



**Section 09 50 Ceilings**

**Part 1 – General**

**1.01 Scope**

Furnish and install the Cell Metal Tile Ceiling System as supplied by Steel Ceilings Inc., Johnstown, Ohio

**1.02 Related Sections**

- Section 09 20 Plaster and Gypsum Board
- Section 23 00 Heating, Ventilating and Air-conditioning
- Section 26 50 Lighting

**1.03 References**

- American Society for Testing and Materials (ASTM)

**C635** Standard specification for the manufacture, performance and testing of metal suspension systems for acoustical tile and lay-in panel ceilings

**C636** Standard practice for installation of metal ceiling suspension systems for acoustical tile and lay-in panels

**E84** Test method for surface burning characteristics of building materials

**CISCA** Ceilings and Interior Systems Construction Association

**1.04 Submittals**

- Provide product data sheets listing dimensions, style, edge detail, perforation pattern and finish
- Alternates require prior approval no later than 21 days prior to bid date. In addition to the requirements 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**

**Environmental Requirements**

- Area to receive ceiling systems shall be protected from the weather
- Wet trades work shall be complete and dry prior to installation of ceiling system

**1.06 Attic Stock**

Provide 2% of the ceiling system area materials to be used as attic stock

**1.07 Performance**

- Materials and installation must comply with Local Building Code and Regulations
- Materials should be stored and handled in accordance with CISCA's *Acoustical Ceilings – Use and Practice*
- Materials to comply to CISCA's *Metal Ceilings Technical Guidelines*
- System is to comply with wind load requirements. Wind speed is converted into a testing of pounds per square foot, such that the ceiling must withstand 40 lbs. upward/positive force and 20 lbs. of downward or negative force (or such other standards as set out by the architect or engineer hereunder).
- There are no special seismic requirements

**Part 2 – Products**

**2.01 Manufacturer**

Cell metal pans or cell main and cross runners shall be as supplied by Steel Ceilings Inc., Johnstown, Ohio: [www.steelceilings.com](http://www.steelceilings.com)

**2.02 Materials**

**Drop-In**

- T-Bar suspension system shall be formed from galvanized steel (aluminum) and shall be intermediate duty with face dimension of 3/16". Main tees shall be spaced not to exceed 48" on center by direct suspension from the existing structure with not less than 12-gauge pre-straightened hanger wires, wrapped tightly 3 full turns, spaced 48 inches on center.
- Wall molding shall be formed from galvanized steel (aluminum) in L-shape to receive metal pans

**Self-Suspension System**

- Main and cross runners shall be formed from 0.016" thick aluminum. Main runners shall be joined by means of a splice plate and shall 8 ft. long (6 ft.)

- Heavy duty slotted main tees shall be spaced not to exceed 24" on center

**Cell Metal Panels**

- Drop-in metal pans shall be formed from .016" aluminum to form blades with a 3/16" face and vertical sides of 1 1/2" (2" or 3") to form equally spaced cells of 3" x 3" (4" x 4", 6" x 6", 8" x 8")
- Panels shall be square nominally 24" x 24"
- Panels shall be painted white (color)

