

# Report

- Meeting objective:** Réseau express métropolitain (REM) information meeting
- Date and time:** April 29, 2019, 6 to 9:15 p.m.
- Location:** Holiday Inn Hotel, 6700 Route Transcanadienne, Pointe-Claire

The meeting in brief:

- Over 600 participants
- Approximately 50 questions asked by the public during the question period, both in French and English
- Six stakeholders present during the informational meeting and the question period:
  - o Virginie Cousineau, Public Affairs Manager, REM Project Office
  - o Denis Andlauer, Director of Operations, CDPQ Infra
  - o Stéfan Balan, Segment Director, NouvLR
  - o Simon Charbonneau, Public Affairs and Media Relations Advisor, ARTM
  - o Sarah Bensadoun, MTQ Spokesperson
  - o Pierre Tessier, Facilitator

The meeting was divided into two parts:

- Open house with information panels – 6 to 7 p.m.
- Information session, followed by a question period – 7 to 9:15 p.m.

The presentation given during the informational meeting addressed:

- The context of the project
- Work completed, in progress and upcoming in 2019
- Interim public transit mitigation strategy

The documentation presented during the meeting is available at the following link:

[https://rem.info/sites/default/files/2019-05/REM\\_Rencontre%20information%20publique\\_ODI\\_20190429\\_EN.pdf](https://rem.info/sites/default/files/2019-05/REM_Rencontre%20information%20publique_ODI_20190429_EN.pdf)

A summary of the questions posed by the public during the question period, as well as the answers provided by the various stakeholders is presented hereunder.

| Questions   | Answers  |
|---|--|
| Will the REM run above or below the roads that it crosses?  | On the West Island, the REM will be an elevated structure. Therefore, it will run above the roads that cross Highway 40. |
| Will there be any room inside the stations for businesses like restaurants or convenience stores? | That is not in the plans at the moment. Stations are designed for public transit.  |

| Questions   | Answers  |
|---|--|
| <p>On the West Island, a lot of people have cars. We need a sufficient number of park-and-ride lots on the West Island.</p> <p>700 spaces isn't enough.</p> <p>The options that you presented for accessing the REM stations, such as by bicycle or car pooling don't apply to me.</p> <p><i>*Note*: This concern was shared by many people throughout the evening.</i></p> | <p>We are aware of how important cars are to people's commutes on the West Island. Thus, we have confirmed 700 spaces in park-and-ride lots to date.</p> <p>We are also planning to enter into discussions with the owners at the Kirkland Station (RioCan) and Pointe-Claire Station (Fairview) regarding parking, in view of adding other spaces in these sectors.</p> <p>Our desire is to develop an integrated parking option, rather than increasing the number of parking spaces on the West Island, in order to limit traffic congestion around the stations.</p> <p>REM will be commissioned in this sector in 2023, which gives us four years to discuss a solution with the two property owners (RioCan and Fairview).</p> |
| <p>Will the Vaudreuil–Hudson exo line remain as it is?</p>  | <p>Yes. The REM's goal is to enhance – not replace – the public transit offering on the West Island. It is a new transit option.</p> <p>There are no plans to close down exo's line.</p>   |
| <p>How much will it cost to use the REM?</p>  | <p>The Autorité régionale de transport métropolitain (ARTM) is responsible for setting the fare schedule for all transit networks in the greater Montréal area. We are currently working with the ARTM to integrate the REM into this future fare schedule.</p> <p>The goal is to have a single travel pass. Customers would purchase their passes from the ARTM; those passes would work on every network, including the REM, metro, buses, etc.</p> <p>Our intent is still to keep fares comparable to current prices for equivalent distances by metro or train, and to have travel passes, such as the Opus card, that would allow people to access the REM and all other transit systems as well.</p>                           |

| Questions   | Answers   |
|---|---|
| <p>Where exactly will the REM route run? There's no map that shows street names.</p> <p>I heard rumours about extending Antoine-Faucon Street up to Anse-à-l'Orme park. Will those areas be affected?</p> | <p>No, the plan for the Kirkland Station does not include extending Antoine-Faucon Street. As for Anse-à-l'Orme park, it will not be affected during REM construction, nor during operation.</p> <p>You can view an interactive map of the REM at the following link:</p> <p><a href="https://rem.info/en/faq#map">https://rem.info/en/faq#map</a></p>  |
| <p>You didn't mention wildlife in your presentation. You are cutting down trees, and no mitigation measures have been implemented yet for animals. What measures are planned for wildlife?</p>            | <p>85% of the REM is being built within existing railway or highway rights-of-way, which significantly reduces the impact on wetlands and wildlife.</p> <p>Mitigation measures have been planned, including preservation of wetlands by opting for an underground route for the REM in the Technoparc sector. Wildlife crossings will also be built on the West Island so that animals can safely cross the railroad tracks.</p> <p>Furthermore, certain animal species will be relocated before work begins on the land.</p> |
| <p>Will you build a walkway over Highway 20 for pedestrians and cyclists?</p>   | <p>That is not currently part of the project.</p> <p>However, this concern has been submitted to and is being analyzed by the appropriate municipal authorities.</p>  |
| <p>The City of Dorval is a main hub for transit on the West Island: airport, train, bus. Why won't the REM station be connected to these existing infrastructures?</p>                                    | <p>Discussions are in progress regarding possibly merging the exo and VIA Rail stations. Since a decision has yet to be made, we are not planning at the moment for the REM to run all the way to this merged station.</p> <p>If the decision to merge the stations is made, the government may solicit CDPQ Infra to study the possibility of extending the REM all the way to it.</p>   |
| <p>I live very close to a future REM station. Will the Sunnybrooke and Roxboro-Pierrefonds Stations be at ground level or elevated? How high will they be?</p>  | <p>Both of these stations will be elevated.</p> <p>Details regarding their elevations are not known at this point; we will publish that information as soon as possible.</p> <p>We would like to assure you, however, that preserving the privacy of those who live near the REM is of utmost priority to us.</p>   |

| Questions  | Answers  |
|--|--|
| <p>Until the details of the REM are known, families will continue to have questions that they simply can't answer.</p> <p>How long will it take to get our kids to daycare? Will we have time to help our kids with homework? Will we have to move?</p> <p>What explanation do you have for only publishing the mitigation measures in September 2019 when the project begins in January 2020?</p> | <p>The REM is the largest public transit project of the past 50 years, which brings many challenges.</p> <p>It is a "Design-Build" project, which means that the design is still in progress, even though construction has begun.</p> <p>Public transit companies are working together to mitigate the impact and maintain reliable and efficient public transit service, which requires coordination with the other construction sites in the area. For now, we have given estimated travel times so that people can plan accordingly.</p> <p>We understand people's impatience; we are working as quickly as we can to reveal as much information as possible regarding the entire mitigation strategy. Details will be announced in the fall.</p> |
| <p>The Sainte-Anne-de-Bellevue Station seems to be in the middle of nowhere. Why did you put it there?</p>   | <p>There were several factors taken into account in that decision. In Sainte-Anne-de-Bellevue, the REM runs on the north side of Highway 40, and it would be difficult to try to get it to the other side of the highway.</p> <p>Also, that is the station at the end of the line. We needed enough space to house the trains and equipment, and to be able to park four trains indoors.</p> <p>Simply put, the station locations selected were a compromise between various factors.</p>  |
| <p>Is there any pedestrian access planned for the station?</p>   | <p>The goal is for stations to be easily accessible by various means, including on foot. The station will be able to accommodate pedestrian traffic.</p>   |
| <p>Don't you think it's dangerous for pedestrians and cyclists to use the Saint-Jean Boulevard overpass to reach the Pointe-Claire Station?</p> <p>Who will be in charge of laying out the access routes to the stations for pedestrians and cyclists?</p>   | <p>We understand how important it is to have access for pedestrians and cyclists who need to cross Highway 40.</p> <p>This concern has been submitted to the municipal authorities, who are currently assessing the options for access over the highway.</p>   |

| Questions  | Answers   |
|--|---|
| <p>You should have an information kiosk on site at the Fairview shopping centre, since so many people go through there.</p>  | <p>Thank you – we have noted your suggestion.</p>   |
| <p>I'm not convinced that the REM will be more beneficial than exo's line.</p>   | <p>The REM is a project that will change everything.</p> <p>It is a high frequency, light rail system that will run 20 hours a day, on weekdays and weekends alike.</p> <p>With the REM, travel time will be decreased by at least 30%.</p>   |
| <p>Initially, a higher number of park-and-ride parking spaces had been announced. Why did you remove so many parking spaces, when access to the stations by car is so important on the West Island?</p>  | <p>The initial parking space estimate included an additional parking lot, which has since been eliminated from the REM project. The location of the Kirkland Station was also changed.</p> <p>A minimum of 700 parking spaces has been confirmed, and discussions will be held with surrounding property owners (Fairview Pointe-Claire and RioCan) to enhance and integrate this offering.</p> |
| <p>Generally with major projects, the Government of Québec plans numerous public consultations before beginning construction. Tonight, it feels like everything has already been decided for the REM.</p>  | <p>Consultation meetings were held in 2016, before the project began.</p> <p>Tonight is an informational meeting, not a consultation meeting.</p>   |
| <p>Why not build a multi-level parking garage at the Roxboro-Pierrefonds Station, like many other cities in Canada have done? That would give even more parking spaces, using the same amount of space.</p> <p>Our priority is having enough park-and-ride lot spaces.</p> | <p>In the Roxboro-Pierrefonds Station sector, our guidelines have been to maintain the current parking capacity, not to increase it. The more parking spaces there are, the more traffic there will be in surrounding neighbourhoods.</p> <p>Thus, our goal is to achieve a balance by maintaining – not increasing – the number of spaces and creating an alternative to using vehicles.</p>   |
| <p>The three REM lines will merge to a single line heading toward the Bois-Franc Station, and ultimately run through the tunnel. What happens if there is an issue in one of the metros? Will that block all three lines?</p>  | <p>There will be switches all along the track, which will allow the REM to move to the adjacent set of tracks, in order to go around a stopped train. Trains will be able to be redirected to the other track at any time. This will be done automatically, since the REM is driverless.</p>  |

| Questions   | Answers  |
|---|--|
| <p>Will the zoning around the REM Stations change?</p>  | <p>Zoning is something addressed by the municipal authorities.</p> <p>On the Deux-Montagnes Line, the REM will stay within the existing railway right-of-way, so its footprint remains the same.</p>   |
| <p>Regarding the royalties applicable within a one-kilometre radius around the Stations, the ARTM regulation states that this calculation is based on \$10 per square foot of surface. Does that mean it will cost \$20,000 for a 2000-square foot house?</p>   | <p>Royalties only apply to new developments.</p> <p>Furthermore, the calculations are different, depending on the surface area and value of the projects. You can find the details in the ARTM regulation (French only):</p> <p><a href="http://www.artm.quebec/foire-aux-questions-reglement-redevance-reseau-express-metropolitain/">www.artm.quebec/foire-aux-questions-reglement-redevance-reseau-express-metropolitain/</a></p> |
| <p>Initially, the REM included an interchange on Sainte-Marie Road. That interchange has since been eliminated from the project. How do you expect the same frequency without this interchange?</p>   | <p>The REM initially planned for a larger infrastructure in Sainte-Anne-de-Bellevue. After many discussions, the decision was made to distribute the equipment all along the REM segment. Thus, the 35 bus platforms will be located throughout the Sainte-Anne-de-Bellevue Branch for buses that will run to the REM.</p> <p>REM ridership is a risk belonging to CDPQ Infra.</p>   |
| <p>Will stations be accessible for people with reduced mobility?</p>  | <p>Yes. All REM stations and cars will meet universal accessibility standards.</p>   |
| <p>I agree with your decision not to increase the number of parking spaces. I live just behind the station. During peak REM hours, people entering and exiting the park-and-ride lot will create a lot of traffic.</p> <p>Will you have several entrances and exits to prevent a bottleneck in the parking lot?</p> | <p>We understand the concerns that people who live near the stations have: the more parking spaces there are, the more cars there will be, which increases traffic, affects air quality, the landscape, etc.</p> <p>We take all of these impacts into account in planning for the REM.</p>   |
| <p>Will there be stairs and washrooms in the stations?</p>  | <p>There will be elevators as well as stairs, but no washrooms. They will be similar to Montréal's metro stations.</p>   |

| Questions   | Answers   |
|---|---|
| <p>There have been discussions about the new bridge in the Vaudreuil-Soulanges sector. How will that project integrate with the REM?</p>  | <p>I'm talking about the reconstruction of the Île-aux-Tourtes Bridge.</p> <p>Currently, the REM will not use that infrastructure. However, the new structure will be able to accommodate the REM, just in case the situation changes and the REM were to extend in that direction.</p>   |
| <p>I have a business in the Kirkland sector. Expropriation took place, but plans changed and there hasn't been any communication since then.</p> <p>I'd like to get a straight answer about the Kirkland Station.</p> | <p>The Kirkland Station will be located north of Highway 40, near Jean-Yves Boulevard: <a href="https://rem.info/en#map">https://rem.info/en#map</a></p> <p>Regarding expropriations for the REM, owners to whom it applied have already been notified.</p>   |
| <p>Will we have to pay to park in the park-and-ride lots at Kirkland and Pointe-Claire?</p>   | <p>That has yet to be determined.</p> <p>Discussions will take place with the property owners (RioCan in Kirkland and Fairview in Pointe-Claire) about parking.</p>   |
| <p>With the REM, people will have to stand for about 35 minutes, while on the metro, they only have to stand for about 10 minutes. People aren't going to want to use the REM if they have to stand that long.</p>    | <p>The situation is similar for someone who takes the orange line on the metro, from Montmorency Station to Bonaventure – they stand for about 35 minutes.</p>  |
| <p>I don't understand the figure you quoted of 72 cents per km-passenger. Does that mean it would cost me about \$20 to get downtown?</p>   | <p>72 cents/km-passenger is what it will cost the REM to transport a passenger for one kilometre. This was the figure we provided to the ARTM, who will use it to define the new fare schedule.</p> <p>That's not what users will pay. Users will pay a fare comparable to what it currently costs to take the train or metro for an equivalent distance.</p> <p>At 72 cents, the cost of the REM is actually less than the existing bus and commuter trains.</p> |
| <p>I have several questions about the construction. Will the work take place during the day or at night, will any streets be closed, and will pedestrians still be able to move about, etc.?</p>                      | <p>Construction methods for this sector have not yet been defined. As the details are fine tuned, we will announce them.</p> <p>Rest assured: the consortium responsible for building the REM is subject to noise and air quality targets that must be met at all times. Regarding road traffic hindrances, the consortium also has criteria they have to meet to maintain a certain level of traffic flow.</p>   |

| Questions   | Answers   |
|---|---|
| <p>Initially, the Kirkland Station was supposed to be accessible via Jean-Yves Street. Now, it is my understanding that people will have to get off Highway 40, travel along Sainte-Marie Road and then turn left onto Jean-Yves Street. Our house is right next to there, so I'm concerned about the noise that all this traffic will generate.</p> <p>I would like to know what the current noise levels are at my house and what they will be with noise from the REM.</p> | <p>Regulations require that sound levels be evaluated and maintained. We have already conducted studies and we will continue to measure noise during REM construction and operation. If measures show that the noise levels are too high, mitigation measures will be implemented.</p> <p>Furthermore, the REM is a light rail system that uses fully electrical and much quieter technology that generates a lot less braking noise than traditional trains.</p> <p>In this sector, the highway generates more noise than the REM will when it's in operation.</p> |
| <p>What will the inside of the stations be like?</p> <p>Will there be any workers inside the stations to supervise things or help people re-load their OPUS cards, for example?</p>   | <p>The consortium responsible for operations and maintenance is the Groupe des Partenaires pour la Mobilité des Montréalais (GPMM). They will have to meet a series of performance indicators. One of those indicators is being able to intervene in the stations within a certain amount of time. It will therefore be up to GPMM to determine how many employees will be necessary in the stations to meet that target.</p> <p>As for the interior design of the stations, details will be announced later this year.</p>   |
| <p>Ottawa has experienced problems with their transit system in the winter. What measures are planned to ensure adequate REM service throughout the winter?</p>   | <p>In Ottawa, the issue was with street cars (Citadis), while the REM will be a Metropolis-type metro. In Alstom's website, you can view the difference between the two systems.</p> <p>REM will be able to withstand winter, snow and ice. It will also undergo extensive testing under winter conditions in climate chambers.</p> <p>Furthermore, there will be three maintenance centres in Saint-Eustache, on the South Shore, and in Sainte-Anne-de-Bellevue.</p>  |
| <p>Will it be possible to increase the REM's capacity? If so, will there be requirements for local provisioning?</p>  | <p>Contracts have already outlined the option to add new cars.</p> <p>That is an option if the REM's success creates that demand.</p>   |



