

# Reliability and efficiency

## A high-frequency metro



## A system designed to tackle Québec winters



Winter climate testing phase prior to commissioning in one of the best climatic chambers





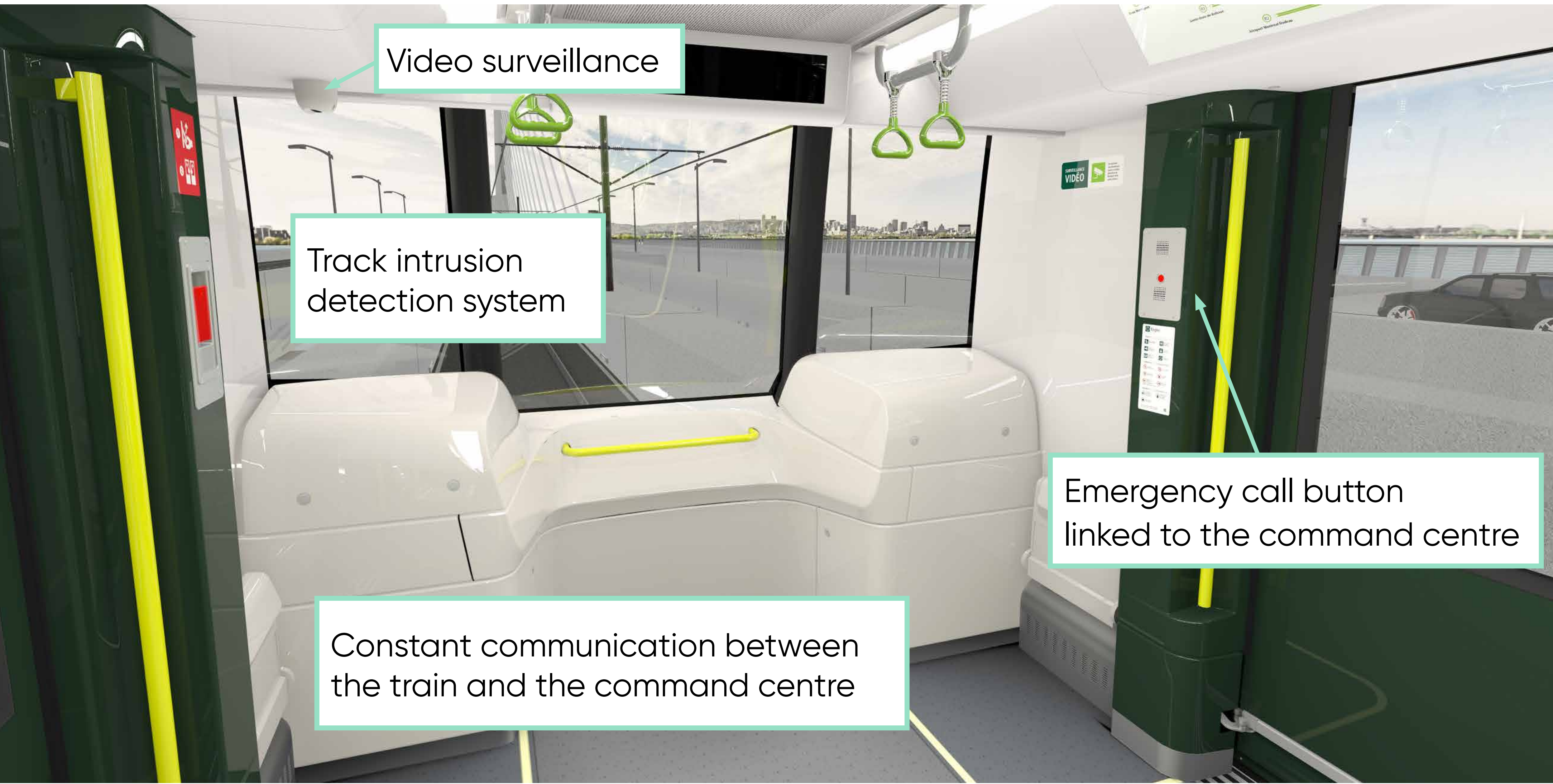
# Security

## Automation and command centre

Automated metros have shown high levels of resilience and average reliability rates in excess of 99%



Technology that has been proven in several countries across the globe



## Platform screen doors

In addition to protecting users, the platform screen doors significantly increase the reliability rate

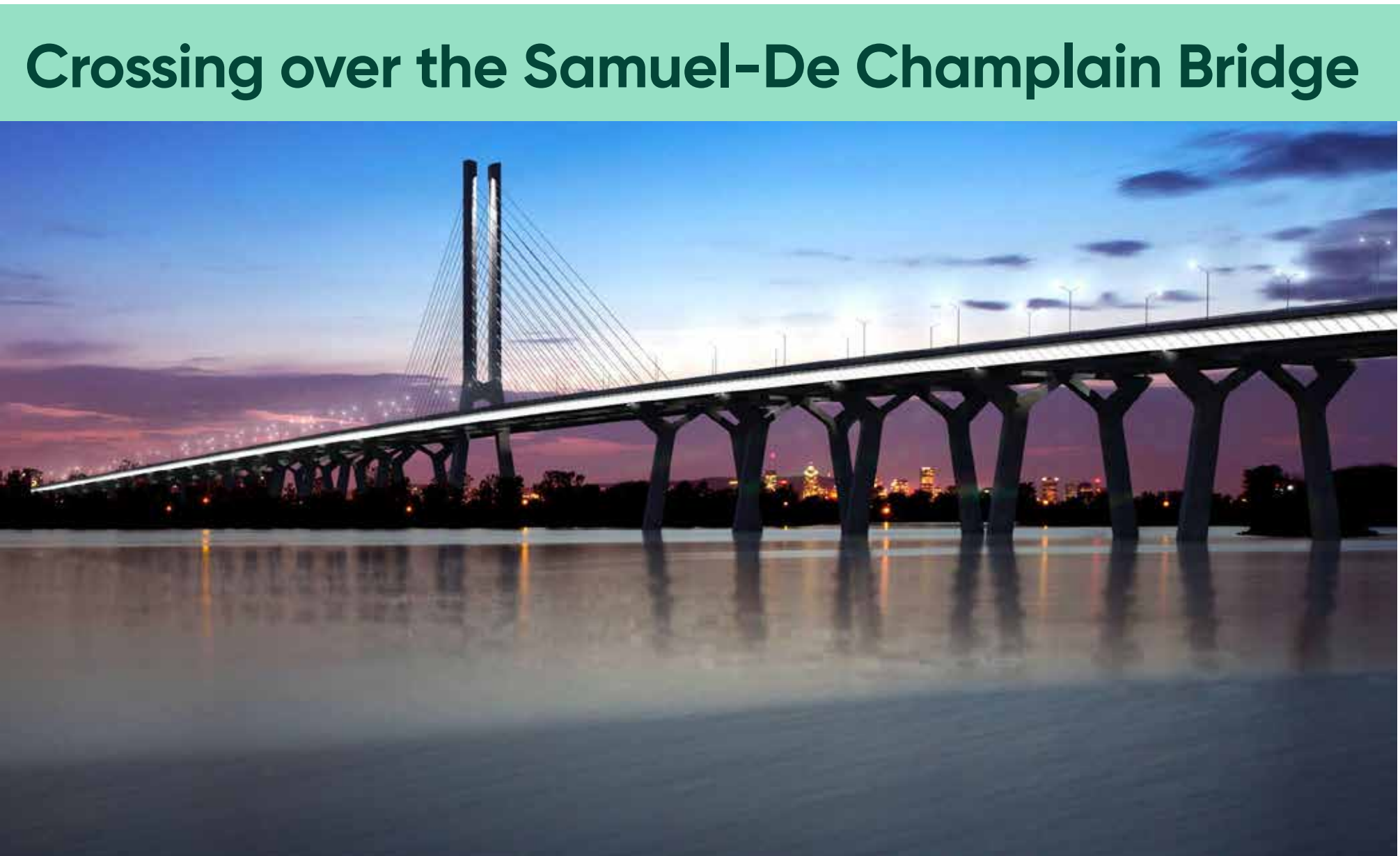
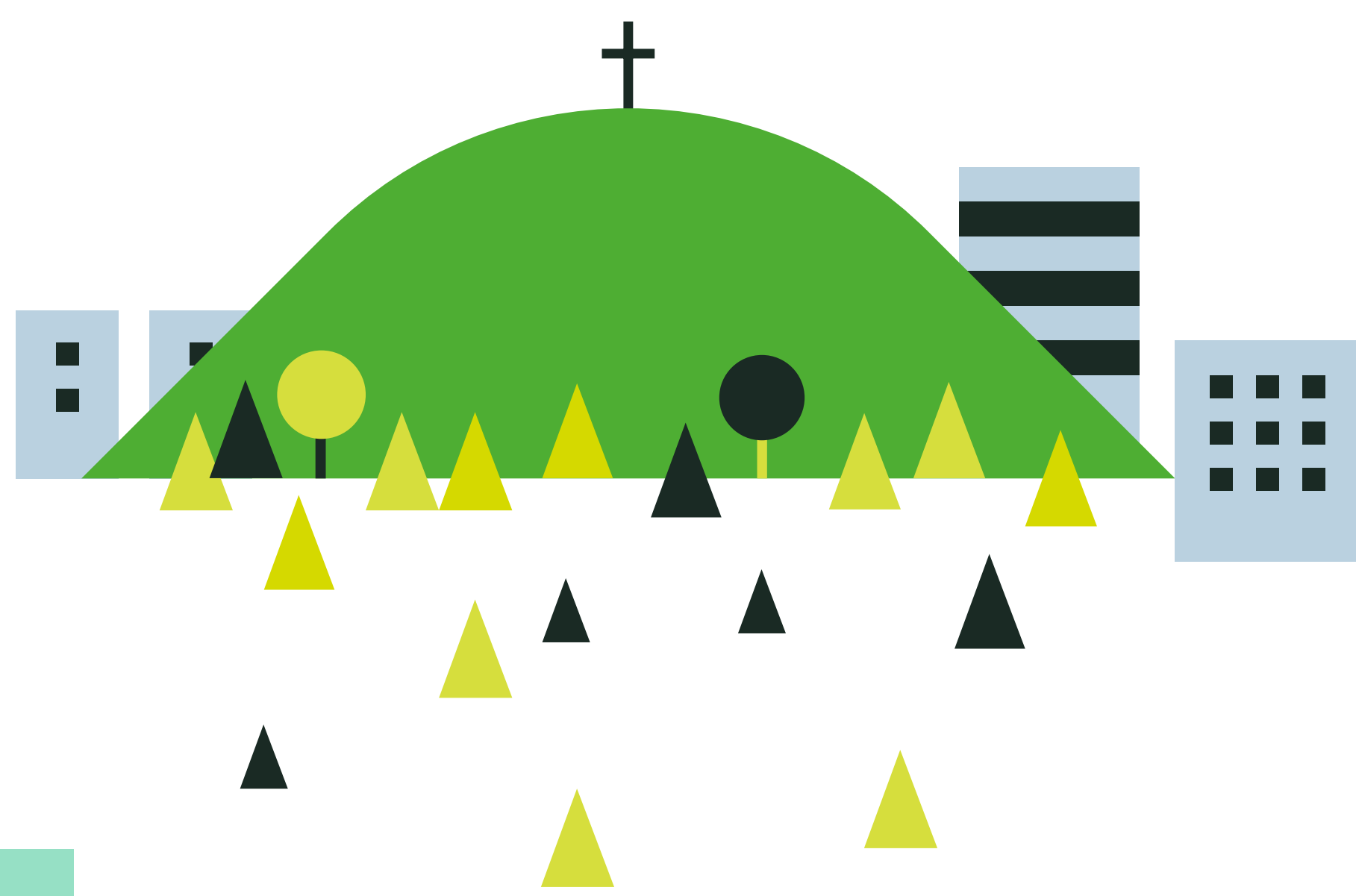
- Prevents passengers from falling on the tracks and reduces the risk of accidents
- Allows for better insulation of stations as the temperature and ventilation can be more effectively monitored
- Reduces the energy consumption of the REM network
- Prevents the piston effect caused by the movement of trains (the air stream felt by passengers that can knock them off balance)
- Allows for fluid entry and exit of passengers



