

**SECTION 09 58 13
MONOLITHIC ACOUSTICAL CEILING**

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS which are hereby made a part of this Section of the Specifications.

1.2 DESCRIPTION OF WORK

- A. Work Included: Provide labor, materials and equipment necessary to complete the work of this Section, including but not limited to the following:

1. Monolithic acoustical ceiling system combining perforated gypsum panels with high-NRC acoustical backer panels to optimize acoustical performance while providing a fine-textured, monolithic finish.
2. ~~It is the intent to have all exposed GWB and ACGWB ceiling surfaces (both horizontal and vertical) in the Learning Commons (C201) and Student Commons (C102) to have the same and uniform finish in these areas which will be the "Ensemble spray applied finish" The Contractor performing the work of this Section shall also be responsible for all materials and labor associated with the spray applied finish over adjacent gwb/ drywall surfaces~~ **ADDENDUM NO. 2**
2. *It is the intent to have all exposed GWB and ACGWB horizontal ceiling surfaces in the Cafeteria D100 to have the same and uniform finish in this area which will be the "Ensemble spray applied finish" The Contractor performing the work of this Section shall also be responsible for all materials and labor associated with the spray applied finish over adjacent gwb/ drywall surfaces.* **ADDENDUM NO. 2**

- B. Related Work: The following items are not included in this Section and are specified under the designated Sections:

1. Section 07 95 13 – INTERIOR EXPANSION JOINT COVER ASSEMBLIES.
2. Section 09 29 00 - GYPSUM BOARD.
3. Section 09 51 00 - ACOUSTICAL CEILINGS.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: Provide reflected ceiling plans indicating dimensions, lighting fixture locations, and related mechanical components. Show locations of control and expansion joints.
- C. Samples: For each exposed product.

1.4 QUALITY ASSURANCE

- A. Source Limitations: Obtain system components from a single manufacturer.
- B. Subcontractor qualifications: Installer shall be certified by system manufacturer.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials in original packages, containers, or bundles bearing brand name and identification of manufacturer or supplier.
- B. Storage: Store in a manner that will prevent warpage, water damage, or damage of any kind. Prevent interference to/by other trades and any other adverse job conditions due to storage locations or methods.
- C. Handling: Handle in such a manner to insure against racking, distortion or physical damage of any kind.

1.6 PROJECT CONDITIONS

- A. A. Environmental Requirements: Do not install gypsum panels when ambient temperature is below 40°F. For finishing of gypsum panels, maintain ambient temperature above 55°F from one week prior to attachment or joint treatment, and until joint treatment is complete and dry.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Basis-of-Design: Ensemble Monolithic Acoustical Ceiling System by USG Interiors, LLC; or approved equal.
- B. Characteristics:
 - 1. Panels: USG Sheetrock Brand Ensemble Perforated Gypsum Panels 5/8" used with 1" USG Ensemble High-NRC Backer Panels.
 - 2. Color: Provide custom color as selected by Architect.
 - 3. Texture: Fine.
- C. Performance:
 - 1. Minimum NRC: 0.70
 - 2. Minimum CAC: 44
 - 3. Minimum Light Reflectance: 0.85
 - 4. Flame Spread: Class A per ASTM E 84.

2.2 COMPONENT MATERIALS

- A. Perforated Gypsum Board for Ceiling Application.
 - 1. Perforated, non-fire rated gypsum board with acoustically transparent scrim: complies with ASTM C1396 Non-Type X.
 - 2. Subject to compliance with project requirements, the design is based on the following: 5/8" USG Sheetrock Brand Ensemble Perforated Gypsum Panels.
- B. Acoustical Backer Panel: USG Ensemble Backer Panel High-NRC.
 - 1. Classification: Provide un-faced acoustical panels with the following physical attributes:
 - a. NRC: Not less than 0.70.
 - b. CAC: Not less than 44.
 - c. Edge/Joint Detail: SQ Square.
 - d. Panel Thickness: 1 inch.
 - e. Modular Size: 16 by 48 inches.

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- f. Recycled Content: 66%.
 2. High Recycled Content Product: Classified as containing greater than 50% total recycled content. Total recycled content is based on product composition of post-consumer and pre-consumer post-industrial recycled content per FTC guidelines.
 3. VOC Emissions: Meets CA Specification 01350, CHPS listed for low emitting materials.
- C. Gypsum Board suspension system: complies with applicable requirements per ASTM C 645, direct-hung system composed of Index support bars and cross-furring drywall suspension tees that interlock.
 1. Framing System:
 - a. Deflection criteria: L/240 per ASTM C635.
 - b. Galvanized Steel: G40 double-web tee, hot-dipped galvanized steel.
 2. Framing Members:
 - a. Index support bars: ISB 109.
 - b. USG Drywall Suspension system main tees: DLGW26.
 - c. USG ISB Cross Brace Clip: ISBAC.
 3. Attachment devices: Size for five times the design load indicated in ASTM C 635/C 635M, Table 1, "Direct Hung," unless otherwise indicated. Comply with seismic design requirements, if applicable.
 4. Wire Hangers, Braces, and Ties: Provide wires complying with the following requirements:
 - a. Zinc-Coated, Carbon-Steel Wire: ASTM A 641/A 641M, Class 1 zinc coating, soft temper.
 - b. Size: 12 ga.
- D. Perforated Gypsum Board Joint Treatment.
 1. General: Comply with ASTM C 475/C 475M, Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board:
 - a. USG Sheetrock Brand Paper Joint Tape.
 - b. USG Sheetrock Brand All Purpose Joint Compound.
 - c. USG Sheetrock Brand Ensemble Ceiling Compound
 2. Application:
 - a. Joint Compound for Interior Gypsum Board: For each coat, use formulation that complies with USG Ensemble Acoustical Monolithic ceiling system applied on previous and or successive coats.
 3. Embedding and First Coat:
 - a. For embedding tape and first coat on joints, fasteners, and trim flanges, use USG Sheetrock Brand All Purpose Joint Compound and embed USG Sheetrock Brand Paper Joint Tape.
 4. Finish Coat:
 - a. For final coats, use USG Sheetrock Brand Ensemble Ceiling Compound to create a final coat equal to a Level 5 finish.
- E. Acoustical Transparent Finish: USG Interiors, LLC, "USG Ensemble Spray-Applied Finish":
 - a. Texture: Fine.
 - b. Color: White.
 2. Classification: Provide acrylic based spray applied finish complying USG Ensemble Spray Applied Finish.
- F. Gypsum Board Trim Accessories.
 1. Trim Accessories: Galvanized steel sheet per ASTM 1047: Provide manufacturer approved and tested metal trim that is chemically compatible with the specified ceiling system.
 - a. USG Sheetrock Brand Metal Trim:
 - 1) Corner Bead
 - 2) Reveal Joint
 - 3) L Bead

- 4) U Bead
- 5) Control Joint
- 6) USG Sheetrock® Brand Paper Faced Metal Trim.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and substrates for compliance with requirements and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

- A. Install in accordance with reference standards and manufacturer's instructions.
- B. Install system to comply with ASTM C754 and with ASTM C840 requirements that apply to installation.
- C. Control Joints: Install control joints at locations indicated on Drawings.
- D. Hang plastic sheets to provide temporary protection for adjacent floors, walls and other surfaces during installation.

3.3 CLEANING AND PROTECTION

- A. Remove temporary protection and enclosure of other work. Repair floors, walls, and other surfaces stained, marred, or otherwise damaged during installation.

END OF SECTION