

Sharing Boundaries

The Junction Triangle Rail Committee
Wabash Building Society



SHARING BOUNDARIES -

Brown and Storey Architects Inc. for the Junction Triangle Rail Committee and the Wabash Building Society

September 2013

Precis / Notes

We have been engaged by the Junction Triangle Rail Committee and the Wabash Building Society to look at different ways of sharing their boundaries with the new rail link being built by Metrolinx. Many people in their communities have been very concerned at the prospect of a 16 foot high noise barrier along their edges where they have previously had a green edge with long views to a unique landscape in the heart of the city. We have looked at how the 16 foot high wall will impact the neighbourhoods, and at several equally important aspects of this shared boundary – the urban forest, the long view, green walls, pathways and bridges – and how the Georgetown corridor could be a catalyst for the City of Toronto and its neighbourhoods by creating value, multi-use pathways and linear parks similar to the West Toronto Railpath. We conclude with recommendations how this could be achieved. We also look at the new airport – rail link as a new major international gateway to the city.

a. Public transit improvements should also improve public spaces.

Historically, transit infrastructure in Toronto has been built at the expense of the urban fabric of the city – drastically disconnecting neighbourhoods and pedestrian, vehicular and cycling routes. Whereas in other cities – like in Chicago, for example, where their major transit infrastructure was elevated – transit infrastructure has been used successfully to improve and intensify urban fabric, creating important neighbourhood nodes.

For Toronto, the challenges of creating the long awaited transit link from Pearson Airport to Union Station have certainly been many, and these suggestions made today don't reflect on the work done to date or the importance of Metrolinx's work. The suggestions do, however, make a point that the new rail link does not need to follow in the steps of other transit infrastructure in Toronto – that is, disconnecting and quarantining neighbourhoods further, and perpetuating the last centuries' approach to transit infrastructure by treating the new line as a necessary evil that needs to be separated as much as possible in a virtual tunnel.

Rather, the rail link should be seen as a positive attribute that can create value along its perimeter – its shared boundaries – that can re-invigorate and increase our pedestrian and cycling networks, be a catalyst for the positive and regenerative reconnection of historically separated neighbourhoods for Toronto residents, and ultimately become a new international gateway for our Pan Am guests and all future visitors. As the Green Games, this major piece of new infrastructure can also further the goals of 'walkability', and 'active transportation' and 'healthy neighbourhoods'.

We know this means re-examining the nature of the standards that have been in place for a hundred years. We know this means stepping outside of the rules, and engaging the fine-grain inconveniently messy details of neighbourhoods, edges, pathways, bridges and urban forests. This boundary is a shared boundary, and we think there doesn't need to be a penalty paid for living next to the train, or that it should perpetuate the disconnection of our neighbourhoods instituted in the last century. It should be a benefit. Infrastructural systems and their shared boundaries with our city can create value.

West Toronto Railpath: the New Landscape and the Long View

- b. The landscape of the railway corridors has become a kind of newly discovered country in many cities around the world where cycling and pedestrian trails have been instituted in beautiful green linear parks, either replacing former rail lines, or in parallel to operational lines. Toronto's own West Toronto Railpath is our most recent example. Its first phase, 2 kilometers long, running alongside the future rail link, has been awarded by the City of Toronto Urban Design Awards, the Design Exchange, the Canadian Society of Landscape Architects, and the National Urban Design Awards. Its length provides a glimpse of an intriguing and marvelous landscape of industrial remnants, while providing a new set of looping connections to

neighbourhood streets that once were dead ends. It has also been a catalyst for new residential development along its length.

Connections to streets / re-discovering our urban forest and the vast and majestic views of the city.

And it's happening in other cities around the world. (SMART Sonoma-Marin Area Rail Transit – a commuter rail corridor north of San Francisco integrates rapid transit, bicycle and pedestrian trails and associated public space improvements. Construction has begun on the project's 38.5 mile first phase.)

The Current Metrolinx Project

- c. The new project
 - adding two new tracks in the north half of the GO rail corridor resulting in three total tracks.
 - Five tracks in the south half.
 - One new bridge, 15 other bridges being modified or widened,
 - six new overpasses / underpasses to separate vehicular traffic,
 - lowering the rail corridor at Liberty Village and Weston (at King and Church Streets).
 - Go Transit continues to stop at Bloor, Weston and Etobicoke North stations.
 - The air rail link will stop at Bloor and Weston station.

Sound Barrier Walls

- d. The noise barrier walls are being built along long stretches where it connects with communities or backs on to public spaces within a 200 meter zone. These are being built to full capacity build-out – for when the trains are running at full capacity decades from now.
- e. The single purpose of the rail line intersects with a diverse set of communities, all with varying ideas of how their shared boundary with the new transit link should be characterized. The noise barrier, in all its variations shown on the Metrolinx website, is a 5 meter high wall - some with windows, some without – that blocks the open long views down the rail corridor and across to their disconnected counterpart neighbourhoods. These views are substantial, expansive and should not so

easily be lost. By instituting a continuous line of the 5 meter barriers, neighbourhoods are being permanently disconnected from their counterparts, from their expansive views, and from their context.

- f. The concerns with the sound barrier walls encompass more than just the design of a single line of the shared boundary. The concerns address the loss of potential of what has been admired about the West Toronto Railpath – the new discovery of this wild urban landscape, its views and the urban forest – and the ability of a thickened boundary to encompass new linear parks that contain multi-use pathways for reconnecting streets and neighbourhoods , and pedestrian bridges that will re-establish connections broken in the last centuries. And last but not least, the ability of a linear park to create value along its edges rather than shutting down possibilities.

Can the walls become more finely tuned to work with each community? Can the nature of these walls be expanded to talk about connections, views, vegetations and active transportation networks. Do we need to build the maximum build-out of walls immediately for 2015, even though there is an intention to change to electric trains?

IMPLEMENTATION

- Replacing the natural urban forest that has been removed with a new urban forest. – 10,000 trees instead of 500;
- More fine-tuned approach to our shared boundaries;
- Phased build-out to see what is actually necessary and desired by the community;
- Assign separate designers and budgets for each of the communities to develop their unique approach to a shared boundaries using the elements of the Urban Forest, the Green Wall, Pathways and Bridges;
- Pilot projects to look at first principles – are the benefits of having sound barriers greater than the entire length of the Rail Link further dividing and compromising the quality of the neighbourhoods along it?



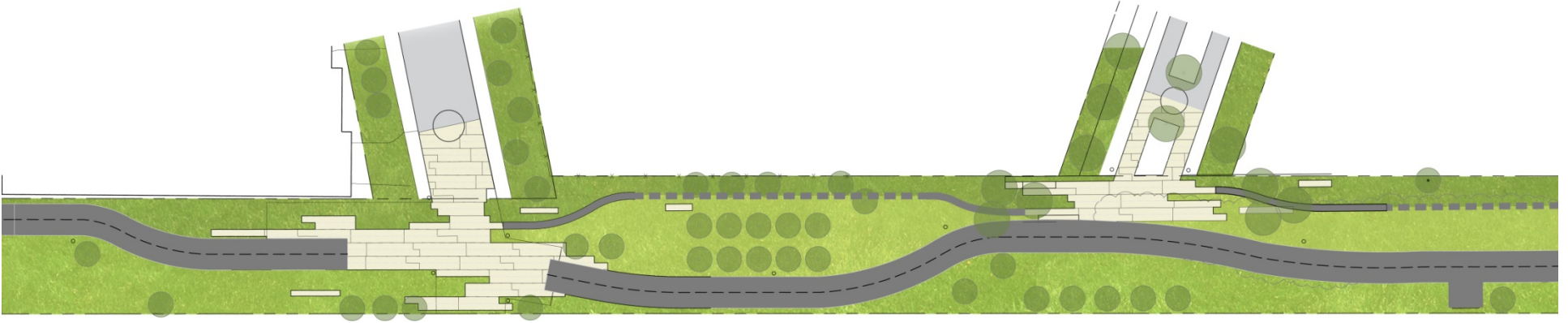
The New Landscape – the Long View



West Toronto Railpath





















Active transportation, green boundaries, bridge connections, community linkages and the train



SMART, a commuter rail corridor north of San Francisco, integrates rapid transit, bicycle and pedestrian trails, and associated public space improvements. Construction has begun on the project's 38.5 mile first phase.