| Questions   | Answers  |
|---|--|
| <p>The REM's capacity is calculated on the basis of four people per square metre. That seems awfully tight – four people with their backpacks.</p>  | <p>In contrast, during morning rush hour on the metro's orange line, there is about six to seven people per square metre.</p> <p>Four people per square metre is the equivalent of a moderately full elevator. This value is widely used elsewhere in the world.</p>   |
| <p>To properly compare REM capacity with the Deux-Montagnes Line capacity, what is the data in terms of people/hour?</p>  | <p>Today, exo's train capacity at peak hours, with three trains, is approximately 6000 people per hour.</p> <p>In that same time frame, the REM's capacity will be 14,000 people per hour, even from opening day.</p>  |
| <p>Will parking at the Kirkland Station be something discussed with the municipality?</p>   | <p>Yes, exactly. We are working in close collaboration with Kirkland.</p> <p>We can't yet confirm the exact dates when decisions will be made, but we will communicate the details as soon as all stakeholders have reached an agreement.</p>  |
| <p>During an ARTM consultation held in the past, it was mentioned that 17 minutes was the acceptable amount of time for people to remain standing. Now we're talking about 30 minutes – that's a long time.</p> <p>What amount of time is acceptable to you?</p>                      | <p>17 minutes is in fact the criterion that is circulating. That of course depends on the physical condition of each person. For some people, 17 minutes is much too long.</p> <p>With the REM, since it will have departures every ten minutes (during peak hours on the West Island Branch), people will be able to decide whether they want to get on a train when there aren't anymore seats or wait for the next train that will depart ten minutes later. That high frequency will provide a lot of flexibility for users.</p> |
| <p>It would be helpful to have parking on both sides of Highway 40, to prevent a traffic jam from having to cross over the highway all the time.</p>  | <p>Currently, that is not in the plans.</p> <p>However, the various transit companies are reviewing bus feeder service to REM's stations.</p>  |
| <p>When the REM arrives, we know that there will be a transit royalty to be paid of \$10 per square foot for owners near the stations. With that royalty, it would seem much more beneficial to you to have condominiums all around the stations, rather than park-and-ride lots.</p> | <p>Our priority is for people to use the REM; the transit royalty is the ARTM's responsibility. Here is a link to the Frequently Asked Questions (French only):</p> <p><a href="https://www.artm.quebec/foire-aux-questions-reglement-redevance-reseau-express-metropolitain/">https://www.artm.quebec/foire-aux-questions-reglement-redevance-reseau-express-metropolitain/</a></p>   |

| Questions   | Answers   |
|---|---|
| <p>How many parking spaces will be reserved for people with reduced mobility?</p>   | <p>We will follow regulations in that regard.</p> <p>The number of reserved spaces varies according to the total number of parking spaces.</p>  |
| <p>What will happen if people with reduced mobility experience an issue on board the REM? Who will ensure safety? Should I signal the cameras?</p>          | <p>There will be employees spread out across the system, not necessarily tied to a single station, but who will move about the network.</p> <p>In the contract with the company responsible for operations and maintenance (GPMM), it states that employees must be able to meet requests within a well-defined time frame.</p> <p>The REM will also be equipped with a camera surveillance system.</p> |
| <p>Whom should I contact about offering to install solar panels at the REM stations? And to set up parking spaces that can be sold to registered users?</p> | <p>You can contact the procurement department at the following email address: <a href="mailto:appro-projets@rem.info">appro-projets@rem.info</a></p>  |



# Réseau express métropolitain

West Island informational meeting

April 29, 2019

Réseau  
express  
métropolitain



# Agenda

- Background
- Work completed, in progress and upcoming
- Transitional public transit mitigation strategy
- Next steps



# Background

# Réseau express métropolitain



**LEGEND**

- REM
- Planned station
- Intermodal station
- Metro station
- Commuter train line

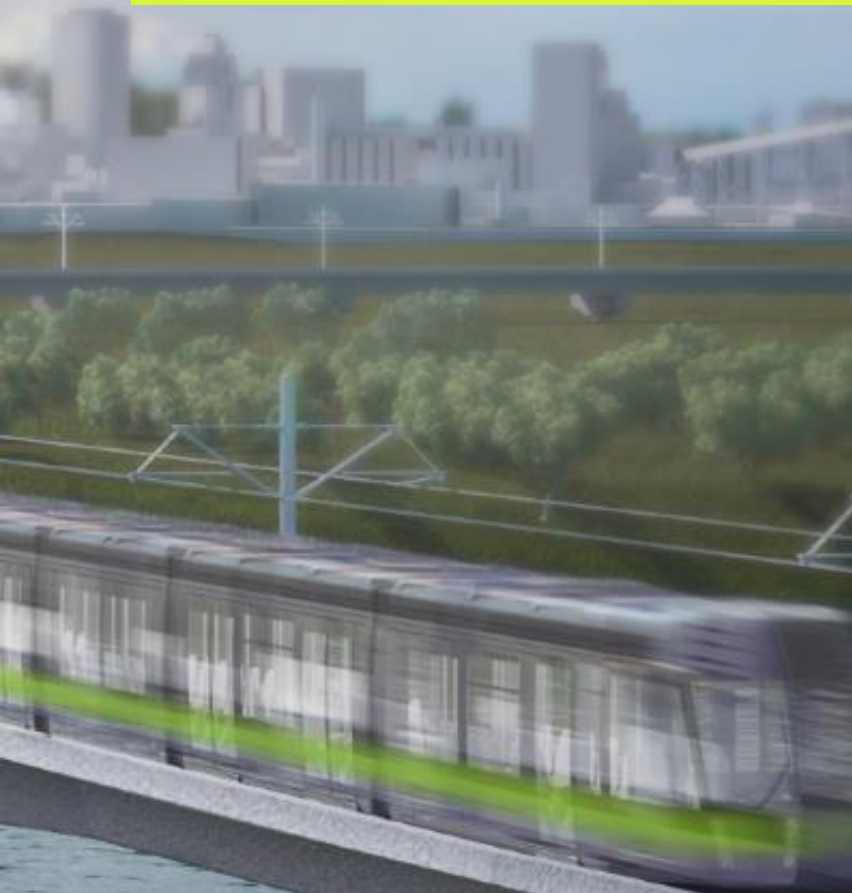
**Largest public transit project in Quebec in the last 50 years**

**Light rail**  
100% electric and automated

**26 stations, 67 km**

**Commissioning in 2023**

# A new metro line on the West Island



Significant increase  
in transit offering



Service to  
industrial and  
economic hubs



Service to Montréal-  
Trudeau  
International Airport



+ **Faster**  
+ **More frequent**



5 min in peak hour  
15 min off-peak hours

2 min 30 in peak hour  
5 min off-peak hours

10 min in peak hour  
15 min off-peak hours

 SADB – Gare Centrale: **33 minutes**  
Kirkland – Gare Centrale: **30 minutes**  
Pointe-Claire – Gare Centrale: **27 minutes**  
Des Sources – Gare Centrale: **23 minutes**





# The REM stations



# Stations servicing strategic hubs



Major parks

Living environments

Stores

Industries

Companies

Educational institutions

# Stations accessible by various means



**35** bus platforms

**>700**  
parking spaces

**45** kiss-and-ride lanes

**120** bicycle racks



# Transit consortium for active, sustainable mobility



# Contributions to sustainable development

## Increased use of public transit



- > Anticipated daily ridership of 160,000 by 2021
- > Ultimately, REM will prevent cars from driving 115 million km on the roads of greater Montréal, each year

## Improvement of quality of life



- > Significant reduction in noise, visual and air pollution related to passing cars and buses
- > Contribution to sustainable development of the living environments through which it travels

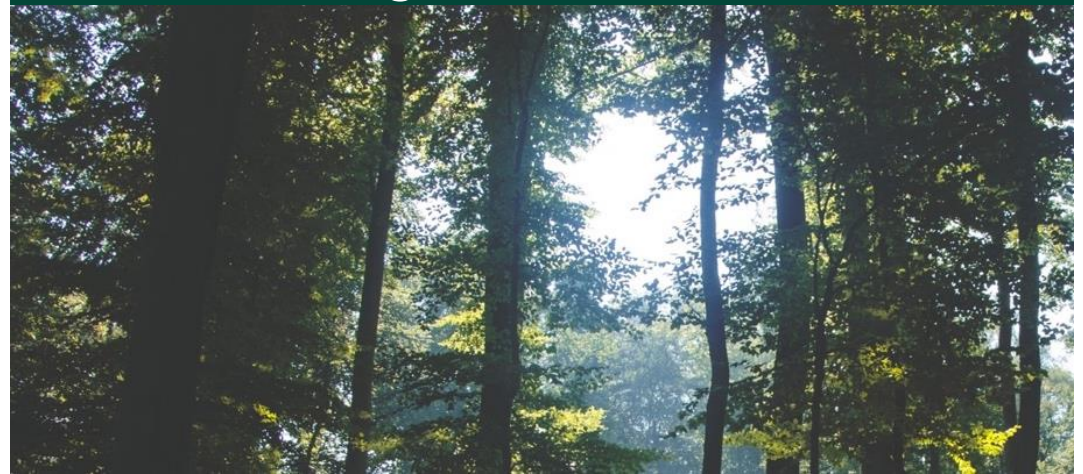
# Contributions to sustainable development

## Reduction in ghgs



- > Reduction of close to 680,000 tonnes of GHG emissions over 25 years
- > Contribution to transportation electrification and improved energy efficiency for this sector, in support of economic development and reduced GHG emissions

## Planting of 250,000 trees



- > Partnership with Jour de la Terre to compensate for the GHG emissions produced during REM construction
- > NouvLR's reforestation rate will be 110% in temporary construction zones

# Stations' architectural principles



Lines to mimic **movement**

Glass for its **transparency** and natural light

Wood for its **warmth** and as a hallmark

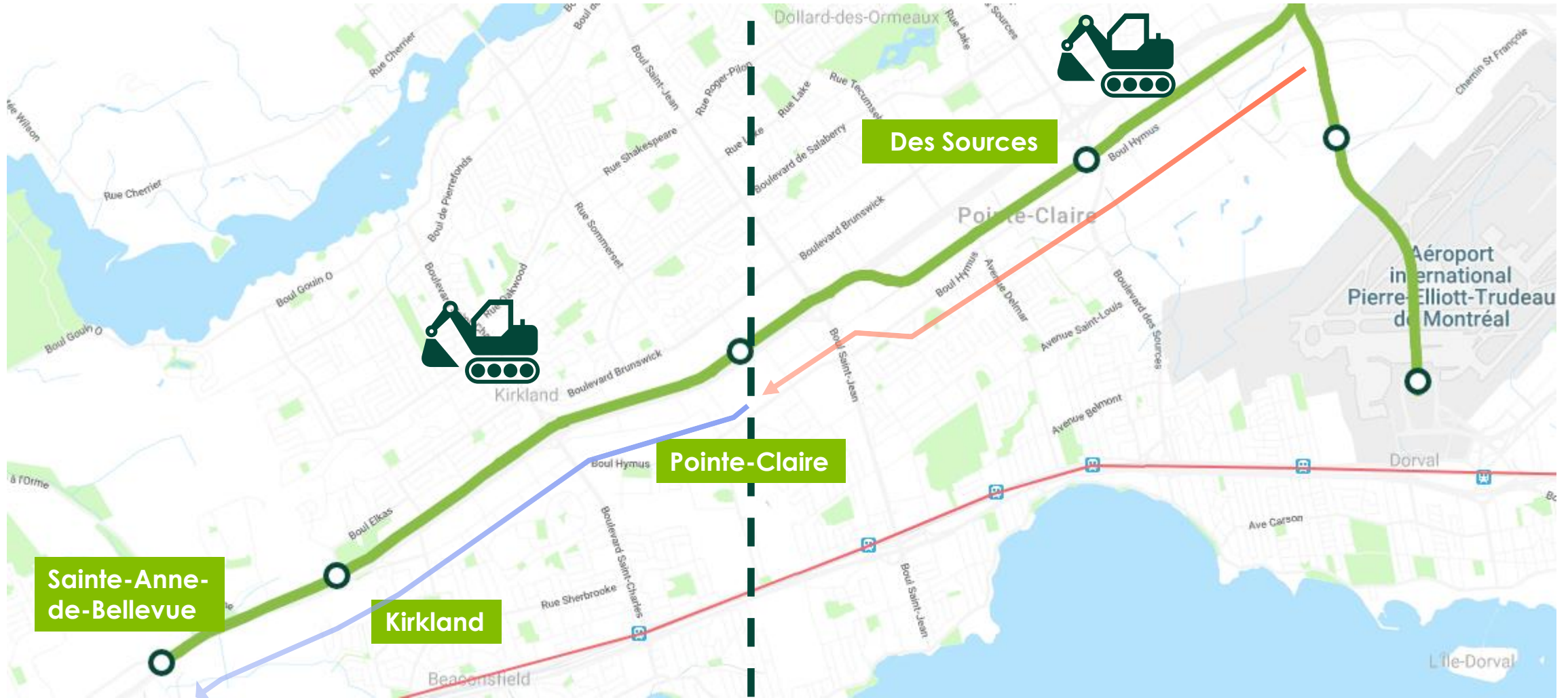


# Execution of work





# Two sectors in action on the Sainte-Anne-de-Bellevue Branch



Sector 1

Sector 2

# Execution strategy

- **Reduce the impact on the environment** – the basic criteria for the **design**
- **Work methods that minimize impact** on public utilities, traffic obstructions, work zones, as well as noise, dust, vibration and trucking.
- **Installation sites**

# Upcoming work

- **Work progressing** on the entire branch
- **Work on** the elevated structure's **caisson piles, columns, pierheads, beams and slab**
- Mobilization of **two launching beams**



- ① Slab
- ② Beam
- ③ Pierhead
- ④ Column
- ⑤ Caisson foundation

# Construction of pillars for the elevated structure



# Construction of the elevated structure spans



**2**  
**Transportation**  
of concrete  
segments

**1**  
**Prefabrication of concrete**  
segments at the plant



**3**  
**Assembly** of concrete  
segments on the  
launching beam to build  
the spans of the slab

## 2 launching beams (1 per sector)



*\*Example of an elevated superstructure; not representative of the REM network's final product.*

# Advantages of the method selected

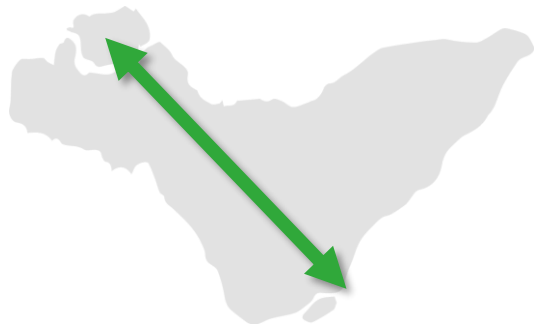
- **Increases** construction method optimization
  - Each launching beam will erect one (1) span every two (2) days
  - Twelve (12) concrete segments will be delivered each day
- **Decrease impact** on road traffic
- **Repetitive process**
- **Quality of the structure** built is increased due to prefabrication

