

TORONTO'S GREAT STREET

THE LAKE SHORE BOULEVARD CORRIDOR

Competition to Develop Innovative Design Options for the Gardiner Expressway
and Lake Shore Boulevard Reconfiguration Environmental Assessment

Waterfront Toronto + The City of Toronto

prepared by **james corner field operations**
with ARUP + Schollen & Company + North-South Environmental

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THE EXISTING SITUATION



It is difficult to argue for the preservation of a piece of infrastructure that has drawn calls for its removal from the very moment it was proposed. Crumbling away, and no longer efficiently serving the purpose it was originally intended, the question of what to do with the existing Gardiner is fundamentally less important than the question of what is the ideal solution for replacing it. The structure is unexceptional in both its form and materiality, functioning solely as a barrier between the City of Toronto and its recently rediscovered waterfront. Boston buried their waterfront expressway. San Francisco re-imagined the transportation infrastructure along its bay by creating a unique public realm amenity that provides service for both pedestrians and vehicles. What should Toronto choose to do? Another Big Dig? A Grand Lake Shore Boulevard? Something else; something yet un-imagined?

The reconfiguration of the Gardiner is not just about the modification of a piece of 1960's transportation infrastructure. It is about removing the last great obstacle preventing the City of Toronto from reclaiming its waterfront. In order for proposals for the East Bayfront, the West Don Lands, the Lower Don Lands and the Port Lands, as well as Lake Ontario Park to become a reality, the Gardiner as it exists today simply must come down. If it remains, dollars invested in projects elsewhere will never reach their capitalization potential.

THREE PRIMARY CHALLENGES

Based on our understanding of the existing context of the Gardiner Expressway/Lakeshore Boulevard Corridor, we see three primary challenges that must be resolved for the City of Toronto to take full advantage of its waterfront:

TRAFFIC VOLUME

The single, biggest hurdle to bringing the Gardiner Expressway down is the question of what to do with the volume of traffic that currently fills its lanes and those of Lake Shore Boulevard. While we can suggest the possible redistribution of some traffic volume locally, ultimately the critical mass of reduction in vehicular movements in this corridor must be the result of a regional approach to transportation and transit that discourages private vehicle usage in the downtown core and privileges alternative means of transportation.

NORTH-SOUTH CROSSINGS

Everyone knows that Toronto has an amazing amenity in its waterfront. The problem is actually accessing it from the city's existing neighborhoods. At present, it is unclear how one should properly - and safely - navigate from areas like St. Lawrence, the Distillery District, Corktown, or Leslieville down to the waterfront. Clarifying these connections, and demarcating them in such a way that this movement is intuitive is essential to fully capitalizing the waterfront.

FROM BARRIER TO THRESHOLD

The Gardiner Expressway / Lake Shore Boulevard Corridor is not ever going to fully disappear. We can modify it and mitigate it, but ultimately this line will always be present within the fabric of downtown Toronto. We believe the key is transforming the transect of the roadway from that of a barrier that dissuades movement and occupancy of the waterfront, to an urban threshold that announces the gateway to the overall waterfront district.



TRAFFIC VOLUME



NORTH-SOUTH CROSSINGS



FROM BARRIER TO THRESHOLD

TORONTO'S GREAT STREET

The removal of the Gardiner Expressway is a major step toward re-connecting the city and neighborhoods of Toronto to the Lakefront. It is a major step toward returning the city to people, to the pedestrian and to civic spaces that citizens are proud of and can relate to in a positive way.

We propose a simple, grand, tree-lined street to replace the Gardiner. Generously sized allees of Oak, Maple, Ginkgo and Linden line the new 2.5-mile long street, running from Yonge to Leslie Street. Welcoming and safe pedestrian intersections encourage linkage from the neighborhoods to the Lakefront.