Cal-Park Tunnel Link, SMART Corridor, Marin County, CA

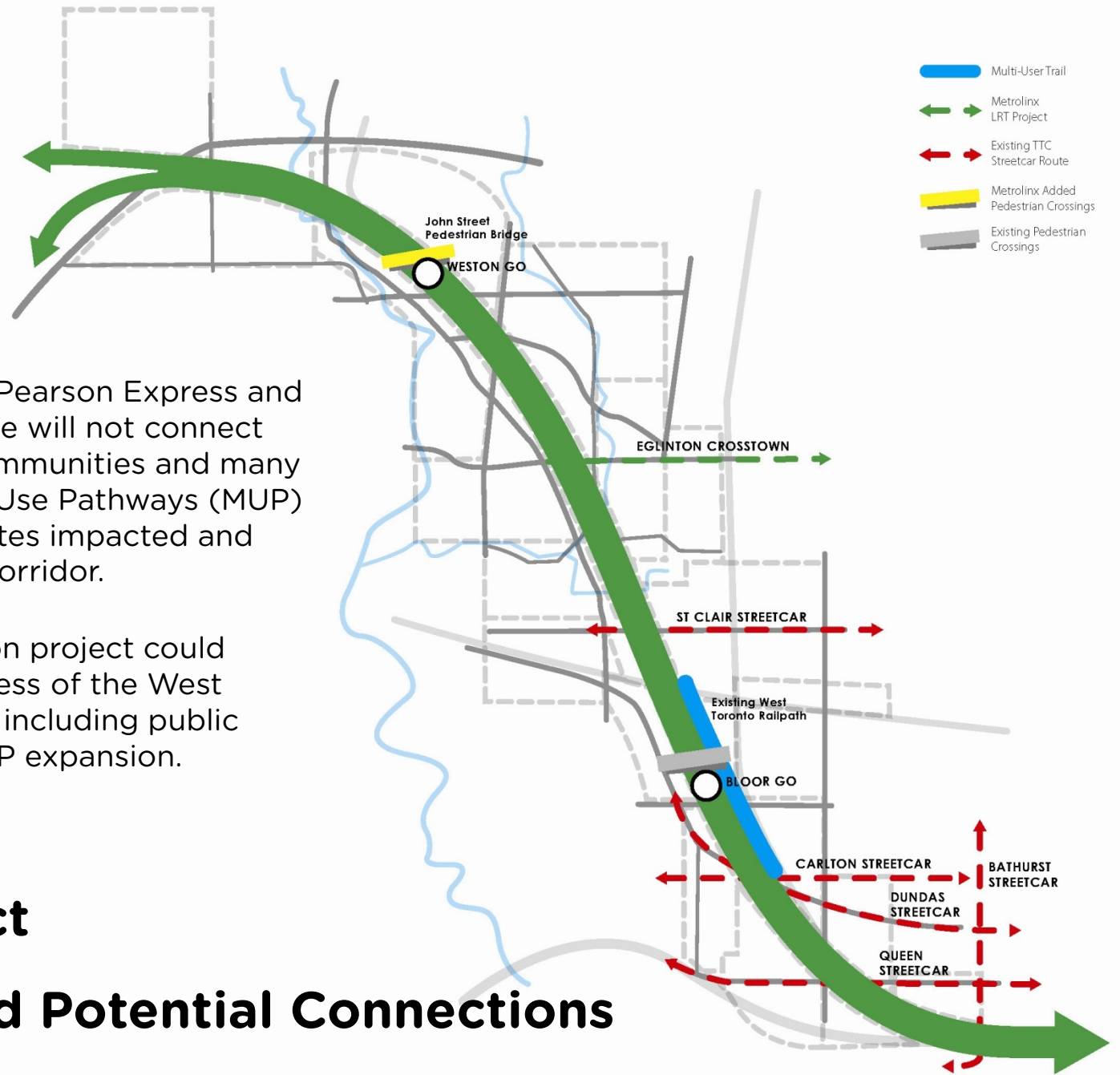


Solana Beach Coastal Rail Trail, San Diego County, CA





Base Project

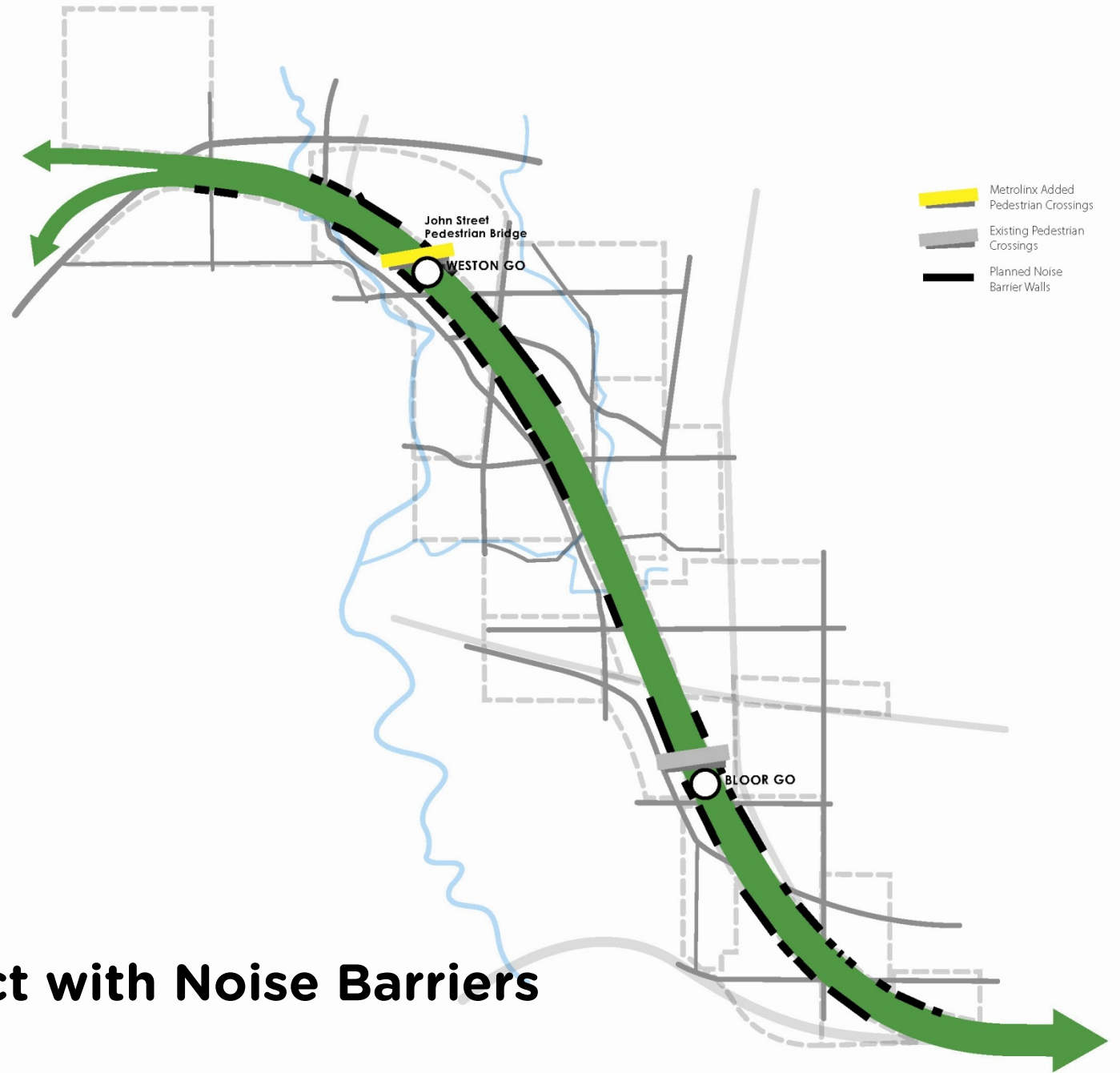


The planned Union-Pearson Express and enhanced GO service will not connect with most of the communities and many of the transit, Multi-Use Pathways (MUP) and open space routes impacted and intersected by the corridor.

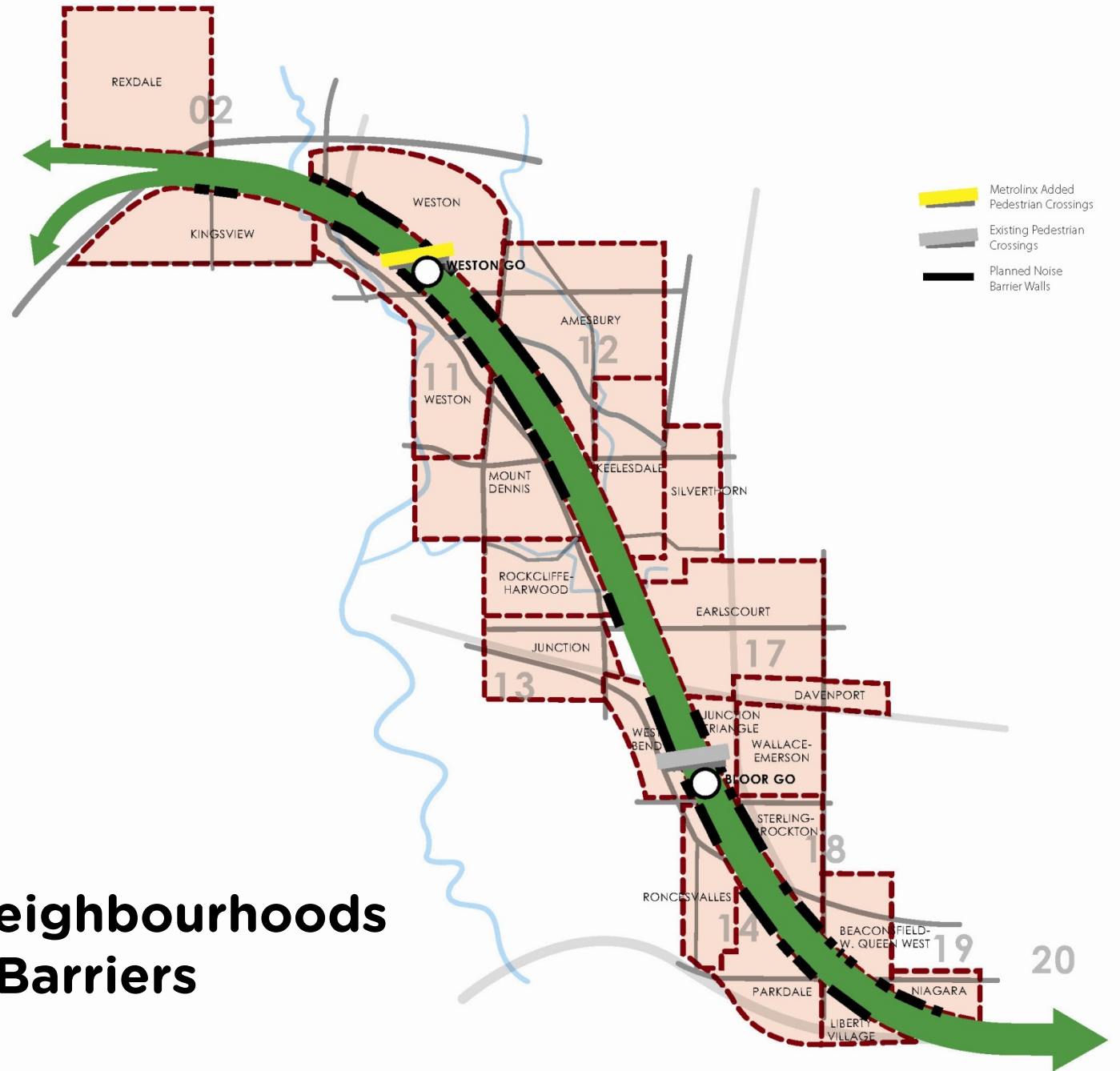
Metrolinx’s expansion project could build upon the success of the West Toronto Railpath by including public open space and MUP expansion.