**Commissioning planned for 2023**





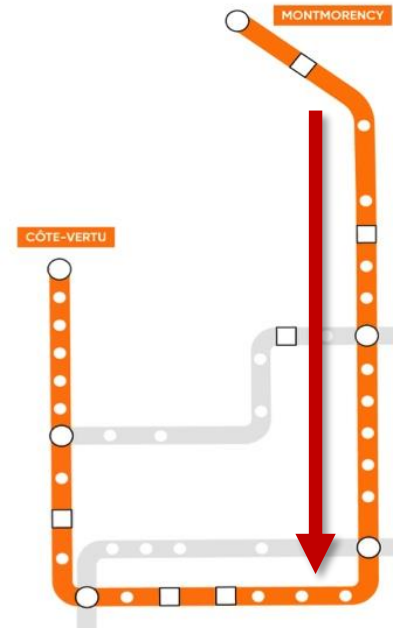
# MITIGATION STRATEGY



Irreplaceable diagonal



Mount Royal – an obstacle to circumvent



Metro's Orange line (east branch)



Road congestion

**Highway  
network  
and priority bus  
measures**

**Work group  
with users**

**Steering  
Committee –  
North Shore  
and Laval**

**Municipalities  
and local  
networks**

**Public transit  
stakeholders**

# FOUR PILLARS OF THE NEW TRANSITIONAL NETWORK



Rail  
shuttles



Improvement  
of existing service  
and bus shuttles



Priority bus  
measures



Orange\*, green  
and blue lines

*\* west branch*

# ROXBORO/SUNNYBROOKE SECTOR

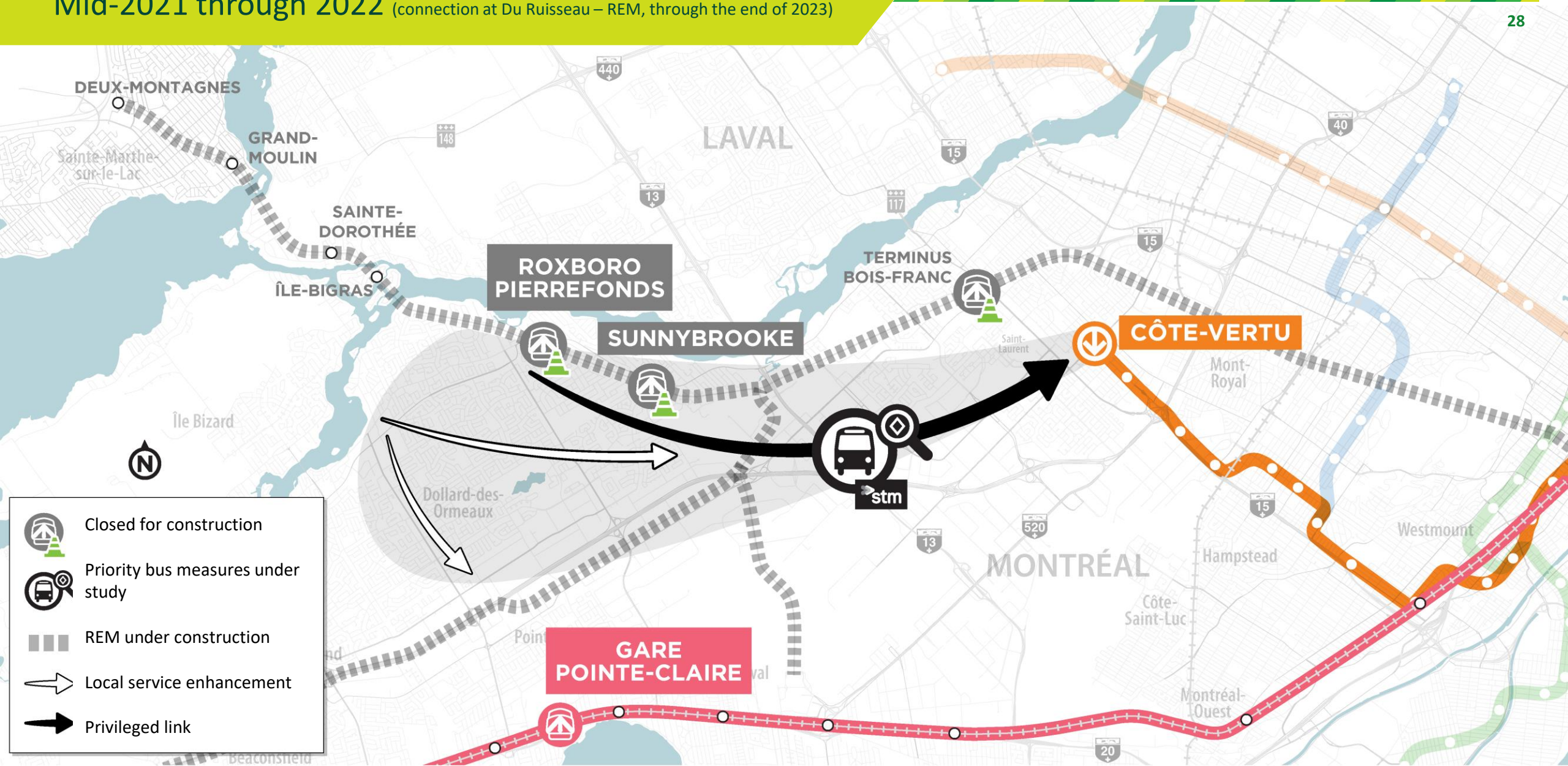
2020 to mid-2021



- Priority bus measures
- Priority bus measures under study
- REM under construction
- Local service enhancement
- Privileged link

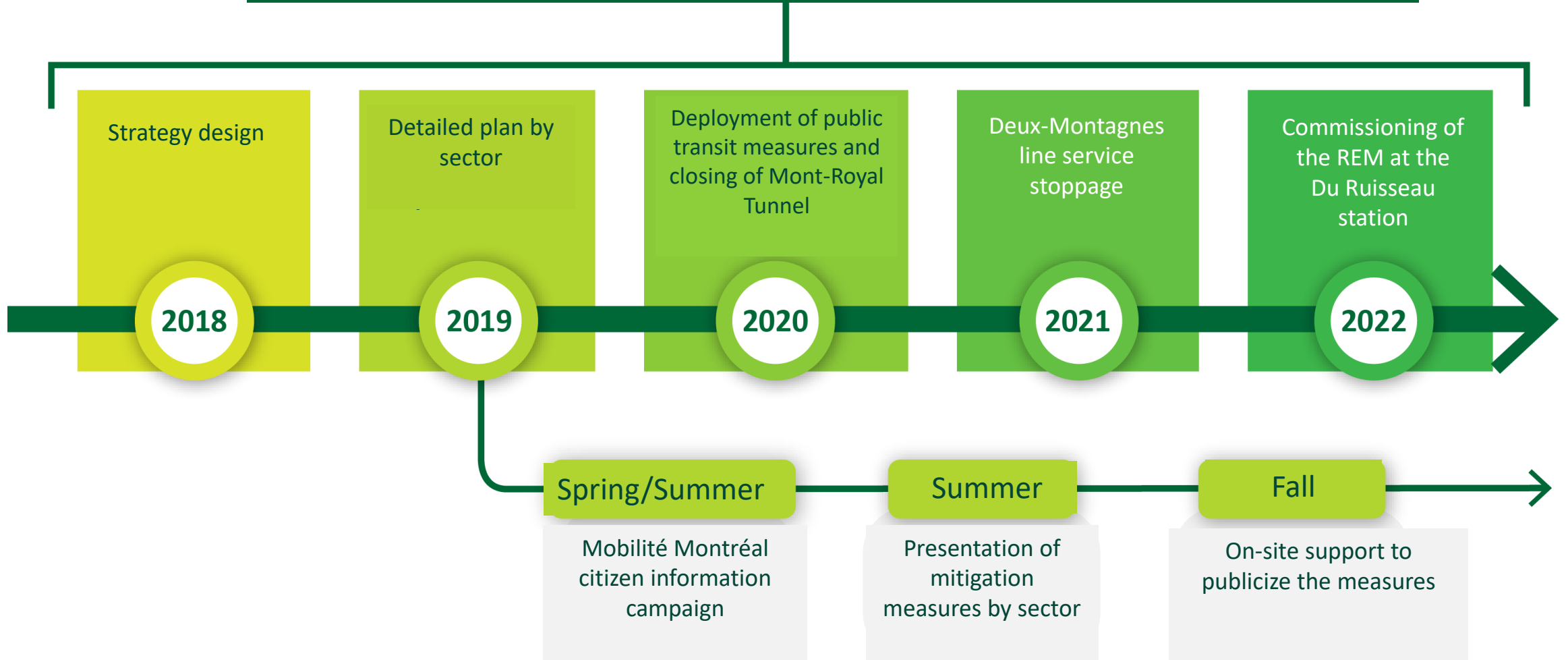
# ROXBORO/SUNNYBROOKE SECTOR

Mid-2021 through 2022 (connection at Du Ruisseau – REM, through the end of 2023)



- Closed for construction
- Priority bus measures under study
- REM under construction
- Local service enhancement
- Privileged link

COOPERATION, COORDINATION AND MONITORING OF MITIGATION MEASURES BY PARTNERS





# Question & answer period



Réseau  
express  
métropolitain

 REMgrandmtl

 REMgrandmtl

 1 833 rem-info  
(1 833 736-4636)

 info@rem.info

[rem.info/en](http://rem.info/en)



A large, dark green, stylized letter 'R' is the central focus. A horizontal bar, colored in a lighter shade of green, passes behind the letter, extending across the width of the image. The 'R' has a thick vertical stem and a curved top that tapers into a diagonal leg.

