

ALPRO® AVIAR METAL ACCOUSTICAL CEILING SYSTEM

Section 09 54 50

PART 1 – GENERAL

1.01 SECTION INCLUDES:

- A. The ALPRO® AVIAR Ceiling System can be provided as an undulating convex or concave vault, curved to virtually any radius and provided in any overall length or width. The System consists of pre-curved and pre-finished extruded aluminum Main Tees, concave or convex to form an undulating Ceiling or gradual smooth flowing curves. Panel to be specified as infill lay-in or face attached for a continuous corrugated vault. The entire System may be trimmed with ALPRO® Perimeter Trim or extruded Wall Angle as specified on the Architectural Drawings.

1.02 RELATED DOCUMENTS/SECTIONS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions.
- B. Division 1 Specification Sections apply to work of this Section.
- C. Finish Schedule or Finish Legend applies to work of this Section.

1.03 REFERENCES:

- A. GENERAL
 - 1. Comply with applicable requirements of the following, except where more stringent requirements are indicated by building codes.
- B. ASTM (American Society for Testing and Materials)
 - 1. ASTM C635, Standard Specifications for Metal Suspension Systems for Acoustical Tile and Lay-In Panel Ceilings.
 - 2. ASTM C636, Recommended Practice for Installation of Metal Suspension System for Acoustical Tile and Lay-In Panels.
- C. CISCA Ceiling Systems Installation Handbook.

1.04 DESIGN/PERFORMANCE REQUIREMENTS:

- A. All components of the ALPRO® AVIAR Ceiling System shall be provided by one (1) Manufacturer to ensure single source responsibility and quality control.

1.05 SUBMITTALS:

- A. Submission must be made within ten (10) working days of the General Contract Award to avoid project delay.
- B. Product Data: Submit Manufacturer's:
 - 1. Product Specifications
 - 2. Detail Drawings
 - 3. Installation Instructions

- C. Shop Drawings: Submit Shop Drawings for fabrication and installation of ALPRO® AVIAR Ceiling System including the following:
 - 1. Location of ALPRO® AVIAR Ceiling System
 - 2. Specified radii
 - 3. Panel metal type and thickness
 - 4. Panel corrugation pattern
 - 5. Perforated or non-perforated
 - 6. Finish
 - 7. Tolerances
 - 8. Panel size
- D. Samples:
 - 1. Submit three (3) samples consisting of 12" long Suspension Tee and 12" x 12" corrugated Panel.
- E. Product Test Reports:
 - 1. All products furnished shall have a flame spread classification of 0-25 for a Class A or Class 1 rating in accordance with ASTM E84.
 - 2. All products furnished shall be tested in accordance with ASTM C-423-90 for Sound Absorption. Test results for a Type E-400 ceiling mounting method shall yield an NRC (Noise Reduction Coefficient) of no less than 0.9.
- F. Closeout Submittals
 - 1. Provide Manufacturer's Cleaning and Maintenance Instructions
 - 2. Warranty Documents

1.06 QUALITY ASSURANCE:

- A. Manufacturers' Qualifications: Firm with manufacturing and delivery capacity required for the project, shall have successfully completed at least ten (10) projects within the past five (5) years, utilizing systems, materials, and techniques as herein specified.
- B. Fabricator must own and operate its own manufacturing facilities for all metal components. Systems consisting of components from a variety of Manufacturers will not be considered or accepted.
- C. Manufacturer/Fabricator must own and operate its own painting and finishing facility to assure single source responsibility and quality control.
- D. Installer's Qualifications: Firm with not less than three (3) years of successful experience in the installation of systems similar to those required by this project and acceptable to the Manufacturer of the System.
- E. Testing Agency Qualifications: An independent testing agency, acceptable to authorities having jurisdiction, with the experience and capability to conduct testing indicated, as documented according to ASTM E 548.

1.07 PRODUCT DELIVERY, STORAGE AND HANDLING:

- A. Deliver Panels and all system hardware to the job site in Manufacturer's original packaging, unopened and undamaged, just prior to installation.
- B. Avoid warpage and damage by storing Panels and all system hardware above floor, flat and in a dry, humidity and temperature controlled interior location.
- C. Follow Manufacturer's instructions and exercise care during off loading, handling and installation to avoid damage and marring of finishes.

1.08 SEQUENCING:

- A. Substitute Products: Alternate proposals for substitute products will not be accepted unless approval is issued in addenda.
- B. Contract Execution: Submittals shall be completed and approved prior to award of subcontract for system components.
- C. Manufacturer's Production Schedule: Subcontract for the work of this section shall be planned to allow sufficient time for Manufacturer's production and delivery scheduling.

1.09 WARRANTY:

- A. Furnish Manufacturer's:
 - 1. Warranty that materials furnished will perform as specified for a period of not less than one (1) year from material shipment when installed in accordance with Manufacturer's recommendations.

