SECTION  – fixed sound-absorptive panels

1. General
   1. summary

SPEC NOTE: Edit the following to reflect what is required on the Project. Delete paragraphs that are not required on this Project.

* + 1. Supply and install direct attached sound-absorptive panels of cementitious wood fiber plank acoustical wall system.
  1. REFERENCE STANDARDS
     1. American Society for Testing and Materials (ASTM):
        1. ASTM C423, Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.
        2. ASTM D3273, Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber.
        3. ASTM E580, Installation of Metal Suspension Systems in Areas Requiring Moderate Seismic Restraint.
        4. ASTM E1264, Classification for Acoustical Ceiling Products.
     2. Underwriters Laboratories of Canada (ULC):
        1. CAN/ULC S102-18, Standard Method of Test for Surface Burning Characteristics of building Materials and Assemblies.
        2. CAN/ULC S109-14(R2019), Standard Method for Flame tests of Flame-Resistant Fabrics and Films.
  2. ADMINISTRATIVE REQUIREMENTS
     1. Scheduling: Schedule installation of sound-absorptive panels after space is enclosed and weather tight; after wet work is complete and dry; painting is complete, and wall base and floor covering installed, and adjacent work of other trades is complete.
     2. Coordination: Coordinate sizes and locations of framing, blocking, furring, and reinforcements provided by work that is specified in other Sections is complete before starting work of this Section.
     3. Pre-Construction Meeting: Arrange a preconstruction meeting in accordance with Section 01 31 19 – Project Meetings, attended by Contractor’s personnel, Consultant, finish carpentry Subcontractor to discuss:
        1. Installation requirements.
        2. Special surface effects and finishing.
        3. Coordination of work with adjacent finishes.
        4. Protection of finishes.
  3. SUBMITTALS
     1. Provide required information in accordance with Section 01 33 00 – Submittal Procedures.
     2. Action Submittals: Provide the following submittals before starting any work of this Section:
        1. Product Data: Submit product data including construction details, material descriptions, dimensions of individual components and profiles, and finishes.
        2. Shop Drawings: Submit shop drawings indicating fabrication and installation details including, but not limited to, the following:
           1. Plans, elevations, and sections.
           2. Details of fittings and panels.
           3. Hardware quantities, locations, and installation requirements.
        3. Samples: Submit 305mm x 305mm (12" x 12") samples for each type of exposed finish specified for verification by the Consultant prior to ordering.
        4. Certifications: Manufacturer’s certifications that products comply with specified requirements, including laboratory reports showing compliance with specified tests and standards.
           1. Acoustical performance, products must be tested to the A, D-20, C-20, or C-40 method; each carton of material must carry an approved independent laboratory classification.
  4. QUALITY ASSURANCE
     1. Single-Source Responsibility: Provide sound-absorptive panels and grid components by a single sourced manufacturer to ensure compatibility.
     2. Regulatory Requirements: Provide sound-absorptive panels with the following surface burning characteristics as determined by testing identical products in accordance with CAN/ULC S102, CAN/ULC S109 or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify acoustical wall panels with appropriate markings of applicable testing and inspecting agency, for the following criteria:
        1. Flame Spread: 25 or less.
        2. Smoke Developed: 450 or less.
     3. Qualifications: Provide proof of qualifications when requested by Consultant:
        1. Manufacturer: Use manufacturer experienced in manufacturing sound-absorptive panels similar to those required for this Project and with a record of successful in-service performance and from one source with resources to provide products of consistent quality in appearance and physical properties.
        2. Installer: Perform work of this Section using an authorized installer, licensed by the manufacturer of acoustic systems.
  5. DELIVERY, STORAGE, HANDLING & PROTECTION
     1. Delivery and Storage Requirements: Locate materials onsite at least 24 hours before beginning installation to allow materials to reach temperature and moisture content equilibrium.
     2. Storage and Handling Requirements: Store materials off ground and protected from dirt and dust of construction operations; handle materials to protect them from damage and soiling.
  6. SITE CONDITIONS
     1. Site Measurements: Verify dimensions by site measurements before fabrication and indicate measurements on shop drawings where acoustic room components are indicated to fit between or around other construction; coordinate fabrication schedule with construction progress to avoid delaying the Work.
     2. Ambient Conditions: Install sound-absorptive panels only when building is fully enclosed and HVAC system is operational; maintain manufacturer’s recommended temperature and humidity conditions in the area of installation for 24 hours before, during and after installation.
  7. WARRANTY
     1. Manufacturer Warranty: Submit a standard five (5) year written warranty executed by the manufacturer, agreeing to repair or replace panels that fail within the warranty period.
     2. Failures include, but are not limited to the following:
        1. Sagging and warping.

