

Figure D-5: Typical Rail Platform Configuration

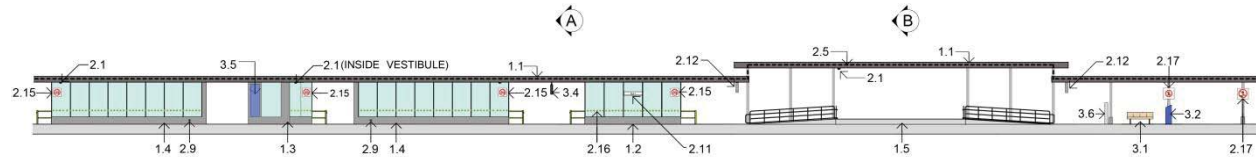


Figure D-6: Typical Rail Platform Elevation

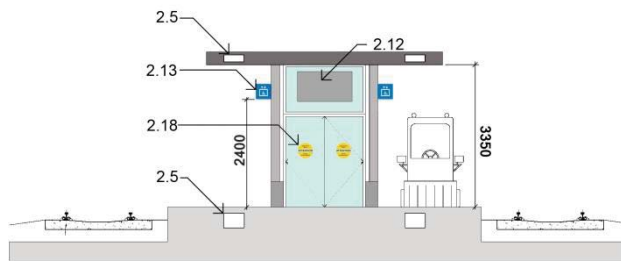


Figure D-7: Section A

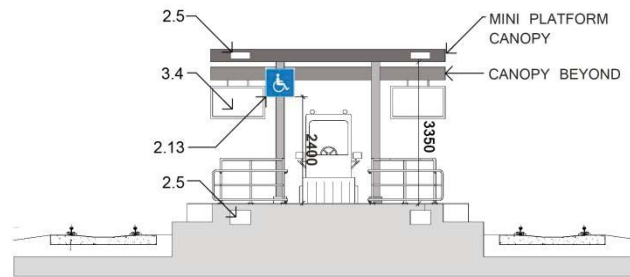


Figure D-8: Section B

**LEGEND**

- |                                 |   |                               |
|---------------------------------|---|-------------------------------|
| 1.1 Continuous Platform Canopy  | 2.1 CCTV                                | 3.1 Platform Bench / Seating  |
| 1.2 Integrated Platform Shelter | 2.2 PA (not shown)                      | 3.2 Waste Containers          |
| 1.3 Elevator and Vestibule      | 2.3 Snowmelt System w/ Platform Sensors | 3.3 Information Board         |
| 1.4 Stair Access and Vestibule  | 2.4 Detectible Platform Edge Tile       | 3.4 Platform Digital Monitors |
| 1.5 Mini Platform               |   | 3.5 Advertising (TBD)         |

1.6 Platform Lighting (not shown)	2.5 Platform/Canopy/Vertical Raceway	3.6 Two Way Communication Devices
1.7 Tunnels	2.6 Corridor Raceways (TBD)	3.7 Wi-Fi (not shown)
1.8 At Grade Pedestrian Crossings (not shown)	2.7 Drainage (not shown)	
1.9 Pedestrian Bridges (not shown)	2.8 IT Node/Cluster Infrastructure (not shown)	
1.10 Poles (PA and CCTV-not shown)	2.9 Hose Bib	
1.11 Ramps (not shown)	2.10 Fencing (Not Shown)	
	2.11 Platform Sign ID	
	2.12 Directional / Way finding Signs	
	2.13 Accessibility Signage	
	2.14 Amenity Signage	
	2.15 Regulatory Signage	
	2.16 Safety Signage	
	2.17 Warning Signage	
	2.18 Operational Signs	

## Rail Platform Canopies

Canopies on all rail platforms with integrated shelters and accesses such as elevator and stair enclosures and related amenities shall be provided.

The canopy shall be continuous and should extend to provide maximum coverage (at least 85% of platform cover) over the rail platforms.

Canopies to contain two (2) separate raceways along the full length - one for data, the other for power.

Height max. 3350 mm from t/o platform to u/s canopy.

Min. 400mm high concrete pier at each support column.

Integrate canopy lighting and other fixtures and amenities such as CCTV, digital signage etc in the canopy ceiling structure.

## Rail Platform Access— Tunnels/Ramps/Stairs

Provide a network of barrier-free pedestrian pathways that connects all of the station components to facilitate easy intermodal transit connections.

Connect the station site with adjacent communities via sidewalks, local pathways, or

bridges to maximize the pedestrian access to the site and minimize walking distances.

Provide direct pedestrian paths, continuous from the closest local road to at least two of the barrier-free platform access points.

When side platforms are used, provide direct walk on platform paths to maximize access to each platform.

At least one barrier-free rail platform access must be as close as possible to the mini-platform.

Connect one of the rail access tunnels with the station building to provide additional convenience and customer service.

Consider whether the tunnels or bridges connecting to the platforms can also act as barrier-free community connection points on either side of the tracks. If so, ensure each community connection point can remain open when the station needs to be closed.

Platform access shall be visually discernible from site access points to encourage intuitive site navigation to the rail platform.

Provide redundant means of barrier-free access to island platforms by means of two elevators.

