

PART - 1 GENERAL

1.1 SUMMARY

.1 Section Includes:

- .1 Labour, Products, equipment and services necessary to complete the work of this Section.

1.2 QUALITY ASSURANCE

- .1 Installer: Trained and approved by the manufacturer and having a minimum three years experience in the installation of the work described in this Section and can show evidence of satisfactory completion of projects of similar size, scope and type. If requested, provide letter of certification from manufacturer stating that installer is certified applicator of its products, and is familiar with proper procedures and installation requirements required by the manufacturer.
- .2 Finish ceiling system: Square with adjoining walls and level within 1:1000, in true plane, free from distorted, warped, soiled or damaged panels or grid.
- .3 Comply with ASTM C635/C635M Intermediate Duty and C636/C636M except as otherwise specified herein.
- .4 Maximum deflection of completed ceiling system: 1/360 of span.
- .5 Design suspended ceiling system for adequate support of electrical fixtures as required by Electrical Safety Authority.
- .6 Maintenance seminars: Provide, to the Owner, training seminars and recommendations on Product maintenance procedures.
- .7 Pre-installation meeting: Two weeks prior to commencing work of this Section, arrange for manufacturer's technical representative to visit the site and review preparatory and installation procedures to be followed, conditions under which the work will be done, and inspect the surfaces to receive the work of this Section. Advise the Consultant of the date and time of the meeting.
- .8 Manufacturer's site inspection: Have the manufacturer's technical representative inspect the Work at suitable intervals during application and at conclusion of the work of this Section, to ensure the Work is correctly installed. When requested, submit manufacturer's inspection reports and verification that the work of this Section is correctly installed.

1.3 SAMPLE INSTALLATION

- .1 Construct on site a 10 m x 10 m minimum sample installation of each type acoustical ceiling. Accepted sample installation may become part of finished work.

1.4 SUBMITTALS

- .1 Samples: Duplicate full size samples of each type acoustical units and 300 mm long grid members.

1.5 ENVIRONMENTAL CONDITIONS

- .1 Permit wet work to dry before commencement of installation.
- .2 Maintain uniform minimum temperature of 15°C and humidity of 20 - 40% before and during installation.
- .3 Store materials in work area 48 hours prior to installation.

1.6 **EXTRA STOCK**

- .1 Provide two percent of each pattern and type of acoustical units. Store where directed. Extra stock to be same production run as installed materials.

PART - 2 PRODUCTS

2.1 **MATERIALS**

- .1 Basis of Design – Acoustic Tile Products: Refer to Section 00 01 30 List of Materials for complete list of acoustic tile products, designations, manufacturers, sizes and colours.
- .2 Exposed main tee: Hot dipped galvanized steel to ASTM A653/A653M minimum Z90 coating designation, 24 mm exposed face and 38 mm high bulb tee design with double web and separate exposed cap piece, maximum length, with reversible and integral splice. Prefinish tee in baked enamel, standard colour.
- .3 Exposed cross tee: Hot dipped galvanized steel to ASTM A653/A653M minimum Z90 coating designation, exposed face to match main tees, 38 mm high bulb tee design of same fabrication as main tee, with override stepped ends to allow cross tee flange to sit on main tee flange providing flush exposed faces, and with positive interlock to main tee, grid module to suit acoustical panels. Finish to match main tees.
- .4 Main tee splices: Designed to lock lengths of main tees together so that joined lengths of tee function structurally as a single unit with tee faces at joint perfectly aligned and presenting a tight seam.
- .5 Hangers and wires: Galvanized hangers and 2.6 mm minimum galvanized steel wire.
- .6 Hold-down clips: Spring steel clips by the grid system manufacturer.
- .7 Wall moulding: Prefinished galvanized steel, nominal 25 mm x 25 mm with nominal 25 mm exposed face, hemmed edges. Finish to match main tees.
- .8 Shadow wall moulding: Prefinished galvanized steel, 19 mm x 19 mm reveal with nominal 25 mm exposed face, hemmed edges. Finish to match main tees.
- .9 Adhesive: Recommended by acoustic unit manufacturer.

PART - 3 EXECUTION

3.1 **INSTALLATION - GENERAL**

- .1 Install work in accordance with ASTM C636/C636M and to manufacturer's instructions except where specified otherwise.
- .2 Do not commence installation until work above ceiling has been inspected by Consultant.
- .3 Lay out system in accordance with reflected ceiling plans.
- .4 Ensure work is co-ordinated with location of related components.

3.2 **INSTALLATION - GRID SYSTEM**

- .1 Centre acoustical ceiling suspension systems on room axis; install equal border pieces, unless otherwise indicated.
- .2 Install hangers spaced at maximum 1200 mm centres and within 150 mm from ends of main tees.

- .3 Install supplemental suspension system where ducts or other construction within ceiling plenum produces hanger spacings that interfere with location of hangers at spacings required to support suspension system members. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced standards and publications.
- .4 Install hanger wires plumb and securely anchored to the building structural framing, independent of walls, pipes, ducts, and metal deck; install additional framing and hangers to bridge interference items.
- .5 Do not bend or twist hangers as a means of levelling. Form double loops tightly and lock to prevent vertical movement or rotation within the loop.
- .6 Install wall moulding at intersection of ceiling and vertical surfaces to provide correct ceiling height.
- .7 Provide additional ceiling suspension hangers within 150 mm of each corner and at maximum 600 mm around perimeter of light fixtures and diffusers.
- .8 Use longest practical lengths of tees, furring and running channels to minimize joints. Make joints square, tight, flush and reinforced with concealed splines. Assemble framework to form a rigid and interlocking system.
- .9 Run main tees at right angles to length of light fixtures.
- .10 Interlock cross tees to main tees to provide rigid assembly.
- .11 Frame at openings for light fixtures, air diffusers, speakers and at changes in ceiling heights.

3.3 **INSTALLATION - ACOUSTICAL PANELS**

- .1 Neatly cut acoustic units for mechanical and electrical and other services.
- .2 Carefully fit acoustic units in place; no broken edges permitted.
- .3 Scribe acoustic units to fit adjacent work. Butt joints tight, terminate edges with moulding.
- .4 Provide hold-down clips at acoustical system to hold units tight to grid system within 6000mm of an exterior door and an operable window.
- .5 Install adhesive bonded acoustic units to clean, dry and firm substrate.

END OF SECTION