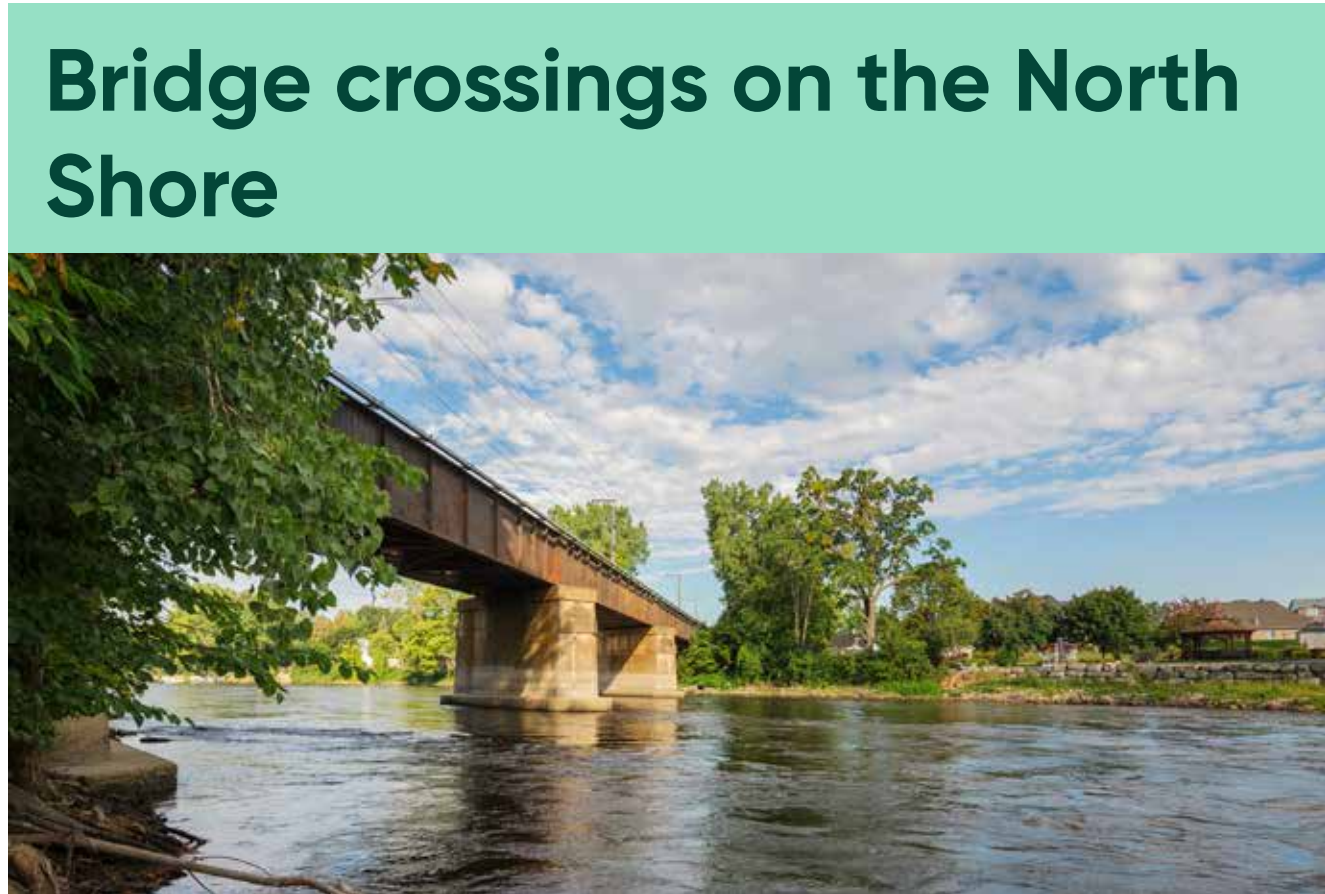


# Passenger cabin

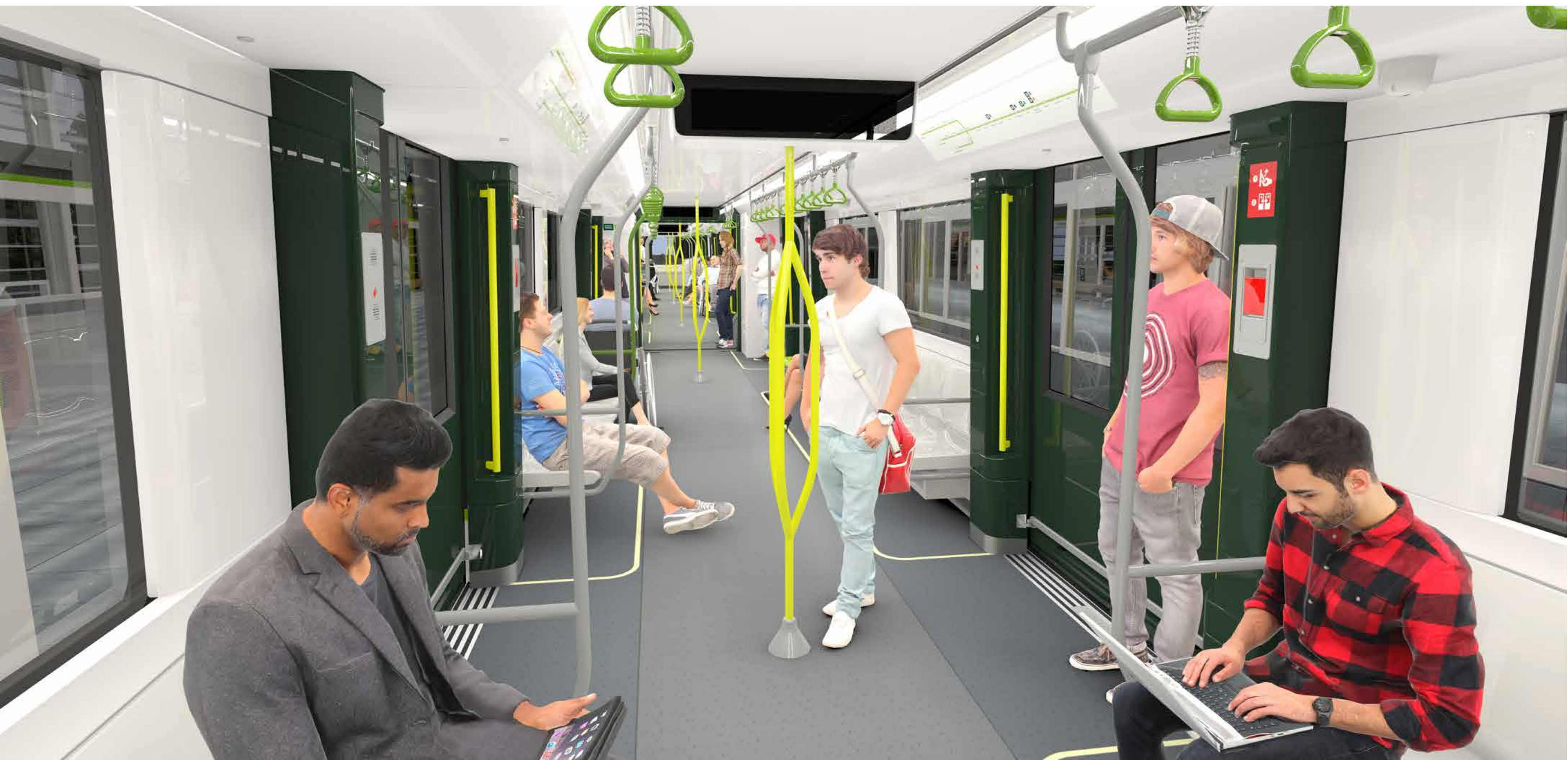
Wraparound window at the front: a unique passenger experience



Breathtaking views of Greater Montréal



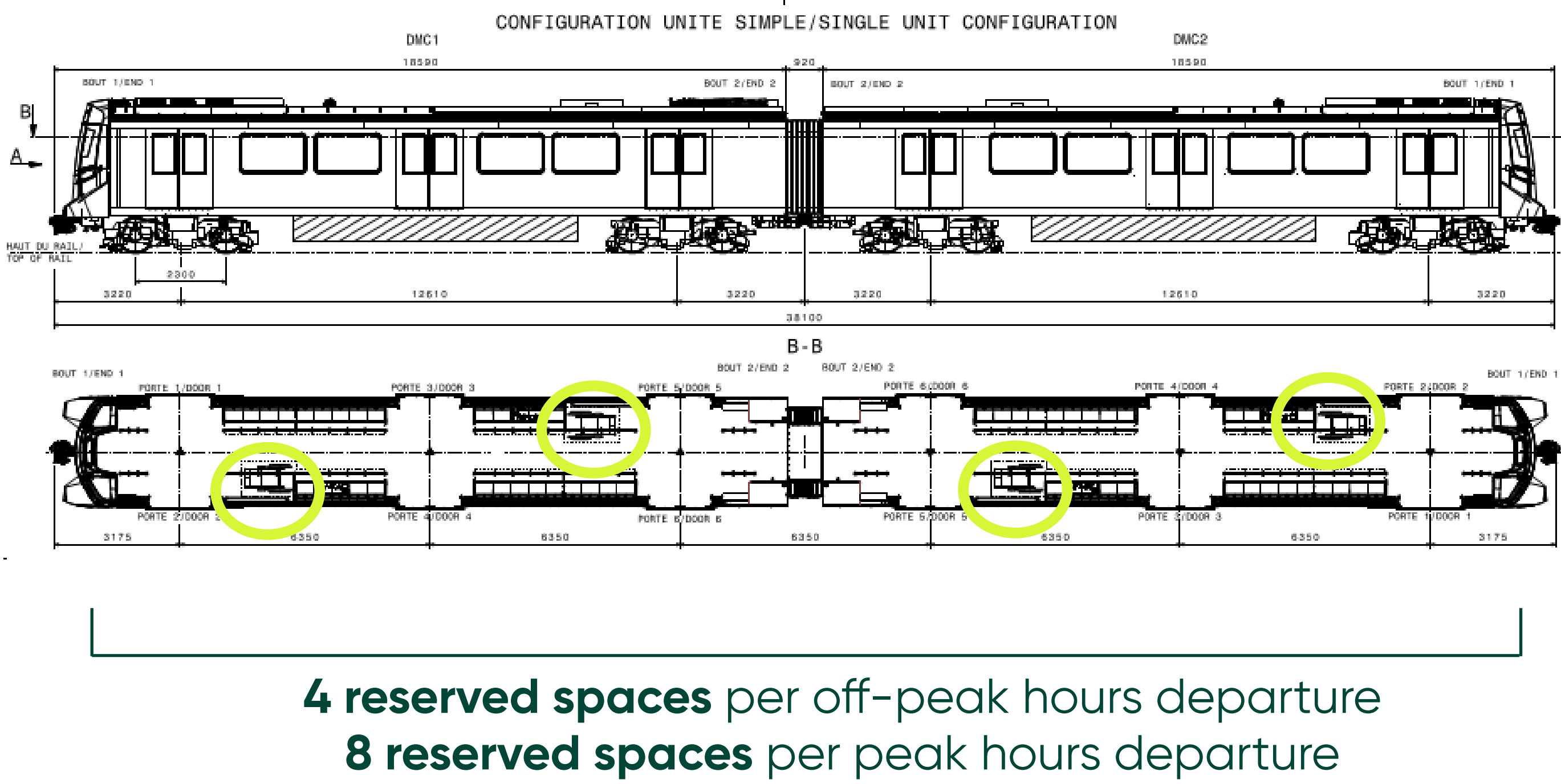
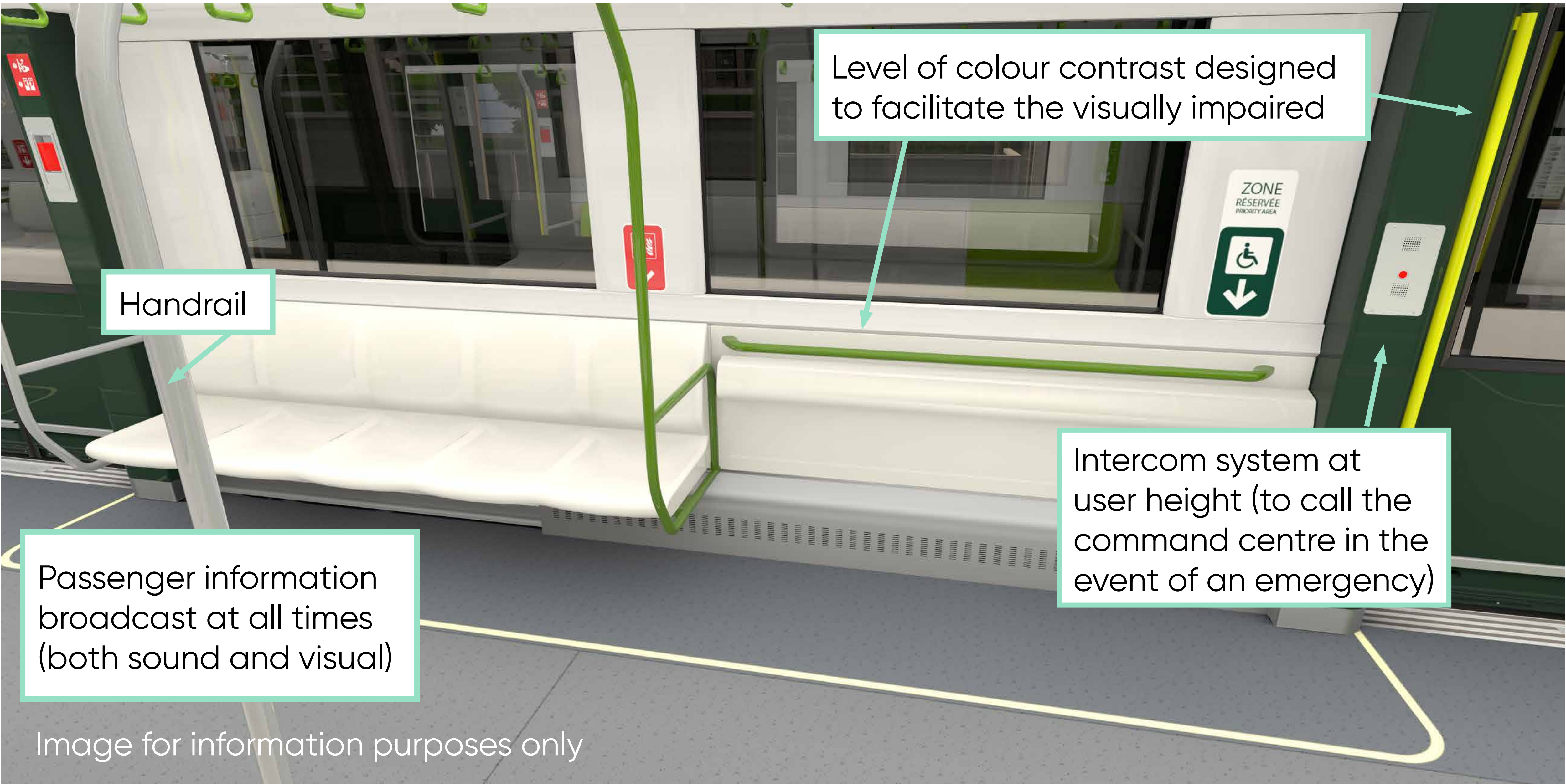
## Services and comfort





