

## **ADDENDUM NO. 03**

PROJECT: **FAIRFIELD COUNTY AUDITOR'S OFFICE**  
108 North High Street  
Lancaster, Ohio 43130

TO: All Prospective Bidders and others to whom Plans and Specifications for the  
above referenced Project have been issued.

OWNER: FAIRFIELD COUNTY COMMISSIONERS  
210 East Main Street  
Lancaster, Ohio 43130

ARCHITECT: DLZ OHIO, Inc.  
6121 Huntly Road  
Columbus, Ohio 43229  
DLZ Project Number: 1821-7001-50

DATE: January 3, 2019

The items included in this Addendum are to become a part of the original Contract Documents including Drawings and Project Manual dated December 6, 2018 as if included herein. Only these items are to be altered. The remainder of the original Drawings and Project Manual remain valid in their entirety. Bidders must acknowledge receipt of this Addendum in the space provided on the Proposal Form. Failure to do so may subject the Bidder to disqualification.

### **PROJECT MANUAL**

#### ITEM NO. 1. SECTION 09 51 13 – ACOUSTICAL CEILING PANELS

- a. Specification section added.

#### DRAWINGS

#### ITEM NO. 2. DRAWING A3.1 – ROOM FINISH & PARTITION SCHEDULES

- a. Add the following note: 6. Provide base bid price to install 2,500 SF of ¼" AC APA certified plywood over existing floor before installing new carpet.

#### ITEM NO. 3. DRAWINGS E2.1 – SECOND FLOOR AND ATTIC POWER PLANS

- a. Detail #1 – Break Room #X28 – Relocate Television duplex receptacle West approximately 2' to infill of existing door. Adjust mounting height to +60" AFF.

#### ITEM NO. 4. DRAWING E4.0 – LOWER LEVEL AND FIRST FLOOR SYSTEMS PLANS

- a. Keynote #S13 - Revise second sentence as follows: "Furnish and install six (6) CAT6 cables to furniture, coordinate exact location before rough-in."

#### ITEM NO. 5. DRAWING E4.1 – SECOND FLOOR AND ATTIC SYSTEMS PLANS

- a. Keynote #S13 - Revise second sentence as follows: "Furnish and install six (6) CAT6 cables to furniture, coordinate exact location before rough-in."
- b. Detail #1 – Break Room #X28 – Relocate Combination Television/Data Outlet West approximately 2' to infill of existing door. Adjust mounting height to +60" AFF.

**ATTACHMENTS:**

PROJECT MANUAL

- SECTION 09 51 13 – ACOUSTICAL CEILING PANELS

END OF ADDENDUM NO. 03

## SECTION 95113 – ACOUSTICAL PANEL CEILINGS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS:

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Furnish labor, materials, tools, equipment, and services for Acoustical Panel Ceilings (ACT) in accordance with provisions of Contract Documents. This section includes:
  - 1. Acoustical panels.
  - 2. Exposed suspension systems for ceilings.
- B. Completely coordinate with work of other trades.

#### 1.3 DEFINITIONS

- A. AC: Articulation Class.
- B. CAC: Ceiling Attenuation Class.
- C. LR: Light Reflectance coefficient.
- D. NRC: Noise Reduction Coefficient.

#### 1.4 QUALITY ASSURANCE

- A. ASTM International (ASTM):
  - 1. ASTM A641/A641M Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire.
  - 2. ASTM B633 Standard Specification for Electrodeposited Coatings of Zinc on Iron and Steel
  - 3. ASTM C635/C635M Standard Specification for the Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-In Panels Ceilings.
  - 4. ASTM C636/C636M Standard Specification for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels.
  - 5. ASTM E488/E488M Standard Test Methods for Strength of Anchors in Concrete Elements.

6. ASTM E580/E580M Standard Practice for Installation of Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels in Areas Subject to Earthquake Ground Motions
  7. ASTM E1190 Standard Test Methods for Strength of Power-Actuated Fasteners Installed in Structural Members
- B. Site Classification and Seismic Design Categories as defined in the International Building Code.