THE TRAFFIC EQUATION: "EXPRESSWAY TO STREET"

Reducing the number of traffic lanes from the existing situation (8 on the Gardiner, plus 6 on Lake Shore Blvd, for a sum of 14, or even 16 with turning and exit lanes) to a sum of 8 street-lanes requires a radical shift in mindset. The new Grand Street is no longer a massive, free-flowing mobility corridor oriented solely to the automobile, but is now a humanized civic street where pedestrians and traffic both work together. The reduction in vehicular capacity is between 35% and 45%, and will obviously need to be accommodated for regionally. This can be achieved by 1) increasing flow off the Don River Parkway at the Bloor Street and Eastern/Richmond exits; 2) improving alternative public transit systems; and 3) spreading the "peak" times. Taking down the Gardiner must be understood as just one movement in the larger symphony of shifting the transportation paradigm of Greater Toronto. Reduced capacity and travel times will be compensated for through the creation of a more pedestrian-friendly, inter-connective, urban civic street that improves the quality of life for residents, enhances property values and allows the city to leverage its biggest asset – the lakefront.



OVERVIEW OF CORRIDOR SHOWING IMPROVED DEVELOPMENT FRONTAGES

THE EXPERIENCE OF THE SITUATION TODAY

Mr. Chakrabarti, Daily Commuter (personal car):

“Driving south along the Don Valley in the morning is frustrating; travel speeds are slow and I feel like all the congestion leads people to drive super aggressively and unsafely.”

Ms. Walker, Cyclist:

“The corridor is definitely more of a barrier than it is an amenity for cyclists. The high levels of congestion and frequent ramps connecting to Lake Shore from the Gardiner and Don Valley make this a place I go out of my way to avoid.”

Mr and Mrs. Hu, Residents:

“The area feels like it has potential to be a great waterfront; the only problems being everything except for the water. We’ve lived here for 15 years and still have a hard time figuring out how to get down to the Lake safely.”

THE EXPERIENCE OF THE PROPOSED NEW GRAND STREET

Ms. Moddrell, Daily Commuter (personal car):