# Accessibility and passenger movement

## Universal access



Universal access required from the outset and consultations aimed at making adjustments to address specific needs

## Free-flowing passenger movement



Reserved space for:



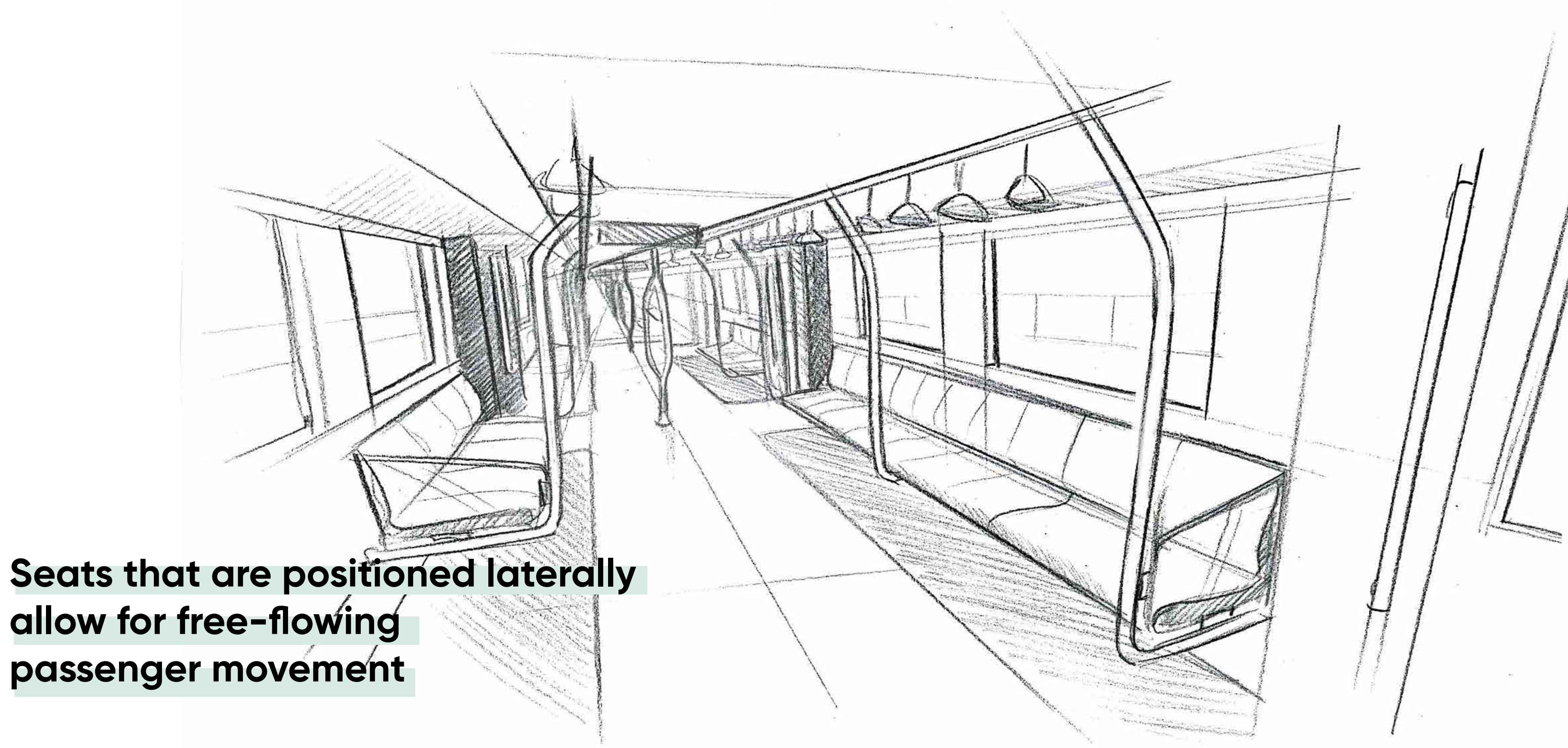
Families with strollers



Cyclists with bicycles



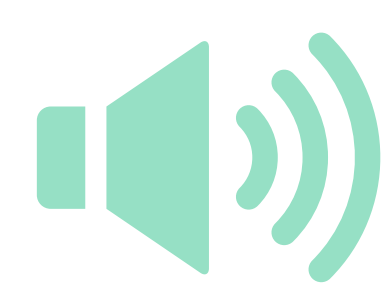
Commuters with luggage





# Signage and soundscape

## Audible signals



An audible signal when doors open and close and when the train departs from or arrives at a station, for example



A characteristic and audible voice announces passenger information

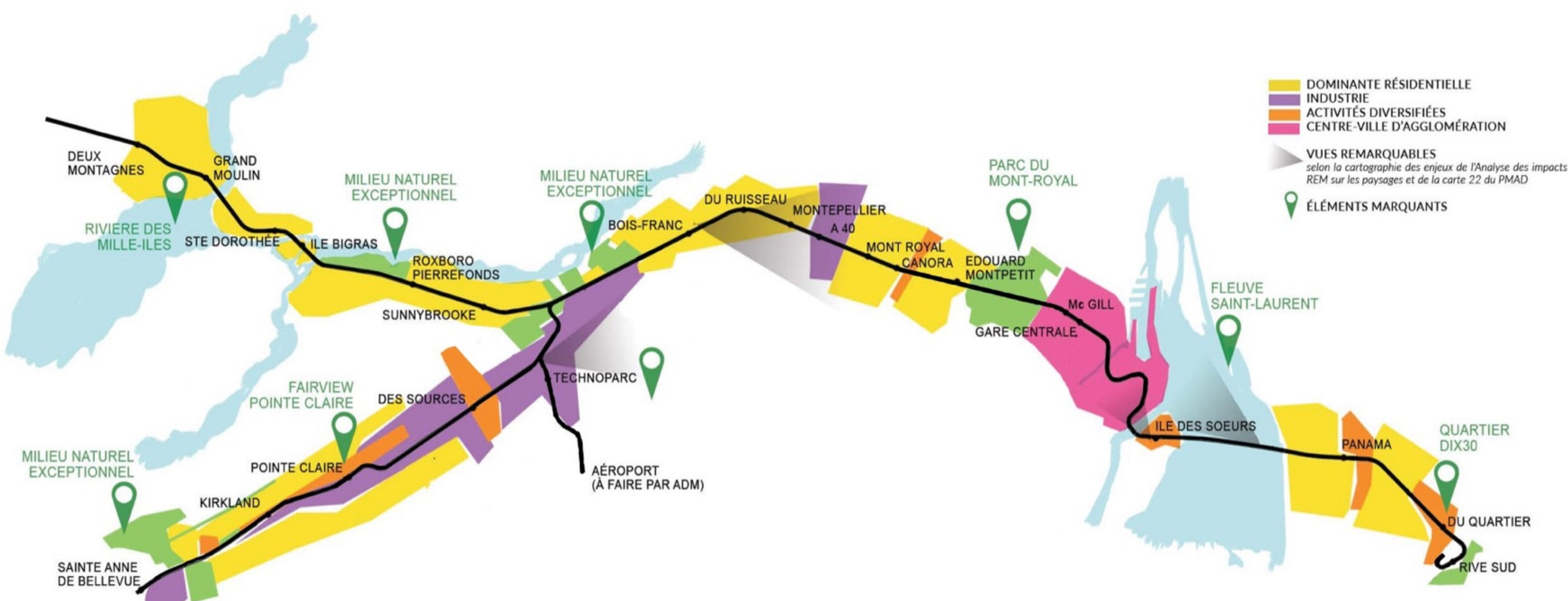


Sounds facilitate the movement and traffic of **all users**, including the visually impaired



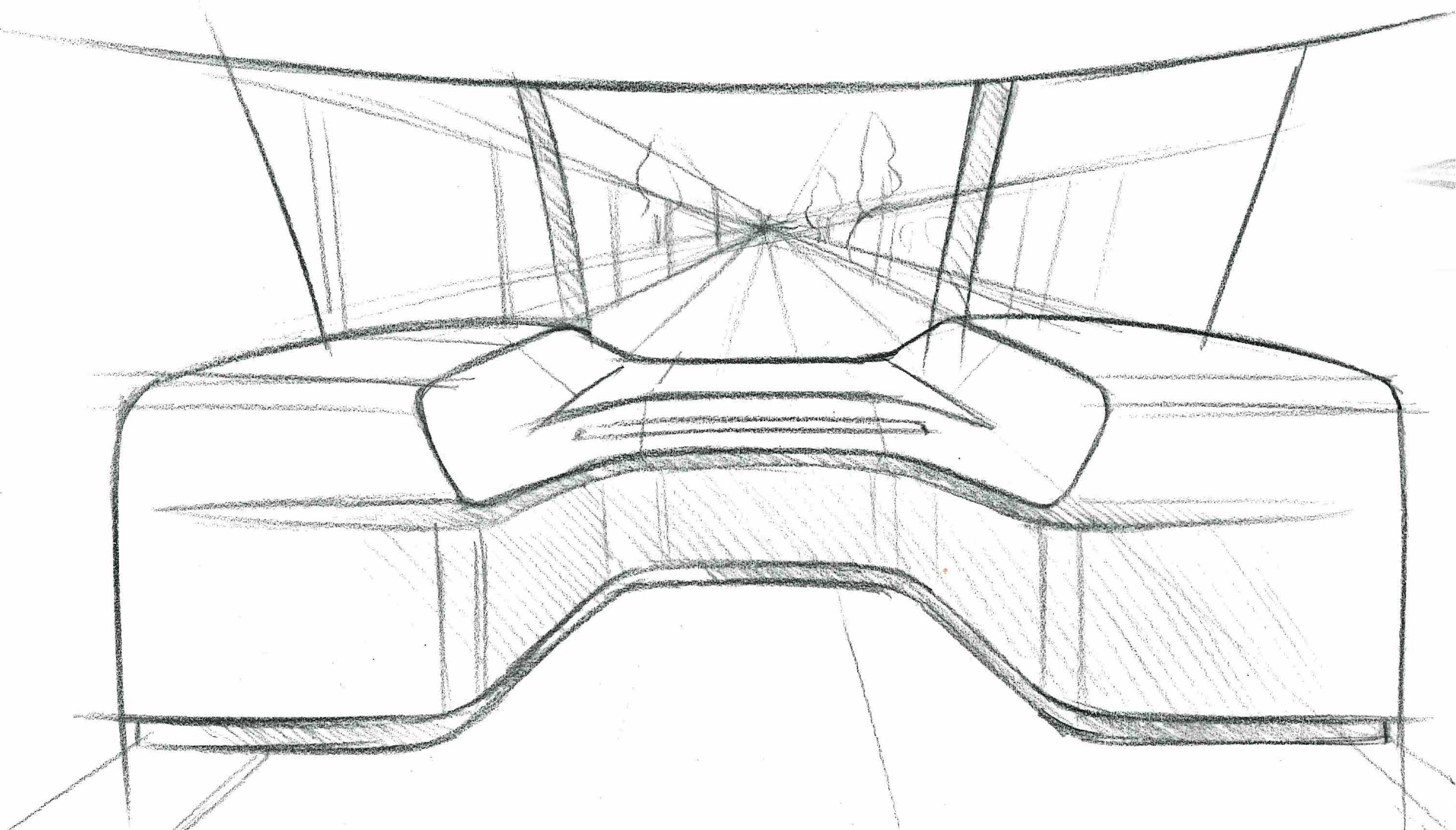
## Soundscape

In addition to providing audible signals, how can sound enhance the user experience and highlight the surrounding landscape