#### 1.5 SUBMITTALS

A. Product Data:

1. Manufacturer's product data that products comply with acoustical properties indicated in specifications.

B. Samples:

1. Three samples of each type of tile listed.
2. Acoustical Panel: 6-inch Samples of each type, color, pattern, and texture.
3. Exposed Suspension System Members, Moldings, and Trim: Set of 12-inch- long Samples of each type, finish, and color.

#### 1.6 INFORMATIONAL SUBMITTALS

A. Coordination Drawings: Reflected ceiling plans, drawn to scale, on which the following items are shown and coordinated with each other, based on input from installers of the items involved:

1. Ceiling suspension system members.
2. Method of attaching hangers to building structure.
  - a. Furnish layouts for cast-in-place anchors, clips, and other ceiling attachment devices whose installation is specified in other Sections.
3. Ceiling-mounted items including lighting fixtures, diffusers, grilles, speakers, sprinklers, access panels, and special moldings.
4. Minimum Drawing Scale: 1/8-inch = 1 foot

B. Qualification Data: For testing agency.

C. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for each acoustical panel ceiling.

D. Research/Evaluation Reports: For each acoustical panel ceiling and components and anchor and fastener type.

E. Contract Closeout Information:

1. Maintenance data.
  - a. See Section 01 78 23.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver acoustical panels, suspension system components, and accessories to Project site in original, unopened packages and store them in a fully enclosed, conditioned space where they will be protected against damage from moisture, humidity, temperature extremes, direct sunlight, surface contamination, and other causes.
- B. Before installing acoustical panels, permit them to reach room temperature and a stabilized moisture content.
- C. Handle acoustical panels carefully to avoid chipping edges or damaging units in any way.

1.8 PROJECT CONDITIONS

- A. Environmental Limitations: Do not install acoustical panel ceilings until spaces are enclosed and weatherproof, wet work in spaces is complete and dry, work above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

1.9 COORDINATION

- A. Coordinate layout and installation of acoustical panels and suspension system with other construction that penetrates ceilings or is supported by them, including light fixtures, HVAC equipment, fire-suppression system, and partition assemblies.

1.10 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  1. Acoustical Ceiling Panels: Full-size panels equal to 2.0 percent of quantity installed.
  2. Suspension System Components: Quantity of each exposed component equal to 20 percent of quantity installed.
  3. Hold-Down Clips: Equal to 2.0 percent of quantity installed.
  4. These materials are not to be used for punch-list work.

## PART 2 - PRODUCTS

### 2.1 ACOUSTICAL PANELS, GENERAL

- A. Acoustical Panel Standard: Provide manufacturer's standard panels of configuration indicated that comply with ASTM E 1264 classifications as designated by types, patterns, acoustical ratings, and light reflectances, unless otherwise indicated.
  - 1. Mounting Method for Measuring NRC: Type E-400; plenum mounting in which face of test specimen is 15-3/4 inches away from test surface per ASTM E 795.
- B. Acoustical Panel Colors and Patterns: Match appearance characteristics indicated for each product type.
- C. Broad Spectrum Antimicrobial Fungicide and Bactericide Treatment: Provide acoustical panels treated with manufacturer's standard antimicrobial formulation that inhibits fungus, mold, mildew, and gram-positive and gram-negative bacteria and showing no mold, mildew, or bacterial growth when tested according to ASTM D 3273 and evaluated according to ASTM D 3274 or ASTM G 21.