Base Project

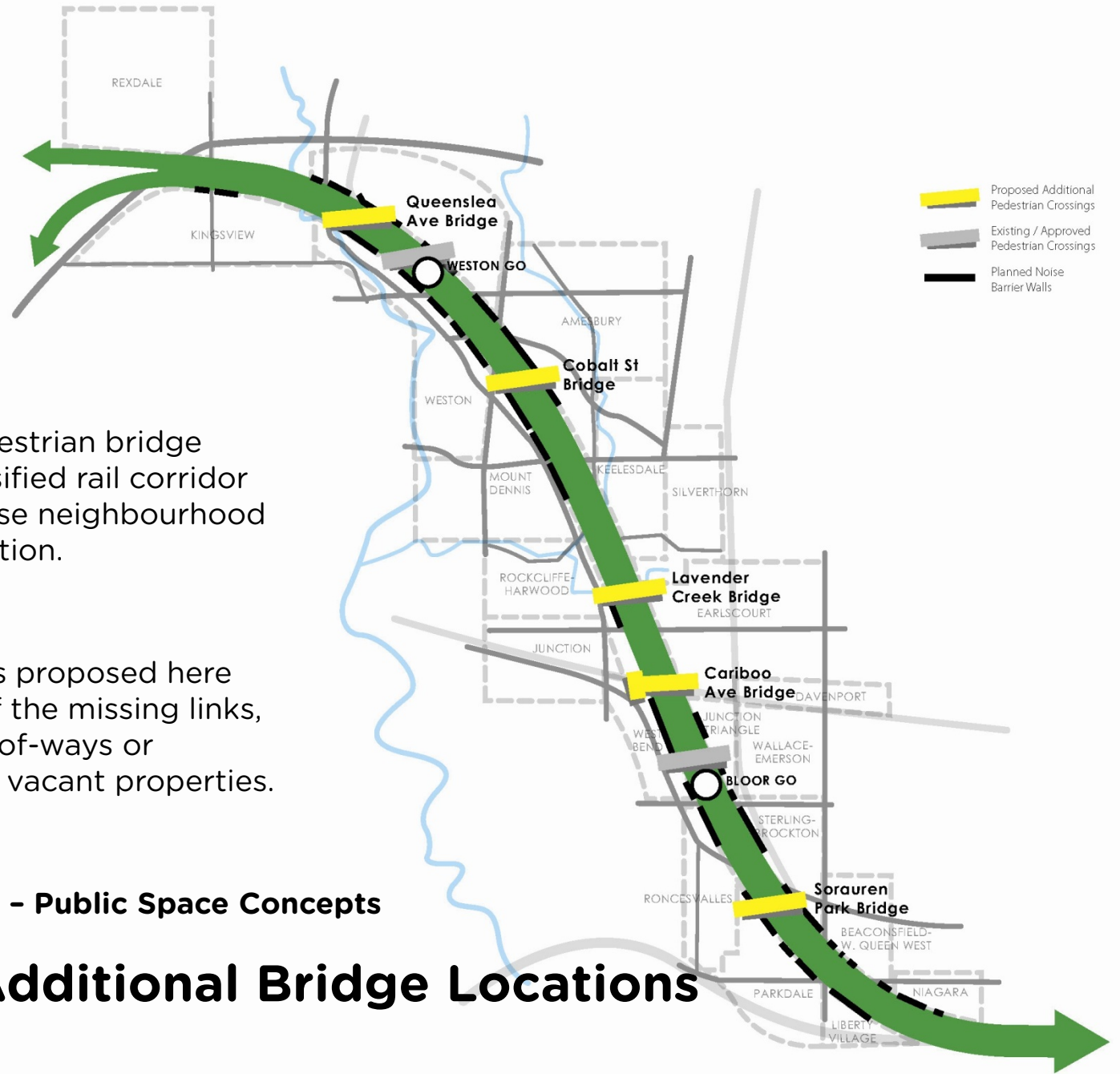
Existing and Potential Connections



Base Project with Noise Barriers



Adjacent Neighbourhoods with Noise Barriers

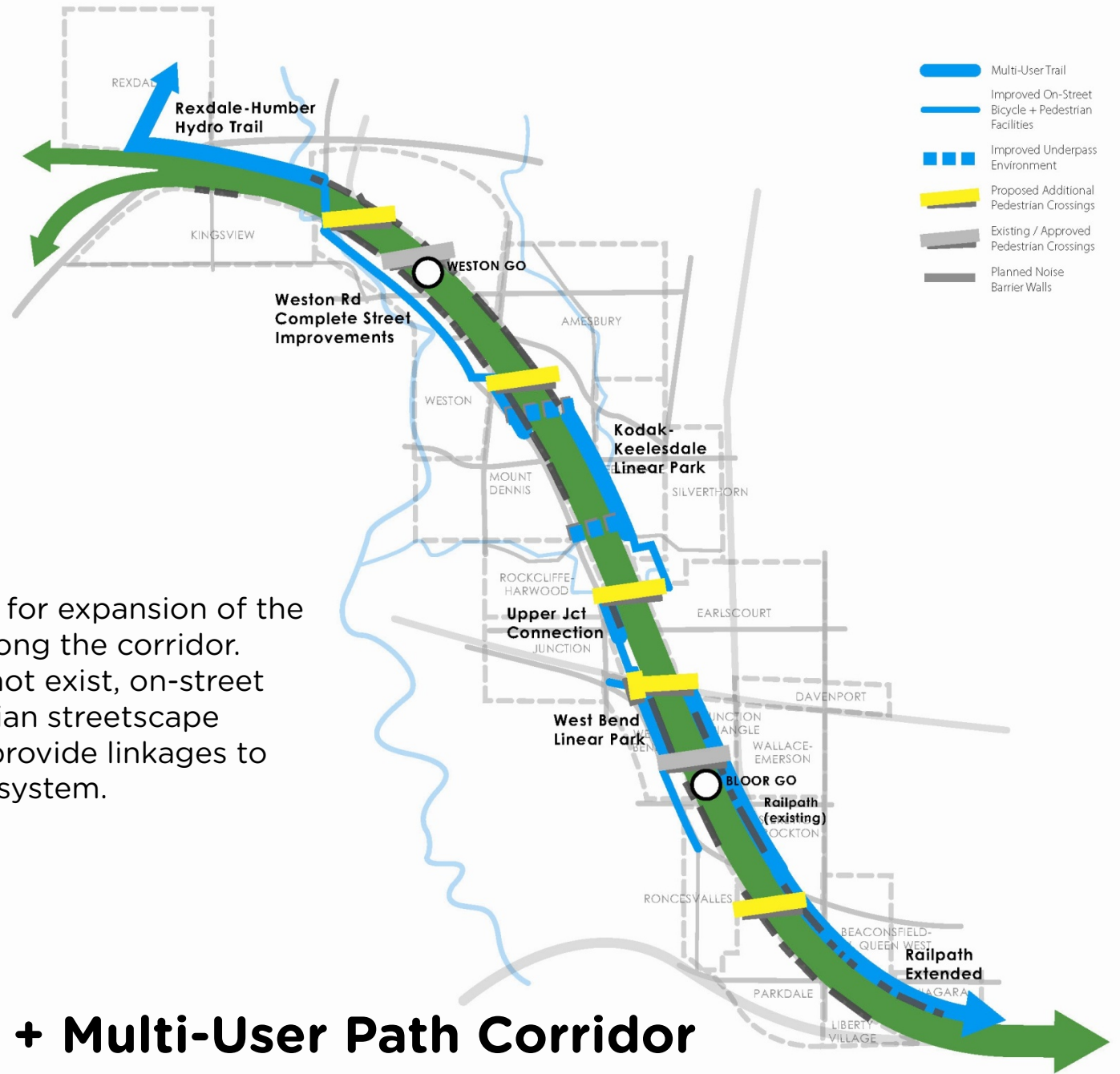


With additional pedestrian bridge crossings, the intensifed rail corridor could greatly increase neighbourhood linkages and interaction.

The bridge locations proposed here would close most of the missing links, using existing right-of-ways or potentially available vacant properties.

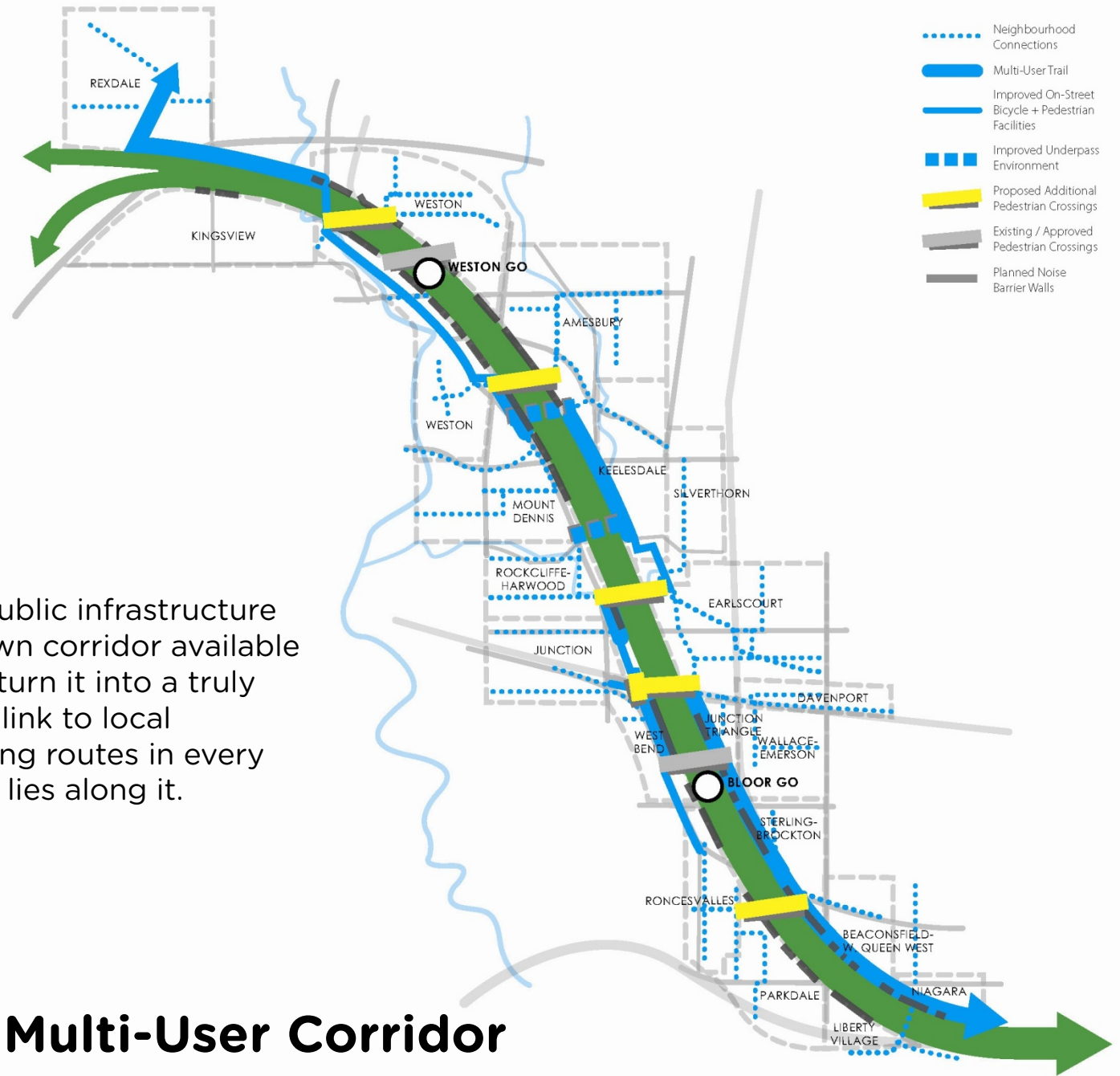
Sharing Boundaries - Public Space Concepts