# 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



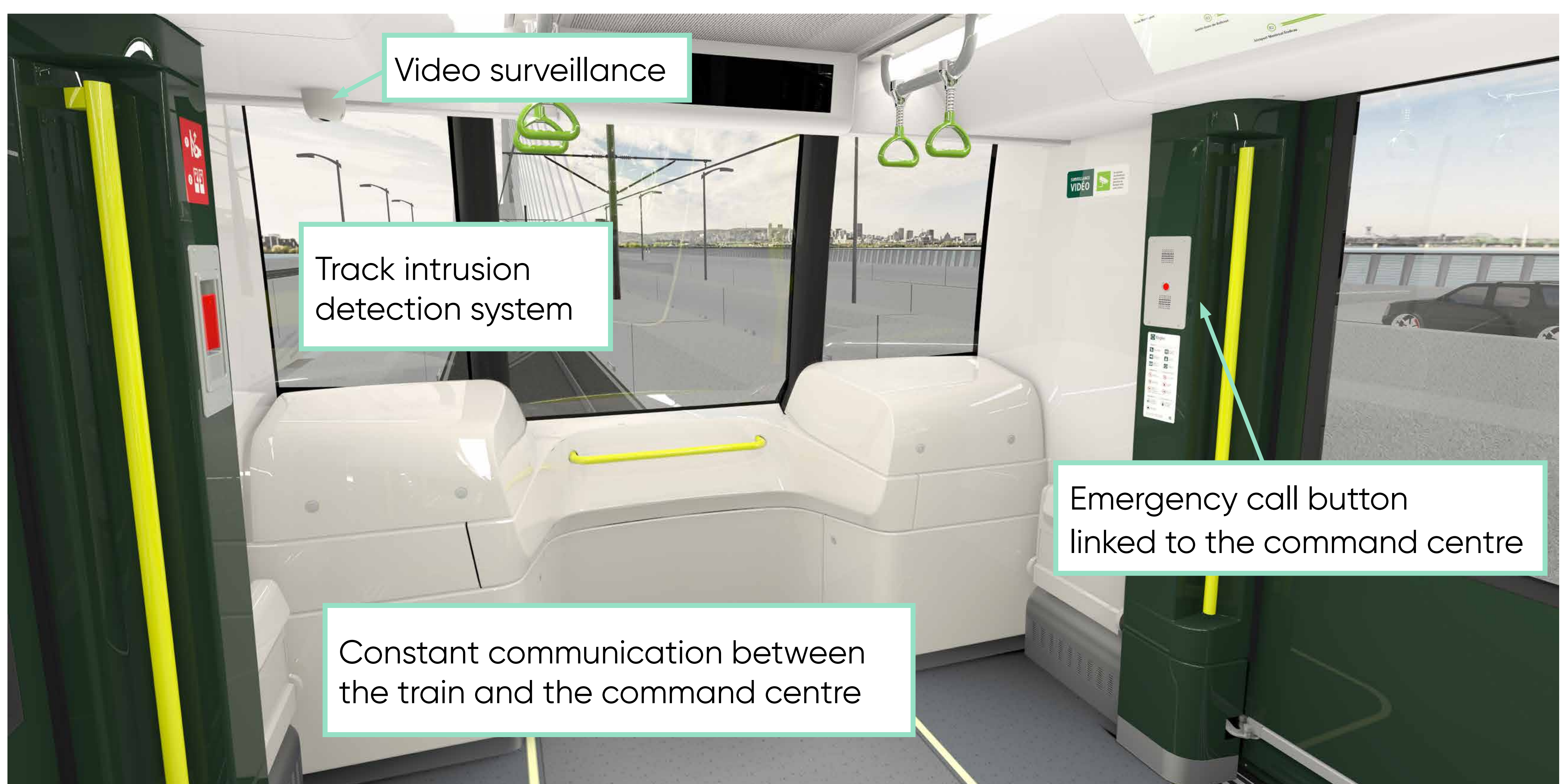
# Security

## 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

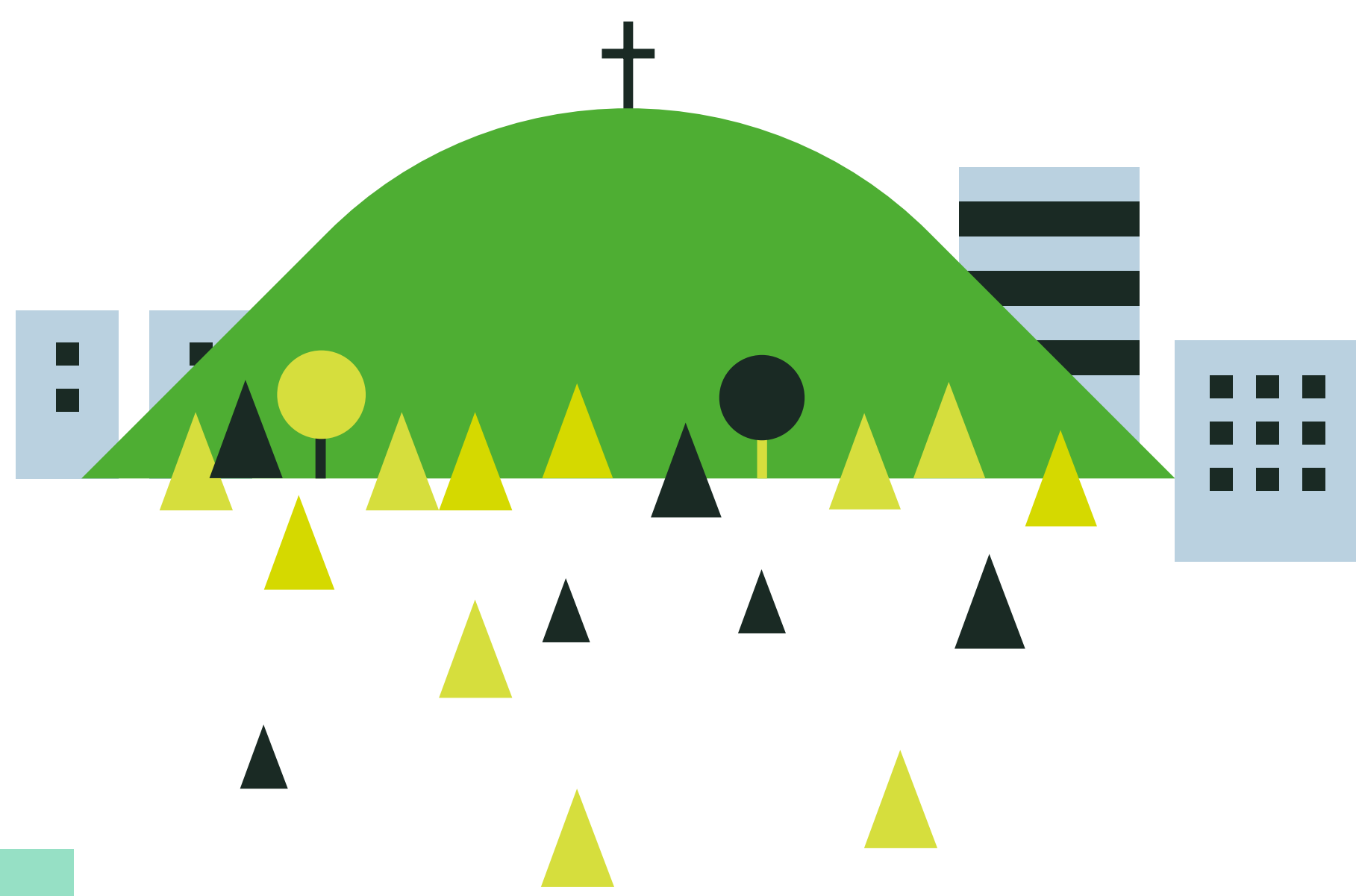
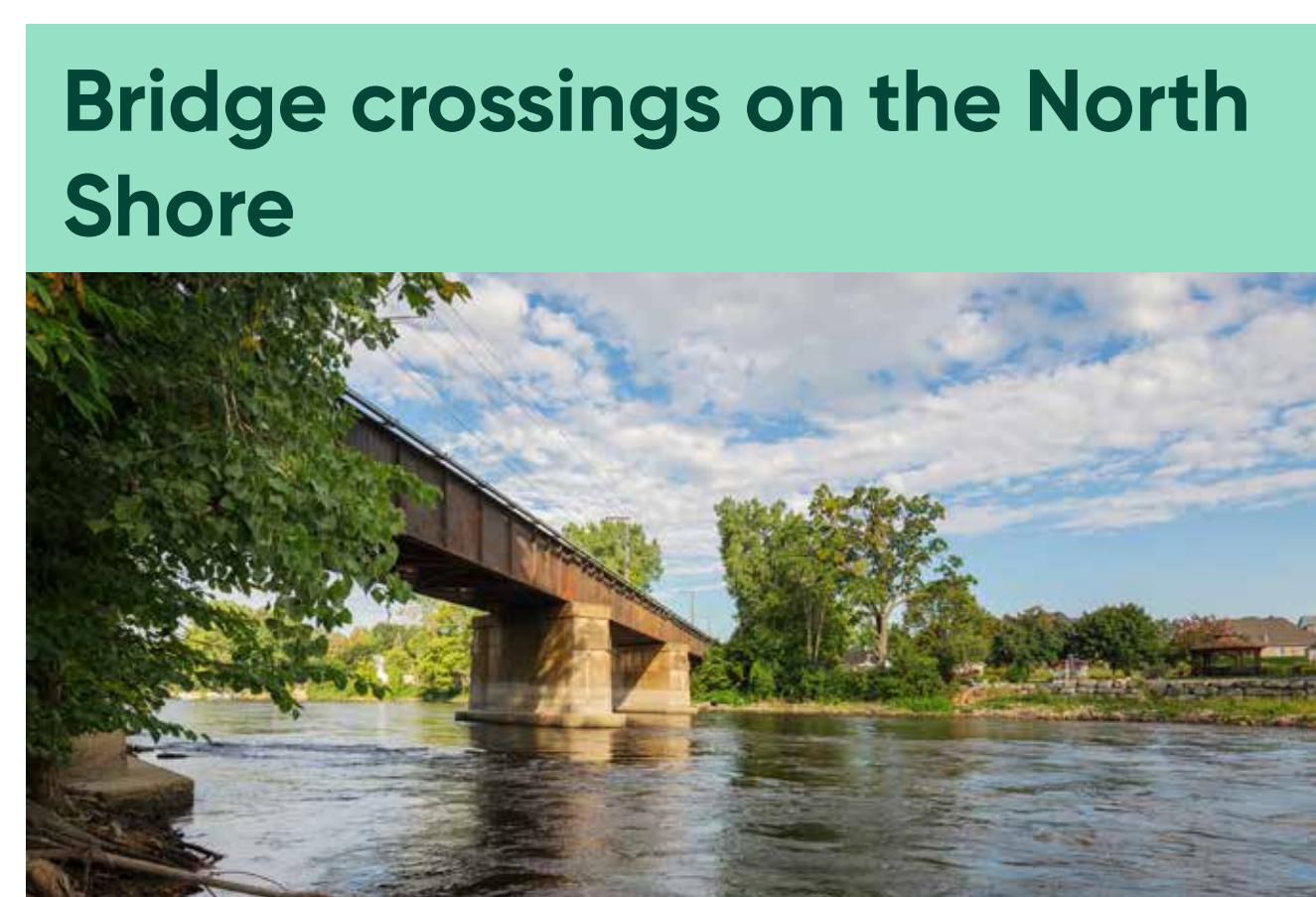
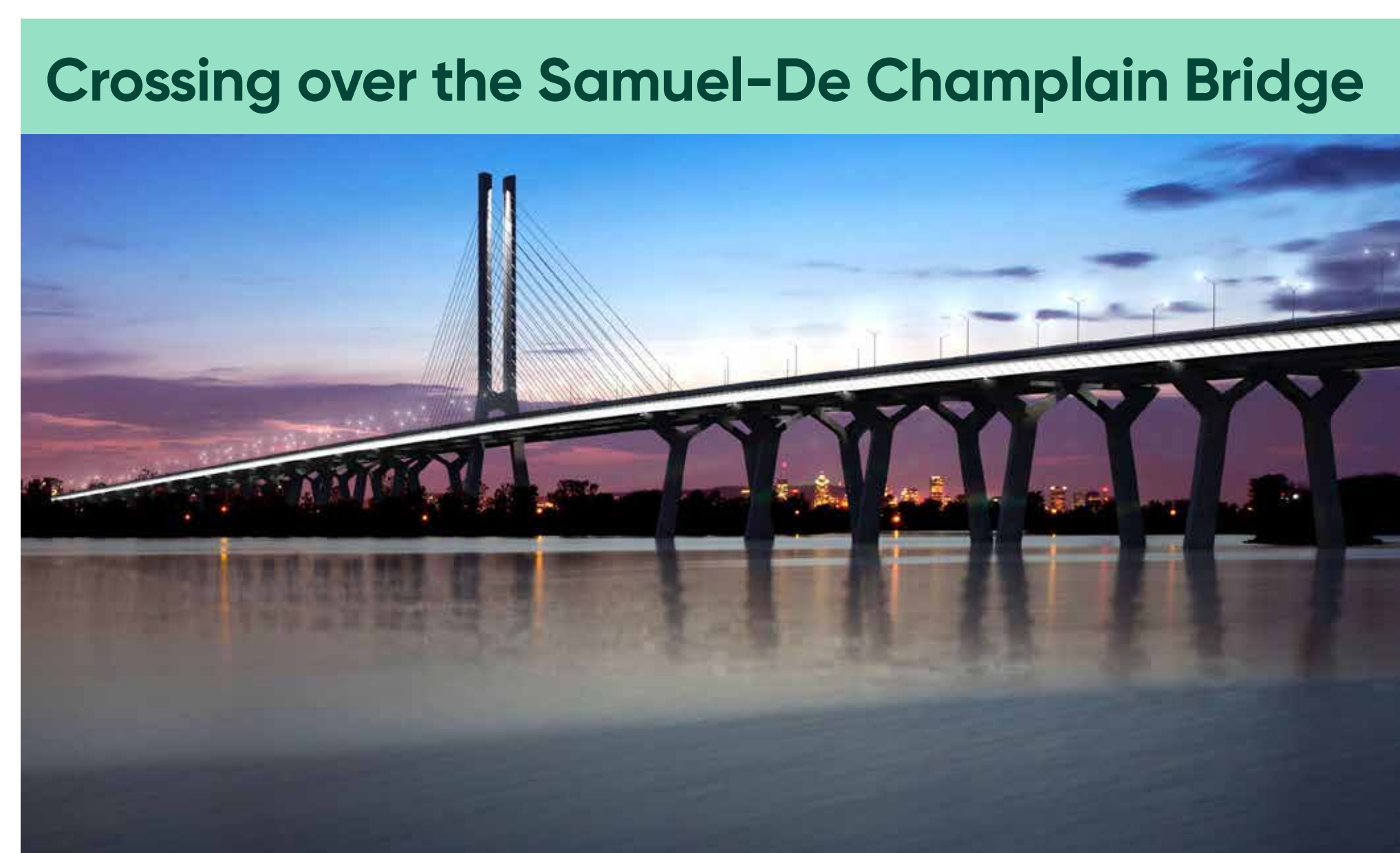
In addition to protecting users, the platform screen doors significantly increase the reliability rate

- 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

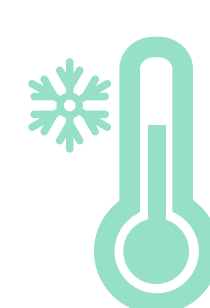


Breathtaking views of Greater Montréal

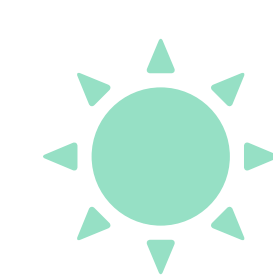
## Services and comfort



Wi-Fi



Heated floors and air conditioning

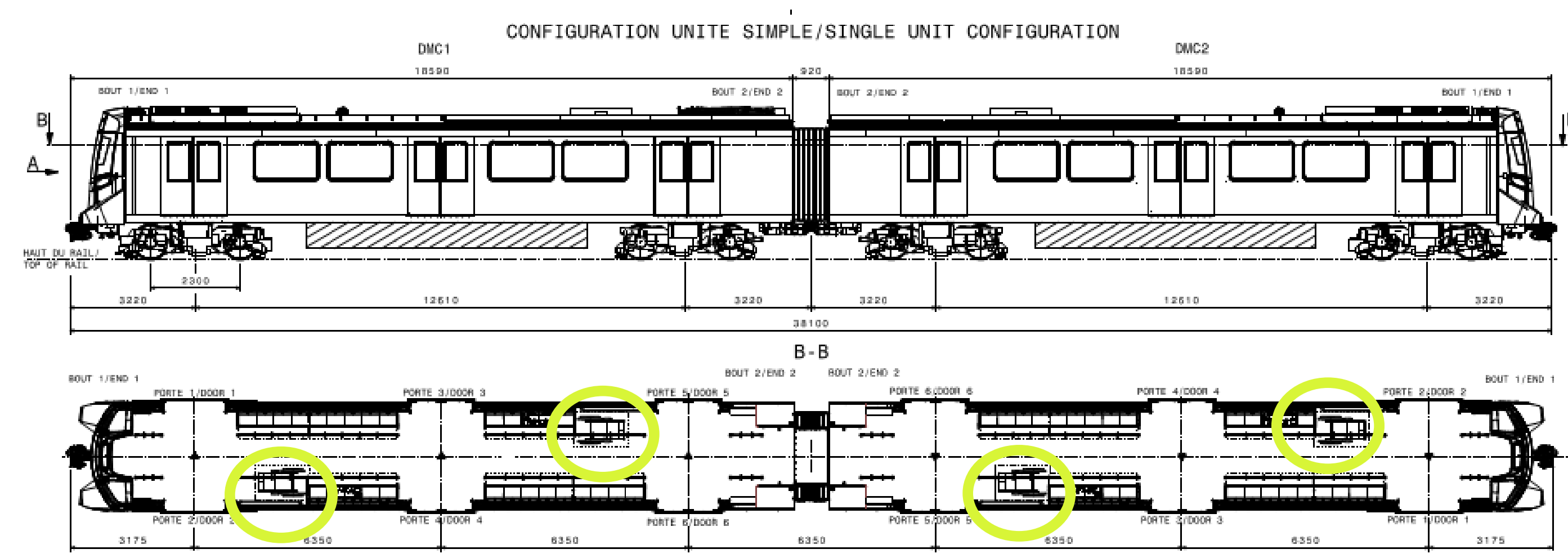
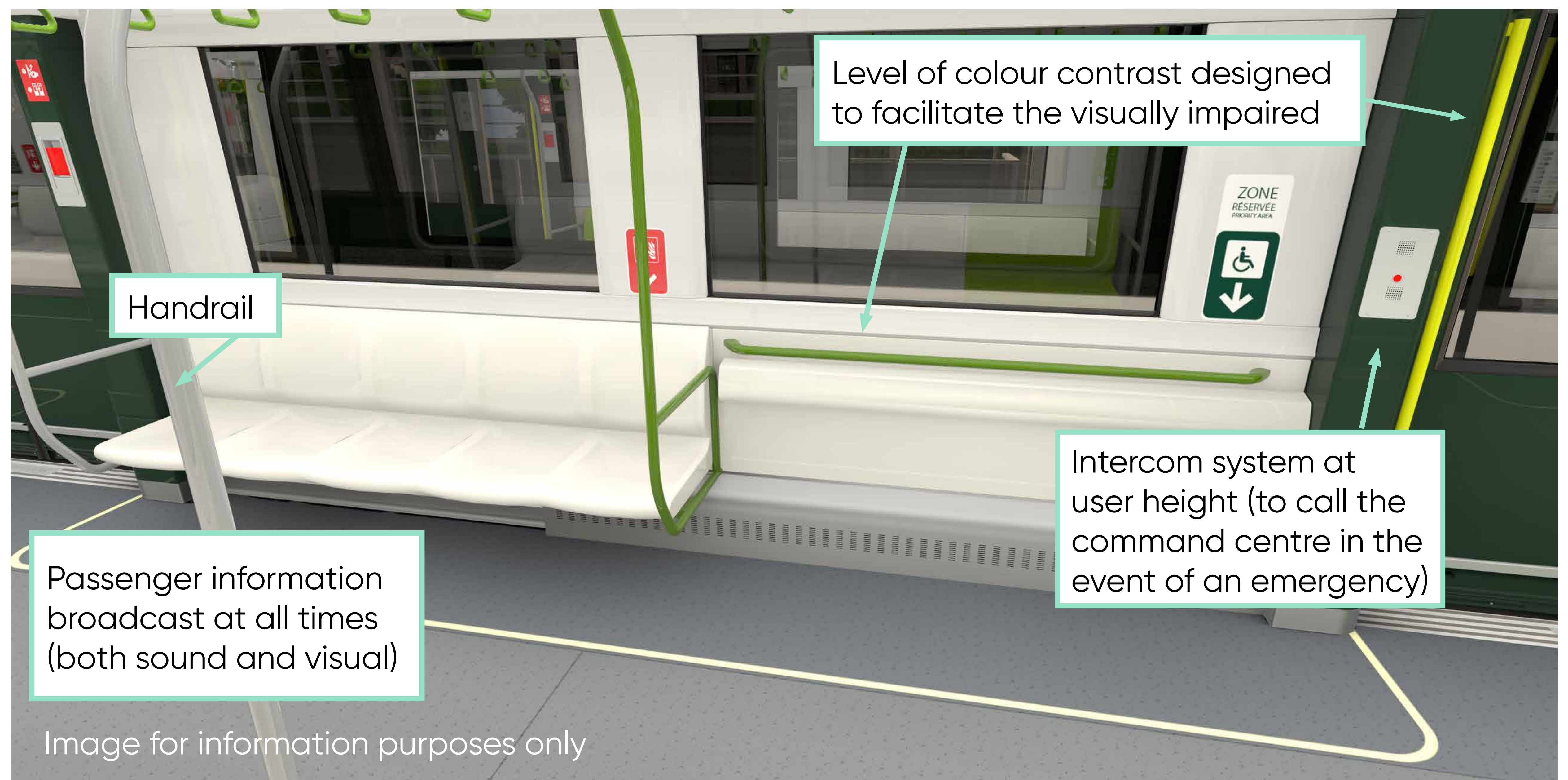


