

**SECTION 00912 - ADDENDUM NUMBER 3**

PARTICULARS

- 1.01 DATE: January 23, 2014
- 1.02 PROJECT: USC - SOM BUILDING 1 - 4TH FLOOR ANIMAL SURGERY LAB RENOVATIONS
- 1.03 PROJECT NUMBER: State Project #H27-I901, A/E #13030.01
- 1.04 OWNER: University of South Carolina
- 1.05 ARCHITECT: GMK Associates, Inc.
- TO: PROSPECTIVE BIDDERS
- 2.01 This Addendum forms a part of the Contract Documents and modifies the Bidding Documents dated November 21, 2013, with amendments and additions noted below.
- 2.02 Acknowledge receipt of this Addendum in the space provided in the Bid Form. Failure to do so may disqualify the Bidder.
- 2.03 THE BID DATE AND TIME HAVE BEEN CHANGED TO JANUARY 28, 2014 ALL OTHER INFORMATION REMAINS AS IS, REFER TO THE BODY OF THIS ADDENDUM
- 2.04 This Addendum consists of 1 page and the following attachments:
  - A. Specification Section 12345 - MODULAR LABORATORY CASEWORK

CLARIFICATIONS

- 3.01 SE-310
  - A. **Revise Bid Closing Date to January 28, 2014.**

CHANGES TO THE PROJECT MANUAL

- 4.01 Table of Contents
  - A. Addendum Number 3 added to the Table listing.
- 4.02 Section 12345 - MODULAR LABORATORY CASEWORK
  - A. Replace this section issued in Addendum No.2 in its entirety with the attachment to this Addendum.

**END OF SECTION**

## **SECTION 12345 - MODULAR LABORATORY CASEWORK**

### **PART 1 GENERAL**

#### **1.01 SECTION INCLUDES**

- A. Modular Support Structure
- B. Structural Table Base
- C. Mobile Base / Wall Cabinets
- D. Shelves
- E. Fixtures
- F. Service Connections
- G. Metal cabinets and cabinet hardware.
- H. Countertops.

#### **1.02 RELATED REQUIREMENTS**

- A. Section 07900 - Joint Sealers.

#### **1.03 REFERENCE STANDARDS**

- A. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2011.
- B. NEMA LD 3 - High-Pressure Decorative Laminates; National Electrical Manufacturers Association; 2005.
- C. SEFA 2.3 - Installation of Scientific Laboratory Furniture and Equipment; 2010.
- D. SEFA 3 - Work Surfaces; 2010.
- E. SEFA 7 - Laboratory and Hospital Fixtures; 2010.
- F. SEFA 8 - Laboratory Casework; 2010.

#### **1.04 ADMINISTRATIVE REQUIREMENTS**

- A. Large Components: Ensure that large components can be moved into final position without damage to other construction.
- B. Service Fixtures: Coordinate location and characteristics of service connections.

#### **1.05 SUBMITTALS**

- A. See Section 01300 - Administrative Requirements, for submittal procedures.
- B. Product Data: Documentation for compliance with SEFA Standard 8. Details of materials, component dimensions and configurations, construction details, joint details, attachments; manufacturer's catalog literature on hardware, accessories, and service fittings, if any.
- C. Shop Drawings: Casework locations, large scale plans, elevations, cross sections, rough-in and anchor placement dimensions and tolerances, clearances required, and utility locations, if any.

- D. Samples For Color Selection: Color charts for each different finish material.
- E. Test Reports: Independent laboratory reports showing compliance with chemical resistance requirements for cabinet finish.
- F. Manufacturer's Installation Instructions.
- G. Maintenance Data: Manufacturer's recommendations for care and cleaning.

#### 1.06 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.
- B. General Performance: Provide certification that furniture shall meet the performance requirements described in SEFA 8.

### PART 2 PRODUCTS

#### 2.01 MANUFACTURERS

- A. Modular Laboratory Casework:
  - 1. Kewaunee Scientific Corp; Product AlphaWall Structural Modules System - 9-inch: [www.kewaunee.com](http://www.kewaunee.com).
  - 2. CiF Laboratory Solutions.
  - 3. IAC Industries.
  - 4. LabTech Midwest, division of PSA Labtech, Inc.
  - 5. Mott Manufacturing Ltd..