**Part 3 – Execution**

**3.01 Examination**

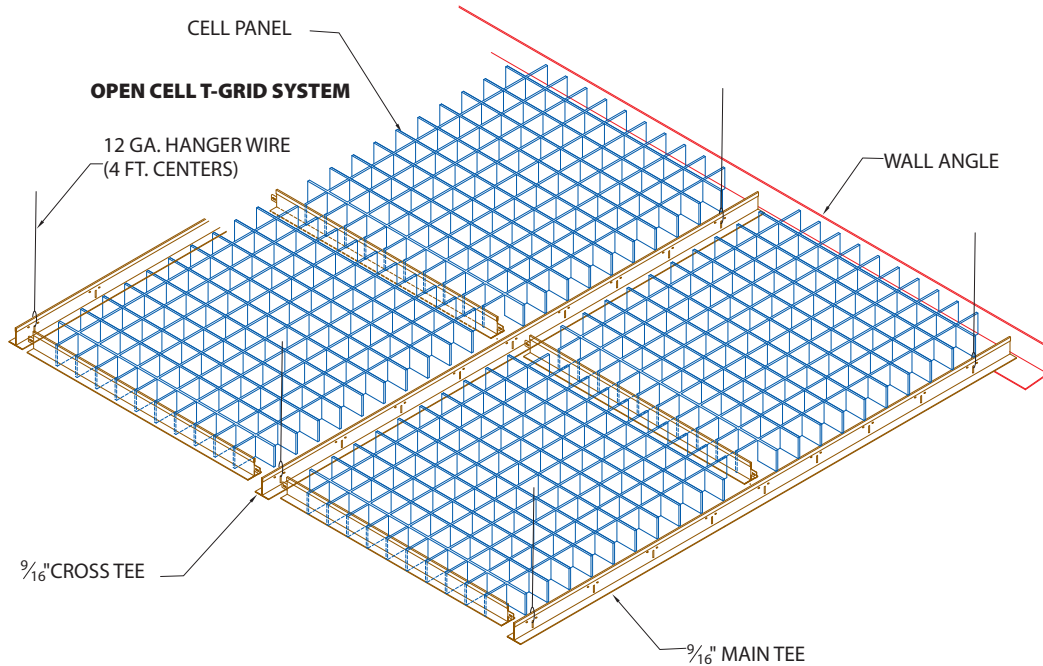
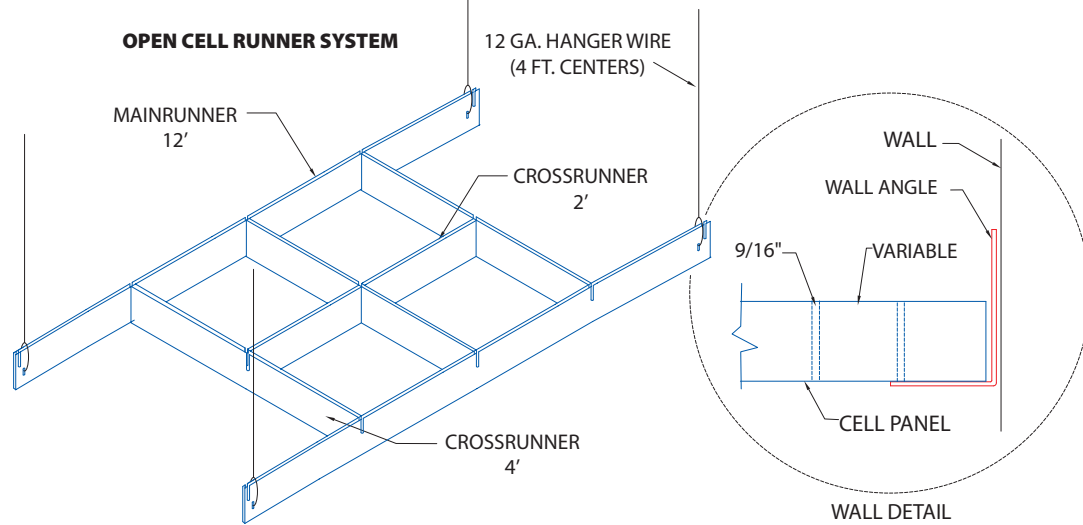
- Installer must inspect the area that is to receive the metal ceiling system for conditions that may affect the installation and notify, in writing, any conditions that must be rectified before commencing
- All work above the ceiling shall be completed before proceeding with this installation
- All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

**3.02 Installation**

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

# OPEN CELL METAL SYSTEM

SIZE (INCHES)	Min. 24x24, Max. 24x24
ACCESSIBILITY	Upward
VISUAL	Monolithic
EDGE DETAIL	Square
MATERIALS	Aluminum
FINISHES	Painted, Natural
RELATIVE COST	\$\$



## OVERVIEW

Steel Ceilings Open Cell Metal Systems offer either a system where the units drop into a  $\frac{5}{16}$ " grid or a self-supporting cell using main runners. The drop-in system affords the end user 100% accessibility into the plenum space at any point in the ceiling. The drop-in system uses an integral exposed grid suspension system and the units are pre-assembled and merely drop into position, creating a monolithic appearance. The self-supporting system is often used for larger cell spacing and is monolithic in structure with the cross members neatly fitting into the main runners.

## MODULE

The open cell ceiling module is 24" x 24" in various cell sizes (e.g., 2" x 2") and various cell depths (e.g., 2"). If the unit is 24" x 24" and the cell is 2" x 2" there will be 36 cell units within each modular panel.

## METAL

The metal units are manufactured from painted light-gauge aluminum.

## EDGE TREATMENTS

The drop-in units fit into  $\frac{5}{16}$ " grid.

## ACOUSTICS

The units are usually used as a visual barrier and not primarily for acoustics.

## TYPE OF INSTALLATION

The drop-in cell units are installed from above onto a standard  $\frac{5}{16}$ " ceiling grid that is suspended with wire, angle or threaded rod as appropriate. The self-supporting units use a main runner, splices to be suspended by wire, etc., and then cross runners are hooked in.

## MAINTENANCE BENEFIT

The Open Cell Metal Drop-In System from Steel Ceilings allows easy access simply by lifting up the cell module unit. This facilitates maintenance.

## CONCEALED OR EXPOSED SUSPENSION SYSTEM

The entire ceiling assembly has no obvious visual suspension runners as they blend into the cell visual appearance.

## FINISHES

The finished appearance of the ceiling system is either white or aluminum. Additional colors are available.

## APPLICATIONS

Both Cell Systems can be used for interior applications.

## FIRE PERFORMANCE

The ceiling system has been tested in accordance with ASTM E-84 and is considered incombustible. The material has a Flame Spread of less than 25 and Smoke Generation of less than 50.

## IMPACT

All materials are 100% recyclable with a high recycled content.