Proposed Additional Bridge Locations



Space can be found for expansion of the multi-trail system along the corridor. Where space does not exist, on-street cycling and pedestrian streetscape improvements can provide linkages to create a connected system.

Linear Park + Multi-User Path Corridor



Making space and public infrastructure along the Georgetown corridor available for everyone would turn it into a truly public resource and link to local pedestrian and cycling routes in every neighbourhood that lies along it.

Realizing a Multi-User Corridor

WALL TYPES FOR YOUR COMMUNITY

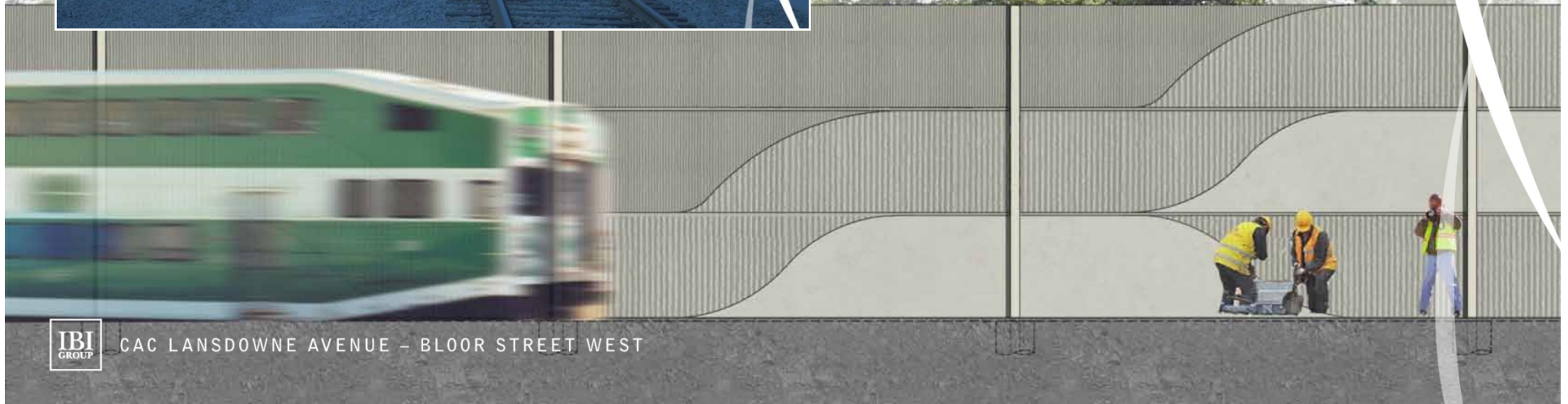
PRECAST CONCRETE SOLID PANEL: RIBBON

VISION

THE SOUND WALL BECOMES A **FUNCTIONAL AND ATTRACTIVE RIBBON** OF INFRASTRUCTURE WINDING ITS WAY ALONG THE RAIL CORRIDOR.

THIS INFRASTRUCTURE CAN BECOME A NEW LANDSCAPE FEATURE THAT **INTEGRATES ONE NEIGHBOURHOOD TO ANOTHER** AND EACH COMMUNITY TO ITSELF.

THE **CHANGES IN MATERIAL AND DESIGN** REFLECT AND UNIFY THE CHANGING CONDITIONS AND NEEDS ALONG THIS LANDSCAPE.



CAC LANSLOWNE AVENUE - BLOOR STREET WEST

Metrolinx presentation to Community Advisory Committees (July 2013) [vision page inset added]



**Long Views, the Urban Forest,
Pathways, Present and Future
Neighbourhood Connections**



Original vegetation (2011), before construction activities
Nickle Street, **Mount Dennis**, view southeast



Before barrier (2013), after vegetation removal
Nickle Street, **Mount Dennis**, view southeast



Metrolinx-Planned Noise Barrier (rendering)

Nickle Street, **Mount Dennis**, view southeast



Before Barrier (2011)

Dundas Street West - West Bend, view north towards Dupont Street



Metrolinx-Planned Noise Barrier (rendering)
Dundas Street West, view north towards Dupont Street



Before Barrier (2013)

Sorauren Park, view north along corridor towards Dundas Street W



Metrolinx-Planned Noise Barrier (rendering)

Sorauren Park, view north along corridor towards Dundas Street W



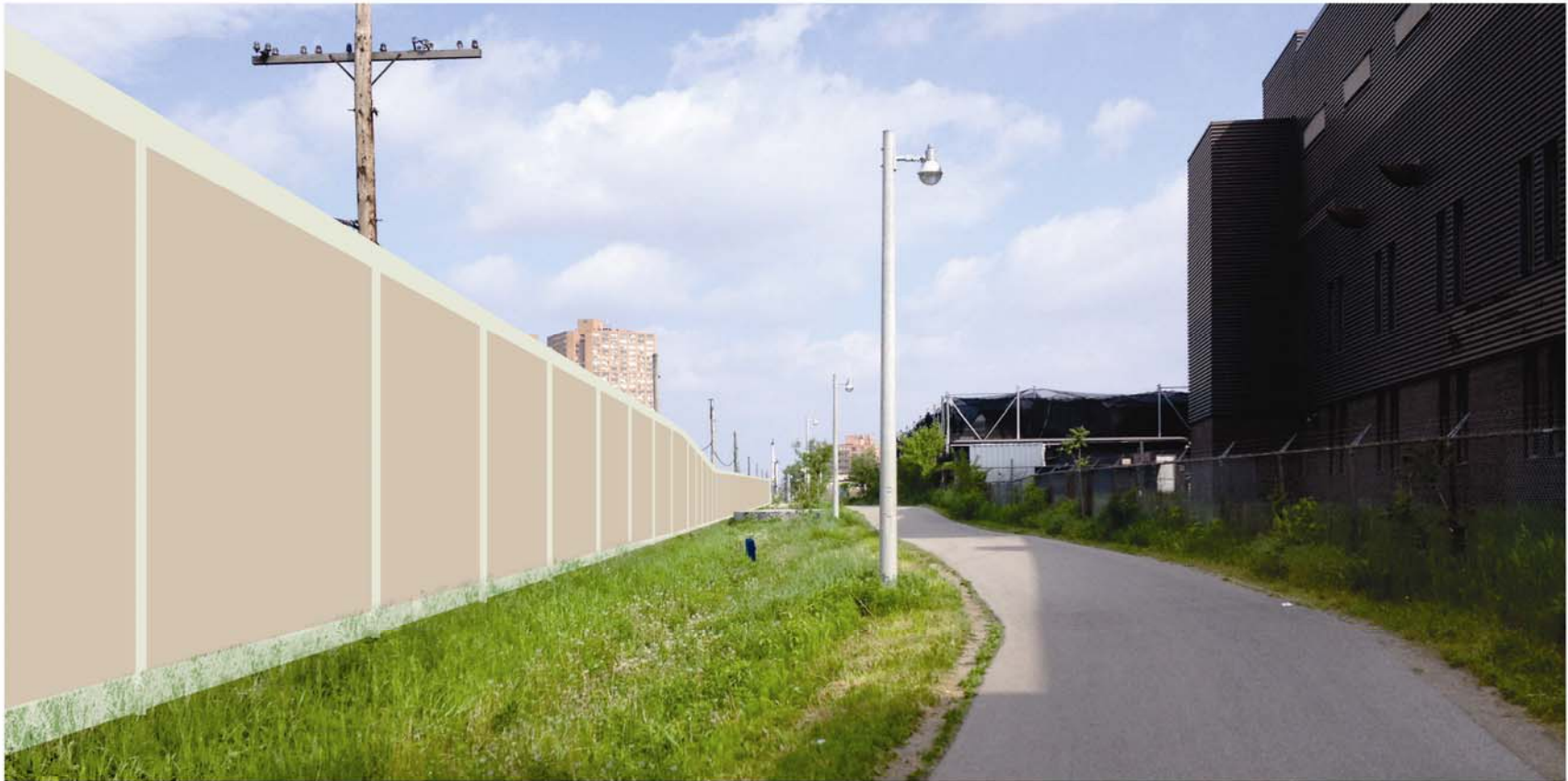
BEFORE: End of Wabash Avenue looking east, at corner of MacDonell, after foliage clear-cut on railway side of fence. Orange marker above bike cop shows 16-foot (5-metre) height.



