

## **Section 09545 - Specialty Metal Ceilings**

### **Part 1 – General**

#### **1.01 Scope**

- A. Furnish and install the Linear Expressions Metal Ceiling system as manufactured by Steel Ceilings Inc., Johnstown, Ohio.

#### **1.02 Related Sections**

- A. Section 09510 Acoustical Ceilings
- B. Section 09250 Plaster and Gypsum Board
- C. Section 15550 Heating, Ventilating and Air-conditioning
- D. Section 16500 Lighting

#### **1.03 References**

- A. American Society for Testing and Materials (ASTM)
  - 1. C635 - Standard specification for the manufacture, performance and testing of metal suspension systems for acoustical tile and lay - in panel ceilings.
  - 2. C636 - Standard practice for installation of metal ceiling suspension systems for acoustical tile and lay-in panels.
  - 3. E84 - Test method for surface burning characteristics of building materials.
- B. CISCA – Ceilings and Interior Systems Construction Association

#### **1.04 Submittals**

- A. Provide product data sheets listing dimensions, style, edge detail, perforation pattern and finish.
- B. Alternates require prior approval no later than 21 days prior to bid date. In addition to the requirements in A above, submittals for approved alternates must include samples of actual products to be substituted together with test certificates supporting performance claims, a mock up and a written warranty.

#### **1.05 Project Conditions**

- A. Environmental Requirements
  - 1. Area to receive ceiling systems shall be protected from the weather.
  - 2. Wet trades work shall be complete and dry prior to installation of ceiling system.
  - 3. Installation shall not proceed until the temperature and humidity conditions closely approximate finish condition.

#### **1.06 Attic Stock**

- A. Provide 2% (3% etc) of the ceiling system area materials to be used as attic stock.

### **1.07 Performance**

- A. Materials and installation must comply with Local Building Code and Regulations
- B. Materials should be stored and handled in accordance with CISCA's *Acoustical Ceilings – Use and Practice*
- C. Materials to comply to CISCA's *Metal Ceilings Technical Guidelines*
- D. There are no special seismic requirements

## **Part 2 - Products**

### **2.01 Manufacturer**

- A. Linear Expression Metal Panels shall be as manufactured by Steel Ceilings Inc., Johnstown, Ohio. [www.steelceilings.com](http://www.steelceilings.com)

### **2.02 Materials**

- A. Suspension System
  - 1. Linear main channels and cross channels shall be formed from galvanized steel (aluminum, stainless steel) with face dimension of 3”(up to 8”). Main channels shall be suspended from the existing structure with not less than 12 gauge pre-straightened hanger wires, wrapped tightly 3 full turns. If crossing box is used it shall be of the same material as the main and crossing channels and it will be used as the point of suspension from the structure.
  - 2. Wall molding shall be formed from galvanized steel(aluminum, stainless steel) in shape to interface with the channels and infill panels.
  - 3. Hold down clips shall be formed from same materials as the molding.
- B. Infill Metal Panels
  - 1. Infill metal panels shall be formed from \_\_\_ gauge galvanized steel – minimum A40/G40(aluminum, 304 stainless steel).
  - 2. Panel sizes shall be as indicated on the drawings but shall not exceed 48” x 48”.
  - 3. Panels shall be square edge and shall flush out with the face of the main and crossing channels.
  - 4. Panels shall be perforated (non-perforated) with pattern B (C, D, F, FF, G, M, R S or custom perforation).
  - 5. Panels shall be post painted to seal all perforations with polyester powder global white (color) gloss level 12% to 15% (preferred mill, natural anodized, brushed # 4)
- C. Acoustical Infill
  - 1. Panels shall be supplied with 1” (2” etc) thick 1pcf (2 pcf etc) glass fiber insulation wrapped in flame retardant black polyfilm (non-woven acoustic fleece) to provide sound absorption NRC of 0.75 (0.65 etc).

## **Part 3 – Execution**

### **3.01 Examination**

- A. Installer must inspect the area that is to receive the metal ceiling system for conditions that may affect the installation and notify, in writing, any conditions that must be rectified before commencing.
- B. All work above the ceiling shall be completed before proceeding with this installation.
- C. All wet work shall be completed and thoroughly dry before proceeding with this installation.

### **3.02 Installation**

- A. Metal Ceiling components shall be delivered in unopened cartons and shall be clearly marked with manufacturer's name.
- B. Material shall be stored in dry and protected areas.
- C. Install the ceiling system in accordance with the manufacturer's recommendations and the approved shop drawings.
- D. Cut panels shall, where possible, not be less than one half of full size.
- E. Panels shall be free from defects and damaged panels shall be removed and replaced.