### 2.2 MANUFACTURERS

- A. Steel Suspension Systems:
  - 1. Basis-of-Design Product: Armstrong World Industries Prelude XL or comparable product by one of the following:
    - a. USG
    - b. Chicago Metallic
    - c. Hunter Douglas
- B. Acoustical Ceiling Tile:
  - 1. Basis-of-Design Product: Armstrong World Industries or comparable product by one of the following:
    - a. USG
    - b. Chicago Metallic
    - c. Hunter Douglas

### 2.3 MATERIALS

- A. Acoustic Suspension Systems:
  - 1. Heavy-duty systems, ASTM C635.2 main runner jointing by spliced, interlocking ends, tab locks, pin locks, or other suitable connections.
  - 2. Cross runners interlocking with main runners.

3. Include components and accessories necessary resist seismic loads and dead loads of items such as light fixtures and air diffusers.
4. Hanger Wire:
  - a. Pre-stretched, with a yield stress load of at least 5 times design load, but not less than 0.106 IN (12 GA).
  - b. Utilize continuous lengths, without kinks and splices.
  - c. Galvanized Steel:
    - 1) Galvanized, soft annealed steel wire conforming to ASTM A641/A641m.
  - d. Stainless Steel:
    - 1) Type 304, soft annealed steel wire conforming to ASTM A641/A641M.
    - 2) Use where aluminum ceiling grid is specified.
5. Attachment Devices:
  - a. Anchors in Concrete:
    - 1) Anchors of type and material indicated below, with holes or loops for attaching hangers of type indicated and with capability to sustain, without failure, a load equal to 5 times that imposed by ceiling construction, as determined by testing per ASTM E488/A488M or ASTM E1512.
    - 2) Acceptable types: Cast-in-place, post-installed expansion anchors and post-installed bonded anchors.
    - 3) Material: Carbon-steel components zinc plated to comply with ASTM B633, Class Fe/Zn 5 for Class SC 1 service condition.
  - b. Power-Actuated Fasteners in Concrete:
    - 1) Fastener system of type suitable for application indicated, fabricated from corrosion-resistant materials, with clips or other accessory devices for attaching hangers of type indicated, and with capability to sustain, without failure, a load equal to 10 times that imposed by ceiling construction, as determined by testing per ASTM E1190.
6. Suspension System Types:
  - a. ACP: Exposed grid, non-rated:
    - 1) Description: Galvanized, double web steel, main and cross runners.
    - 2) Face width: 9/16 IN.
    - 3) Base Product:
      - a) Suprafine ML, by Armstrong.
    - 4) Finish on exposed surfaces: Smooth, flat white.
    - 5) Structural Classification: Intermediate-duty system.
    - 6) End Condition of Cross Runners: Override (stepped) type.

- 7) Face Design: Flat, flush.
- 8) Cap Material: Steel or aluminum cold-rolled sheet.

B. Metal Edge Moldings and Trim:

1. Manufacturers: Same as manufacturer of metal suspension system.
2. Roll-Formed, Sheet-Metal Edge Moldings and Trim: Type and profile indicated or, if not indicated, manufacturer's standard moldings for edges and penetrations that comply with seismic design requirements; formed from sheet metal of same material, finish, and color as that used for exposed flanges of suspension system runners.
  - a. Provide manufacturer's standard edge moldings that fit acoustical panel edge details and suspension systems indicated and that match width and configuration of exposed runners, unless otherwise indicated.
  - b. For lay-in panels with reveal edge details, provide stepped edge molding that forms reveal of same depth and width as that formed between edge of panel and flange at exposed suspension member.
  - c. For circular penetrations of ceiling, provide edge moldings fabricated to diameter required to fit penetration exactly.

C. Acoustical Sealant:

1. Products: Subject to compliance with requirements, provide one of the following:
  - a. Acoustical Sealant for Exposed and Concealed Joints:
  - b. Pecora Corporation; AC-20 FTR Acoustical and Insulation Sealant.
  - c. USG Corporation; SHEETROCK Acoustical Sealant.
  - 1) Acoustical Sealant for Concealed Joints:
    - a) OSI Sealants, Inc.; Pro-Series SC-175 Rubber Base Sound Sealant.
    - b) Pecora Corporation; BA-98.
    - c) Tremco, Inc.; Tremco Acoustical Sealant.