### A user experience that can:

- Change over time (seasons, special events, time of the day, etc.)
- Highlight the impressive views offered by REM routes
- Enhance the user experience and create a sense of well-being



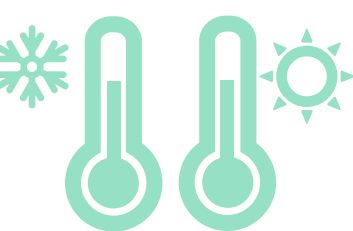


# 26 integrated and enclosed stations

## Enclosed stations



REM stations will be inside enclosed and sheltered buildings. Passengers will be protected from inclement weather while they wait on the platform



Sheltered stations

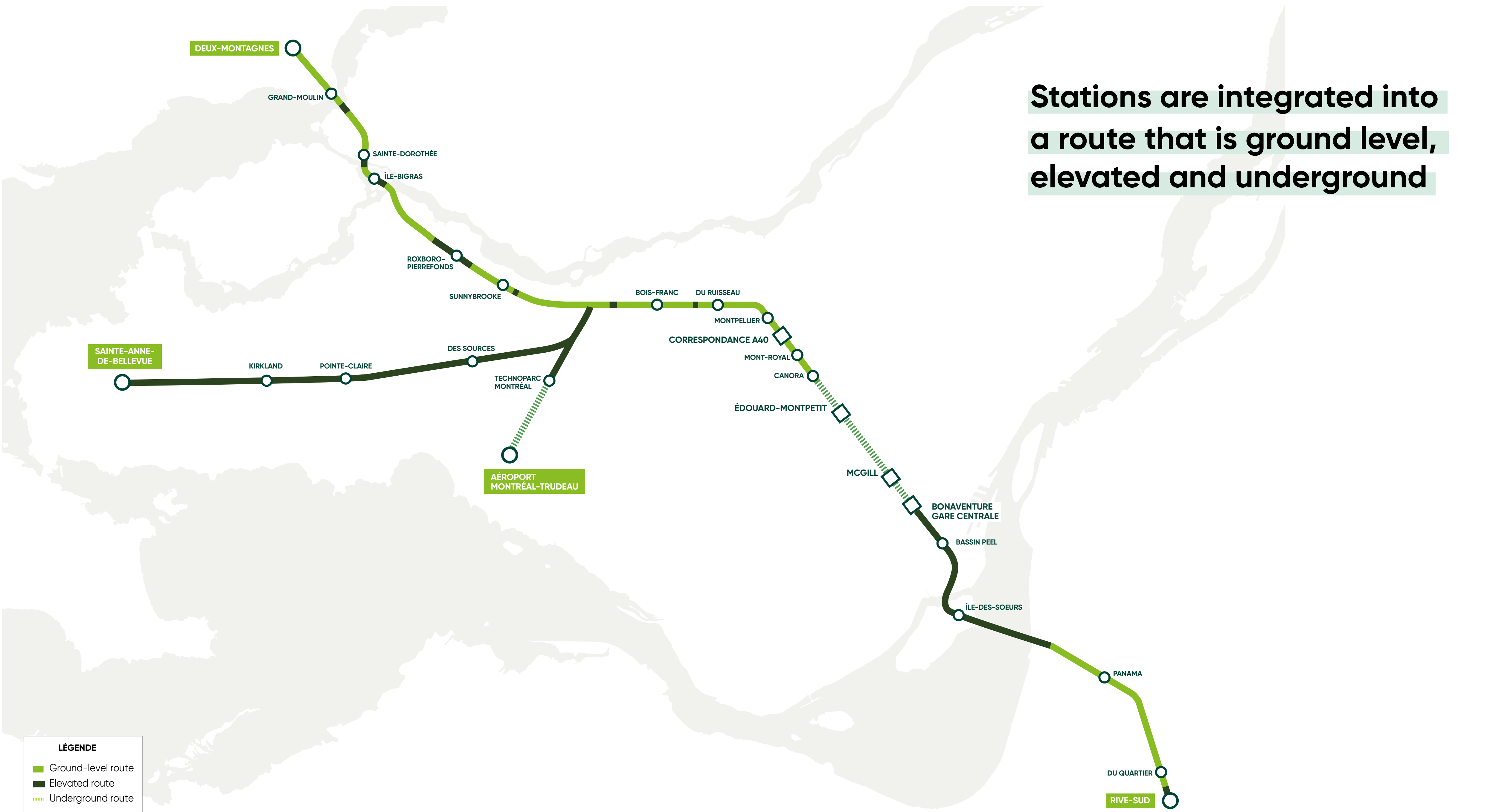


Wi-Fi

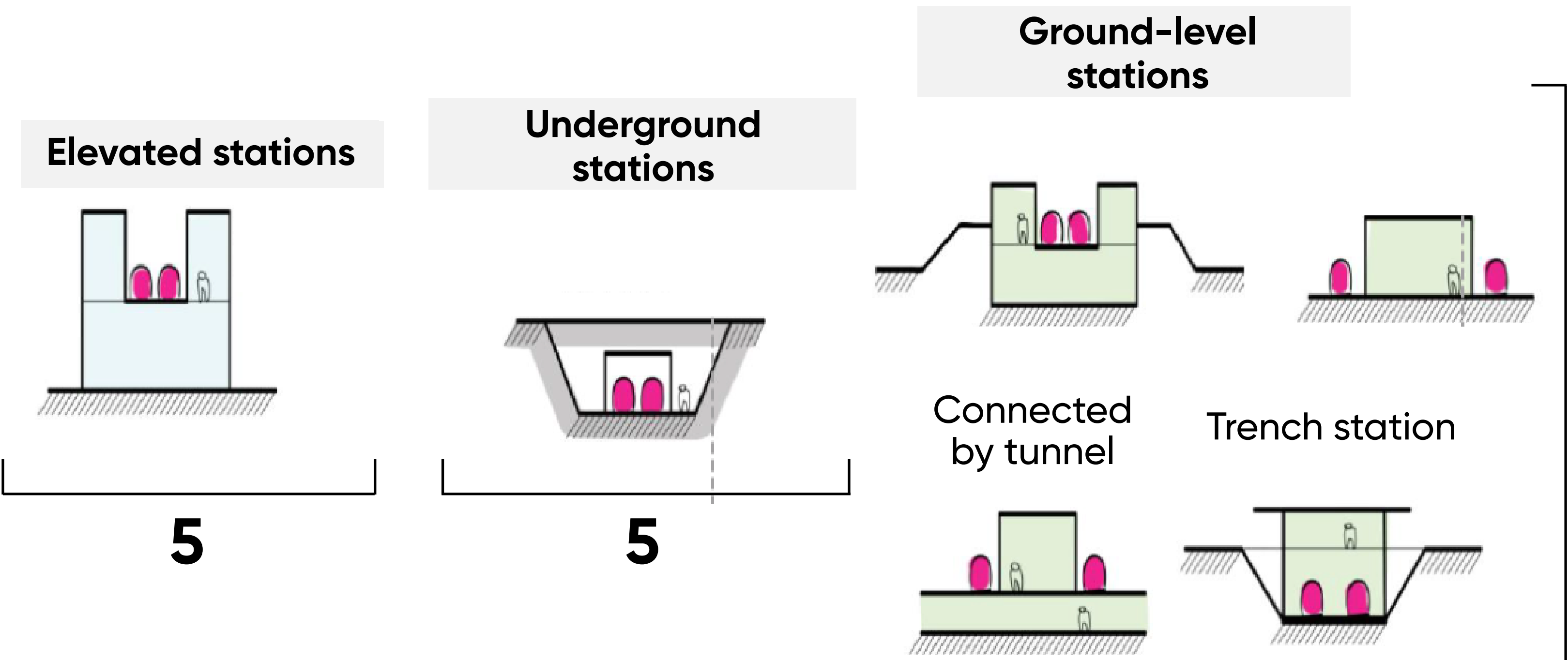


Platforms are 80 m long

## Categorization



Removal of existing level crossings along the Deux-Montagnes lines, for optimal security.

