

**CI-0702****TAB 7: TECHNICAL DISCIPLINES**

Mechanical

In all shelters where electrical capacity allows, install CSA approved electric infrared radiant heaters complete with factory installed protective safety guard, anodized aluminum reflector and built-in adjustable directional system components on a dedicated circuit, independent of all other electrical circuits in the shelter. The heating element shall be tubular quartz with tungsten coil and shall be glare reducing. Unit shall be installed at a minimum height of 2440mm (8') from the underside of the heater to finished floor and controlled by a push button and timer.

Refer to GO Transit Performance Specifications for Prefabricated Bus/Rail Shelters for description.

DIFFUSERS

Diffusers shall be aluminum. For perforated metal ceilings; diffusers to be perforated type to match the ceiling profile and colour. For high-traffic door locations, or where drafts are a problem with station attendants, linear diffuser air-curtains shall be provided at the doors.

DUCTS

Air ducts shall be galvanized sheet metal conforming to ASHRAE, SMACNA Duct Construction Standards, and NFPA 90A. Diffuser branch-ducts and air terminal ducts may be circular metal flex-ducts where concealed. Exposed ducts in public areas shall be aluminium spiral ducts. Hangers and fasteners should also be protected from the detergents and moisture or be fabricated of materials that are not subject to corrosion.

FIRE DAMPERS

Fire dampers shall be fusible link type conforming to ULC-S505. An access door shall be installed for inspection and resetting.

CONNECTORS

Flexible connectors shall be provided between vibrating equipment and connecting ducts.

INSULATION

Acoustical and thermal duct insulation shall be in accordance with the O.B.C. and ASHRAE 90.1. Acoustical insulation shall be provided to maintain a maximum room sound rating of 40dBA. Piping insulation shall be in accordance with ASHRAE 90.1, with PVC jackets.

SYSTEM CONTROL

HVAC systems shall be controlled using programmable thermostats to achieve night setbacks. Interlocks for fire protection to be as per OBC and NFPA. If a room has 2 HVAC systems, both systems shall be controlled by a single programmable automatic heating/cooling changeover controller.