1. Products
   1. sound-absorptive PANELS

SPEC NOTE: Edit the following paragraphs to reflect the materials identified in the product and finish schedule.

* + 1. Acoustical Panels:
       1. Surface Texture: Coarse.
       2. Composition: Aspen wood fibers bonded with inorganic hydraulic cement.
       3. Colour: White.
       4. Size: Standard 24” x 48”.
       5. Thickness: Standard 1”.
       6. Edge Profile: Long edge beveled, short edge square.
       7. Noise Reduction Coefficient (NRC): ASTM C423; (Mounting; A (0.40); D-20(0.40); C-20(0.80); C-40(0.85).
       8. Flame Spread: ASTM E1264; Class A.
       9. Light Reflectance (LR) White Panel: ASTM E1477.
       10. Dimensional Stability: HumiGuard Plus.

SPEC NOTE: Select one of the following paragraphs. If the material is listed in the finish schedule, delete the first sentence.

* + - 1. [Basis of Design Materials: Tectum Direct-Attached Wall Panels, Model 8182T10 by Armstrong World Industries, Inc.] [Model and Manufacturer: As indicated in Section 09 06 05 – Product and Finish Schedule.]
      2. Wall Molding: manufactured knurled face angle molding.
         1. Locking Angle molding pre-engineered locking tabs punched 8" o/c, 1-1/4” x 1-1/4” x 144” in length.
      3. Fasteners:
         1. #6 x 1-5/8" Painted Head Sharp Point Screws.
         2. #6 x 1-5/8" Painted Head Drill Point Screws.
         3. 2-1/4" Painted Head CMU Screws.

1. Execution
   1. EXISTING CONDITIONS
      1. Examine the condition of the substrate and verify that substrate conditions are acceptable for work of this Section:
         1. Starting work will be interpreted as acceptance of substrate conditions.
      2. Preparation:
         1. Measure each wall area and establish layout of wall units. Coordinate panel layout with mechanical and electrical fixtures.
         2. Coordination: Furnish layouts for preset inserts, clips, and other ceiling anchors whose installation is specified in other sections.
         3. Furnish concrete inserts and similar devices to other trades for installation well in advance of time needed for coordination of other work.
   2. INSTALLATION
      1. Fasten sound-absorptive panels securely to wall/ceiling as recommended by the manufacturer.
         1. Verify that blocking or furring strips are securely fastened to produce a smooth and plumb surface.
         2. Fasten panels in method and pattern as recommended by the manufacturer.
   3. CLOSEOUT ACTIVITIES
      1. Cleaning: Clean exposed surfaces of sound-absorptive panels in accordance with manufacturer’s recommendations and as follows:
         1. Remove surplus materials, rubbish and debris resulting from installation and leave areas of installation in a neat, clean condition.
         2. Touch up minor finish damage; remove and replace work which cannot be successfully cleaned and repaired to eliminate evidence of damage.
      2. Protection: Protect installed work from damage due to subsequent construction activity, including temperature and humidity limitations and dust control, so that the work will be without damage and deterioration at the time of acceptance by the Owner.

END OF SECTION