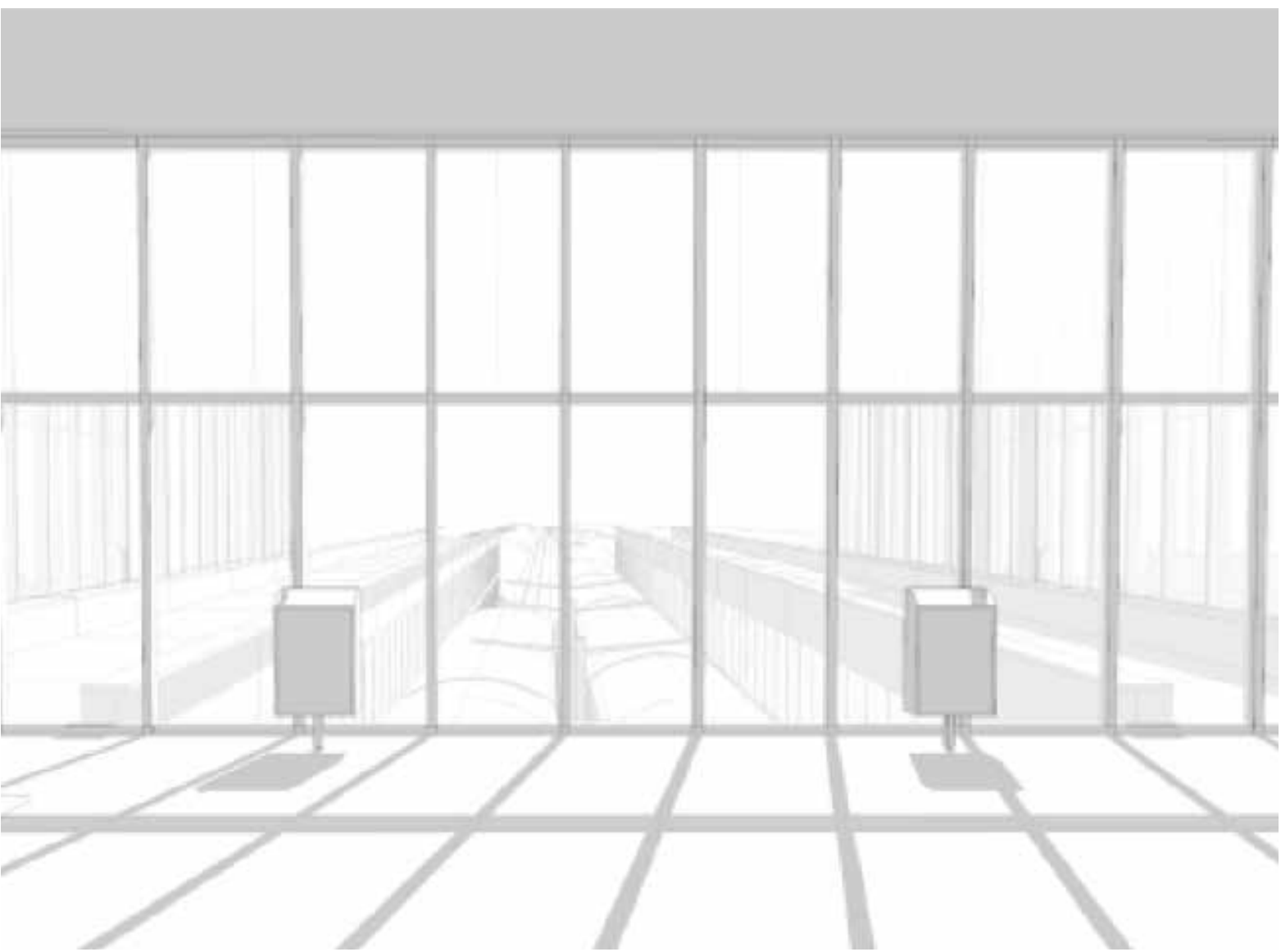




# Architecture

## Materials and design principles

### Glass



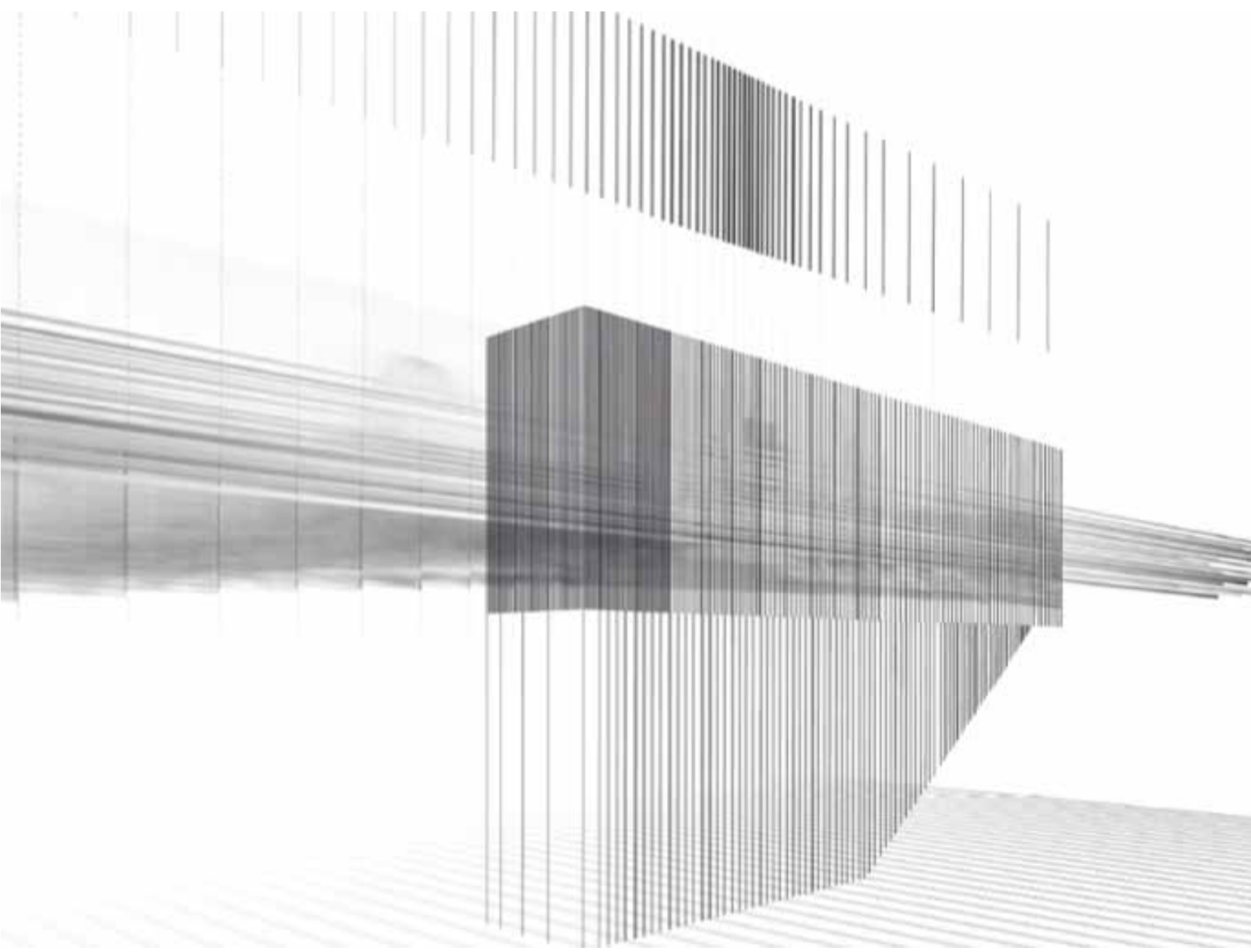
In order to let in as much natural light as possible and for increased safety, the stations are transparent (the concept of seeing and being seen). Fritted glass is used to filter the light.

### Wood



Wood is used on station ceilings to provide warmth in the space. This material is used throughout the building and is an integral part of the architectural concept.

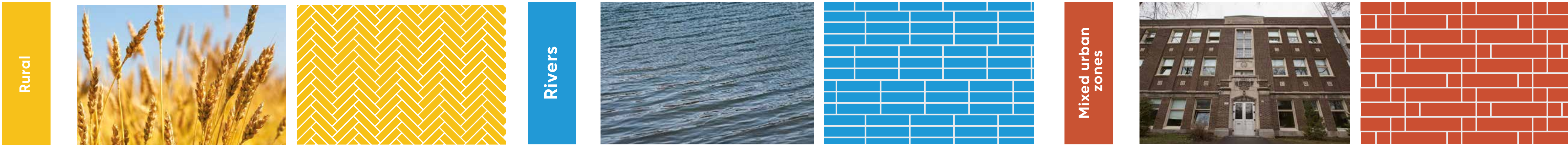
### Movement



The expression of movement is a theme that is interpreted in a different way in each station. The use of horizontal and vertical lines serves to express movement in the stations.

## Colour strategy

So as to represent the passenger’s journey, each branch of the network may be identified by a particular colour that would be visible in the stations, furniture and vegetation.



Coloured surfaces will be visible throughout the stations (tiles, for the most part)





# Architecture

## Signature stations

Vertical screens will be used to integrate the stations into their surroundings while highlighting their distinctive characteristics. This will facilitate:

- 1

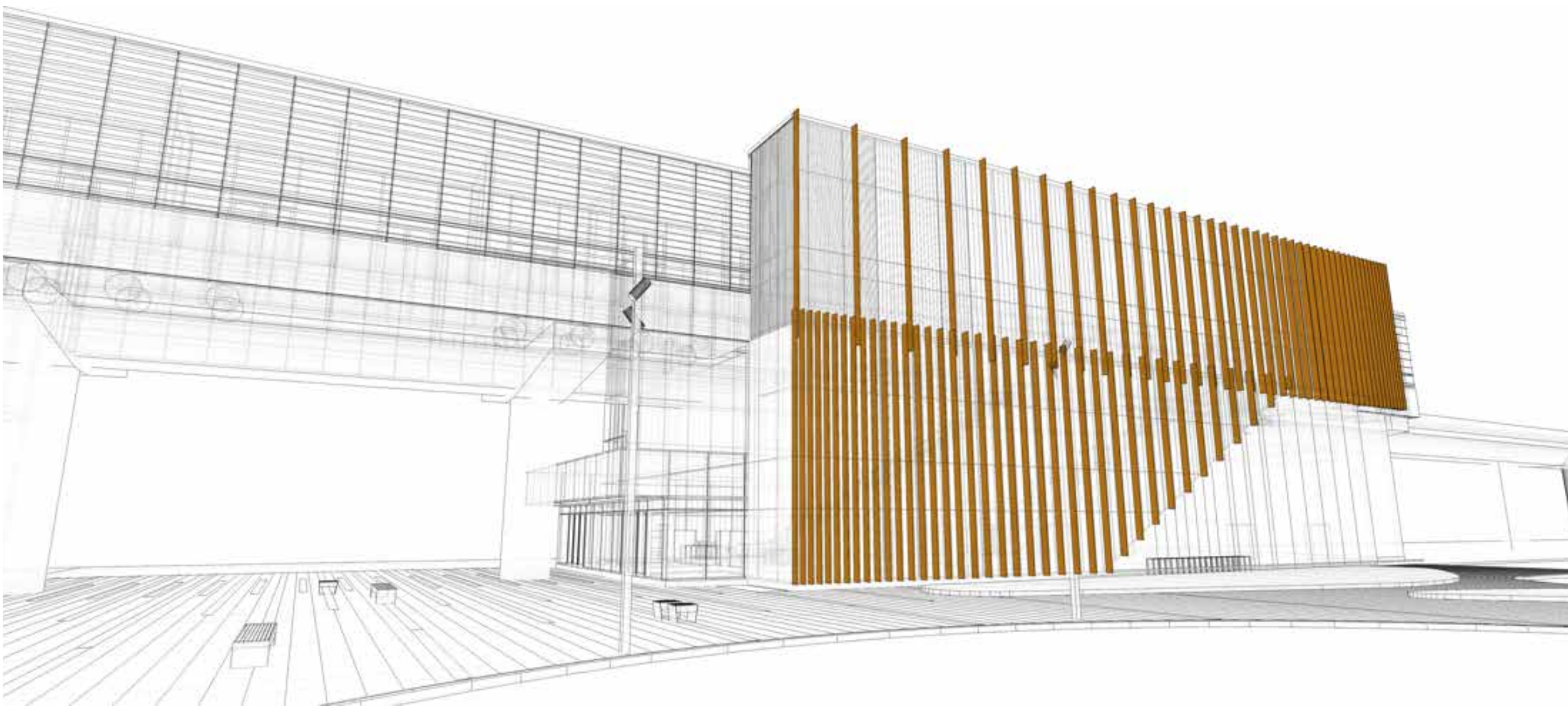
The creation of a filter for the light
- 2

The creation of depth perception effects that align with the architectural language
- 3

The creation of movement that passengers can see while the train is in motion
- 4

Better integration of the stations into the neighbourhoods

### Deux-Montagnes



The station will be integrated through the addition of a screen of vertical slats that recall the wood inside the station and the surrounding natural landscape

### Île-des-Sœurs



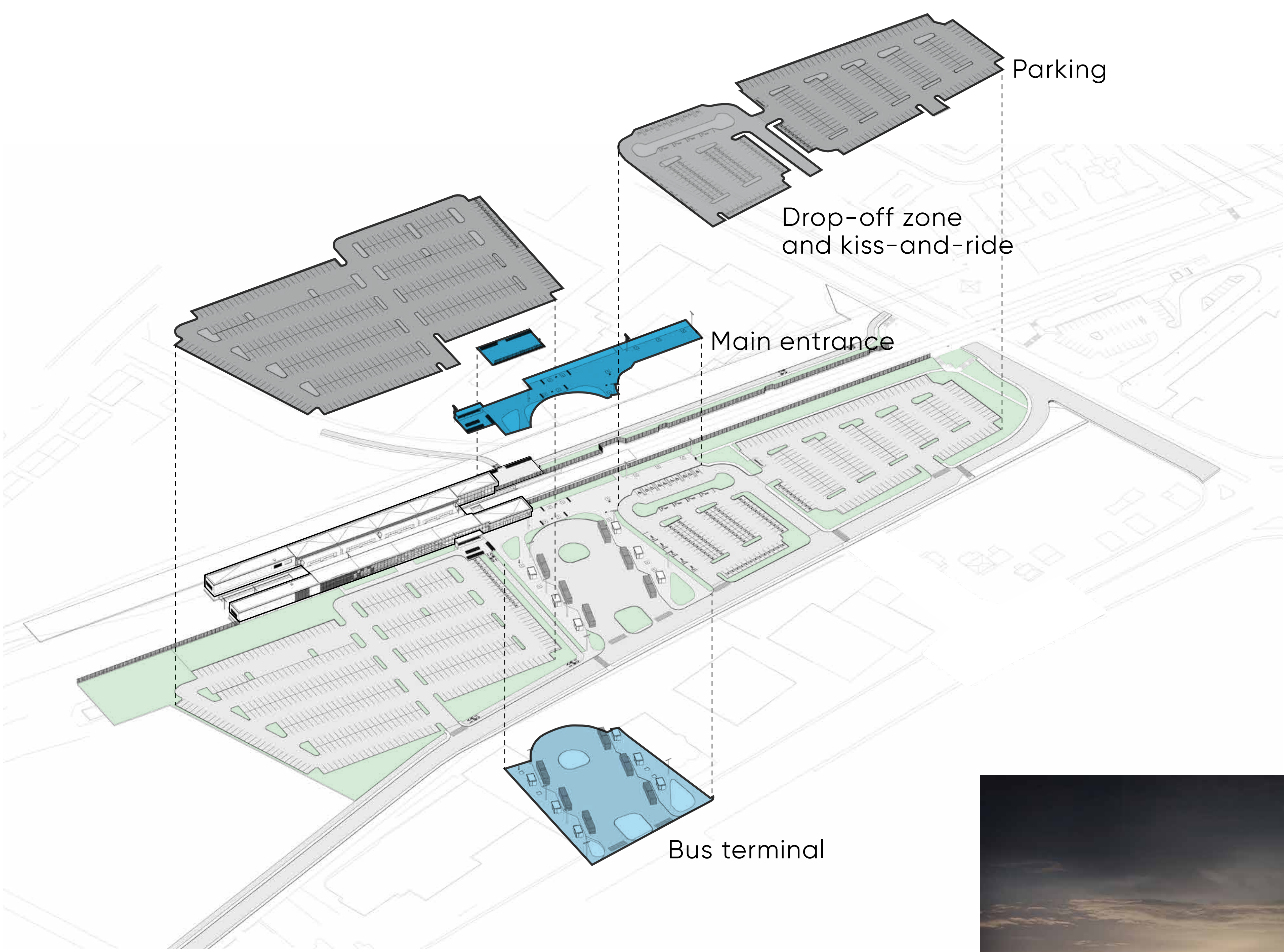
In a nod to the transit corridor of the new Samuel-De Champlain Bridge, cables will be used to create a screen that is reminiscent of the bridge's cables





