

SECTION 095113 - ACOUSTICAL PANEL CEILINGS

GENERAL

SUMMARY

Related Documents:

Drawings and general provisions of the Subcontract apply to this Section.
Review these documents for coordination with additional requirements and information that apply to work under this Section.

Section Includes:

Acoustical surfaces including acoustic lay-in panels, grid systems, and required installation accessories.

<Include two paragraphs below for retrofit projects as appropriate.>

[Tie-in to existing grid system.

Seismic bracing of existing grid system.]

Seismic safety wires for light fixtures.

Related Sections:

Division 01 Section "General Requirements."
Division 01 Section "Special Procedures."
Division 01 Section "Construction Waste Management."
Division 01 Section "Lateral Force Procedures".
Division 07 Section "Blanket Insulation" for acoustical insulation blankets in partitions and ceilings.
Division 09 Section "Painting" for field painting of lay-in panels.
Division 23 Sections for acoustical duct liners, sound insulated metal plenum walls, vibration isolating supports for mechanical equipment, fire sprinklers and similar items of mechanical equipment mounted on or in acoustical surfaces.
Division 26 Sections for:
Light fixtures, smoke detectors and similar items of electrical equipment mounted in or on acoustical surfaces.
Furnishing and installation of safety wires for recessed lighting fixtures

REFERENCES

General:

The following documents form part of the Specifications to the extent stated. Where differences exist between codes and standards, the one affording the greatest protection shall apply.
Unless otherwise noted, the referenced standard edition is the current one at the time of commencement of the Work.
Refer to Division 01 Section "General Requirements" for the list of applicable regulatory requirements.

ASTM International:

ASTM C635 - Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings.
ASTM C636 - Installation of Metal Ceiling Suspension Systems - Acoustical Tile and Lay-in Panels.

California Building Code (CBC) - conform to combustibility requirements for materials.

CBC Chapters 16 and 25 and CBC Standard No. 25-2 for the design, details and specifications for lateral bracing requirements as modified by Division 01 Section "Lateral Force Procedures".

Ceilings & Interior Systems Construction Association:
Ceiling Systems Handbook.
Guidelines for Seismic Restraint of Direct-Hung Suspended Ceiling Assemblies—Seismic Zones 3 & 4.

UL - Underwriter's Laboratories System Ratings.

SUBMITTALS

Submit under provisions of Division 01 Section "General Requirements."

Product Data:

Manufacturer's specifications, installation instructions and product data on metal grid system components, acoustical units, and all other products to be used.

Approved ICBO report for fasteners proposed to be used to attach acoustical ceilings to building superstructure.

Shop Drawings: Show grid layout and dimensioning, panel layouts, lighting fixtures, air diffusers, grilles, and all other items exposed in acoustical ceilings, locations of seismic braces and hangers, and suspension, seismic and bracing details. Show details of junctions with other work or ceiling finishes, and special conditions.

Calculations showing that suspension systems will provide full compliance with seismic structural requirements of Division 01 Section "Lateral Force Procedures". Calculations shall be checked and sealed by a Civil or Structural Engineer licensed in the State of California.

Samples:

Acoustic panels of each type – 6 by 6 inches (150 by 150 mm) minimum.

Grid system components, including suspension system main runner, cross runner, edge trim, and all special shapes, in 12 inches (300 mm) lengths.

QUALITY ASSURANCE

Installer's Qualifications: 5 years minimum experience with and specializing in acoustical ceilings installations.

DELIVERY, STORAGE, AND HANDLING

Deliver materials to project site in original, undamaged, unopened containers bearing manufacturer's name, style, color and product number of each type of material.

Comply with manufacturer's recommendations for storage of materials to be used in the work.

ENVIRONMENTAL REQUIREMENTS

Unless otherwise required by the manufacturers of the materials, temperatures are to be maintained at 60 degrees F. or higher, and humidity at 20 to 40 percent, prior to, during and after installation.

SEQUENCING AND SCHEDULING

Do not install acoustical ceilings until dust-generating activities have terminated, and above ceiling work is completed, tested and approved. Schedule installation of acoustic units after interior wet work is dry.

EXTRA MATERIALS

Upon completion of work, deliver stock of replacement materials of acoustical panels used in the work to the Project or Construction Manager. Furnish at least ten percent [_10%_] percent or [__] panels, whichever is greater, of full-size units of each type, color and pattern of acoustical panel installed. Package extra materials in manufacturer's standard, sealed, unopened boxes, labeled with manufacturer's name, style, number and color of unit, local distributor's name, address and telephone number, and locations where installed in Project.