Abundant lighting



# Accessibility and passenger movement

## Universal access



4 reserved spaces per off-peak hours departure  
8 reserved spaces per peak hours departure

**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

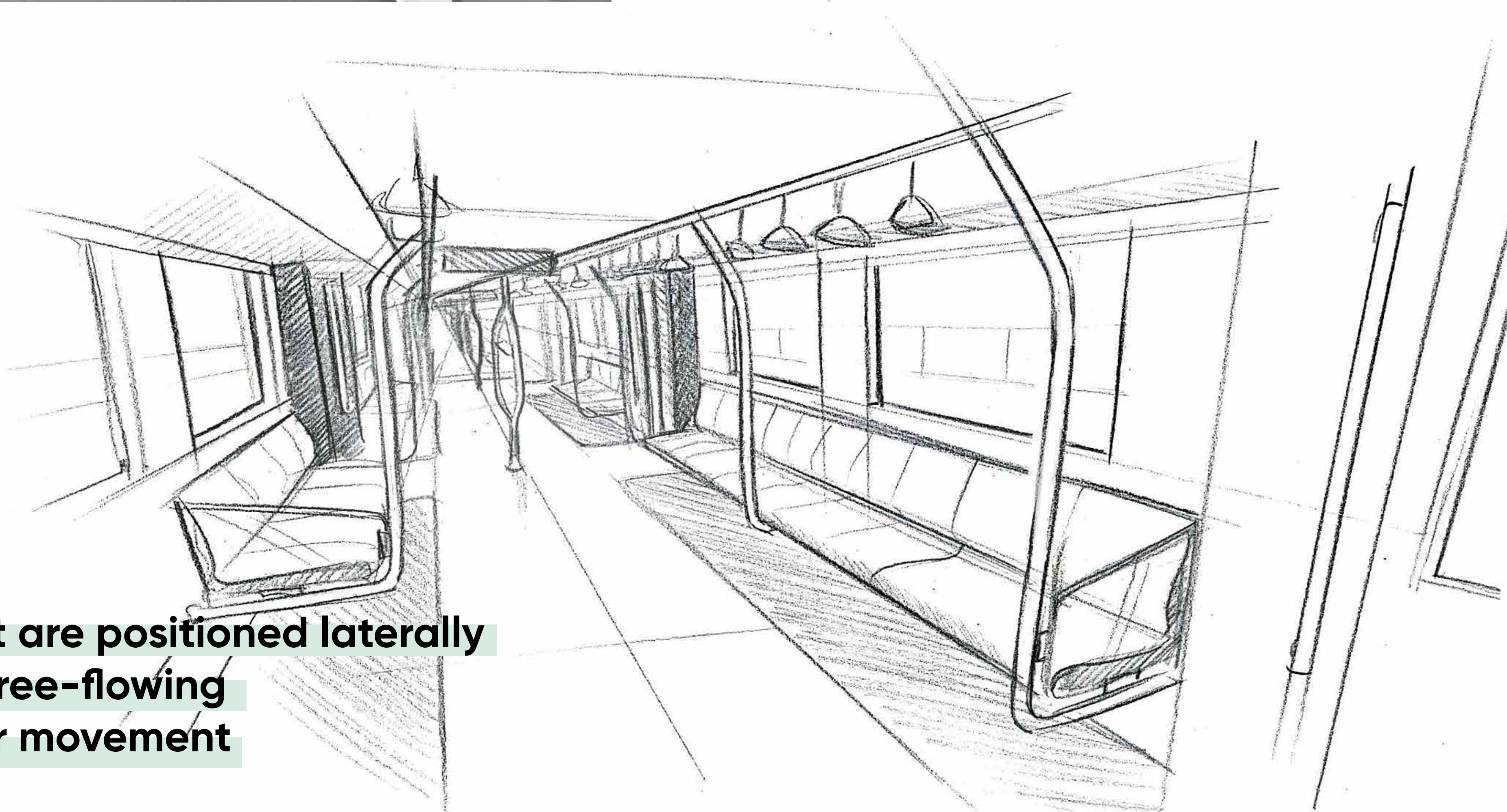


Cyclists with bicycles



Commuters with luggage

**Seats that are positioned laterally allow for free-flowing passenger movement**

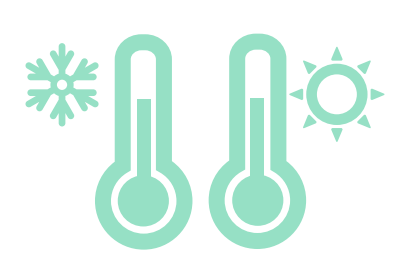


# 26 integrated and enclosed stations

## 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

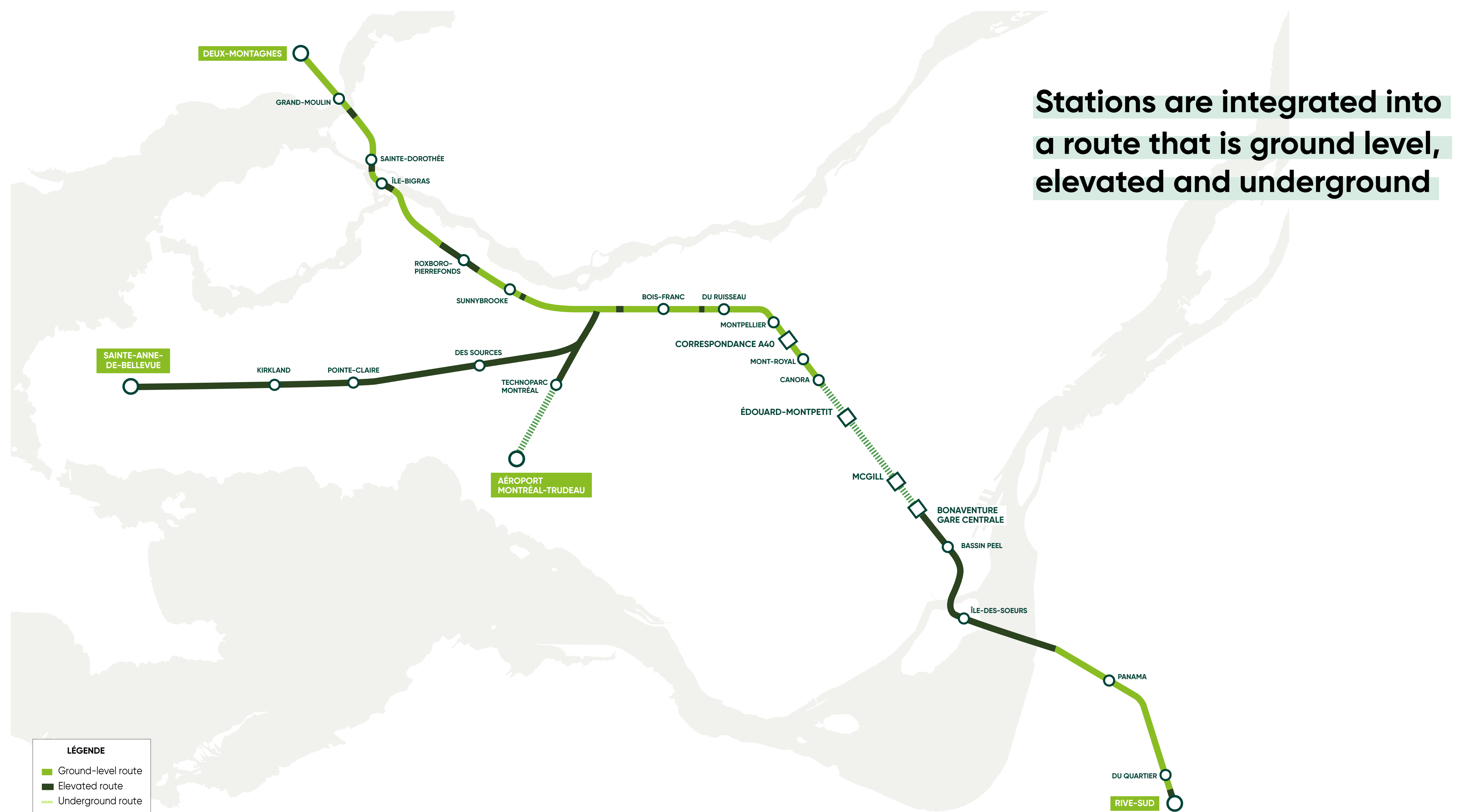


Wi-Fi

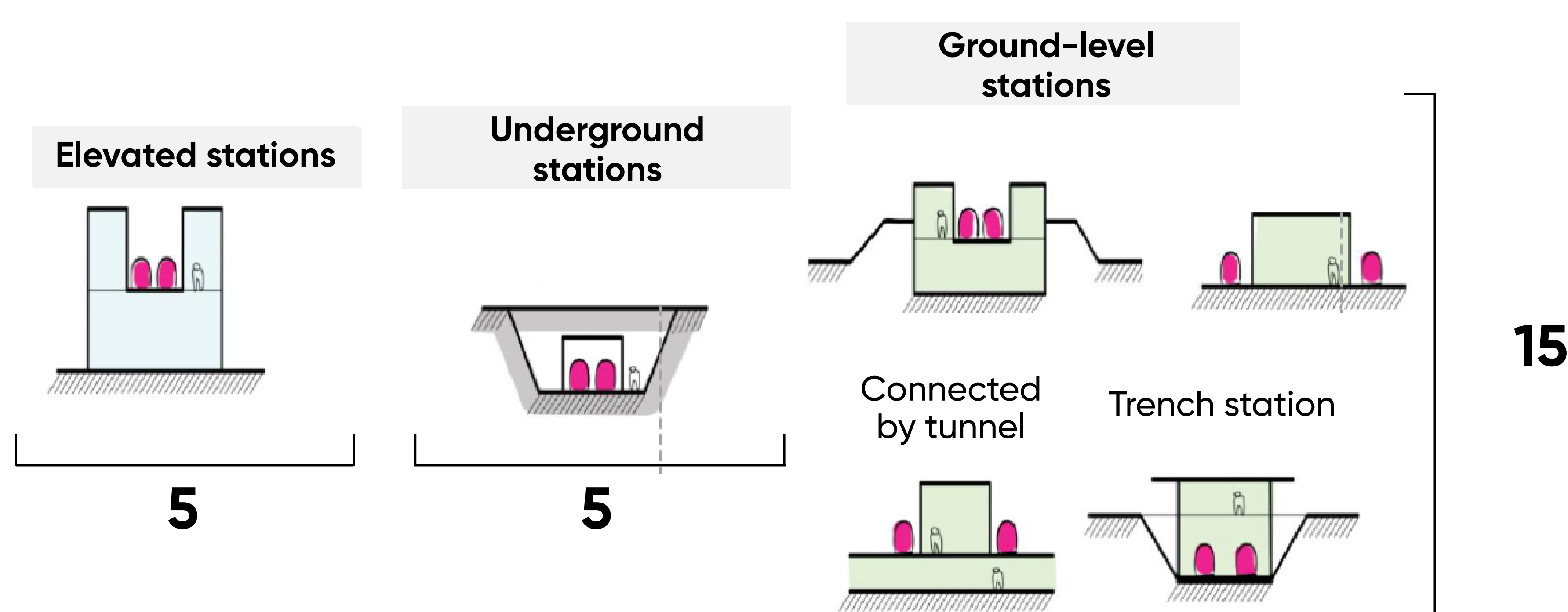


Platforms are 80 m long

## Categorization



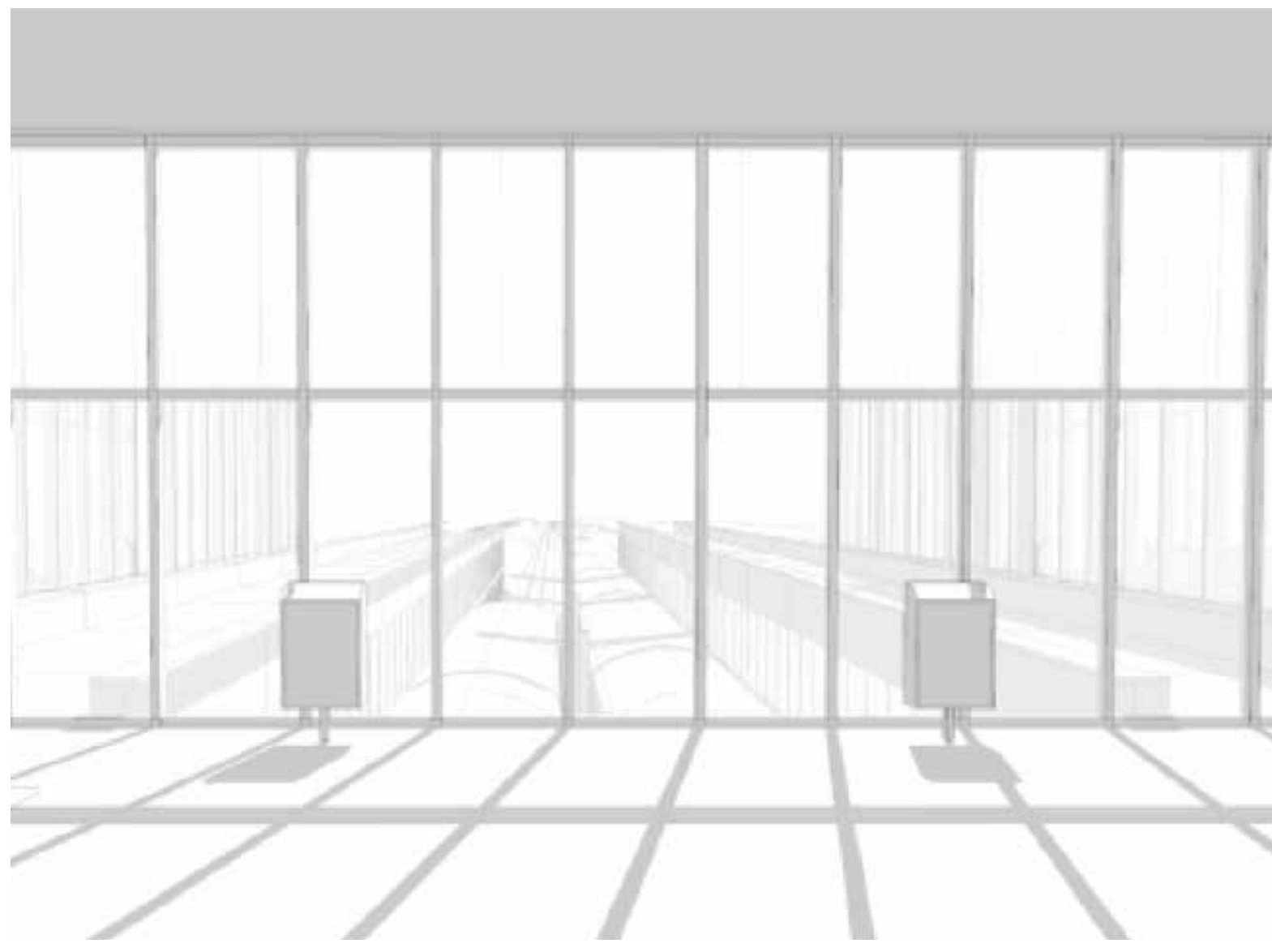
Removal of existing level crossings along the Deux-Montagnes lines, for optimal security.