# Onsite amenities and user routes

## The onsite zones



Across the entire network:



Bus platforms:  
105 platforms



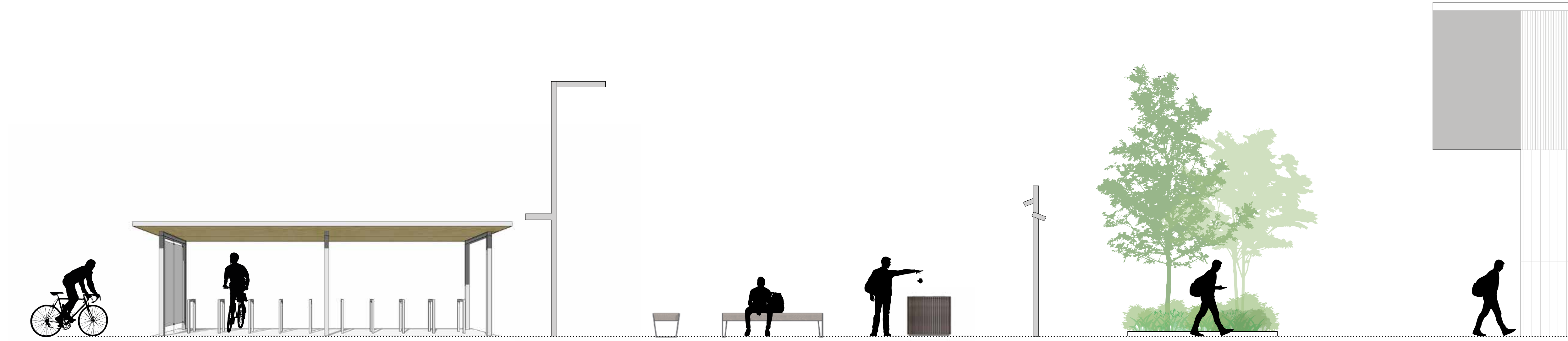
Parking:  
± 9500 spaces



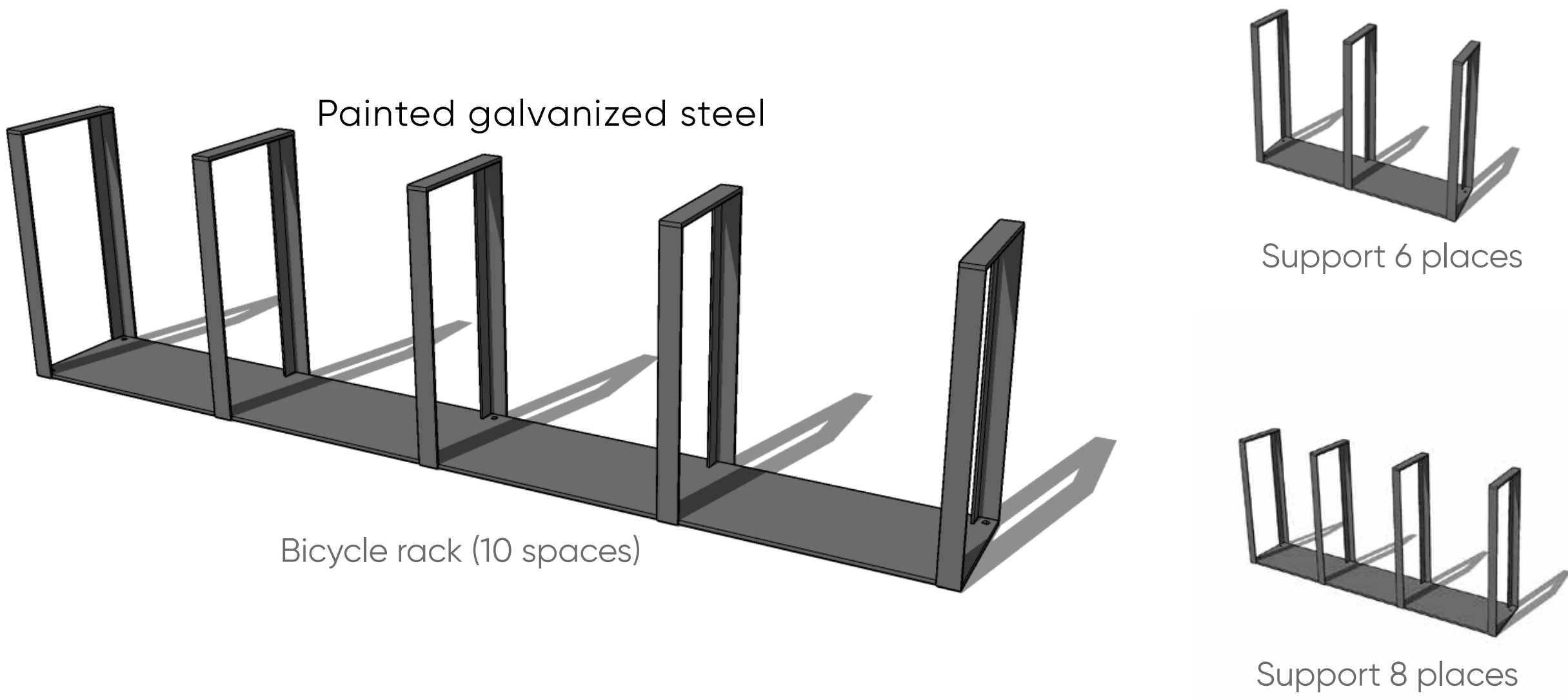
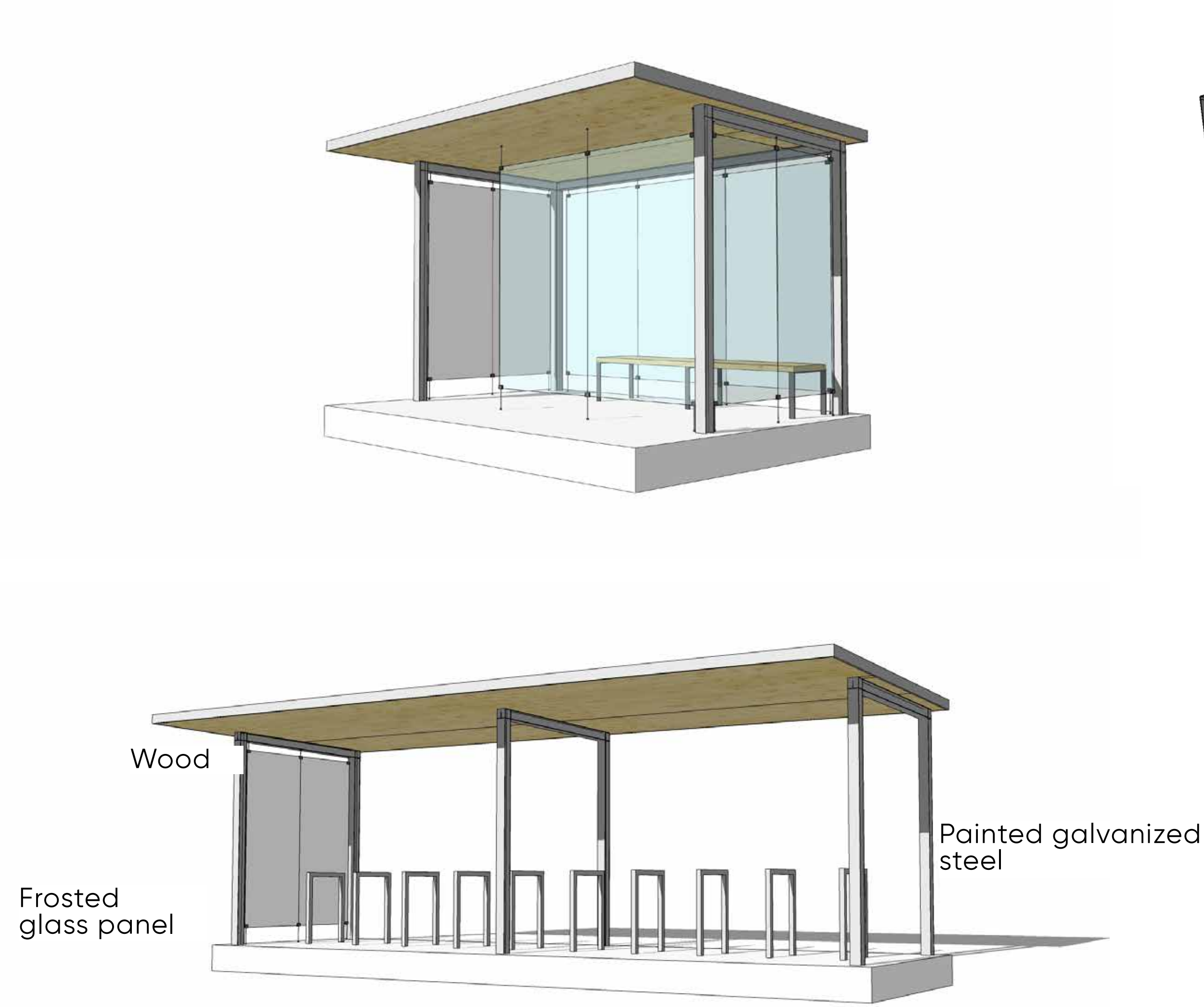
Bicycle racks:  
± 1400 racks