AFTER: View with 16-foot (5-metre) wall. Graffiti from existing real graffiti along rail corridor.







Metrolinx-Planned Noise Barrier (rendering)

West Toronto Railpath, view north along corridor towards Bloor Street



Active transportation, green boundaries, bridge connections, community linkages and the train



Elements

The Urban Forest

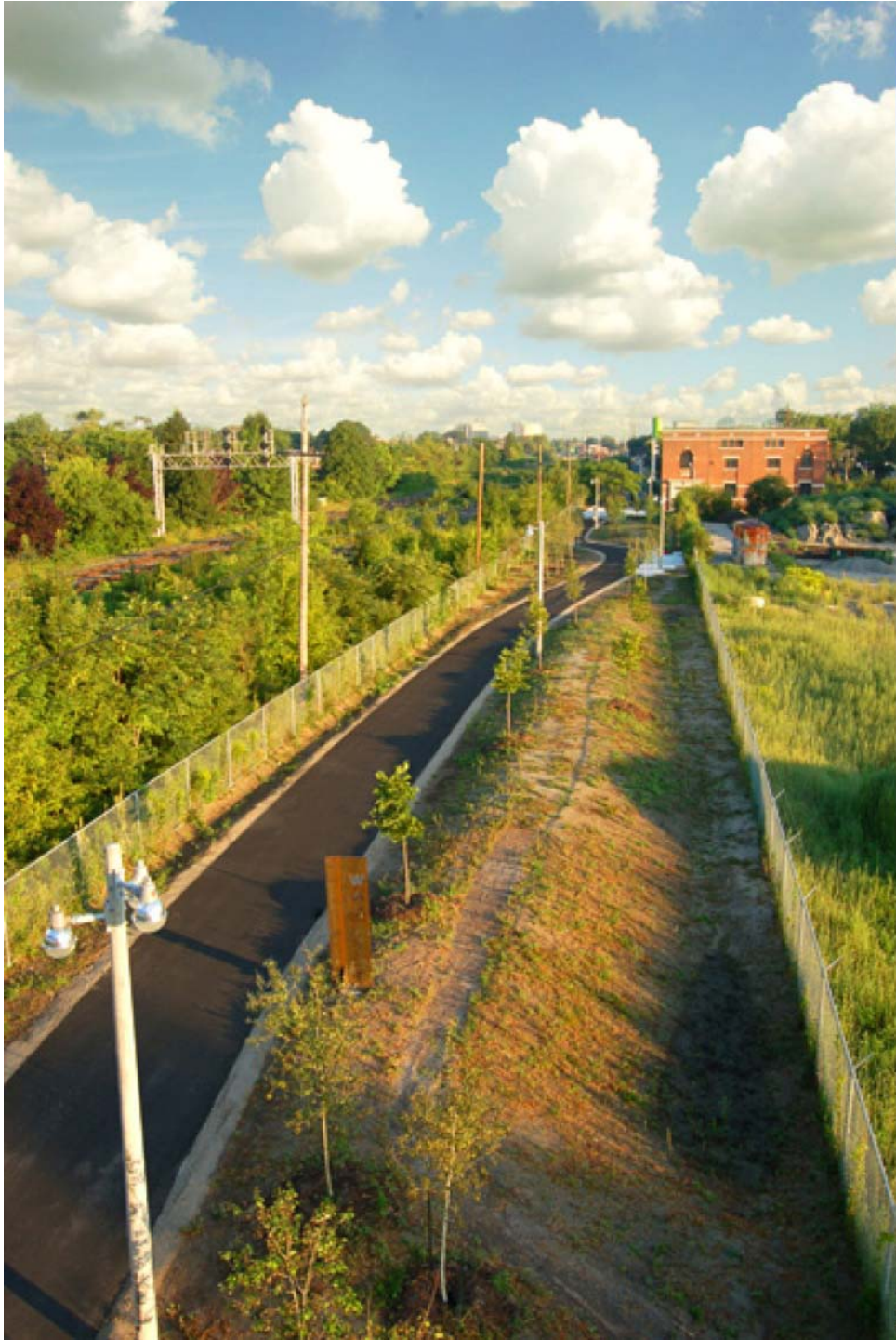
Green Wall

Multi-Use Pathways

Bridges



The Urban Forest and Long View







Re-planting the urban forest: double / triple lines of trees planted @ 7 meters on centre = 10,000 new trees.





Elements

The Urban Forest

Green Wall

Multi-Use Pathways

Bridges





Photographs – Peter Prangnell



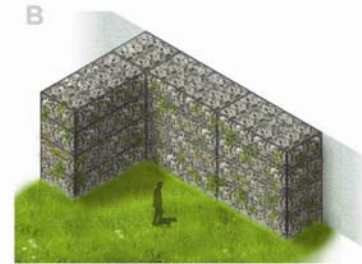
PANEL 2



3



Fully grown - Summer



Gabions - Stone fill



Gabions - Brick Fill with Planting



Gabions - Recycled Plastic Fill

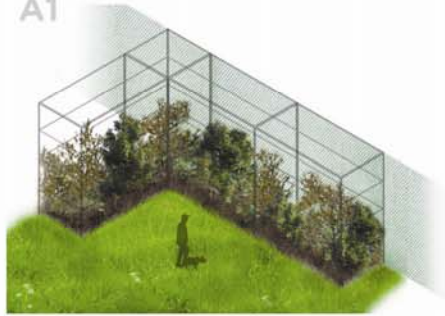


Earth Wall with Planted Face

Alternate Materials : Recycled Solid Fill

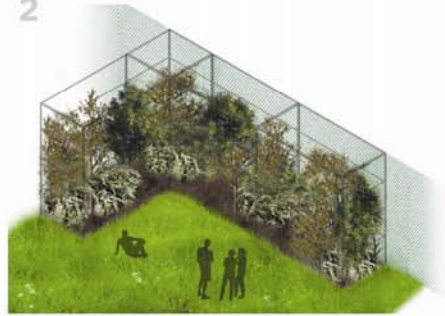
The Green Wall

A1



Newly planted

2



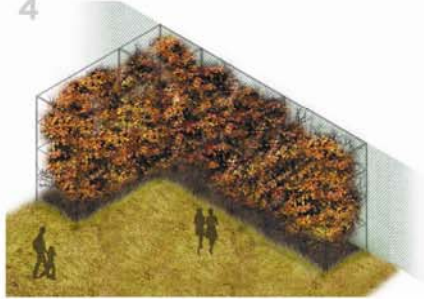
Half grown

3



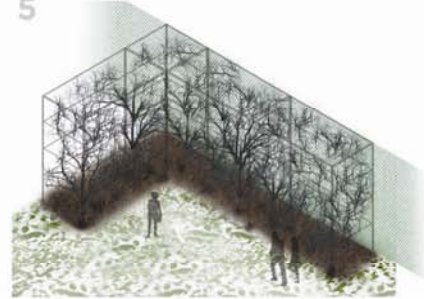
Fully grown - Summer

4



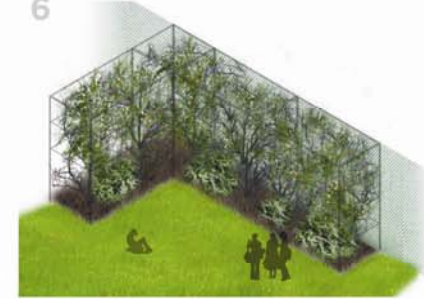
Autumn

5



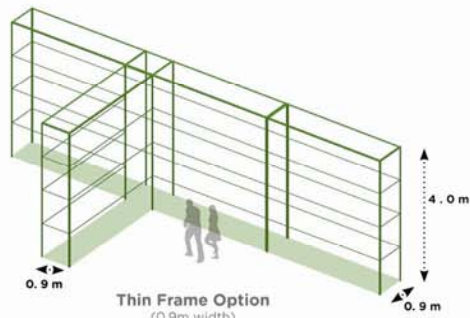
Winter

6

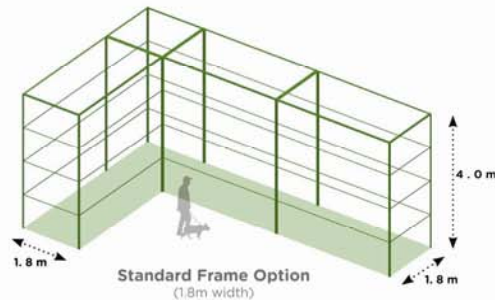


Spring

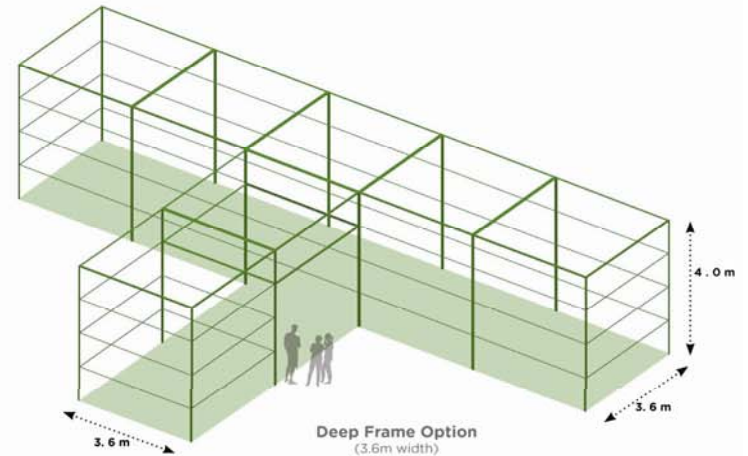
Time Progression



Thin Frame Option
(0.9m width)