PRODUCTS

EXISTING MATERIALS

Existing suspension system shall be reused if possible and is [steel] [aluminum], approximately 1 1/2 inch (38 mm) high x [15/16 inch (8 mm)] [3/4 (18 mm)] wide, white exposed face, [2 by 2 feet (600 by 600 mm)] [2 by 4 feet (600 by 1200 mm)] grid, [except where light fixtures occur]. System [is] [is not] seismically braced. Any new grid system shall meet and form positive structural connection with existing system, using clips and other devices as necessary, which shall be concealed from view. Final appearance shall appear to be one continuous grid system.

ACOUSTICAL PANEL (AP) MATERIALS

The suspension system and ceiling tile in the new kitchen expansion area shall match the existing kitchen area.

1: Certaineed VinylRock, 2 x 2 Vinyl Wrapped Smooth White Ceiling Tile.

GRID SUSPENSION SYSTEM (GS)

Suspension System shall be white heavy duty 15/16", by manufacturers: Chicago Metallic Corp., 200 Snap

System Description: Systems shall be of steel construction as per CBC Standard 25-2 and shall consist of main and cross runners, perimeter trim, connectors, hangers and all accessories necessary for the complete installation.

All systems shall permit the installation of recessed lighting fixtures upon the flanges of the systems and any form of splice or other obstruction which would inhibit or render such installation of fixtures difficult will not be permitted.

Each intersection, splice and perimeter joint shall meet all seismic requirements of CBC Standard 25-2.

Finish: Factory finished white baked enamel over bonderized, electro-zinc-coated steel.

Main and Cross Runners

GS 1: 15/16 inch (23 mm) flange suspension system, heavy-duty steel, grid module to suit panel size. Include 15/16 inch (23 mm) wide perimeter trim members with reveal to match existing in existing portion of kitchen.

Connectors and Clips: Manufacturer's standard.

Hanger and Bracing Wires: Fed. Spec. QQ-W-461, Class 1, galvanized and annealed, 12 gage minimum.

Fasteners: Fasteners used for attachment of acoustical ceilings to building superstructure shall have an approved ICBO report.

Edge Sealer: Latex adhesive designed for the purpose of sealing field-cut edges of acoustic panels, as manufactured by Kelly-Moore, Inc., or equal.

EXECUTION

EXAMINATION

Surfaces shall be dry and wet work completed prior to commencing installation. Inspect surfaces to receive acoustical work and report any defects. Starting work implies acceptance of surfaces and existing conditions.

<Include the following paragraph as appropriate.>

Air plenums occur above suspended ceilings in Room [____]. Verify that plenum surfaces are free of dirt, dust and loose construction soil and that construction work is otherwise complete, equipment installed and that surfaces and openings which might provide "leaks" are sealed prior to commencing installation of ceiling assembly.

INSTALLATION

Coordinate installation with other trades whose work adjoins or combines with acoustical ceilings. Unless otherwise shown, equipment, fixtures, etc., applied on or within acoustical panels are to be located symmetrically with respect to both axes. Provide grid members required to accommodate lay-in air diffusers and similar items of mechanical equipment.

Except as otherwise specified to meet structural requirements, make installation of grid systems and acoustical materials in strict accordance with approved manufacturer's specifications or recommendations and Drawing details. Where details and/or these Specifications are in apparent conflict with manufacturer's recommendations, the more stringent requirement shall apply.

Grid Suspension Systems:

Structural Requirements:

Brace [new and existing] suspension to comply with CBC requirements a governing resistance to lateral forces and uplift as modified by Division 01 Section "Lateral Force Procedures".

Attachment to Building Superstructure: Install fasteners used to attach grid suspension system to building superstructure in accordance with the requirements of their approved ICBO report.

Install suspension systems in flat, level plane unless otherwise shown, joints in exposed members tight and aligned without offsets. Direction of main runners, where not specifically indicated, shall be determined by fixture layout.

Unless closer spacings are required by manufacturer of system, space hanger wires along main runners at 4 feet (1.2 m) maximum. Provide special hangers as required where items above ceiling obstruct normal hanger wires.

Provide hold-down clips for lay-in panels where required to prevent lifting and flutter caused by air pressures.

Install perimeter trim at wall and abutting vertical surfaces. Flange of trim shall be at the same level as flanges of main and cross runners.

Level suspension systems to a tolerance of 1/8 inches (3 mm) in 12 feet (3.6 m).

Unless otherwise shown on reflected ceiling plans, align grid members and tile joints parallel to perimeter walls with pattern centered in room areas both directions.

Seal field-cut panel edges of Type AP 2 panels with edge sealer.

PROTECTION

Protect the finished installation from damage during balance of construction period. Remove any soiled or damaged items and replace with new before acceptance of Project by JKYog/Construction Mgr.,

END OF SECTION 095113