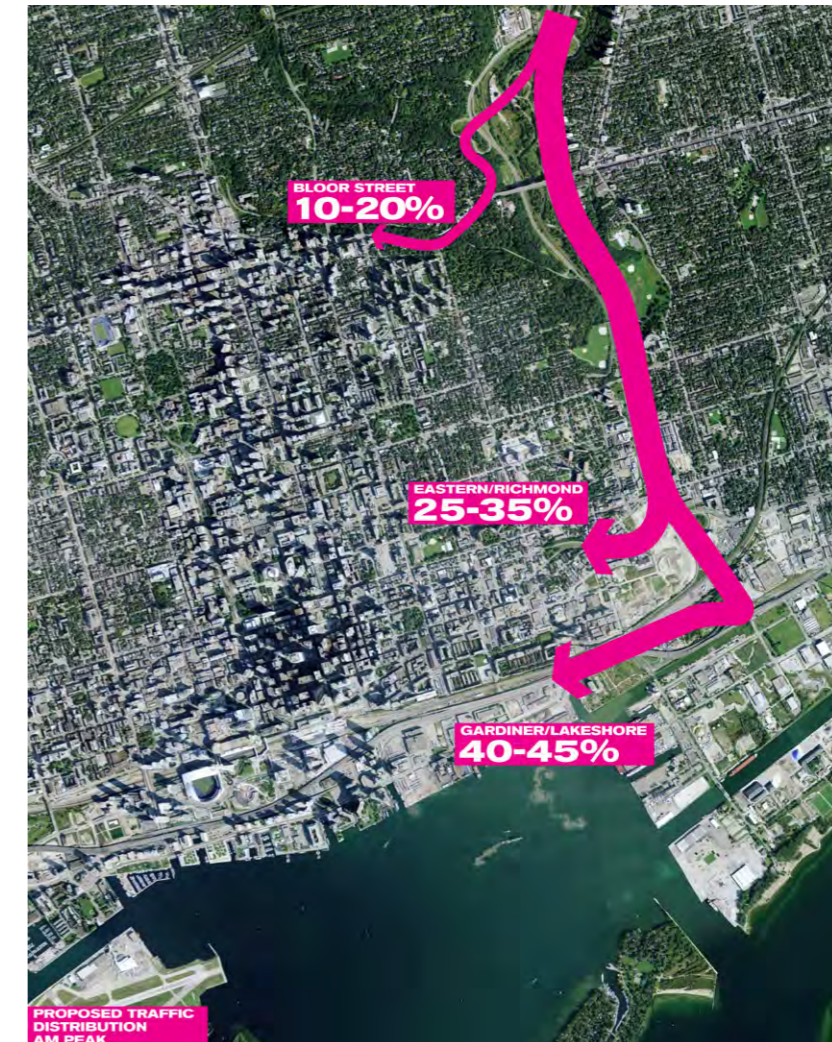
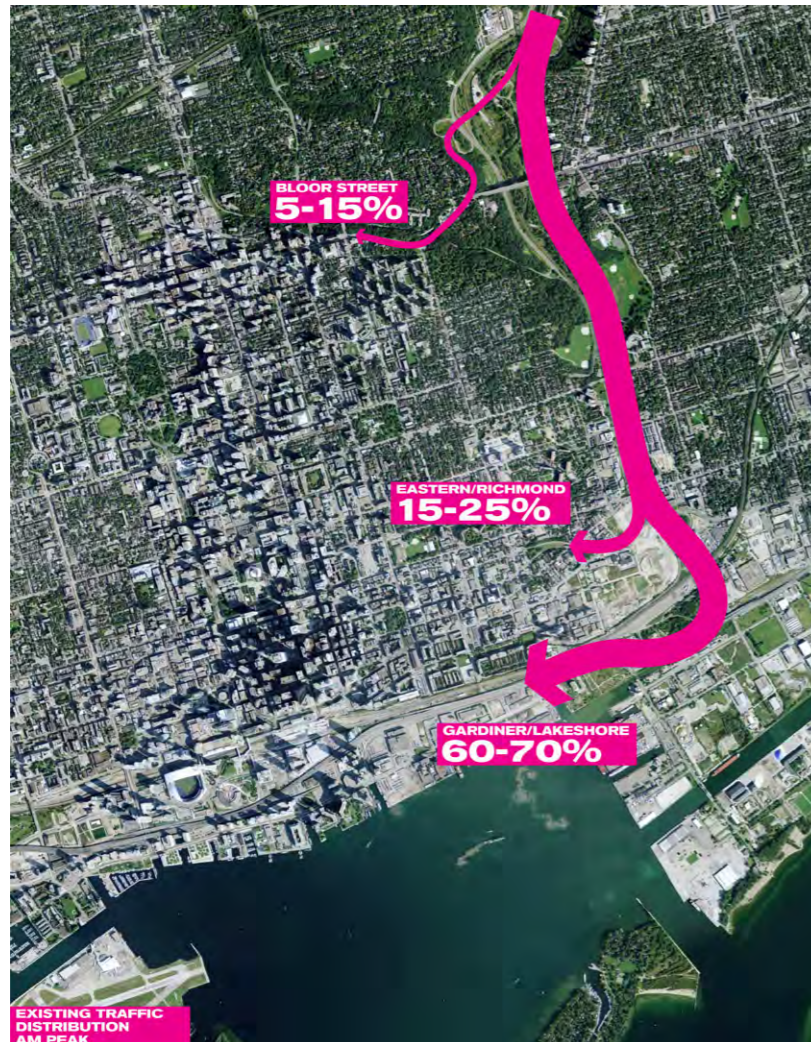
“The trip along Lake Shore Boulevard has certainly become much more enjoyable. My travel time may be a few minutes longer, but the reduced congestion and improved clarity of circulation have made a world of difference.”

Mr. and Mrs. Massoud, Cyclists:

“We don’t fear for our lives anymore! The super-wide median with a fully protected bicycle path is a great amenity for cyclists.”