# Architecture

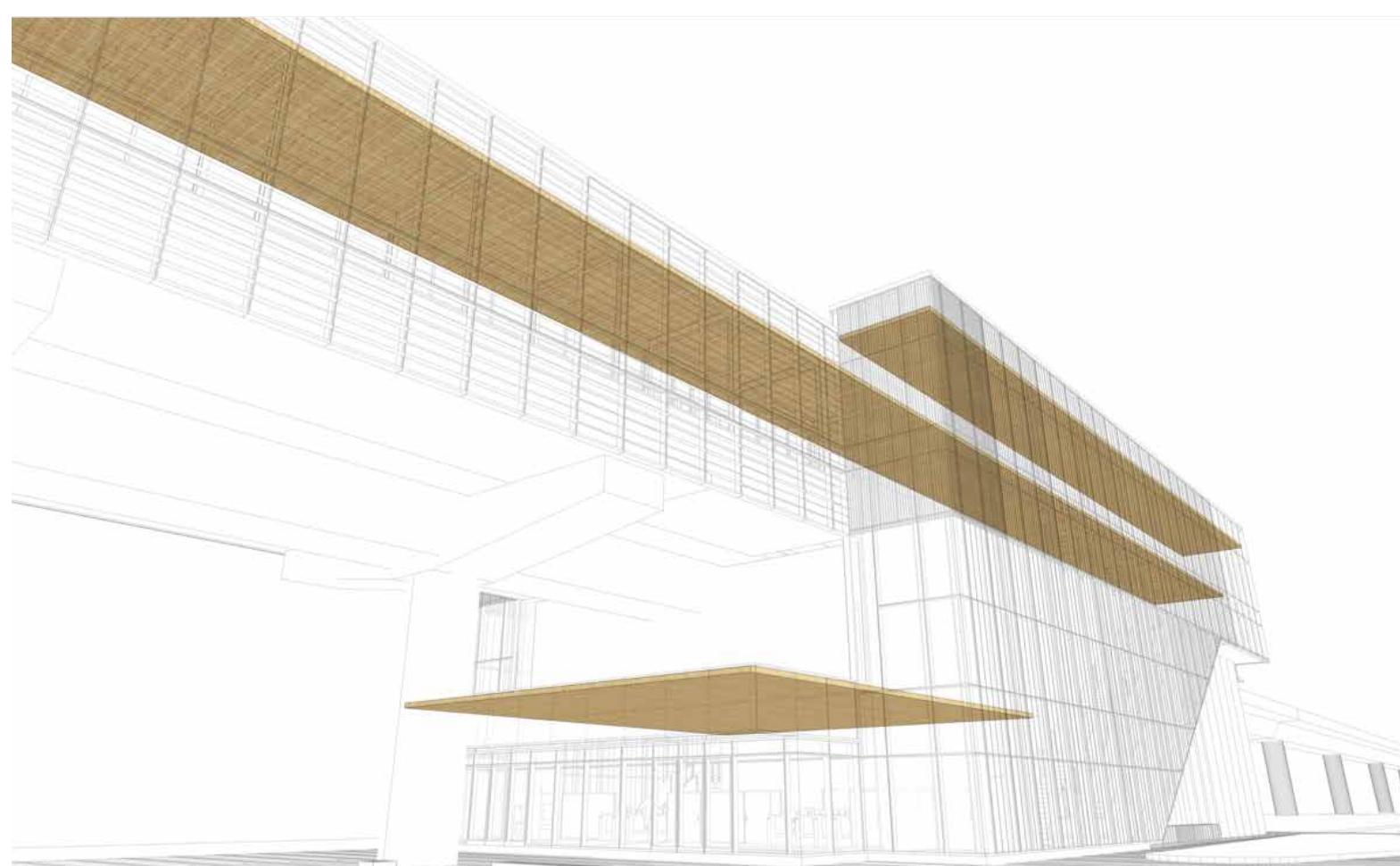
## Materials and design principles

### Glass



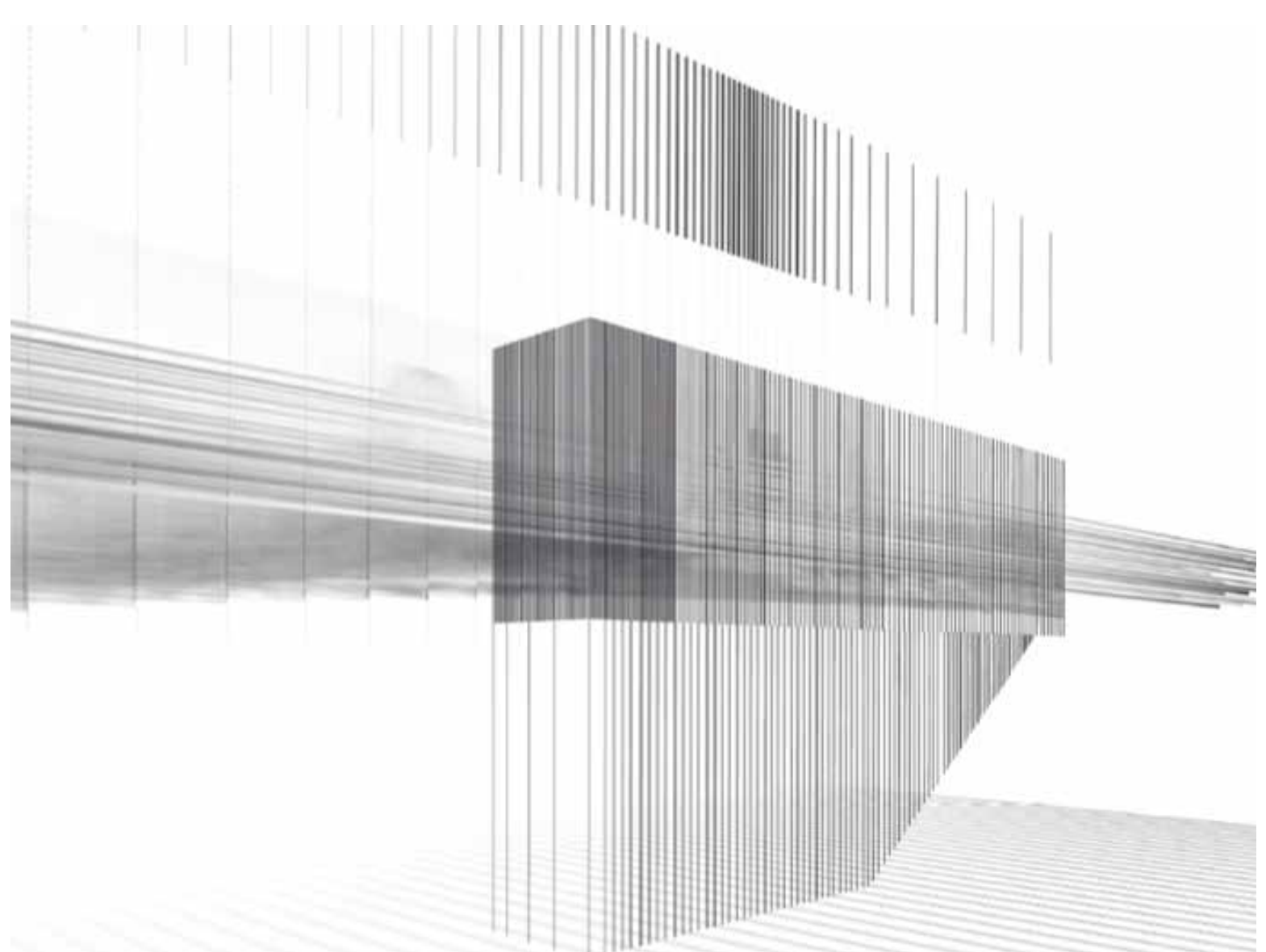
In order to let in as much natural light as possible and for increased safety, the stations are transparent (the concept of seeing and being seen). Fritted glass is used to filter the light.

### 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.

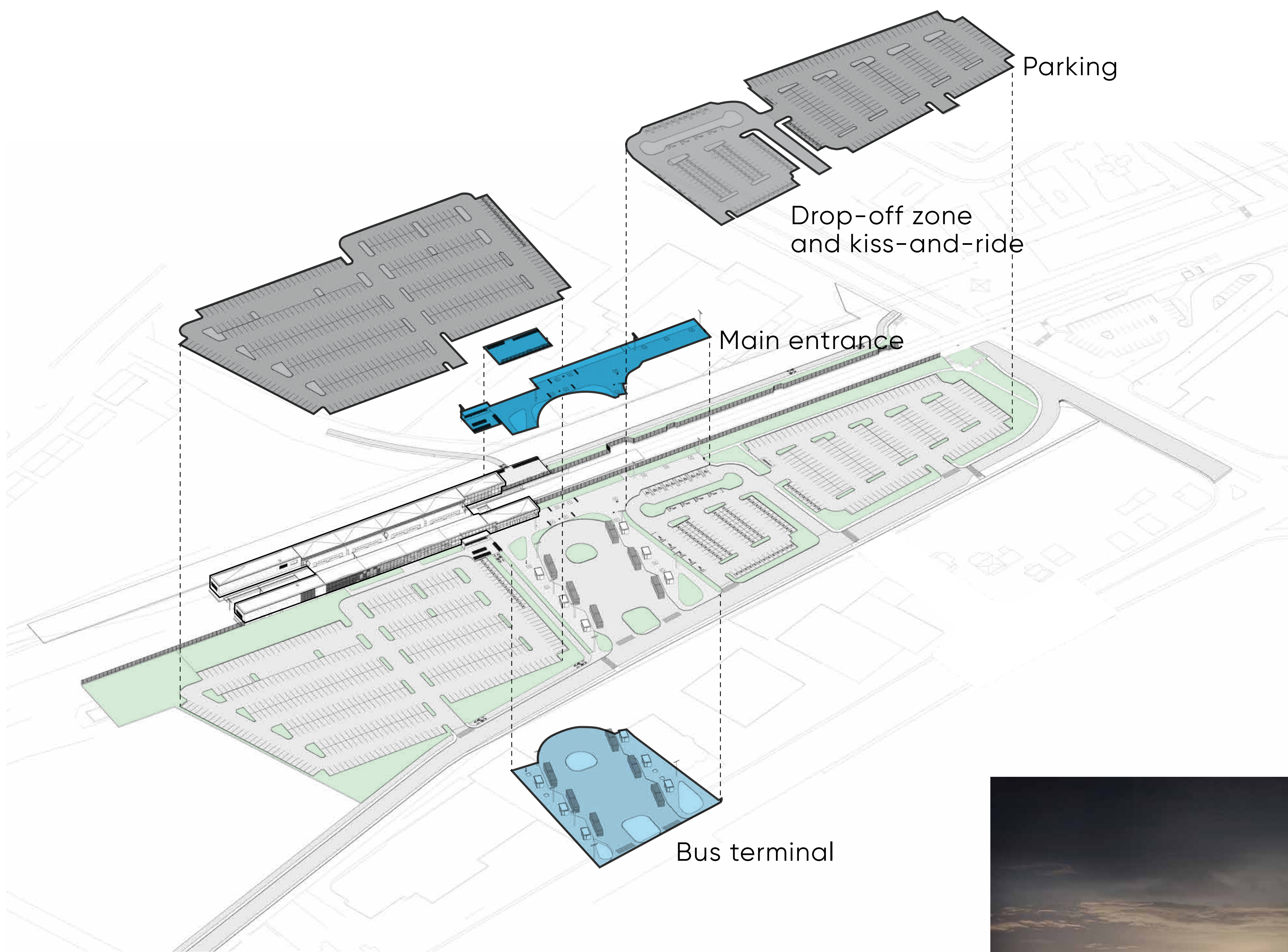


Coloured surfaces will be visible throughout the stations (tiles, for the most part)



# Onsite amenities and user routes

## The onsite zones



Across the entire network:



Bus platforms:  
105 platforms



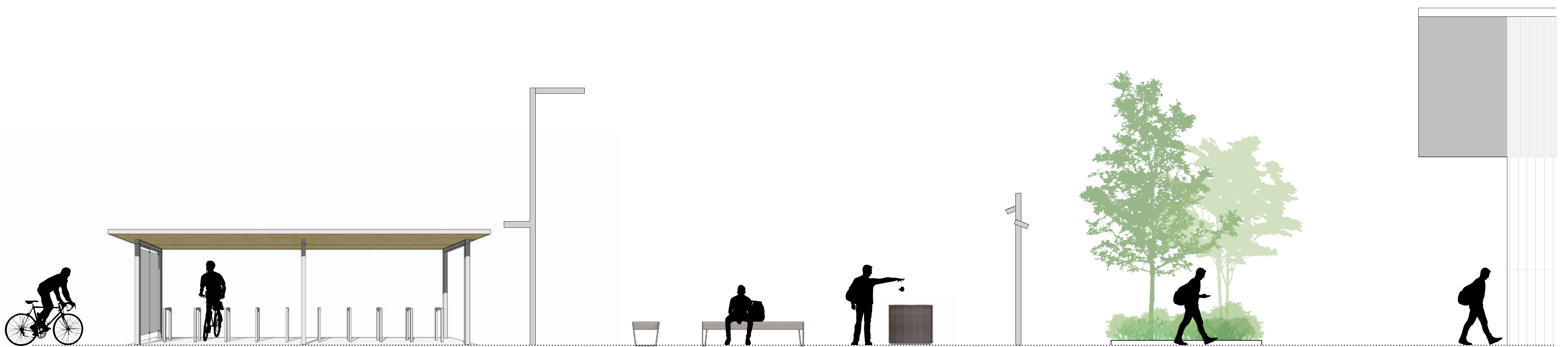
Parking:  
± 9500 spaces



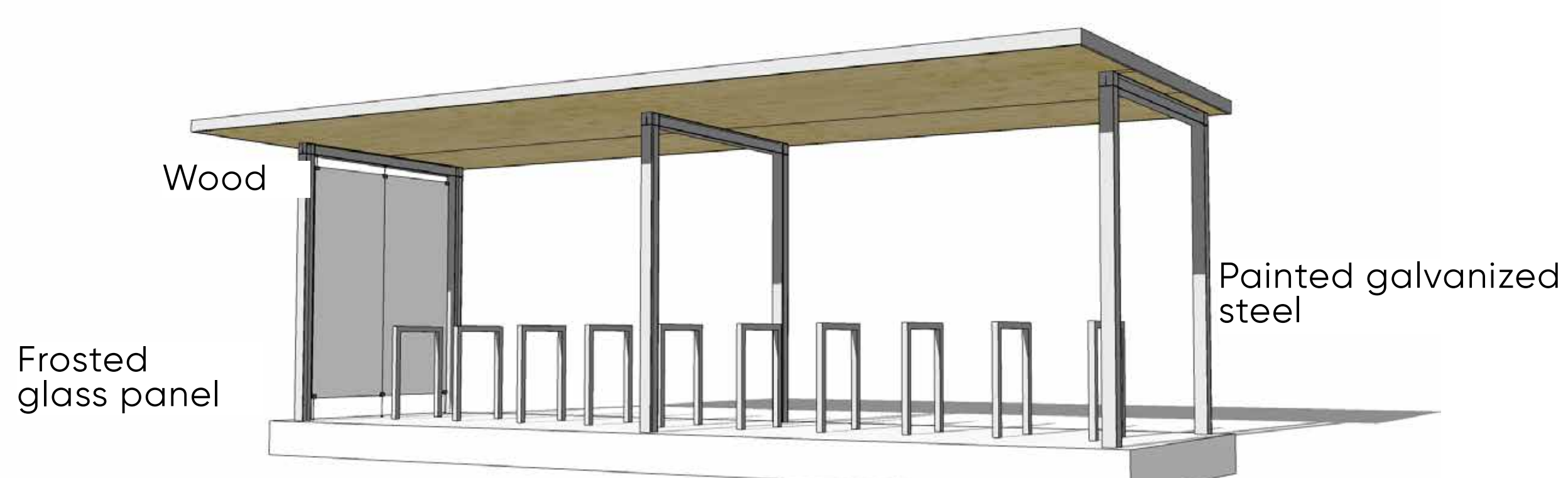
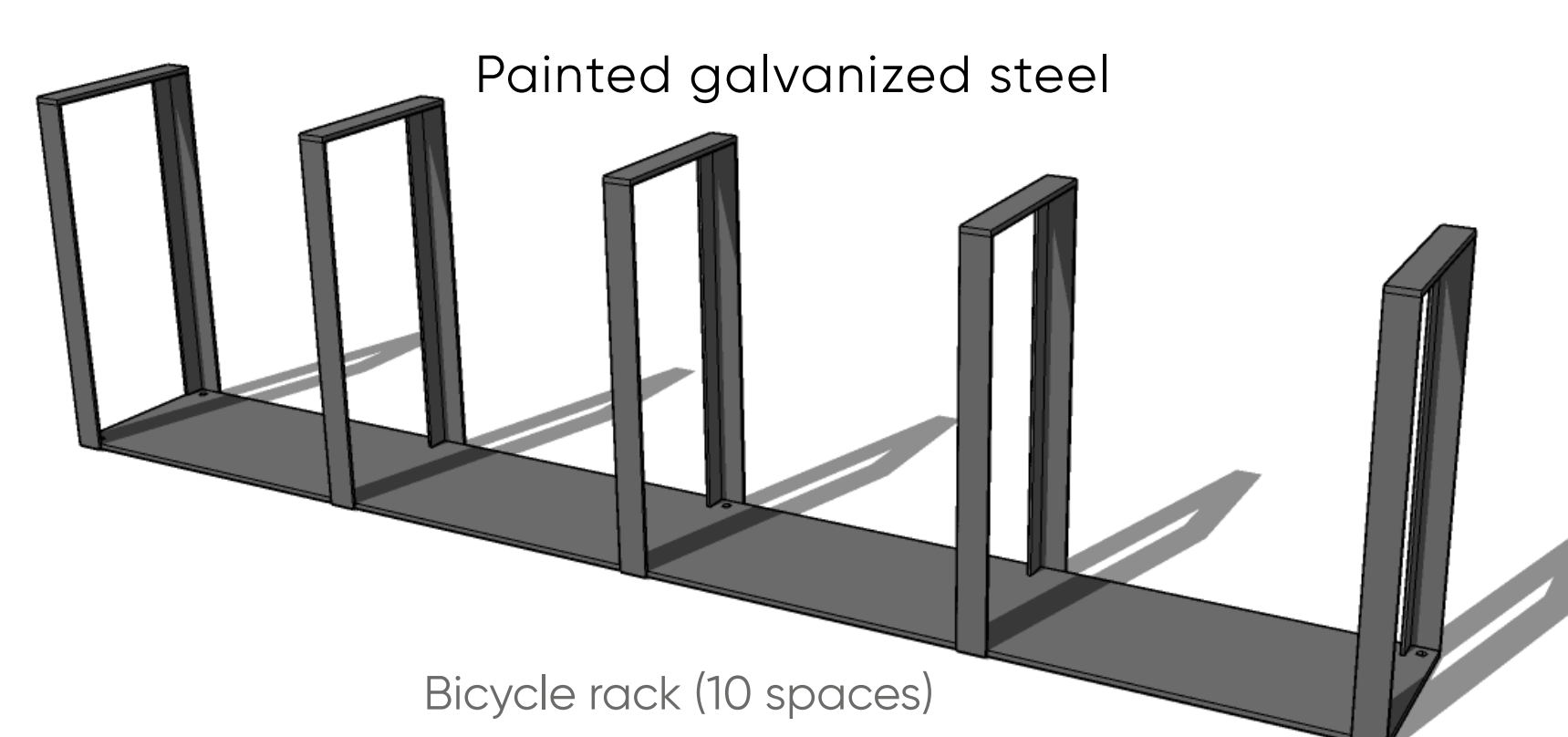
Bicycle racks:  
± 1400 racks



## User routes



## Bicycle racks and bus shelters



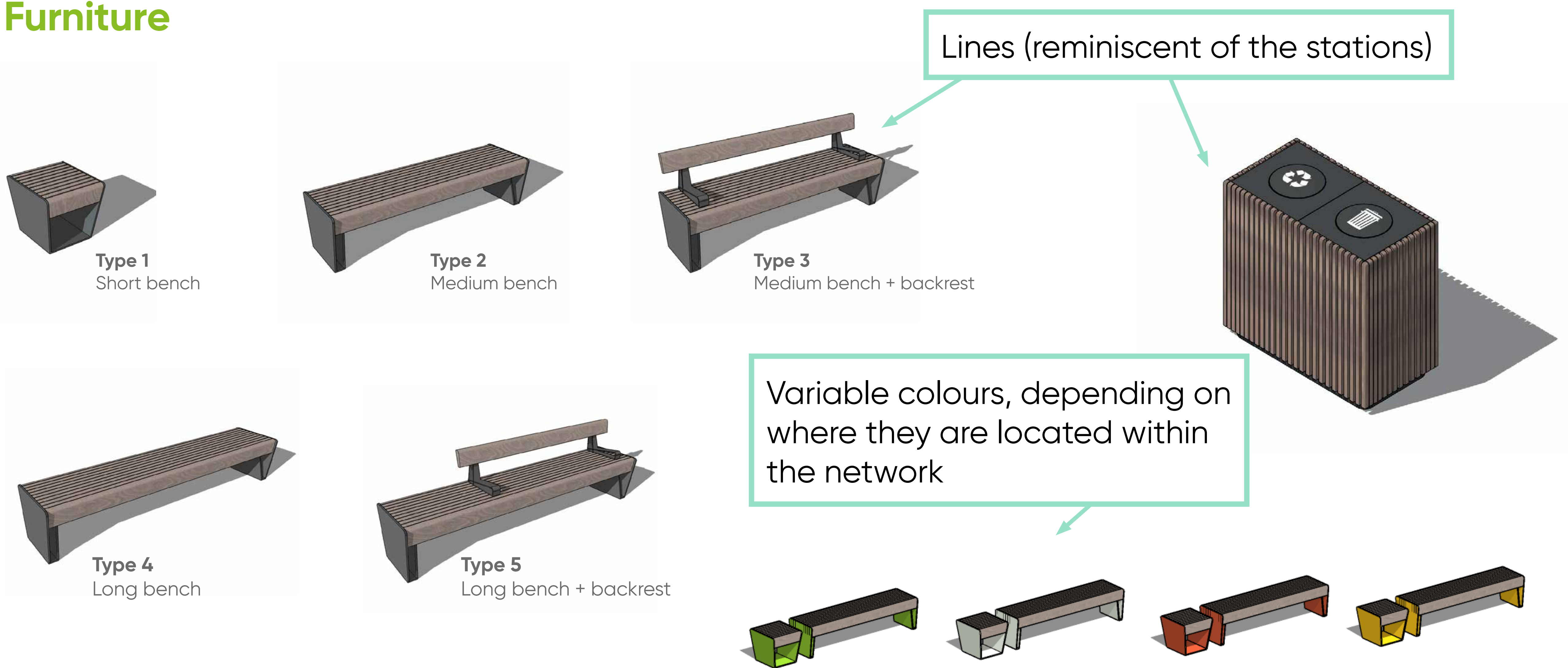
The use of wood and glass in the bus shelters and bicycle rack zones is reminiscent of the station architecture





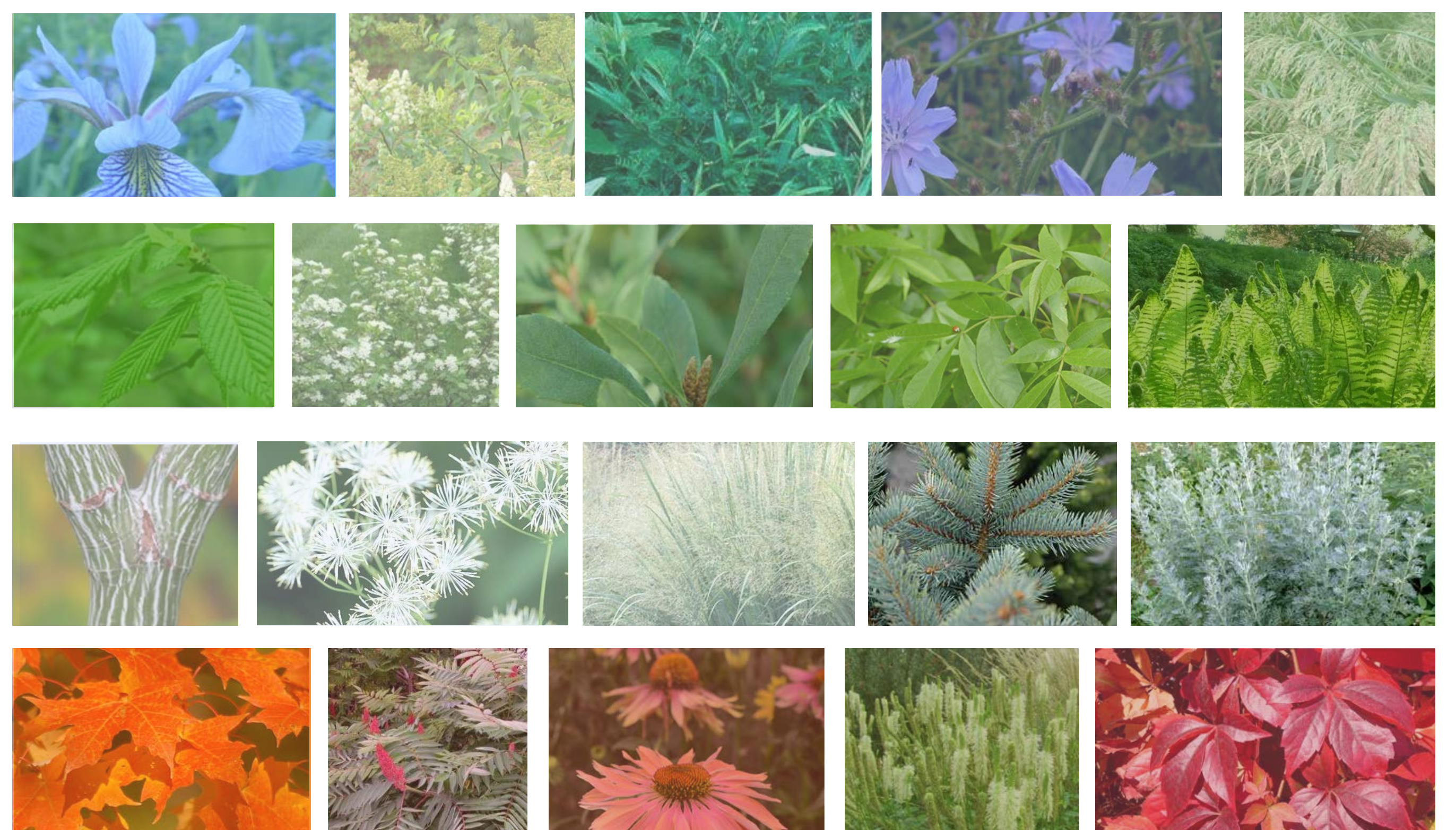
# Onsite amenities and user routes (cont'd)

## Furniture



## Vegetation

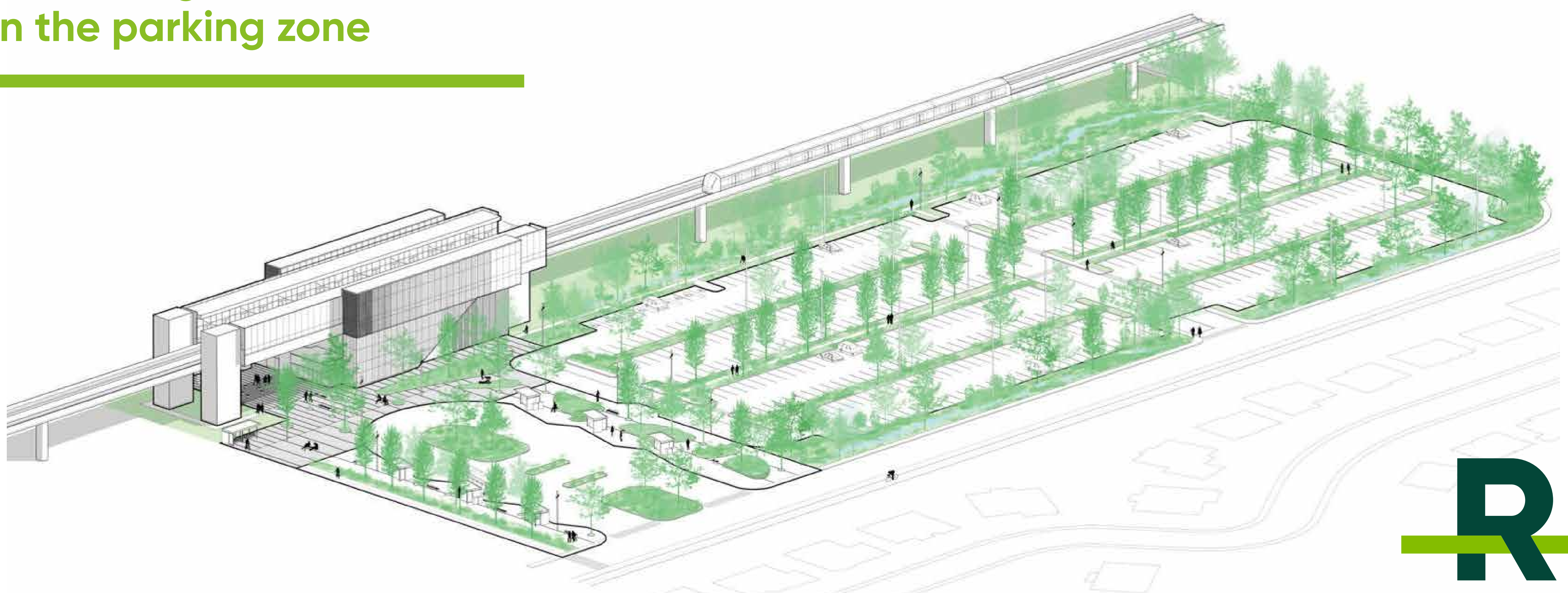
Vegetation of various colours and varieties will be planted on the station sites. The choice will be influenced by the colour strategy of the architectural charter



### Placement of the vegetation:

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

## Minimizing heat islands in the parking zone



# A new metro line in West Island



**4 stations :**  
Sainte-Anne-de-Bellevue,  
Kirkland, Pointe-Claire,  
Des Sources

In service  
**20 hours/day,**  
**7 days/week**

Departures every  
**10 minutes**  
during **peak periods**  
and every **15 minutes**  
during **off-peak**

**Connection to**  
**three métro lines**  
and access to the airport,  
North Shore, South Shore

## Kirkland station



Schematization for illustrative purposes only



# Innovative environmental initiatives



## Efforts for a greener construction site

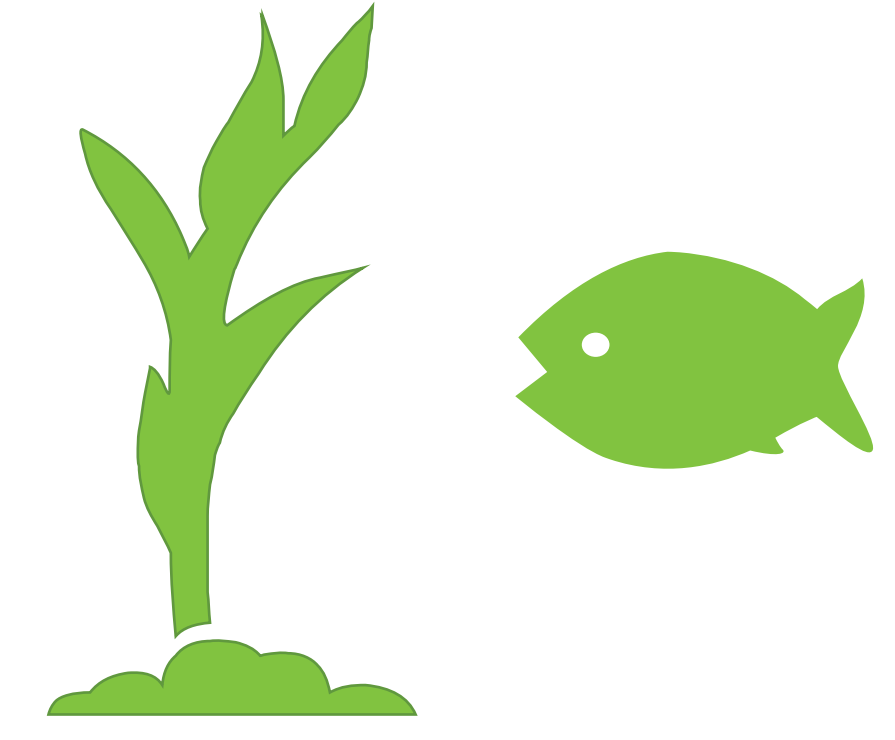


Offset the GHGs from construction by planting **250,000 trees** in partnership with Earth Day



