)
 - 3. [Valley Craft Burroughs](#)
 - 4. Or approved equal.

2.02 MANUFACTURED COMPONENTS - 4-POST SHELVING

- A. Upright frames: ~~Upright frames shall be made of two or more cross members welded to the top and bottom (and center if necessary) of the post and form a rectangular upright frame. Each post shall be made of minimum 16-gauge 1 ¼" x 1 ½" rectangular shaped cold-rolled steel. The uprights must allow for component integration on either 1" or 1 ½" increment depending only on~~

- ~~the selected shelf component. Posts shall be minimum 14 gauge hot or cold rolled steel, punched at either 1" or 1 1/2" centers for shelf adjustment.~~
- B. ~~Cross members: Cross members shall be made of 16-gauge steel folded to create a "U" shape channel. In seismic zones, the cross members are welded to the post. Provide base panels or channels to cover gap at floor level.~~
- C. ~~Levelers: Each post shall have an integrated leveler, inserted into formed upright tube, which allows for 3/4" adjustment to accommodate for uneven floor surface. No temporary shims or other third party leveling device will be accepted. Provide manufacturer recommended splices or levelers as needed for proper installation.~~
- D. ~~Center back panel: Center back panels shall be made of 20-gauge steel and constructed in such a way as to form an integral finished product. Sway bracing shall be minimum 3/4" wide, 12 gauge steel with safety edges.~~
- E. ~~Full-back panel: Full-back panels shall be made of 20-gauge steel box formed 1/2" thick and affixed to the post to form an integral finished product. Back and side panels shall be minimum 24 gauge steel, bolted to frame.~~
- F. ~~Supported Type Shelving:~~
1. ~~Full-depth shelves: Full-depth shelves shall be made of box rolled-formed minimum 22-gauge steel, with 3/4" edge construction which to add additional strength and capacity as well as it create a hidden safety edge to protect people and items. The full-depth shelves shall be supported by two longitudinal shelf supports and the appropriate number reinforcement channels.~~
 2. ~~Longitudinal supports: 1 1/4" high supports shall be made of one "U" shaped 12-gauge steel channel. If required for load rating, shelf supports or reinforcement shall be 16 gauge rolled steel.~~
 3. ~~Front-to-back reinforcement channels: 1 1/4" high reinforcement channels shall be made of 12-gauge steel formed in a "U" shaped channel. Side shelf supports shall be 13 gauge rolled steel.~~
 4. ~~Base support: A 12-gauge steel "U" shaped channel shall be provided for the bottom shelf.~~
 4. ~~Shelf clips shall be minimum 13 gauge steel, minimum of 4 clips per shelf.~~
- G. ~~Sway brace: 1 1/8" wide sway braces shall be made of two 16-gauge steel bars, assembled with a rivet. Sway braces shall be connected to the posts by means of mechanical rivet or dowel pins. Sway braces shall be positioned where indicated by the manufacturer to provide lateral stability. Provide manufacturer recommended base attachments to secure shelving units to the mezzanine floor.~~
- H. ~~End panels: Shall be constructed of 20-gauge steel, 2" thick, and shall be bolted to bottom and top upright cross members.~~
- I. ~~Side closure panels: Shall be constructed of 20-gauge steel, they shall be formed to be flush with the edge of the shelving upright and bolted to bottom and top upright cross members.~~
- J. ~~Plain back stops: Shall be 5 17/32" high formed of 20-gauge steel with a 3/8" bend on top and bottom and a 1 3/16" bend on each side.~~

- ~~K. Slotted back stops: Shall be 5 17/32" high formed of 20-gauge steel with a 3/8" bend on top and bottom and a 1 3/16" bend on each side. Slots are located on 1" increments for divider adjustment.~~
- ~~L. Plain center stops: Shall be 4 3/16" high formed of 20-gauge steel with offsets bends to center on upright frame.~~
- ~~M. Slotted center stops: Shall be 4 3/1" high formed of 20-gauge steel with two offset bends. Slots are located on 1" increments for divider adjustment.~~

2.03 FINISH SPECIFICATIONS

- A. Shall be the finest of their respective kinds and those best adapted to the construction for which they are employed ~~to meet ISO 9001:2008 quality standards~~. All steel shall be superior quality mild, hot or cold rolled, pickled, and double annealed, free from scale and buckle. All gauges are U.S. standard. The design of all parts shall be such that the completed installation shall present a neat and finished appearance and shall be free from exposed sharp edges or projections. ~~All other special materials shall be as hereinafter specified.~~
- B. All components shall be painted with an electrostatically applied powder coat finish. ~~All steel parts shall be machined smoothed and thoroughly cleaned by a process of completely washing in a phosphatizing solution to insure removal of oil, grease or other foreign material which could interfere with the adhesion of the priming coat in any way. Following the cleaning process, all parts shall be coated and confirming every part is thoroughly and completely covered with fine powder coat, and baked to the paint manufacturer's recommendation. The finish for powder coat shall be medium gloss, giving a reading of 35 to 65 degrees on a standard gloss meter and must be capable of withstanding severe hammer and bending tests without flaking. The finish for epoxy-polyester hybrid powder coat shall be a minimum 1.2 mil thickness capable of resisting methyl ethyl ketone, salt spray, abrasion and printing, and all normal usage resistant requirements of a good finish. In addition, powder coat shall not be off gassing to prevent deterioration of collection and other stored materials.~~ Colors to be selected by owner.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine subfloor surfaces, with installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of fixed storage units.
 - 1. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of fixed storage units.
 - 2. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION

- A. Install components and accessories after finishing operations, including painting, have been completed. Install shelving units to comply with final layout drawings, in strict compliance with manufacturer's printed instructions ~~and structural calculations~~. Position units level and plumb at proper location relative to adjoining units ~~and related work~~.
- B. Field Quality Control: Remove and replace components that are chipped, scratched, or otherwise damaged and which do not match adjoining work. Provide new matching units, installed as specified and in manner to eliminate evidence of replacement.
- C. Adjust: Adjust components and accessories to provide smoothly operating, visually acceptable installation.

D. Cleaning: Immediately upon completion of installation, clear components and surfaces. Remove surplus materials, rubbish and debris resulting from installation upon completion of work and leave areas of installation in neat, clean condition.

E. Protection: Protect system against damage during remainder of construction period.

3.03 DEMONSTRATION/CUSTOMER TRAINING

A. Provide complete training to end-user's staff. Training shall include general safety and operation instructions, and basic preventative maintenance procedures.

END OF SECTION