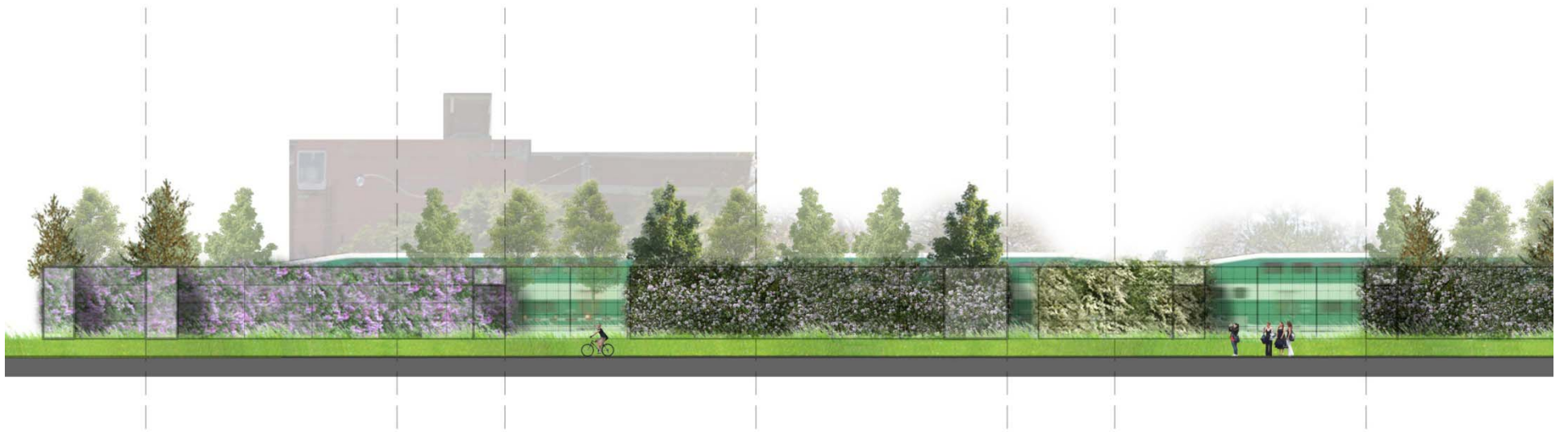


Standard Frame Option
(1.8m width)



Deep Frame Option
(3.6m width)





Multi-Use Pathways and Bridges



Pathways



Trails: The ability to create specialized cycling routes that can at the same time be integrated into multi-use trails for a range of speeds, and for trail 'spurs' that reach into the surrounding context to create strong linkages;



West Toronto Rail Trail Phase 1 (B+SA & STLA)



St Hilda's Walk, Toronto (B+SA)





Active transportation, green boundaries, bridge connections, community linkages and the train



PUBLIC SCAFFOLD

There is not much to admire in Toronto's ubiquitous underpasses, nine of them creating points of disconnect along the hydro corridor. One of these, at Dovercourt, is developed here as a prototype that would necessarily be repeated for the other 8, to make the Greenline a continuous route.

Where other cities (Chicago, NYC) developed rail systems that were raised above the level of the street, or below, the rail lines in Toronto have been taken at grade, forcing streets and sidewalks to sink below, separating neighbourhoods north from south, and creating the 'underpass' - dark, uncomfortable and a significant tear in the urban fabric. It is a gaping hole, made by the no-nonsense utilitarian infrastructure laid down with a complete disregard for streets, neighbourhoods, and city. To match a new character for the Greenline, the Dovercourt underpass prototype has been made into a positive social activator of the public realm, a linkage between the street, the bridge and the new gardens of the Greenline.

To bring a continuous cycling and pedestrian pathway along the length of the Greenline, cantilevered pedestrian bridging is constructed alongside the railway bridge structures, ramping and carrying through the 6.0 meter trajectory from one side to the other. Over the new bridge, a spanning ephemeral scaffold is constructed with a glass framework, built high enough to form both a generous sheltered route and a look-out above. The scaffold

construction provides a kiosk and storage space for bikes, its golden, elaborated glass skin on the south side of the scaffold becomes both a solar collector and a new icon of a renewed sense of public space and amenity; a large scale lamp at night. Its north surface is a support for art sites, community involvement and notices, events, and advertising potentials for artists, local groups and BIA's.

In addition to the ramps from the Greenline, wide, safe public stairs connect the street to the scaffold passage, lower to upper. This important stair connection is underlined by the stairs' relationship and proximity to new 'Exchange Plazas' at street level at each side of the bridge. These hard surface plazas are raised pinths to create punctuations at the level of the street and Greenline route. These plazas, together with the scaffolding, create new landmarks in the city - new public spaces, cycling and skateboard friendly, linked directly to the Greenline with constructed hedges, light, space, resting places, bike rentals, transit stops, pop-up cafes, exhibit sites and information kiosks, drinking fountains and washrooms. The new Dovercourt Exchange becomes a pluralistic landmark for passage east and west, north and south, up and down and across.



SECTION B SCALE - 1:250

KEY
 1 BICYCLE AND PEDESTRIAN ROUTE
 2 NEW STAIRS TO UPPER LEVEL
 3 NEW PLAZA / EVENT SPACE
 4 PUBLIC SERVING AREA / RETAIL KIOSK
 5 OFFICE / PREPARATION ROOM
 6 PLAZA / EVENT SPACE



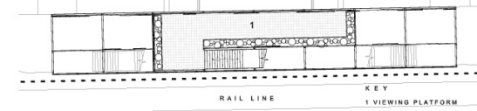
SECTION A SCALE - 1:250

KEY
 1 NEW STAIR UP TO UPPER LEVEL
 2 BICYCLE PARKING SPACES (20)
 3 SECURE WALL

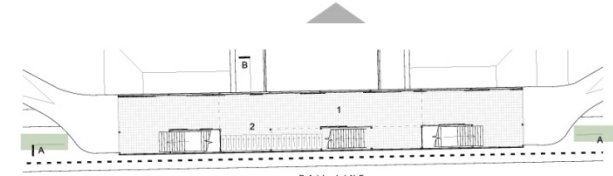


VIEW OF SOUTH ELEVATION

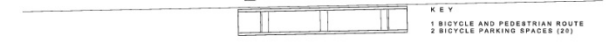
INTERIOR GALLERY VIEW



UPPER LEVEL PLAN SCALE - 1:250



MID LEVEL PLAN SCALE - 1:250



MID LEVEL PLAN SCALE - 1:250



LOWER LEVEL PLAN SCALE - 1:250

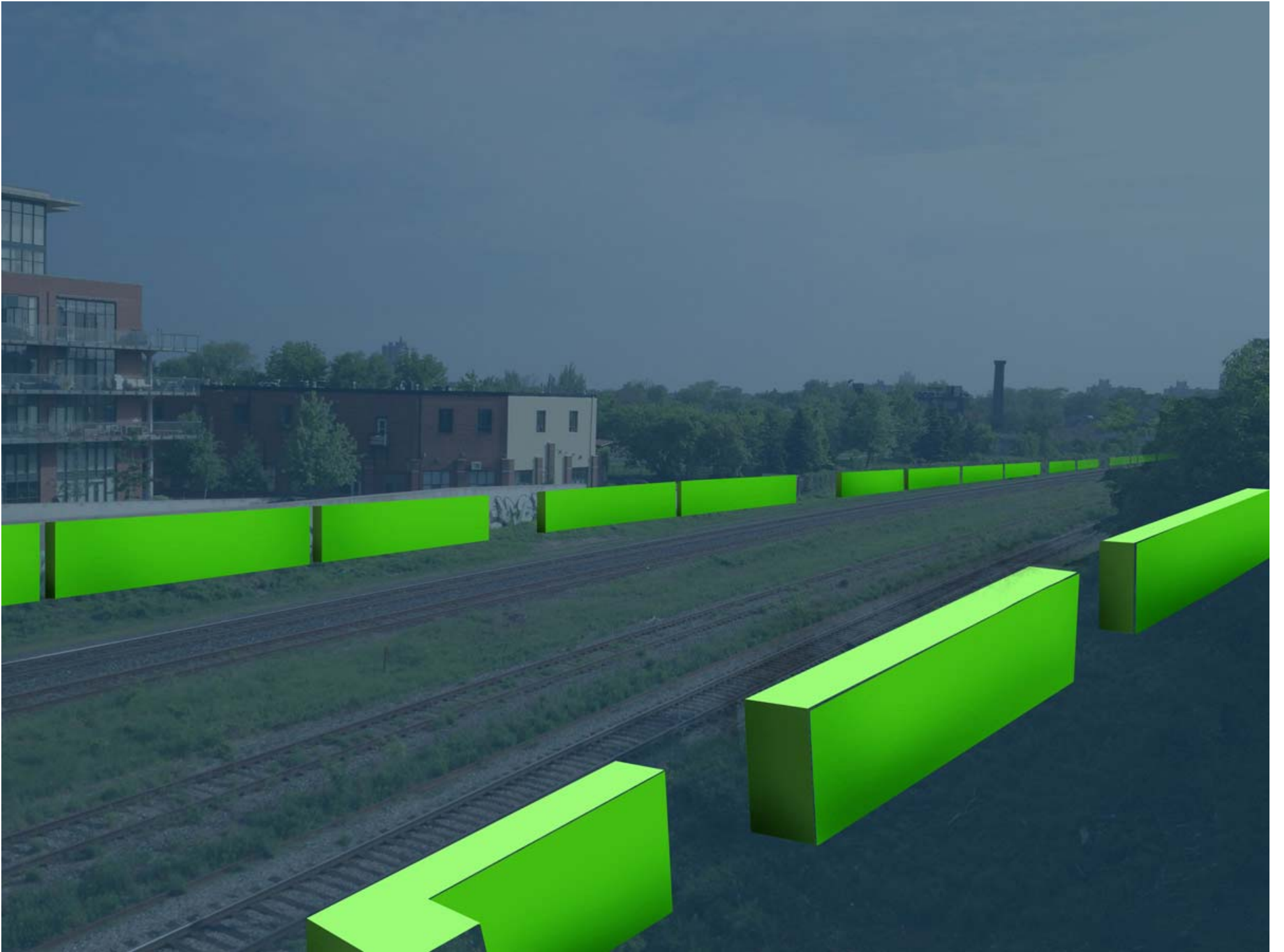
KEY
 1 BICYCLE AND PEDESTRIAN ROUTE
 2 BICYCLE PARKING SPACES (20)