## User routes



## Bicycle racks and bus shelters



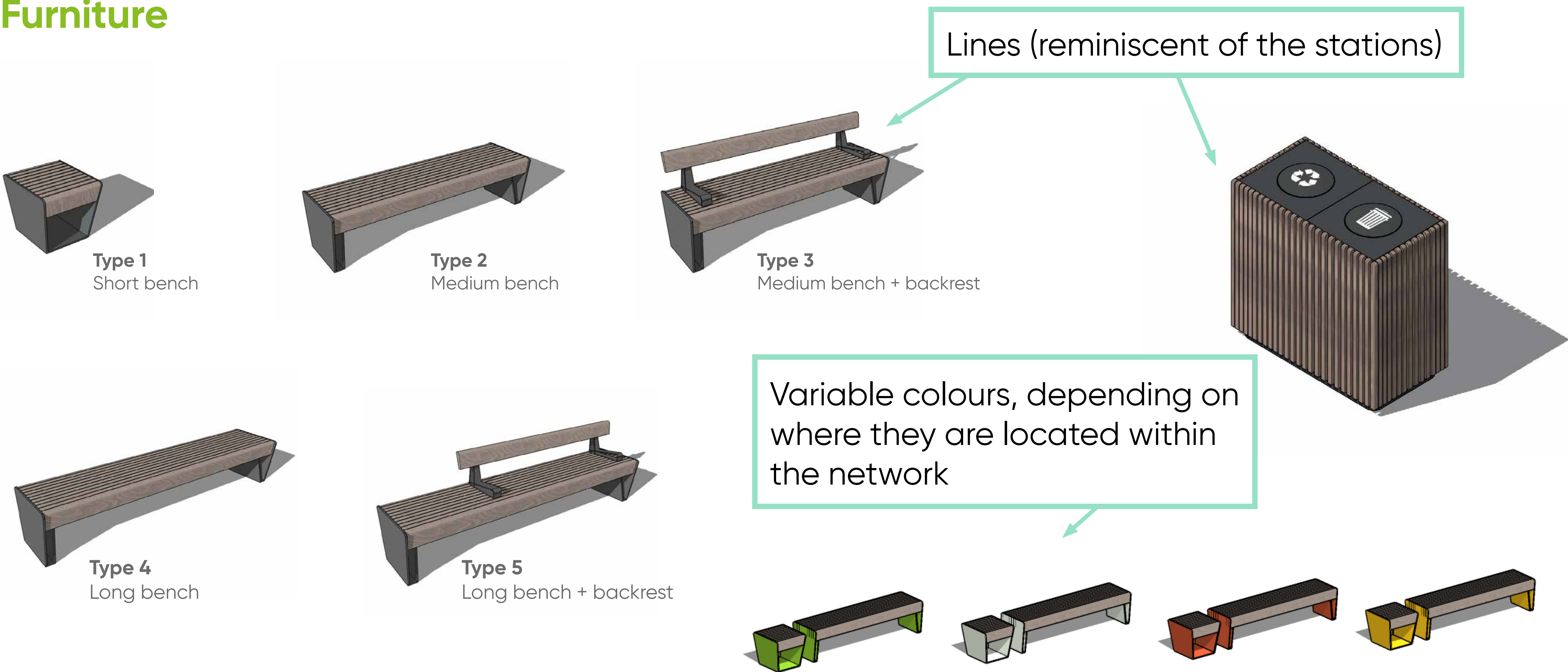
The use of wood and glass in the bus shelters and bicycle rack zones is reminiscent of the station architecture





# Onsite amenities and user routes (cont'd)

## Furniture



## Vegetation

Vegetation of various colours and varieties will be planted on the station sites. The choice will be influenced by the colour strategy of the architectural charter



### Placement of the vegetation:

- Main entrance
- Between the site and the tracks
- Parking zone and pedestrian walkway

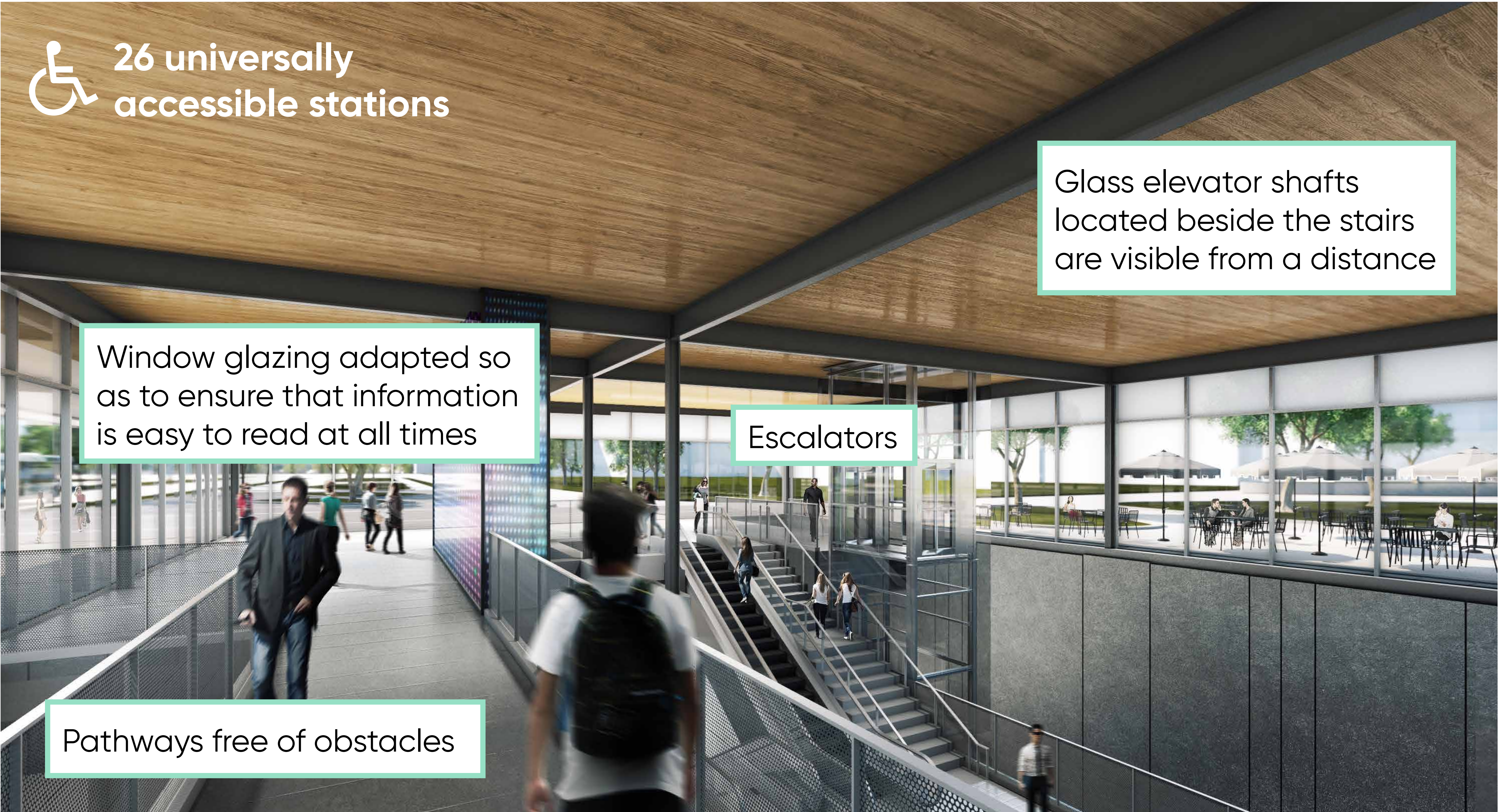
## Minimizing heat islands in the parking zone