#### 2.02 METAL LABORATORY CASEWORK

- A. Structural Modules:
- B. 9" Wall Structural Modules:
  - 1. Wall Structural Modules provide vertical adjustment in 1" increments.
  - 2. Module uprights are extruded aluminum with a double slotted steel insert on 1" increments.
  - 3. Module frames: 16 gauge steel with rigid connection. .
  - 4. Removable access panels: 18 gauge steel, and are removable without the use of tools.
- C. Casework: Die-formed metal sheet; each unit self-contained and not dependent on adjacent units or building structure for rigidity; factory-fabricated, -assembled, and -finished.
  - 1. Style: Flush overlay.
  - 2. Sheet Metal: Steel.
    - a. Gables, Front and Back Panels, Gusset Plates and Rails: 18 gage thick.
    - b. Door Fronts, Drawers, Cabinet Floors, Shelves, Filler Panels and Drawer Dividers: 18 gage thick.
    - c. Backing Sheet to Door and Door Fronts: 22 gage thick.
  - 3. Structural Performance: In addition to the requirements of SEFA 3, 7 and 8, provide components that safely support the following minimum loads, without deformation or damage:
    - a. Base Units: 500 pounds per linear foot (744 kg per m) across the cabinet ends.
    - b. Suspended Units: Minimum 300 pounds (136 kg) static load.
    - c. Tables: 300 pounds (136 kg) on four legs.
    - d. Drawers: 125 pounds (57 kg).

- e. Hanging Wall Cases: 300 pounds (136 kg).
  - f. Shelves: 100 pounds (45 kg).
  - 4. Suspended units all locations except for floor mounted unit at sink location.
  - 5. Corners and Joints: Without gaps or inaccessible spaces or areas where dirt or moisture could accumulate.
  - 6. Edges and Seams: Smooth. Form counter tops, facing, and shelves from continuous sheets.
  - 7. Shelf Edges: Turn down 1 inch on each side and return 3/4 inch front and back.
  - 8. Ends: Close open ends with matching construction.
  - 9. Welding: Electric spot weld; grind joints smooth and flush.
  - 10. Drawers and Doors: Fabricate drawer and door fronts of sandwiched sheets of sheet steel welded together and reinforced for hardware. Fill with sound deadening core.
  - 11. Access Panels: Provide access panels for maintenance of utility service fixtures and fittings and mechanical and electrical components.
  - 12. Filler Panels: Where cabinets do not fit tight to adjacent construction, provide filler panels of matching construction and finish.
  - 13. Finish on Steel (Except Stainless Steel): Provide a finish on all surfaces having chemical resistance equal to Level 0 (no change) or Level 1 (slight change of gloss or slight discoloration) according to SEFA 8.1.
    - a. Coating Type: Baked on epoxy; minimum two coats.
    - b. Color: As selected from manufacturer's standard selection.
    - c. Preparation: Degrease and phosphate etch, and prime.
  - 14. Separation: Use bituminous paint or non-conductive tape to coat metal surfaces in contact with cementitious materials and to separate dissimilar metals.
- D. Adjustable Worksurface Frames and Tables:
- 1. Adjustable Worksurface Frames and Tables provide support for the worksurface, and suspended casework. Cantilevered Worksurface Frames shall be supported from the Structural Modules with adjustment in height in 1" increments.
    - a. Adjustable Height Cantilevered Worksurface Frame:
      - 1) Frame: 1 5/8" x 1 1/4" x 12 gauge channel welded assembly.
      - 2) Leg: 11 gauge rectangular shaped assembly with 18 gauge inner support filler.
    - b. Adjustable Height Free Standing Table Frame:
      - 1) Upper Frame: 1 5/8" x 1 1/4" x 12 gauge channel welded assembly.
      - 2) Leg: 11 gauge rectangular shaped assembly with 18 gauge inner support filler.
        - (a) Self-leveling feet
- E. Adjustable Module Shelving:
- 1. Adjustable Module Shelving shall be attached to the structural module upright, height adjustment in 12-inch increments.
    - a. Upper Carrier Module Core Shelf:
      - 1) Shelf: 16 gauge steel formed down 1", over 48" long reinforce with 20 gauge steel channel welded to the underside of the shelf.
      - 2) Shelf adjustment: 1" increments with spring pin mechanism and automatic lock in place feature. Adjustment shall be without the use of tools.
      - 3) Shelf depth: 12" to match the length of the Structural Module.
    - b. Adjustable Module Shelving:
      - 1) Adjustable Module Shelf Support: 11 gauge bracket with mount to the inner

slot of the double slotted Support Module Upright. Adjustment in height shall be 1" increments.