PART 2 PRODUCTS

2.01 MANUFACTURERS:

- A. Acceptable System: ALPRO® AVIAR Ceiling System shall be manufactured by Gordon, Inc. For all inquiries contact, Gordon, Inc., 5023 Hazel Jones Road, Bossier City, LA 71111, (888) 733-3836 or (800) 747-8954.
- B. The listed Manufacturer shall not be construed as closing specifications to other prospective Manufacturers, but rather as establishing a level of quality in a metal system. Other systems may be submitted for approval, as provided for in the specifications at least ten (10) working days prior to submission of bids. Companies desiring to submit a proposal shall submit all descriptive information of the system proposed including photographs and Shop Drawings of at least three (3) projects similar in detail and scope.

2.02 PRODUCT CONSTRUCTION:

- A. ALPRO® AVIAR Ceiling System shall be manufactured of aluminum or steel corrugated Panels. Suspension and Perimeter Trim components (if required) shall be extruded aluminum of standard 6063 T5 or T6 aluminum alloy, curved to specified radii.
- B. Materials:
 - 1. Suspension System:
 - a. Extruded aluminum as manufactured by ALPRO®, Division of Gordon, Inc. shall consist of Main Tees, Cross Tees, Perimeter Angle, Perimeter Trim, and any necessary Clips and Splices required for a complete system as required to meet Local Building Codes.
 - b. Deflection of Grid shall be limited to L/360 of the span when full dead load is applied (ASTM C635).
 - c. Aluminum extrusions shall be 6063 T5 or T6 alloy (ASTM B221, ASTM B221M).

- d. General: Provide metals free from surface blemishes where exposed to view in finished unit. Surfaces that exhibit pitting, seam marks, roller marks, stains, and discolorations, or other imperfections on finished units are not acceptable. All metal shall be of the highest-grade commercial type.
2. Metal Panels:
- a. For aluminum Panels, aluminum sheet shall be 3003-H14 alloy, minimum 0.032" (ASTM B209). Panels may be stucco-embossed or smooth aluminum.
 - b. For steel Panels, steel sheet shall be 22, 24, or 26 Gauge galvanized.
 - c. The metal acoustical Ceiling Panels shall be corrugated using ALPRO® pattern type [Select: A-I, A-O, B, C, D, E-I, E-O, F, H, or J]. Note: Pattern H corrugation is limited to Lay-In Systems only.
 - d. For perforated Panels, patterns to be 1/8" diameter holes on 2 1/64" staggered centers, approximately 13% open area.
3. Sound Absorption Material:
- a. Provide fiberglass 2" thickness X 1.5 # density. The fiberglass Panel shall be wrapped in Class A, per ASTM E84, Black Polyethylene or Black PVC.

2.03 FINISHES:

- A. All ALPRO® Panels and accessories shall receive a multi-stage pretreatment prior to receiving an electrostatically applied, AAMA 2604 powder coating finish.
- B. All cut edges, including perforated holes, must be coated. Finish shall be oven baked to ensure paint adhesion and uniform surface hardness.
- C. Paint color to be selected from ALPRO® Standard Colors.

2.04 FABRICATION:

- A. Provide factory curved Main Tees to specified radii, which is not smaller than 24".
- B. Provide Splice Clips as necessary to connect Main Tees. Provide 2-Way Clips to attach Cross Tees.
- C. For lay-in systems, pre-cut specified Panel to lay into specified module.

PART 3 EXECUTION

3.01 EXAMINATION:

- A. Examination of Surfaces: Installer must examine conditions under which work is to be performed and must notify Contractor in writing of unsatisfactory conditions.
- B. Verify that field measurements and block-out dimensions are as shown on Shop Drawings.

3.02 PREPARATION:

- A. Clean surfaces thoroughly prior to installation.

- B. Prepare surfaces using the methods recommended by the Manufacturer to achieve the best result for the project conditions.

3.03 INSTALLATION:

- A. General: Comply with Manufacturer's printed instructions, governing regulations for Seismic Codes, Local Building Codes, and the Ceiling & Interior Systems Construction Association Standards applicable to work.
- B. Space Enclosure: Do not install any work until space is enclosed and weatherproofed, wet-work in space is completed and nominally dry, work above ceilings is complete, and temperature and humidity shall be continuously maintained at values near those of final occupancy.

3.04 CLEANING:

- A. Follow Manufacturer's cleaning instructions for specified finish.

3.05 PROTECTION:

- A. Procedures: Care should be taken during the remainder of construction to protect ALPRO® AVIAR Ceiling System from damage.
- B. Protection of Gordon, Inc. systems from damage by other trades after installation to be provided by the General Contractor.

END OF SECTION