



CI-0702

**TAB 7: TECHNICAL DISCIPLINES**

Mechanical

- > Relevant TSSA requirements
- > Relevant ASME codes and standards

**DESIGN REQUIREMENTS**

**ENERGY SOURCE**

Heating, Ventilation and Air-Conditioning shall be by means of the most cost-effective energy source available at the site. Temperatures (Daytime: with Night-time set-backs) Daytime design temperatures for rooms shall be as tabulated below.

ROOM	° C WINTER MIN.	° C SUMMER MAX.	NOTES
Passenger Waiting (including vending/concessions)	18	25	HVAC
Station Attendant	22	22	HVAC
Staff Room	22	22	HVAC
Dispatcher	22	22	HVAC
Office	22	22	HVAC
Communications	15	22	HVAC (Note 1)
Electronics Workshop	22	22	HVAC
Washrooms	*	*	Ventilation & Heating
Janitor	*	*	Ventilation & Heating
Battery	*	*	Ventilation & Gas Monitoring
Electrical	15	25	HVAC (Note 1)
Mechanical Equipment	*	*	Ventilation
Elevator Mechanical (Passenger)	5*	25	HVAC or exhaust fan



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Mechanical

ROOM	° C WINTER MIN.	° C SUMMER MAX.	NOTES
and Equipment)			
Workshop	22*	22	Ventilation
Storage	20	22	Ventilation
Station secondary entrances and tunnels	N/A	N/A	Natural Ventilation
Hydro Vaults	N/A	N/A	per Electrical Authority
Shelters	N/A	N/A	Natural Ventilation/Heating

\* Electric heating if required (supplementary) to maintain 18°C winter temperature.

Note 1: High wall, heat pump with hyper heating and low ambient cooling (no night-time set-back).

**STATIONS**

- > Radiant heating should be considered in new Station buildings on a project by project basis.
- > Otherwise, Heating and Air Conditioning of the waiting area and the service area shall be achieved by one high efficiency, premium quality furnace c/w outdoor condensing unit.
- > The service area will have a VAV box controlled by a thermostat, while the main thermostat should be located in the janitor room and interlocked with the waiting area temperature sensor.
- > Communications room and Electrical room shall have dedicated split Heat Pump A/C unit for each room. Refer to Communications room section for HVAC and ventilation details.
- > Depending on area, washrooms shall be ventilated by Energy Recovery Ventilators or exhaust fans, and shall be heated by radiant heating (if available in the building) or by electric baseboard heating.