D. Acoustical Ceiling Tile:

1. Scheduled finishes to be factory applied.
2. Class A incombustible units.
3. Fire rated units (when used): UL labeled.
4. Edges uniformly fabricated, true, square.
5. Sizes as required to fit scheduled suspension system.
6. Standard tile size: See Reflected Ceiling Plan.
7. Concealed spline style: Edges kerfed for splines.
8. Acoustical Ceiling Tiles (ACP):
  - a. Basis-of-Design Product: Armstrong World Industries Ultima Tegular #1900 or comparable product by one of the following:
    - 1) USG
    - 2) Chicago Metallic
    - 3) Hunter Douglas
  - b. Special Considerations:
    - 1) 24x24 ceiling panel.
    - 2) Washable, impact-resistant, scratch-resistant, soil-resistant.
    - 3) Class A (UL) fire rating.
    - 4) Scheduled finishes to be factory-applied.
    - 5) Wet Formed Mineral Fiber Ceiling Panel:
      - a) Light reflectance: No less than 0.75
      - b) Noise reduction coefficient (NRC): 0.75
      - c) Sound blocking (CAC): 35

E. Diffusers and Grilles:

1. See Section 23 31 13.

F. Light Fixtures:

1. See Section 26 51 13.

PART 3 - EXECUTION

2.1 INSPECTION

- A. Verify suitability of substrate to accept installation.

- B. Examine installation site for irregularities having affect on quality and execution of work.
- C. Consult other trades involved before start of ceiling work, to determine areas of potential interference
- D. Do not start installation until interferences have been resolved.
- E. Installation constitutes acceptance of responsibility for performance.

## 2.2 PREPARATION

- A. Coordinate ceiling layout with sprinkler head spacing and work penetrating acoustical ceiling systems.
- B. Tolerances:
  - 1. Comply with ASTM C635/C635M Standard Specification for the Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings.
  - 2. Deviation from level plane: 1/8 IN in 10 FT 3 MM in 3 M with no load applied maximum.
  - 3. Bow: 1/32 IN in 2 FT 0.8 MM in 610 MM maximum.
  - 4. Camber: 1/32 IN in 2 FT 0.8 MM in 610 MM maximum.
  - 5. Twist: 1 degree in 2 FT 1 degree in 610 MM maximum.

## 2.3 INSTALLATION

- A. Suspension System:
  - 1. General: Install acoustical panel ceilings to comply with ASTM C 636 and seismic design requirements indicated, per manufacturer's written instructions and CISCA's "Ceiling Systems Handbook."
  - 2. Install suspension system in accordance with manufacturers' instructions.
  - 3. Grid layout:
    - a. See Reflected Ceiling Plans.
    - b. Install grid based on electrical lighting fixture layout indicated in Electrical Drawings, unless otherwise indicated,
    - c. Acoustical panel dimension at perimeter walls: Not less than 6 IN 150 MM.
    - d. In case of conflict notify Architect.
  - 4. Install grid square with room and with grid or acoustical panel center lines coinciding with center lines of room, each direction.
  - 5. Intersections between main tees and cross tees:
    - a. Butt cut and notch as required.