Mr. and Mrs. Lee, Residents:

“The new Lake Shore Boulevard creates a real sense of place. I could never have imagined living around here 10 years ago. The newly designed gateways along the north-south streets make getting down to the water completely intuitive”

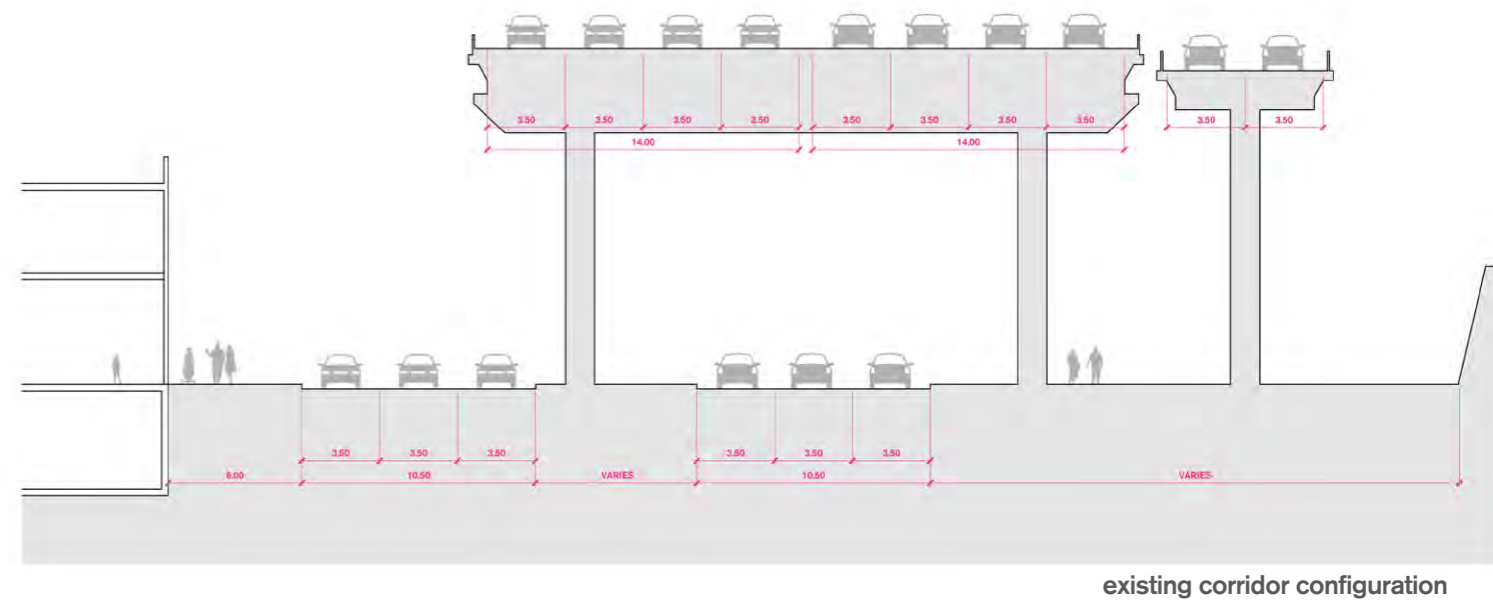


1) THE GREAT STREET

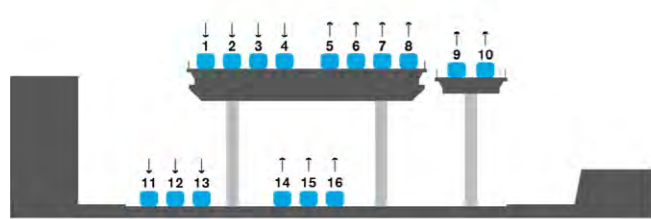
Presently, a typical cross section of the Gardiner Expressway/Lake Shore Boulevard corridor is more than 80% asphalt or concrete surfacing and structure for cars, trucks, and buses, with less than 20% devoted to planting, sidewalks and/or the public realm.