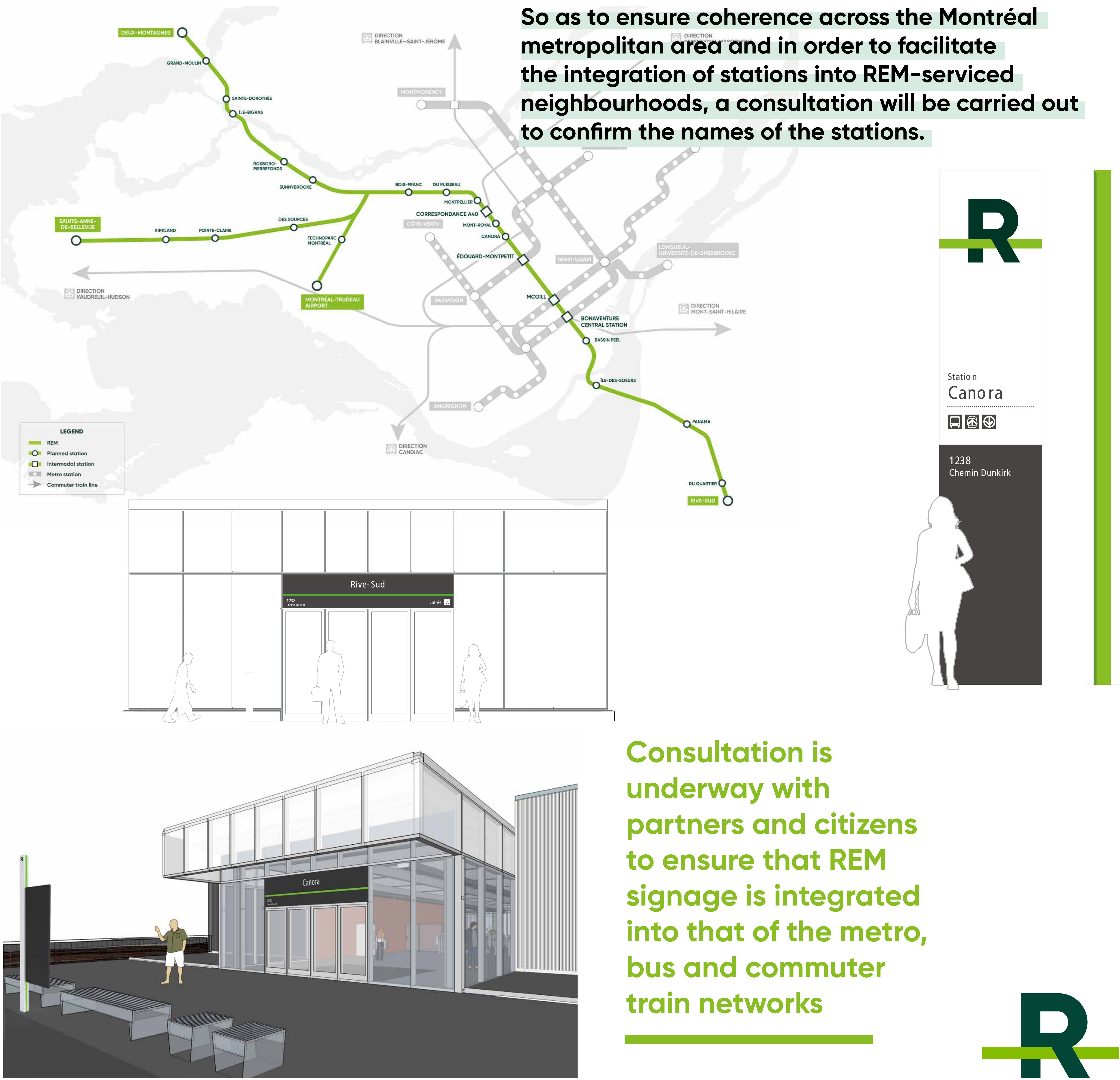


# Accessibility and passenger movement

## Universal access

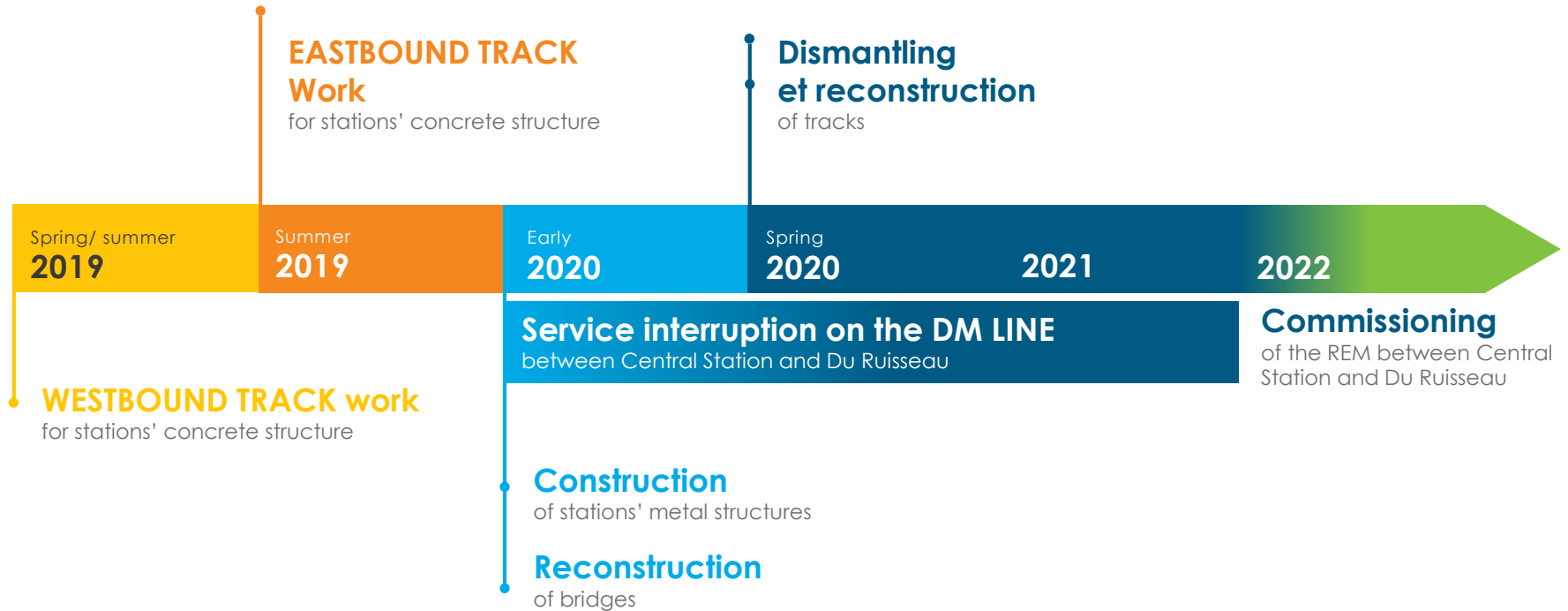


## Toponyms and signage

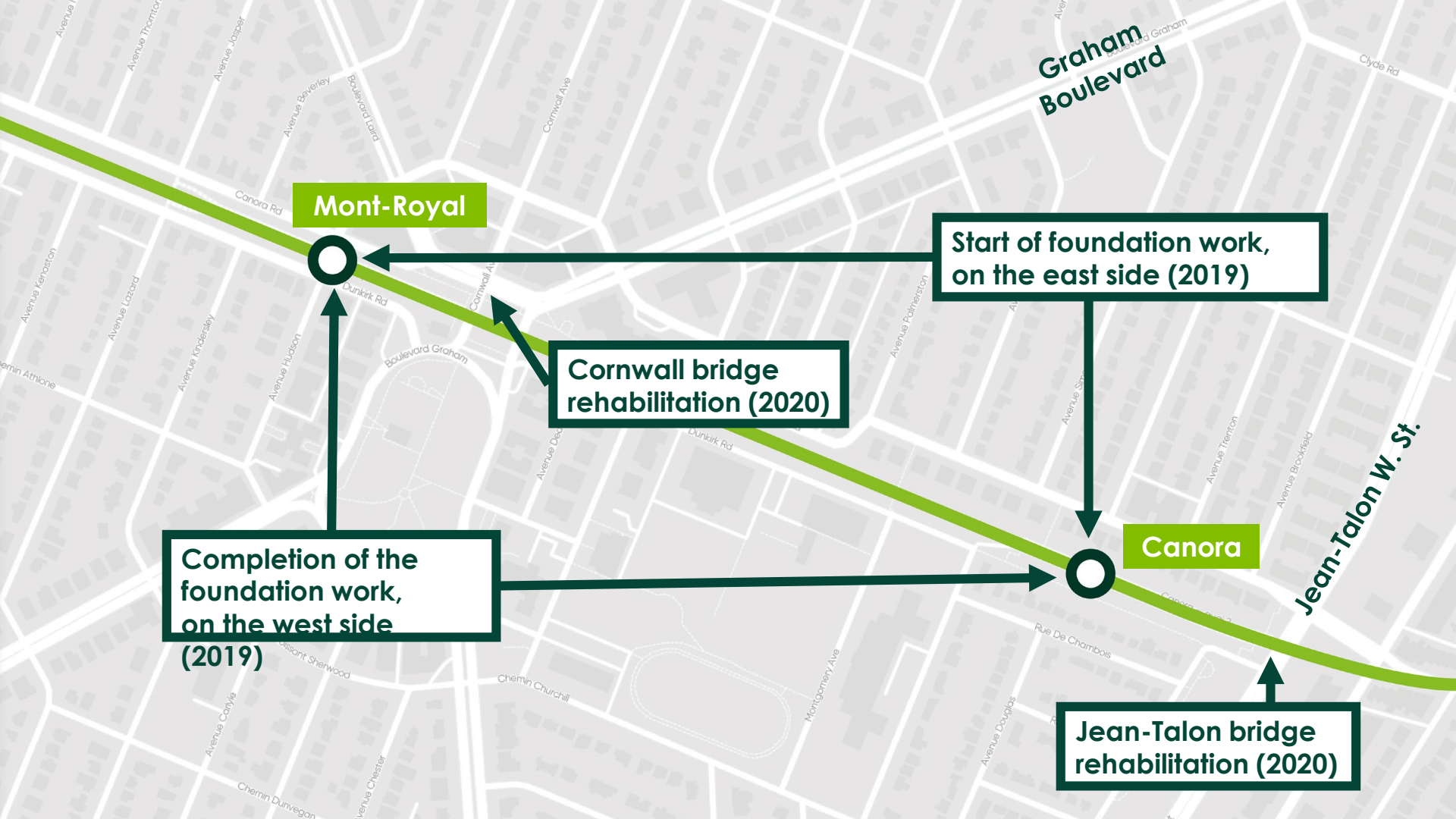




# Work schedule









# Canora station footprint

Until november  
2019

TOTAL FOOTPRINT  
CIVIL WORK  
TRUCK ENTRIES AND EXITS  
STATION FOUNDATION  
ACCESS RAMP

From november  
2019

TOTAL FOOTPRINT  
CIVIL WORK  
TRUCK ENTRIES AND EXITS  
STATION  
ACCESS RAMP



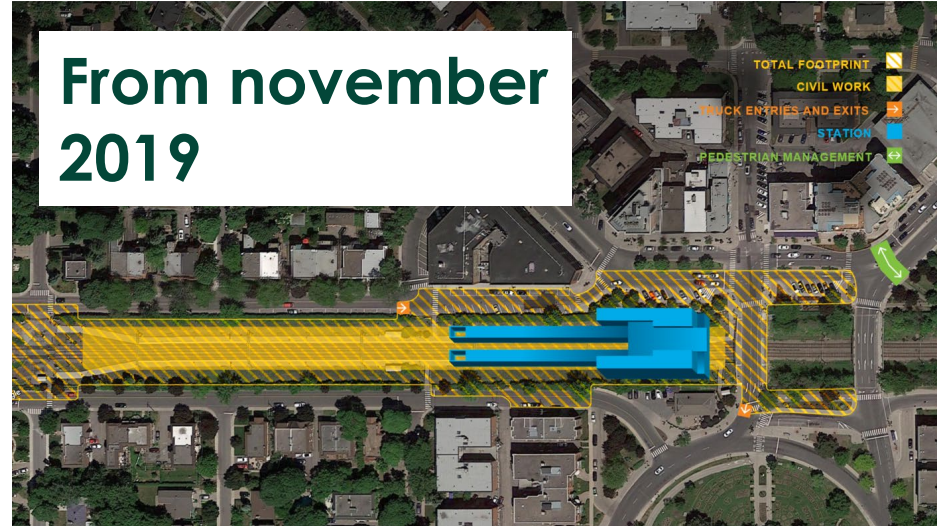
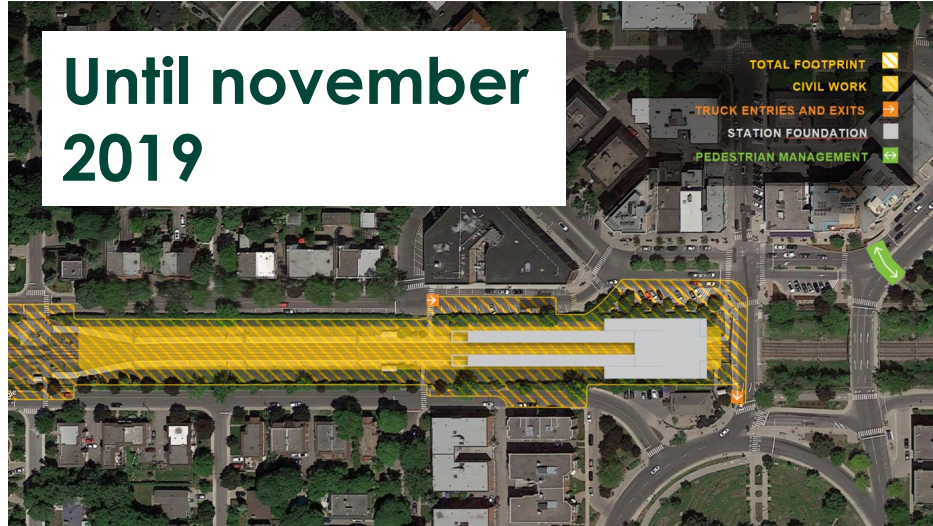
# Mont-Royal station footprint

Until november  
2019

TOTAL FOOTPRINT  
CIVIL WORK  
TRUCK ENTRIES AND EXITS  
STATION FOUNDATION  
PEDESTRIAN MANAGEMENT

From november  
2019

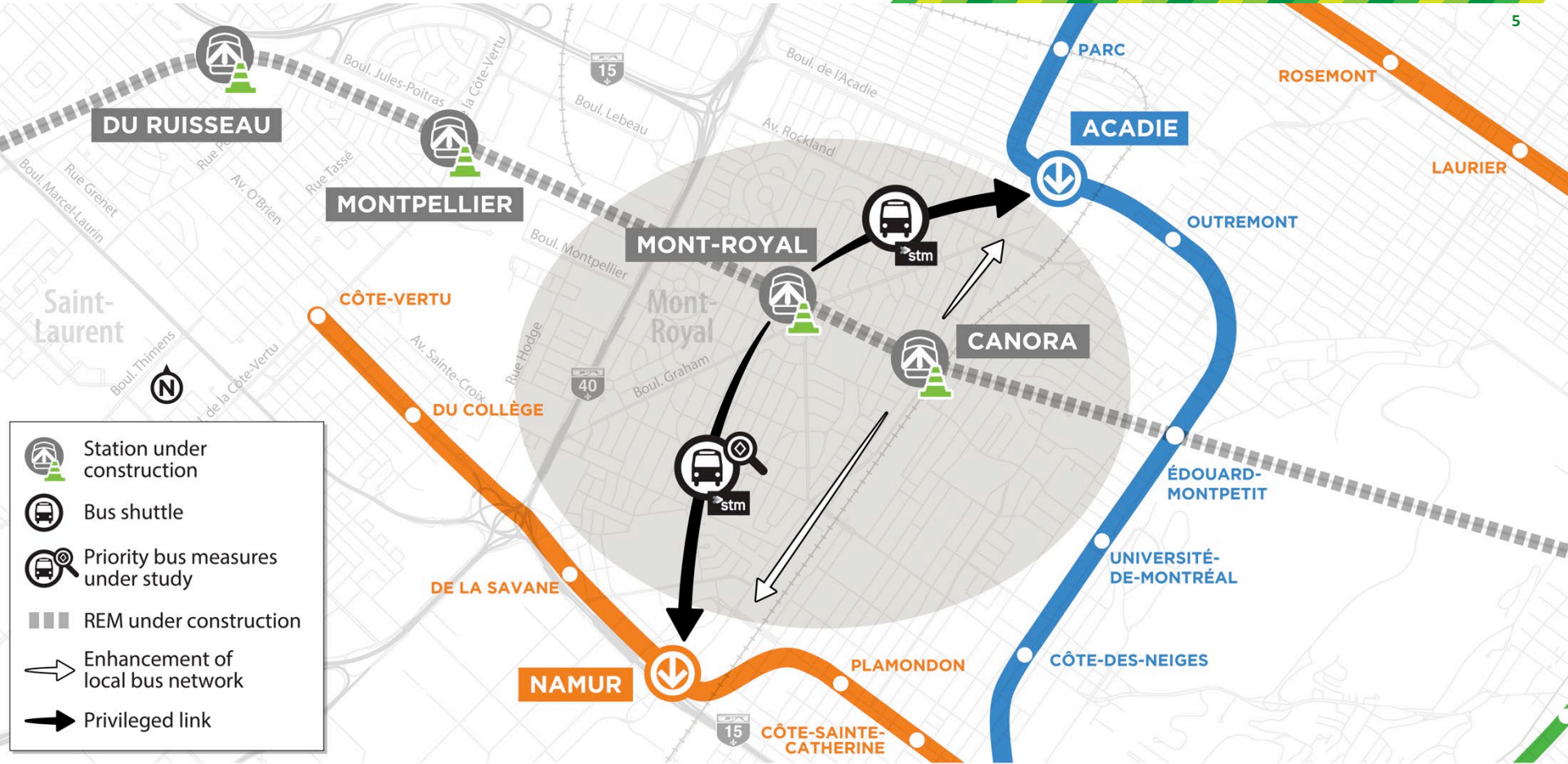
TOTAL FOOTPRINT  
CIVIL WORK  
TRUCK ENTRIES AND EXITS  
STATION  
PEDESTRIAN MANAGEMENT





# MONT-ROYAL–CANORA

2020-2022





# MONT-ROYAL–CANORA

2022  
REM service at Du Ruisseau