6. Suspend ceiling hangers from building's structural members and as follows:
  - 1) Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structure or of ceiling suspension system.
  - 2) Splay hangers only where required to miss obstructions; offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
  - 3) Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with location of hangers at spacings required to support standard suspension system members, install supplemental suspension members and hangers in form of trapezes or equivalent devices.
  - 4) Secure wire hangers to ceiling suspension members and to supports above with a minimum of three tight turns. Connect hangers directly either to structures or to inserts, eye screws, or other devices that are secure and appropriate for substrate and that will not deteriorate or otherwise fail due to age, corrosion, or elevated temperatures.
  - 5) Secure flat, angle, channel, and rod hangers to structure, including intermediate framing members, by attaching to inserts, eye screws, or other devices that are secure and appropriate for both structure to which hangers are attached and type of hanger involved. Install hangers in a manner that will not cause them to deteriorate or fail due to age, corrosion, or elevated temperatures.
  - 6) Do not support ceilings directly from permanent metal forms or floor deck. Fasten hangers to cast-in-place hanger inserts, postinstalled mechanical or adhesive anchors, or power-actuated fasteners that extend through forms into concrete. The use of powder-actuated fasteners is strictly forbidden.
  - 7) Space hangers not more than 48 inches o.c. along each member supported directly from hangers, unless otherwise indicated; provide hangers not more than 8 inches from ends of each member.
  - 8) Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced standards and publications.
  
7. Wall angles:
  - a. Install wall angles or moldings where ceilings meet walls, partitions, vertical elements, and other types of ceilings or ceiling fixtures.
    - 1) Secure angles to wall construction at stud locations.
    - 2) Maximum spacing from terminal ends: 3 IN 76 MM.
    - 3) Draw fasteners tight against vertical surfaces.
  - b. Level tolerance: not more than 1-IN 1000.
  - c. Miter cut inside and outside corners.
  - d. Install with leg supporting bottom flange of runners.

8. Hanger wires:

- a. Provide hangers and inserts necessary to support ceiling suspension systems and ceiling dead loads.
- b. Coordinate location and alignment with work of other trades.
- c. Install hanger wires plumb to main tees and cross tees.
- d. Do not suspend any part of suspension system from ducts, pipes, conduit, cable tray or equipment.
- e. Provide supplementary rough suspension system where necessary to support ceilings beneath pipes, ducts, equipment, cable trays.
- f. Splay hangers no greater than 30 DEG from vertical to avoid obstructions or other conditions that prevent plumb, vertical installation.
- g. Offset horizontal forces by bracing or counter-splaying.
- h. Space hangers to prevent eccentric deflection and rotation due to loads from items in or on ceiling.
  - 1) Provide supplemental hangers to support lighting fixtures and within 6-IN from end of main runners and fixtures which exceed manufacturer's published load data.
  - 2) Do not bear runners on walls or partitions.

9. Main runners:

- a. Utilize wall angles to align and receive terminal ends of main tees without transferring load to wall angle.
- b. Space main tees as indicated to receive lay-in panels and fixtures.
- c. Support terminal ends of main tees by wires located within 6 IN 150 MM from boundary walls.

10. Cross runners:

- a. Space cross tees as indicated to receive lay-in panels and fixtures.
  - 1) Install cross runners with positive interlock.
- b. Utilize wall angles to align and receive terminal ends of cross tees without transferring load to wall angle.
- c. Support terminal ends of cross tees by wires located within 6 IN 150 MM from boundary walls.

11. Leave suspension system ready to accept installation of acoustic materials.

B. Lay-In Items:

1. Install acoustic materials in accordance with manufacturer's instructions.
2. Place lay-in panels, fixtures, diffusers, grilles, and similar items in manner not compromising suspension system performance.
3. Field cut materials to fit grid.

4. Tegular and similar tiles with articulated edges:
  - a. Cut edges to match profile of factory edges and paint to match.
5. Ceiling paint:
  - a. Touch-up minor surface scratches and blemishes.
  - b. Cover field cut edges exposed to view.
  - c. Armstrong SuperCoat Ceiling Panel Touch-up Paint.

### 3.4 FIELD QUALITY CONTROL

- A. Inspections: Architect shall inspect completed installation of suspension system prior to installation of the ceiling panels. Do not proceed with installation of acoustical panels until approval by the Architect is received.
- B. Remove and replace acoustical panel ceiling hangers and anchors and fasteners that do not pass tests and inspections and retest as specified above.

### 2.5 CLEANING AND REPAIR

- A. Perform cleaning of soiled units and replacement of defective or damaged units.

END OF SECTION 095113

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