- F. Solid Phenolic Resin Countertops: Self-supporting chemical resistant and abrasion resistant characteristics with a uniform low-sheen matte textured surface and the finished material shall be extremely hard and resistant to scratches and abrasion
1. Panels: Phenolic resin impregnated Kraft paper core processed under high heat and pressure to form a composite panel backed by a chemical resistant balance sheet to prevent warping.
  2. Panel Thickness: 1 inch.
  3. Finish: Matte or suede, gloss rating of 5 to 20.
  4. Surface Color and Pattern: As selected by Architect from manufacturer's full line.
  5. Back and End Splashes: Same material, same construction; minimum 4 inches high.

## 2.03 MATERIALS

- A. Sheet Steel: Hot-dipped galvanized steel sheet, ASTM A653/A653M, CS or FS Type B, with G90/Z275 coating; stretcher leveled.
- B. Cabinet Hardware: Manufacturer's standard styles, exposed components stainless steel.
1. Finish of Exposed Components: No. 4 finish.
  2. Locks: Lock with 4 pin cylinder and 2 keys per lock.
  3. Shelves:
    - a. Shelf Standards and Rests: Vertical chrome steel standards with rubber button fitted steel rests.
    - b. Shelf Brackets: Vertical chrome steel standards with chrome steel arms.
  4. Swinging Doors:
    - a. Hinges: 5 knuckle stainless steel hinge institutional type - satin finish .
      - 1) Type 304 stainless steel .089 thick, 2-1/2" high
    - b. Catches: two-piece heavy-duty cam action positive catch shall be provided.
    - c. Pulls: Stainless Steel wire pulls, 4 inches wide.
  5. Drawers:
    - a. Pulls: Stainless Steel wire pulls, 4 inches wide.
    - b. Slides: Steel, full extension arms, ball bearings; capacity as recommended by manufacturer for drawer height and width.
- C. Service Fittings and Fixtures:
1. Oxygen Outlet refer to Section 15214 Medical Gas Systems.
  2. Vacuum Outlet refer to Section 15214 Medical Gas Systems.
  3. Compressed Air Outlet refer to Section 15212 Compressed Air System.
  4. Escutcheons: Stainless steel.
- D. Electrical Outlets: Refer to drawings for outlet locations.
- E. Sinks: Stainless Steel drop-in models, refer to Plumbing Drawing P0.0 for size and Section 15410 Plumbing Fixtures
- F. Sound Deadening Material: Inorganic, for sandwich panel fabrication.
- G. Sealant: Sanitary type, specified in Section 07900.

## PART 3 EXECUTION

### 3.01 EXAMINATION

- A. Verify capacity of support framing and anchors.
- B. Verify that service connections are correctly located and of proper characteristics.

### 3.02 INSTALLATION

- A. Perform installation in accordance with manufacturer's instructions and with SEFA 2.3.
- B. Use anchoring devices to suit conditions and substrate materials encountered.
- C. Set casework items plumb and square, securely anchored to building structure.
- D. Align cabinets to adjoining components, install filler panels where necessary to close gaps; seal joints between cabinets and countertops and adjacent construction.
- E. Separate dissimilar metals to prevent galvanic action.
- F. Replace units that are damaged, including those that have damaged finishes.

### 3.03 ADJUSTING

- A. Adjust operating parts, including doors, drawers, hardware, and fixtures, to function smoothly.

### 3.04 CLEANING

- A. Clean all components.

### 3.05 PROTECTION

- A. Do not permit finished casework to be exposed to continued construction activity.
- B. Repair damage that occurs prior to Substantial Completion, including finishes, using methods prescribed by manufacturer; replace units that cannot be repaired to like-new condition.

**END OF SECTION**