When developing the design of utility tunnels, the following provisions shall be made:

- Separate compartments for wet and dry utilities (as illustrated in Figures 6.9 and 6.10);
- Supports for installation of pipes, cables and ducts including shelves, brackets, cable trays, etc.;
- Minimum 1000 mm wide x 2200 mm high unobstructed walk-through;

- Secure access for inspection and maintenance including lifting equipment for replacement or removal of utility components;
- Floor drainage with sumps and access for sump pumps;
- Systems for providing ventilation;
- Fire detection and alarm systems, including firewalls where required;

- Emergency escape route;
- Lighting at walk-through level; and
- CCTV system.

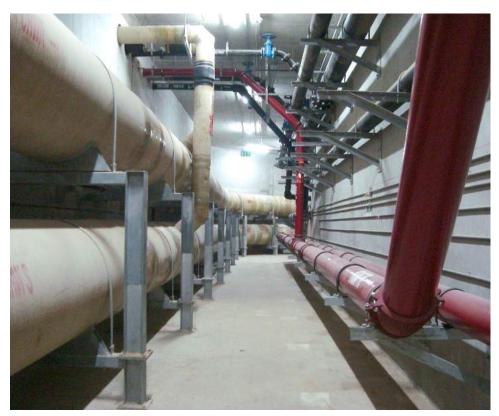


Figure 6.9. Example of wet utilities in a utility tunnel



Figure 6.10. Example of dry utilities in a utility tunnel