

DATE: August 1, 2024

DEPARTMENT OF GENERAL SERVICES
BUREAU OF CAPITAL PROJECT DESIGN MANAGEMENT
1800 HERR STREET
HARRISBURG, PENNSYLVANIA

ADDENDUM NO. 9

on

PROJECT NO. DGS C-1101-0055 PHASE 001

PROJECT TITLE - Lincoln University - Renovations and Additions to Manuel Rivero Gymnasium

PROFESSIONAL:

PZS Architects
4141 Station Street
Philadelphia, PA, 19127

If you submitted a bid prior to this Addendum being issued, your bid has been discarded and you must re-submit your bid(s) prior to the bid opening date and time.

ADMINISTRATIVE CHANGES – ALL CONTRACTS

Item 1 -The project is classified as a building so building wage rates should be used. Heavy/highway rates can be disregarded if not applicable to the project.

SPECIFICATION CHANGES – ALL CONTRACTS

Item 1 - Section 098430 Sound-Absorbing Wall and Ceiling Units has been added to the specifications.

DRAWING CHANGES – ALL CONTRACTS

Item 1 - None.

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SECTION 098430

SOUND-ABSORBING WALL AND CEILING UNITS

PART 1 GENERAL

1.1 STIPULATIONS

- A. The specifications sections "General Conditions to the Construction Contract", "Special Conditions" and "Division 01 - General Requirements" form a part of this Section by this reference thereto, and shall have the same force and effect as if printed herewith in full.

1.2 SECTION INCLUDES

- A. Fabric-wrapped sound-absorbing wall and ceiling panels
- B. Cementitious wood fiber panels
- C. Mounting accessories.

1.3 REFERENCES

- A. American Society for Testing and Materials (ASTM)
- B. ASTM C 423 Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method
- C. ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials
- D. ASTM E2768-11(2018) Standard Test Method for Extended Duration Surface Burning Characteristics of Building Materials
- E. ASTM E 580 Installation of Metal Suspension Systems in Areas Requiring Moderate Seismic Restraint
- F. ASTM C636 / C636M - 19 Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels
- G. ASTM C 754 Installation of Steel Framing Members to Receive Screw-Attached Gypsum Board
- H. ASTM E 1264 Classification for Acoustical Ceiling Products
- I. ASTM D 3273 Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber

1.4 SUBMITTALS

- A. Product Data: Manufacturer's printed data sheets for products specified.
- B. Shop Drawings: Fabrication and installation details, panel layout and fabric orientation.

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- C. Selection Samples: Manufacturer's color charts for fabric covering, indicating full range of fabrics, colors, and patterns available.
 - D. Test Reports: Certified test data from an independent test agency verifying that panels meet specified requirements for acoustical and fire performance.
- 1.5 CLOSEOUT SUBMITTAL MAINTENANCE DATA:
- A. For sound-absorbing wall and ceiling panels to include in maintenance manuals.
- 1.6 QUALITY ASSURANCE
- A. Manufacturer Qualifications: Company specializing in manufacturing products of the type specified in this section, with at least three years of documented experience.
 - B. Fire Performance Characteristics: Identify acoustical ceiling components with appropriate UL markings.
 - Surface Burning Characteristics: Tested per ASTM E 84 and complying with ASTM E 1264 Classification.
- 1.7 DELIVERY, STORAGE, AND HANDLING
- A. Protect acoustical units from moisture during shipment, storage, and handling. Deliver in factory-wrapped bundles; do not open bundles until units are needed for installation.
 - B. Store units flat, in dry, well-ventilated space; do not stand on end.
 - C. Protect edges from damage.
- 1.8 PROJECT/SITE CONDITIONS
- A. Environmental Requirements:
 - B. Do not install ceiling panels until building is closed in and HVAC system is operational.
 - C. Locate materials onsite at least 72 hours before beginning installation to allow materials to reach temperature and moisture content equilibrium.
 - D. Maintain the following conditions in areas where acoustical materials are to be installed 72 hours before, during and after installation:
 - 1. Relative Humidity: 25 - 85%.
 - 2. Uniform Temperature: 32 - 120 degrees F (0 - 49 degrees C).

PART 2 PRODUCTS

2.1 FABRIC-COVERED SOUND-ABSORBING WALL AND CEILING UNITS

- A. Manufacturers: Basis of Design: Provide Alphasorb Acoustic Panels manufactured by Acoustical Solutions or Respond IR Acoustic Panels manufactured by Conwed Designscape/Wall Technology or a comparable product by one of the following:
 - 1. Acoustics First Corporation.
 - 2. Stop Noise Acoustical Surfaces, Inc.
 - 3. Primacoustic.
 - 4. Rockfon.