**+10%**

Replant the equivalent of all the **trees cut** in the temporary construction areas **+ 10%**

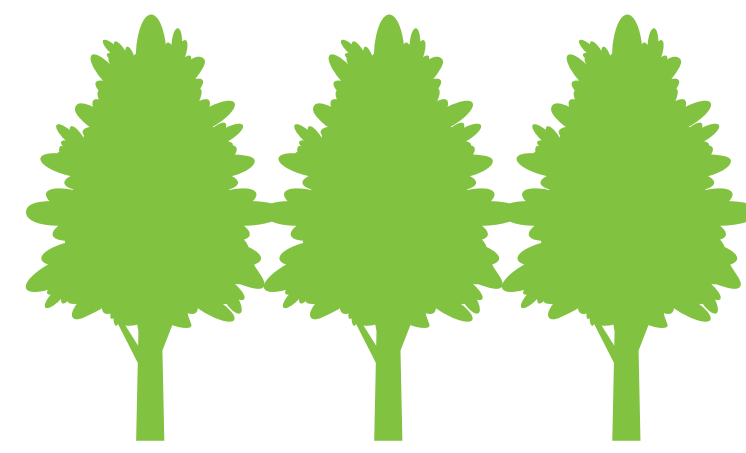


Limit and offset the impacts on **wetlands, fauna and flora**

## Creation of an agricultural land trust with the UPA and MMC



Ensure **vitality and dynamic occupancy** of the agricultural land through agricultural activities near the REM



Optimize **wood** and forest **corridor** development

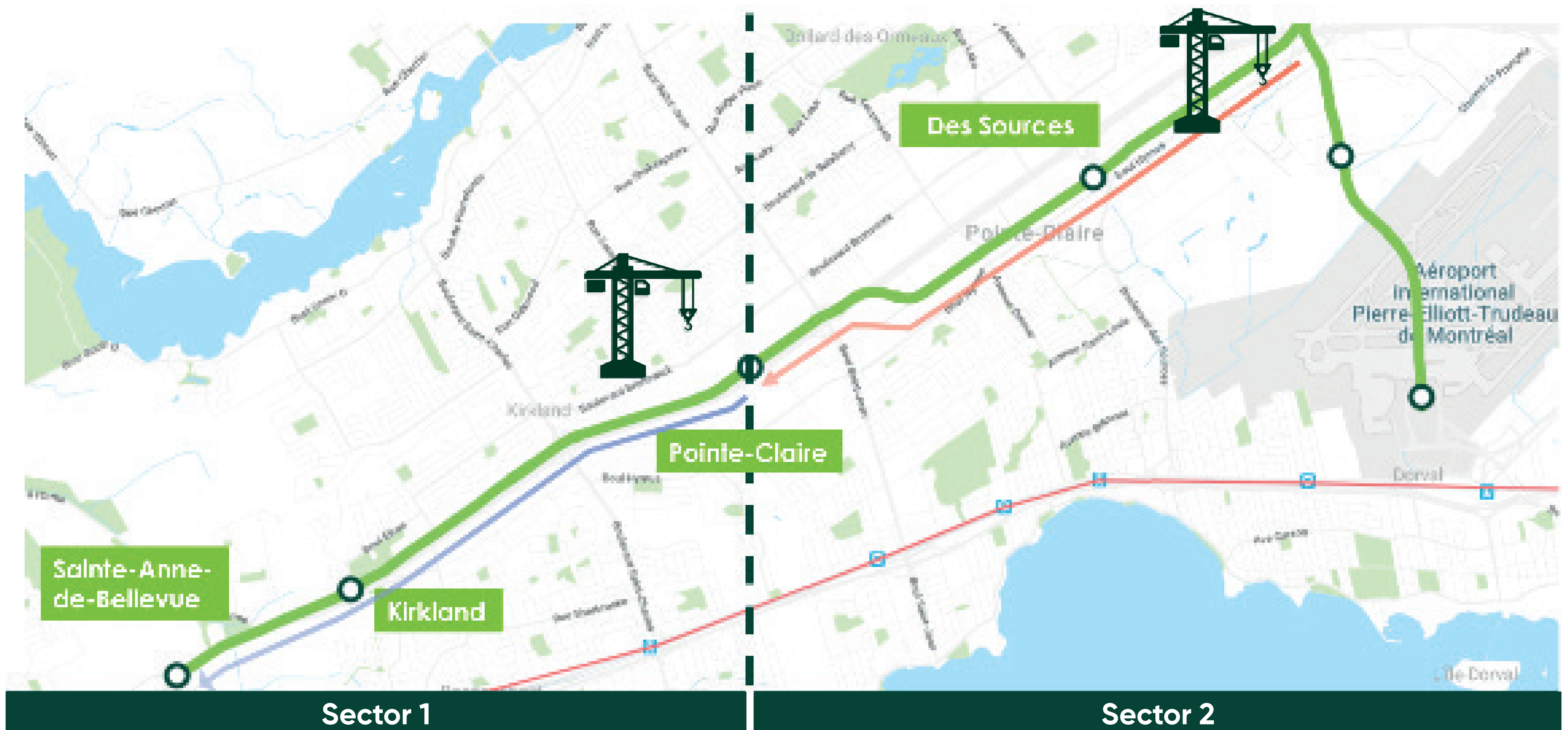


Contribute to keeping agricultural land in production and to **cultivating** unused lands

## Transit consortium for active, sustainable mobility



# Two sectors in action on the Sainte-Anne-de-Bellevue Branch



## Components of the elevated structure



- ① Slab
- ② Beam
- ③ Pierhead
- ④ Column
- ⑤ Caisson foundation

## Construction site photos in the West Island



## FOUR PILLARS OF THE NEW TRANSITIONAL NETWORK



RAIL  
SHUTTLES



BUS  
SHUTTLES AND  
SERVICE  
ENHANCEMENT



PREFERENTIAL  
MEASURES FOR  
BUSES



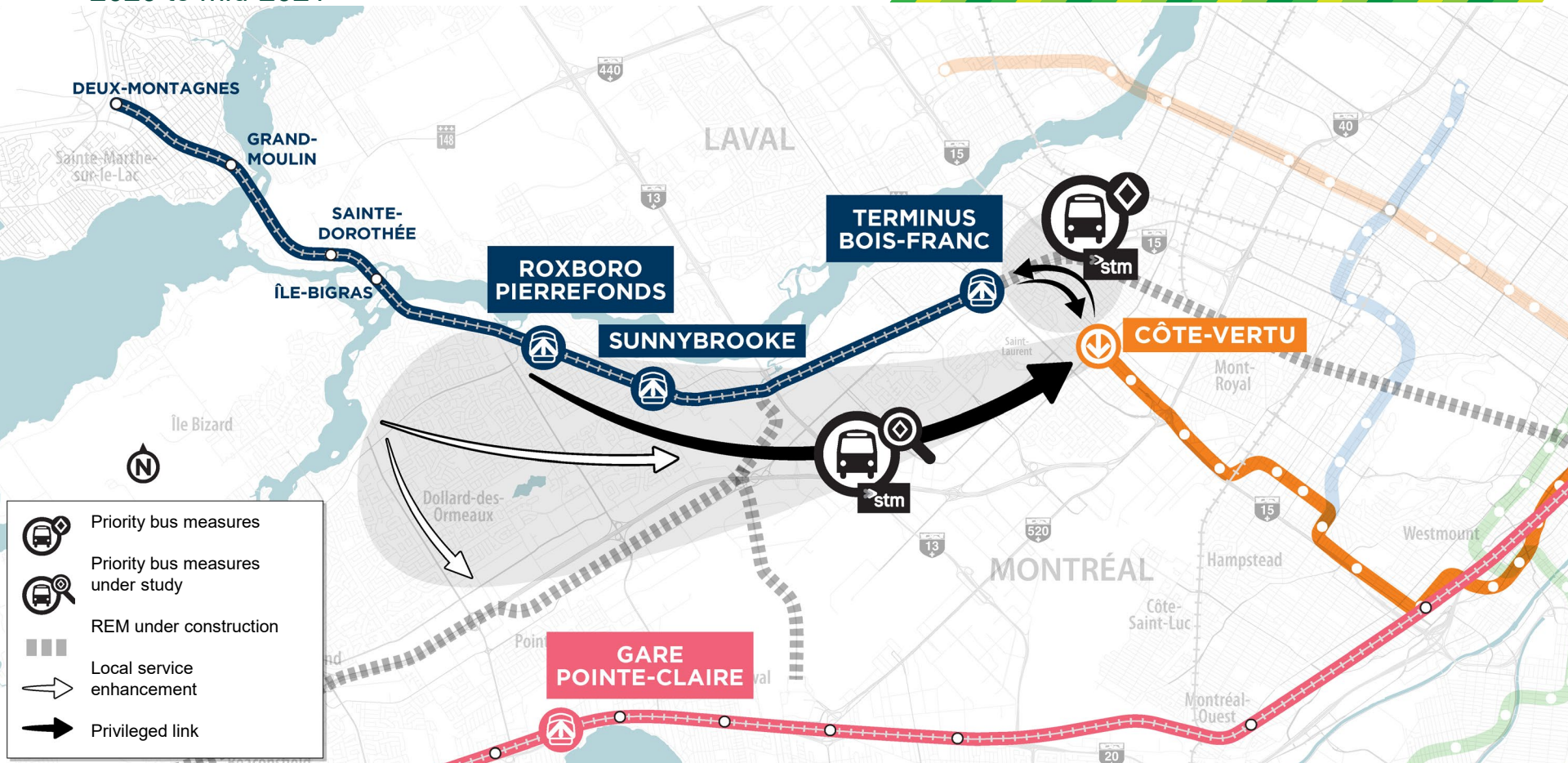
ORANGE,\*  
GREEN  
AND BLUE  
LINES

\* WEST BRANCH

# ROXBORO/SUNNYBROOKE SECTOR

2020 to mid-2021

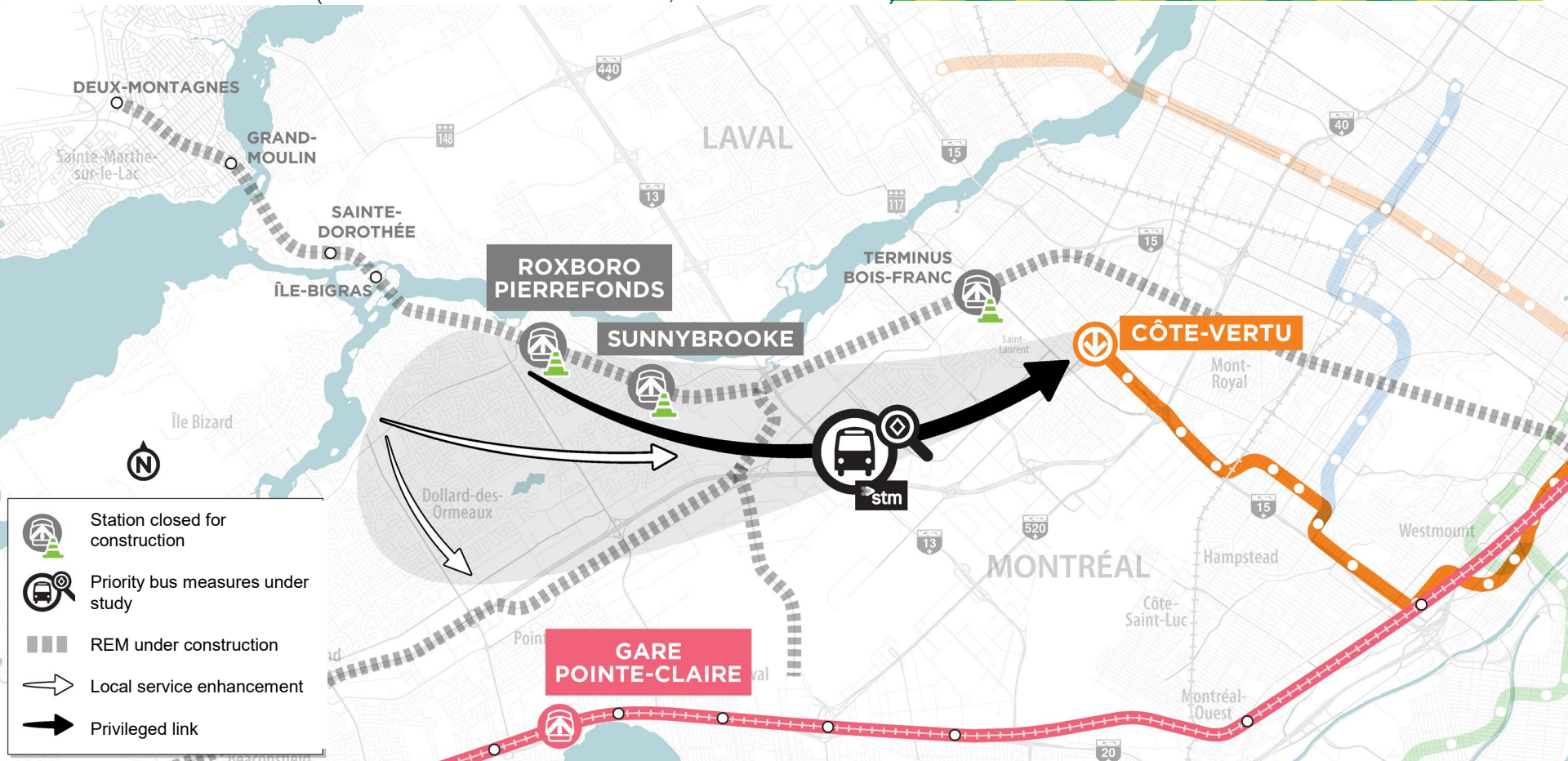
MEASURES BY SECTOR








# ROXBORO/SUNNYBROOKE SECTOR

MESURES PAR SECTEUR

Mid-2021 à 2022 (connection to Du Ruisseau - REM, until the end of 2023)



-  Station closed for construction
-  Priority bus measures under study
-  REM under construction
-  Local service enhancement
-  Privileged link

# ESTIMATED TIME BY PHASE

ROXBORO/SUNNYBROOKE SECTOR

2018

 **25-30** min



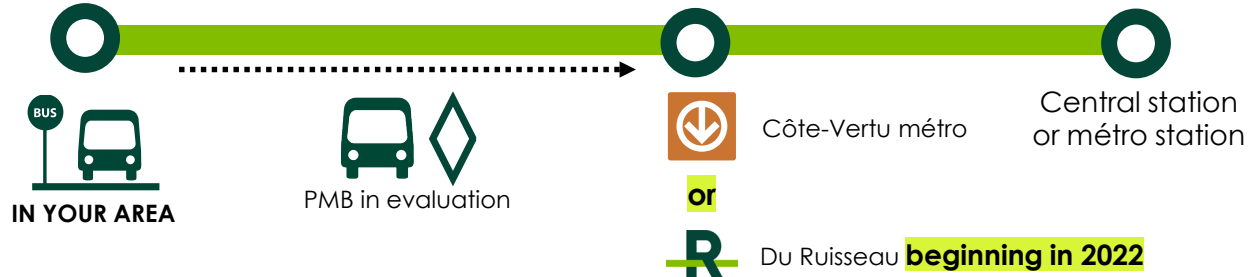
2020 to mid-2023

 **+25-30** min  
to 2018 time



Option 1  
Until mid-2021

Option 2  
**RECOMMENDED**  
option for the whole  
work period





# SUMMARY

Early 2020



Mid-2021



Early 2022



End of 2023