KEY
 1 NEW STAIR UP TO UPPER LEVEL
 2 PLAZA / EVENT SPACE
 3 STORAGE AND BACKSTAGE WORKSHOP
 4 PUBLIC WASHROOM
 5 PUBLIC SERVING AREA / RETAIL KIOSK
 6 OFFICE / PREPARATION ROOM



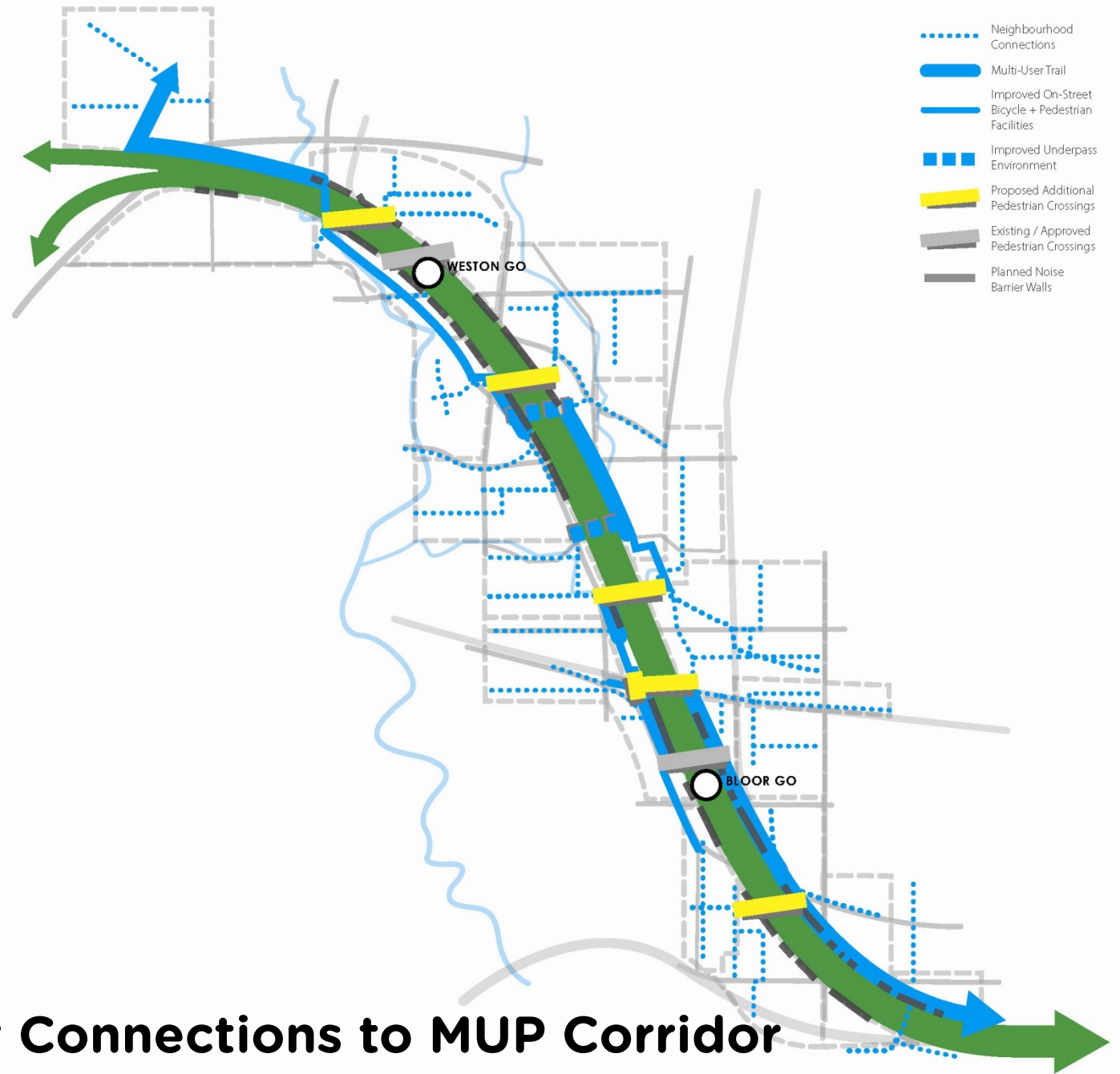




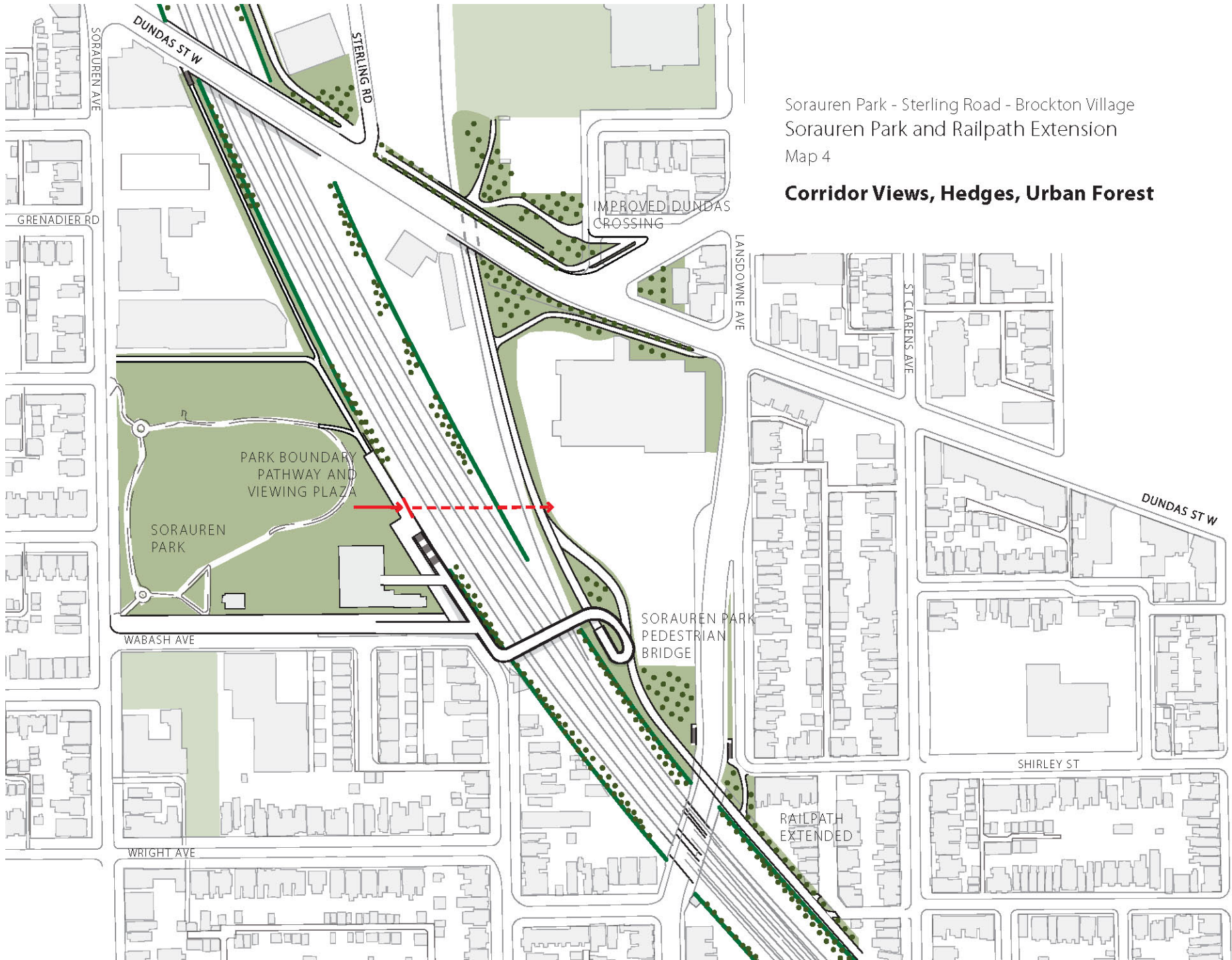






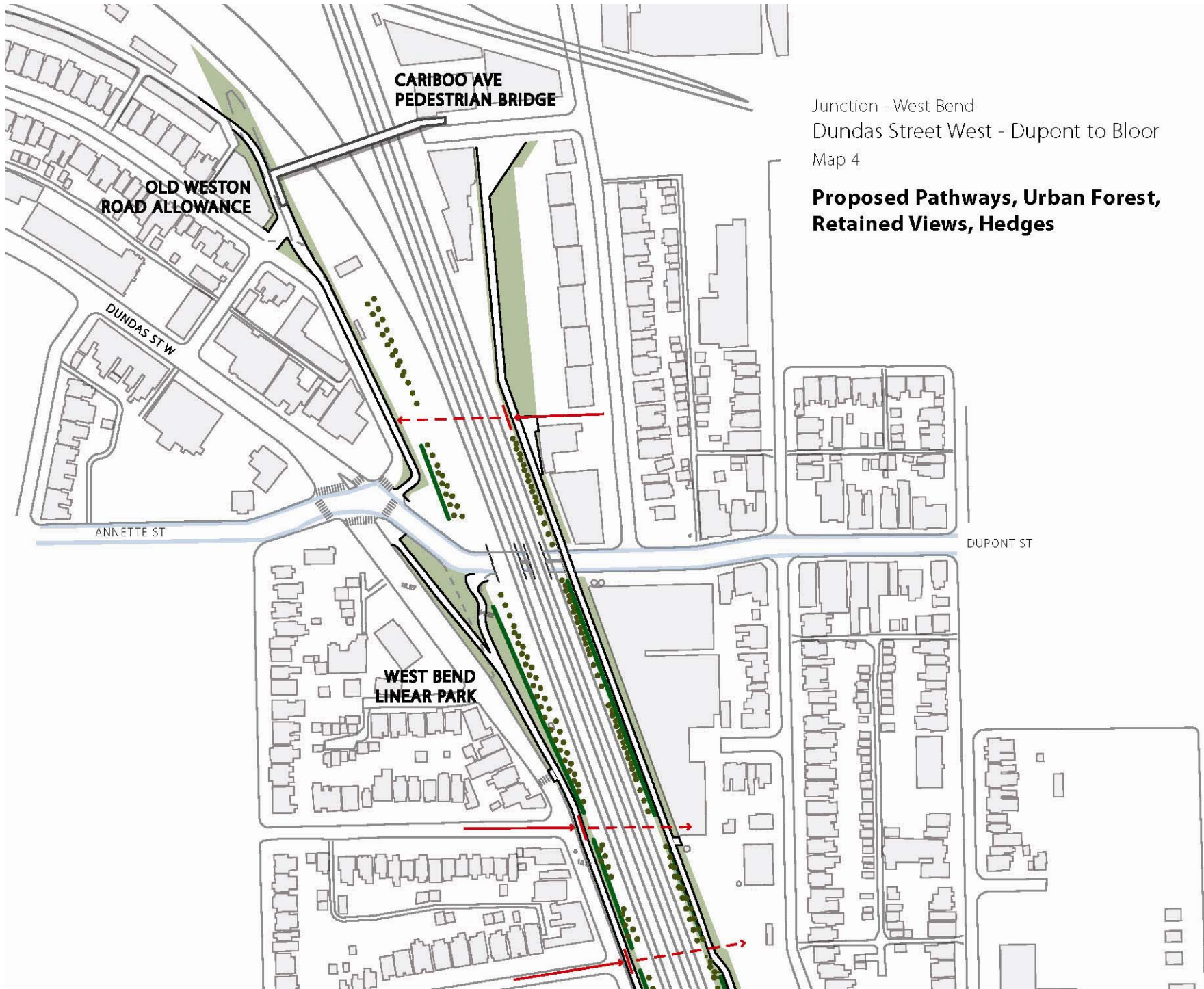


Community Connections to MUP Corridor



Sorauren Park - Sterling Road - Brockton Village
Sorauren Park and Railpath Extension
Map 4

Corridor Views, Hedges, Urban Forest



Junction - West Bend
Dundas Street West - Dupont to Bloor
Map 4

**Proposed Pathways, Urban Forest,
Retained Views, Hedges**











Before Barrier (2013)

West Toronto Railpath, view north along corridor towards Bloor Street