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5. Or equal as approved by architect.

B. General:

1. Prefinished, factory assembled fabric-covered panels.
2. Surface Burning Characteristics: Flame spread index of 25 or less and smoke developed index of 450 or less, when tested in accordance with ASTM E84.
3. Panel type installation locations as indicated on drawings.

C. Fabric-Covered Acoustical Panels for Walls and Ceilings:

1. Panel Core: Manufacturer's standard rigid or semi-rigid fiberglass core.
2. Core Density: 6 to 7 lb/cu ft.
3. Sound Absorption: Noise Reduction Coefficient (NRC) or Sound Absorption Average (SAA) of 1.05 when tested in accordance with ASTM C423 for Type A mounting, per ASTM E795.
4. Panel Size: As indicated on drawings.
5. Panel Thickness: As required to meet required acoustical performance.
6. Edges: Perimeter edges reinforced by a formulated resin hardener.
7. Corners: Radiused unless indicated otherwise on drawings.
8. Fabric: As selected by Architect from manufacturers standard range.
9. Color: White, unless indicated otherwise on drawings.
10. Mounting Method: Back-mounted with concealed Z-clips.

2.2 DIRECT -ATTACHED CEMENTITIOUS WOOD FIBER SOPUND-ABSORBING PANELS

A. Manufacturers: Basis of Design: Tectum by Armstrong Worl Industries, Inc., or a comparable product by one of the following:

1. Cardinal Acoustics
2. Acoustical Solutions
3. Or equal as approved by architect.

B. General:

1. Surface Texture: Coarse
2. Composition: wood fibers bonded with inorganic hydraulic cement
3. Finish: surface appearance shall be consistent from panel to panel
4. Color and size as per drawings
5. Edge Profile: Bevel
6. UL Classified Noise Reduction Coefficient (NRC): ASTM C 423 ; C-40(0.85) Classified with UL label.
7. UL Classified Flame Spread: ASTM E 1264; Class A. Product must be able to meet this criteria after being painted six times.
8. Dimensional Stability/Mold Resistance: no significant mold growth when tested by ASTM D3273.
9. Surface Burning Characteristics: Flame spread index of 25 or less and smoke developed index of 450 or less, when tested in accordance with ASTM E84.
10. Panel type installation locations as indicated on drawings.

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2.3 FABRICATION

- A. Fabric Wrapped, General: Fabricate panels to sizes and configurations as indicated, with fabric facing installed without sagging, wrinkles, blisters, or visible seams.
 - 1. Where radiused or mitered corners are indicated, install fabric to avoid seams or gathering of material.
- B. Tolerances: Fabricate to finished tolerance of plus or minus 1/16 inch for thickness, overall length and width, and squareness from corner to corner.

2.4 ACCESSORIES

- A. Back-Mounting Accessories: Manufacturer's standard accessories for concealed support, designed to allow panel removal:

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine substrates for conditions detrimental to installation of acoustical units. Proceed with installation only after unsatisfactory conditions have been corrected.
- B. Do not proceed with installation until all wet work such as concrete, terrazzo, plastering and painting has been completed and thoroughly dried out, unless expressly permitted by manufacturer's printed recommendations.

3.2 INSTALLATION

- A. Install acoustical units in locations as indicated, following manufacturer's installation instructions.
- B. Install mounting accessories and supports in accordance with shop drawings.
- C. Align panels accurately, with edges plumb and top edges level. Scribe to fit accurately at adjoining work and penetrations.
- D. Install acoustical units to construction tolerances of plus or minus 1/16 inch for the following:
 - 1. Plumb and level.
 - 2. Flatness.
 - 3. Width of joints.

3.3 CLEANING

- A. Clean sound-absorptive panels upon completion of installation from dust and other foreign materials, following manufacturer's instructions.
- B. For wood fiber panels, clean exposed surfaces of acoustical ceilings, including trim, edge moldings, and suspension members. Comply with manufacturer's instructions for cleaning and touch up of minor finish damage. Remove any Ceiling Panels that cannot be successfully cleaned and or repaired. Replace with attic stock or new product to eliminate evidence of damage

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3.4 PROTECTION

- A. Provide protection of installed acoustical panels until Date of Substantial Completion.
- B. Replace panels that cannot be cleaned and repaired to satisfaction of the Architect.

END OF SECTION