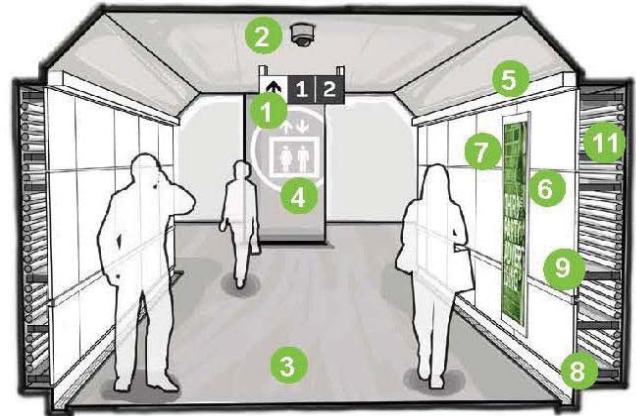
This section covers platform access structures including but not limited to:

- Pedestrian Tunnels
- Stairs and Stair enclosures

- Ramps
- Elevators
- Bridges and Pedestrian Overpasses
- At Grade Pedestrian Crossings

**Pedestrian Tunnels**

- Platform access pedestrian tunnels must be linked to the station building or remotely located, as determined by site layout
- Location of conduit, including location of raceways and crossovers must be coordinated
- For wall cladding, final panel to wall attachment details & dimensions to be coordinated and verified with porcelain panel fabricator
- Vertical chases for conduit to be cast-in-place in tunnel transitions to stairways and elevators to be provided
- Conduit shall be designed within floor of the tunnel or in dedicated duct bank



**Figure D-9: Pedestrian Tunnels Design Elements**

**Legend**

1. Wayfinding signage
2. CCTV ceiling mount
3. Smooth finish concrete floor
4. Supergraphics applied to elevator shaft wall
5. Concealed continuous LED light fixture in aluminum valance, with down (70%)- and up (30%)–lights on both sides
6. Porcelain removable panels (hinged access preferred) at pull box locations for maintenance access
7. Digital advertising box (Note: Consultant to coordinate mounting details with porcelain panel supplier)
8. Metal grate over gutter secured to floor with removable retaining clips
9. Photoluminescent emergency egress strip mounted on metal trim at porcelain panel joint line, Installed to be flush with porcelain panel
10. Full-height cast-in-place conduit raceway with appropriate crossovers

**Pedestrian Tunnel Design Criteria**

**Table D-2: Tunnel Design Criteria**

Criteria	Specifications
Height	<ul style="list-style-type: none"> <li>• Compatible with CCTV requirements</li> <li>• Overhead signs shall not obscure the field view of CCTV</li> <li>• Min. height shall be 2.7 m inclusive of concrete floor topping</li> </ul>
Width	3.66 m under the tracks
Slope	Min: 0.30% for drainage
Conduits	Located behind porcelain panels
Drainage	<ul style="list-style-type: none"> <li>• Side-gutters 40 mm deep by 80 mm wide</li> <li>• NOT to be located at the bottom of stairs or in front of service doors or</li> </ul>

	elevator doors <ul style="list-style-type: none"> <li>• Provide pump rooms with pits</li> </ul>
Construction	Concrete construction in accordance with railway requirements and structural site needs
Raceways	<ul style="list-style-type: none"> <li>• Integrated into walls and floors</li> <li>• Located behind porcelain panels</li> </ul>
Clearance	From top to base of rail min of 0.508 m
Corners	<ul style="list-style-type: none"> <li>• 45° angled (300 mm x 300 mm minimum corner cuts at 45 degrees)</li> <li>• Convex mirror units at internal 90° corners and angled wall corners at directional changes</li> </ul>
Photoluminescent Strips	<ul style="list-style-type: none"> <li>• Tunnel walls (both sides)</li> <li>• Surface mounted</li> <li>• Integrated within wall panel system</li> <li>• Installed continuously along entire length of tunnel transitioning in a continuous manner to all stairwells</li> </ul>
Digital Signs	Installed at tunnel entrances (in accordance with overall digital sign placement requirements)
3rd Party Advertising	Advertising signs integrated within wall paneling system
Vertical Clearance	800 mm top of tunnel roof membrane overlay to underside of rail (This is based on 300 mm sub-ballast, 300 mm ballast to bottom of ties and 178 mm ties)
Wall and Floor	Walls: Porcelain wall system, Floor: Smooth finish, no advertising to be placed on floor of tunnels

## Ramps

Where there is an opportunity to provide direct access, or ramped access, as an alternative to stairs, ramps shall be explored.

Provide pedestrian ramps with access from grade to side platforms. Adverse weather can cause slippery conditions on exterior ramps; based on the infrastructure availability at the location, heat the pedestrian ramp surface or cover the ramp.

The colour and tonal contrasting requirements of ramp elements shall all be designed and provided in accordance with the current Ontario Building Code and industry standards on accessibility. Ramps shall have a 100 mm painted line-marking indicator at the start and finish of a ramp slope. Design vehicular ramps with excessive slopes with a snow melting system.

## Rail Platform Stairs and Enclosures

Stair systems not only provide a means of access and egress to and from rail platforms, but also provide means of vertical travel for many people with disabilities, children, seniors, parents with strollers etc.

Stairs shall be/have:

- Easy to find
- Clearly identified with wayfinding
- Located near the major circulations routes
- Offset from the direct route of travel so that they are not a hazard
- Uniform riser heights and tread depths
- Nosings, handrails, landings, etc. and all other regulatory and barrier free requirements