Sharing Boundaries

Replace the natural urban forest that has been removed with a new urban forest. – 10,000 trees instead of 500

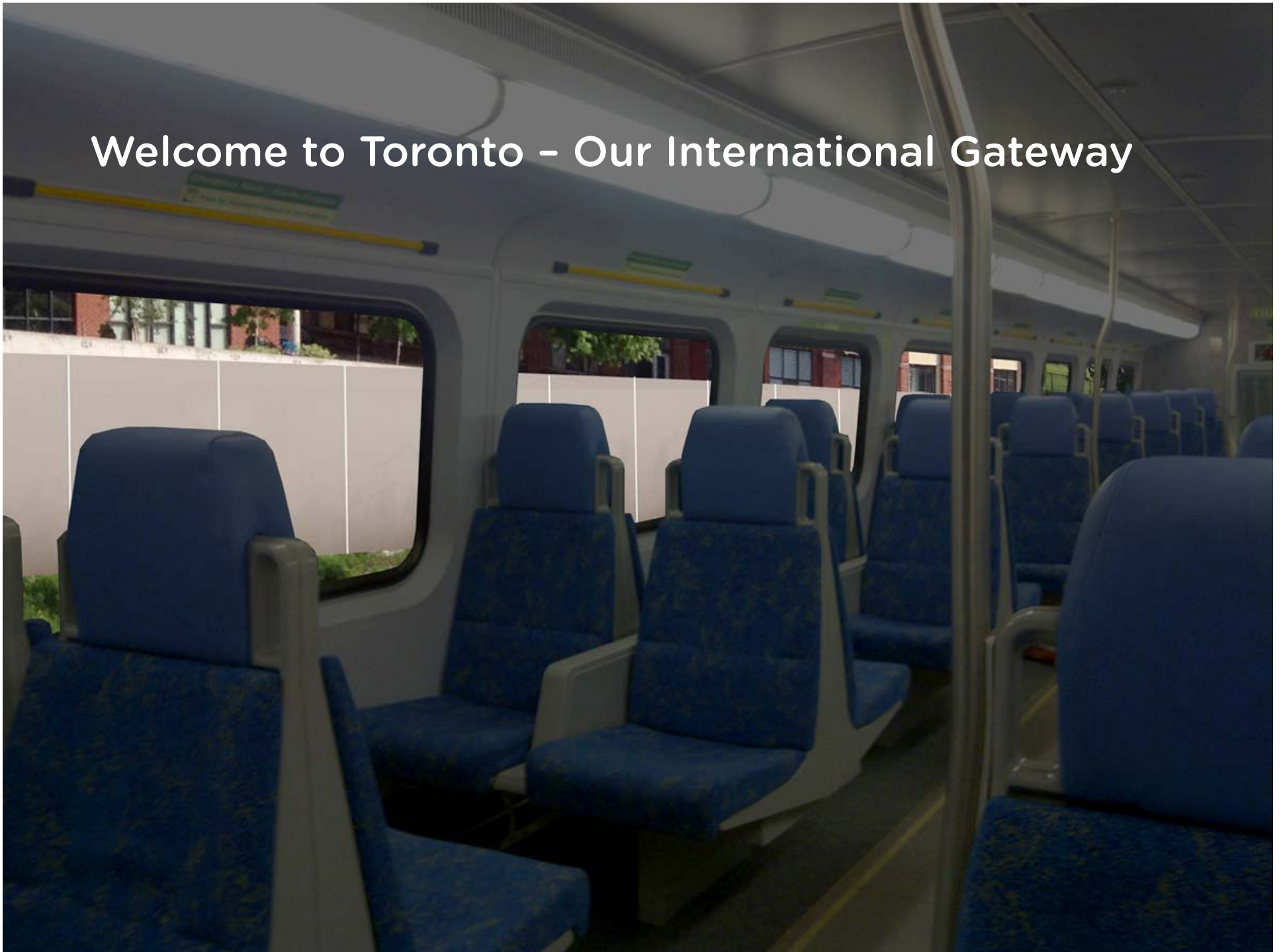
More fine-grained approach to our shared boundaries;

Phased build-out using pilot projects to see what is actually necessary and desired by the community;

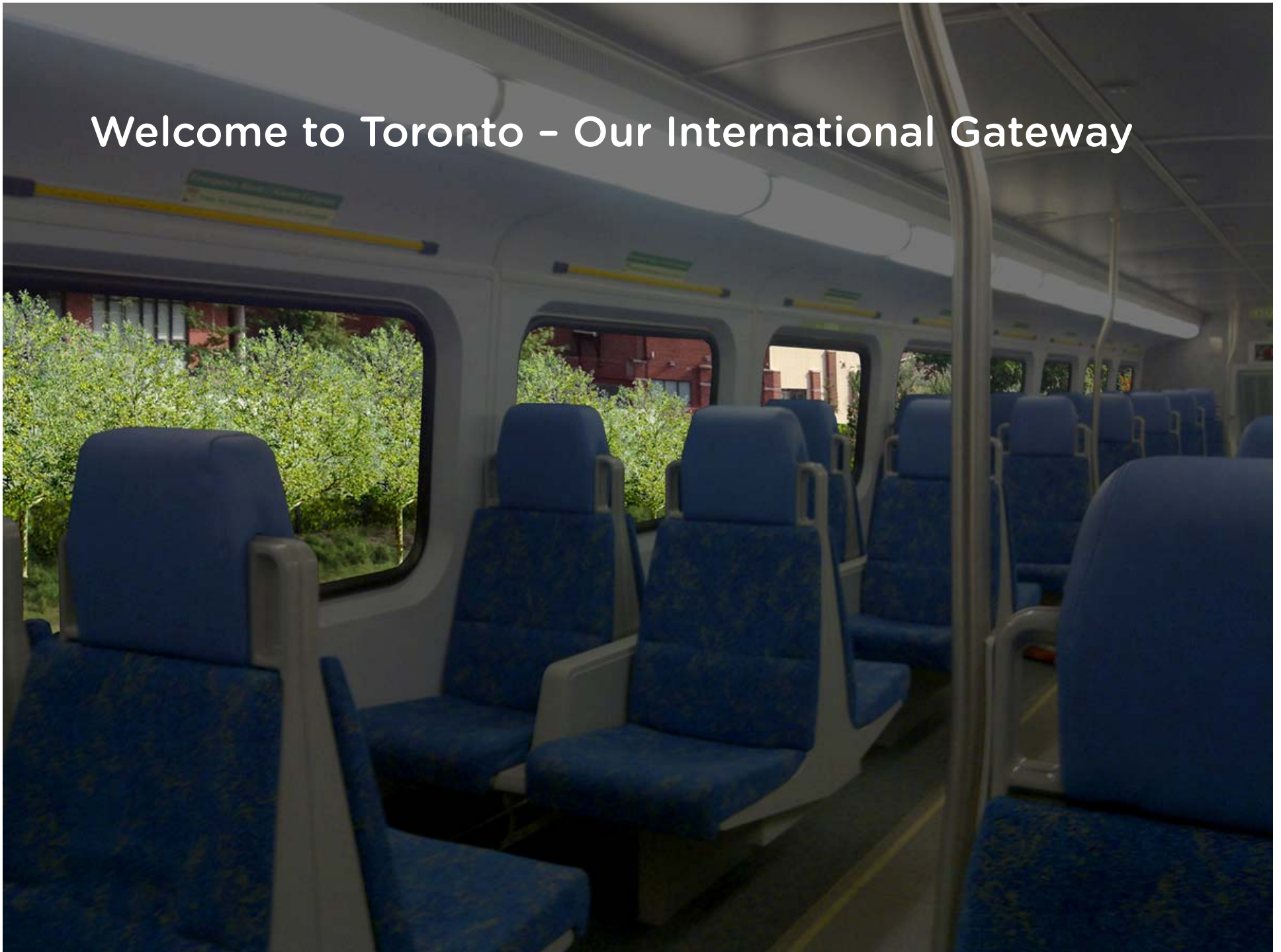
Assign separate budgets for each of the communities to develop their unique approach to shared boundaries using the elements of the Urban Forest, the Green Wall, Pathways and Bridges.



Welcome to Toronto - Our International Gateway



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