

**PART 1 GENERAL**

## 1.1 REFERENCE

- .1 Comply with the General Conditions of the Contract, Supplementary General Conditions and the requirements of Division 1.

## 1.2 RELATED WORK SPECIFIED ELSEWHERE

- .1 Cast in Place Concrete Section 03300
- .2 Gypsum Board Systems Section 09250
- .3 Mechanical Division 15
- .4 Electrical Division 16

## 1.3 SCOPE OF WORK INCLUDED

- .1 This Specification includes the ceiling systems listed below, noted in schedules and shown on Reflected Ceiling Plans. The system includes fire retardant mineral fibreboard lay in tiles or panels c/w suspension systems hung directly from the structure above or by means of carrying channels.
  - .1 24" x 48" in recessed Prelude 1" grid

## 1.4 SUBMITTALS

- .1 Submit samples in accordance with Section 01340.
- .2 Submit samples of tiles and suspension system members for approval prior to use.
- .3 Reflected Ceiling Plans indicate proposed layout, but this shall not relieve Contractor of responsibility for coordination of the Work and provision of Shop Drawings where field conditions call for variation from proposed layout.
- .4 If ceiling is to support light fixtures, shop drawings shall bear the seal of a Professional Engineer stating that the ceiling system is capable of safely supporting the lights in compliance with all applicable Codes.

## 1.5 WARRANTY

- .1 Provide a Warranty as stipulated in the General Conditions, but for an extended period of 1 years from the date of final completion and acceptance of the Work. Warranty shall be signed by both manufacturer and installer.

## 1.6 MAINTENANCE MANUAL

- .1 Provide triplicate set of printed maintenance instructions for inclusion in Data Manual as specified in Division 1.1.

## 1.7 NOISE CONTROL

- .1 Acoustic material shall have Noise Reduction Coefficient ( NRC ) in the range ( .55 - .65 ) according to ASTM C423, " Sound Absorptive and Sound Absorption Coefficients by the Reverberation Room Method. " Materials specified to be tested on mounting E-400 unless otherwise noted.
- .2 Ceiling Sound Transmission Class ( STC ) shall be in the range ( 35 - 34 ) for continuous ceilings according to AMA 1-11 " Ceiling Sound Transmission Test by Two Room Test Method. " STC is also dependent on room size and suspension system.

## 1.8 FIRE PROTECTION

- .1 Acoustical material shall have Class A Flame Spread Rating according to Federal Specification SS-S-118B.
- .2 Fire-rated installations shall conform to Underwriters' Laboratories, Inc., or Underwriters' Laboratories of Canada Ltd.

**PART 2 PRODUCTS**

## 2.1 MATERIALS

- .1 Acoustic materials shall be manufactured by Armstrong World Industries Canada Ltd or approved equal ( CGC ).

- 
- .2 Acoustical material shall be Type III, Class A, according to Federal Specification SS-S118B;
- A. Tile Type - 24" X 48" x 3/4" Second Look I Matte White - 1" T Bar Grid.
- B. Tile Type - 24"x 48 "x 3/4" OPTIMA Open Plan Square tegular - Matte Type - 1" T Prelude Bar Grid Item # 3252 ( Moisture Resistant acoustic tile in Rooms : Kitchen, Day Room, Dormitory /Sleep Rooms, washrooms )
- .3 Acoustic material shall have a washable matte white finish with light reflectance of LR-1 ( 75 % or over ) according to Federal Specification SS-S118B
- .4 Suspended system shall be :
- .1 Concealed Z, H and T ATS, Direct Hung T; framing shall be standard gauge electro-galvanized steel.
- .2 Exposed grid framing shall be 12 gauge electro-galvanized steel and shall be finished on exposed surfaces with low sheen satin white enamel etched paint. Track 1" standard exposed T grid.
- .3 Framing shall comply with ASTM C 635, " Standard Specification for Metal Suspension Systems for Acoustical Tile and Lay in Panel Ceilings ". Suspension system shall be classified light duty.
- .4 Matching wall moulding shall detachably support framing. Reveal moulding shall be equal to CGC MS 144 att all locations where drywall / cement board or acoustic tile meet vertical wall

### **PART 3 EXECUTION**

#### **3.1 INSTALLATION**

- .1 Erect Work straight, plumb, level, and secured to prevent distortion or displacement or both
- .2 Install suspension system according to ASTM C 636, " Recommended Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay - in Panels ".

- .3 Support suspension system by 12 gauge hanger wires. Suspend from concrete or steel structure or carrying channels as required.
- .4 Install acoustical tiles and panels according to manufacturer's installation recommendations. White Gloves.
- .5 Damaged tile will not be accepted and will be replaced when requested by the Architect.
- .6 At completion, hand over to Owner extra quantity of crated replacement acoustical panels equal to 2 percent of acoustical panels used.
- .7 Prepare hat section to accept sprinkler heads ( if in a sprinklered building ). Section must accept sprinkler head specified.
- .8 Co-ordinate installation and co-operate with Mechanical and Electrical Subcontractors, to accommodate mechanical and electrical items, or any other work required to be incorporated in or coordinated with the ceiling system.
- .9 Refer to finish schedule and drawings for location of acoustical panels.
- .10 Mechanical Work : Ductwork above ceiling system shall be complete and permanent heating and cooling systems operating.
- .11 Electrical Work : Installation for conduit above suspension system shall be complete before installation of suspension system.
- .12 Prior to commencing installation, check that all overhead architectural work is complete and that work area is free from excessive moisture.
- .13 Securely attach tee bars to wire hangers. Use longest practical length of tee bar. Keep joints to a minimum and well distributed. Lock joint cross tees to main tees.

- .14 Cooperate as necessary in making adjustment where required to ensure that the lighting fixtures and diffusers properly fit into the ceiling pattern and that the units finish flush with the rest of the ceiling.

3.3 CLEANING

- .1 Final cleaning in accordance with Division 1

END OF SECTION