The design of the new Great Street revises this ratio, devoting nearly 60% of the corridor to the public realm and/or planting and green-space. Sidewalks are widened from their typical existing 2-4m dimension to a minimum of 6m, allowing for generous shade tree planting, furnishing and signage. Local traffic is separated to the outside from thru traffic at the center, reducing vehicular speeds adjacent to pedestrian zones. An additional buffer between the public realm on the southern edge adjacent to development and the vehicular corridor is established by the 10m wide "Lake Shore Boulevard Promenade" comprising devoted lanes for bicycles and pedestrians, as well as generous areas for planting and furnishing.

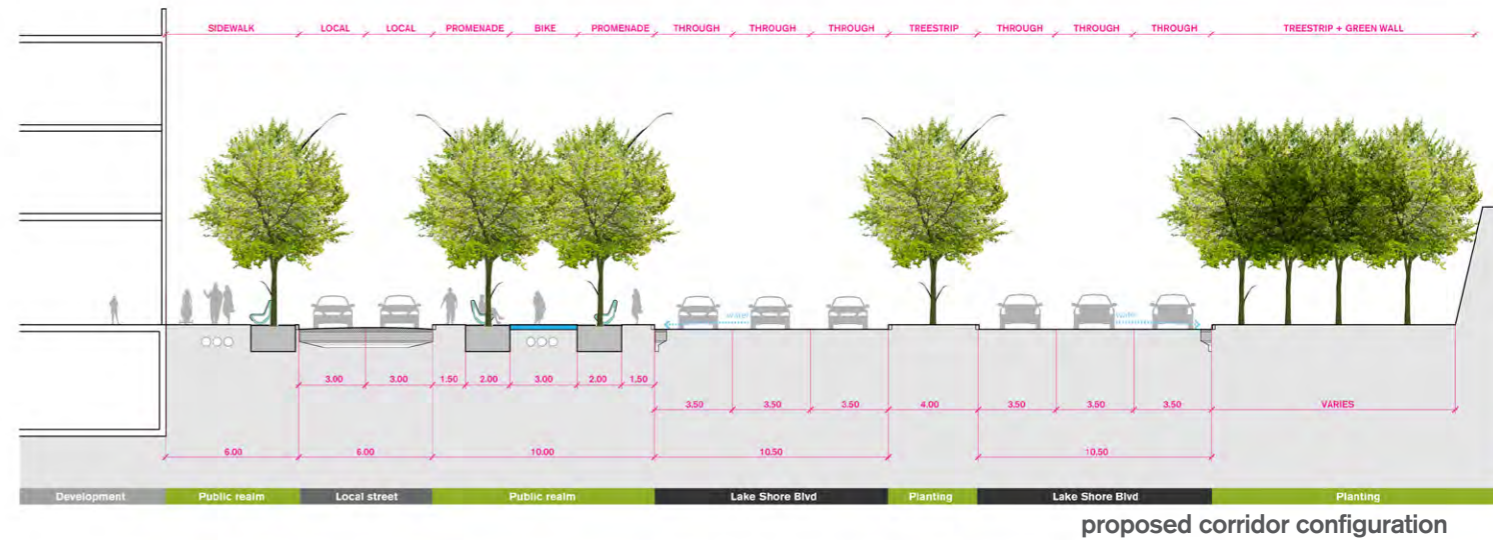
The area adjacent to the rail berm on the northern edge of the Boulevard varies in dimension over the length of the corridor. However, where feasible the berm is retrofitted with a sculptural, modular planting system that creates an iconic green wall running from the Don River, west to Yonge Street. This Green Wall is envisaged as a tall constructed escarpment, with woodland plantings, stormwater terraces and vertical gardens. This strip, in combination with the promenade and the tree-planted median further enhances the overall greening of the Lake Shore Boulevard corridor.



CONCRETE BARRIER (60M)



VEGETATED RIBBON (60M)



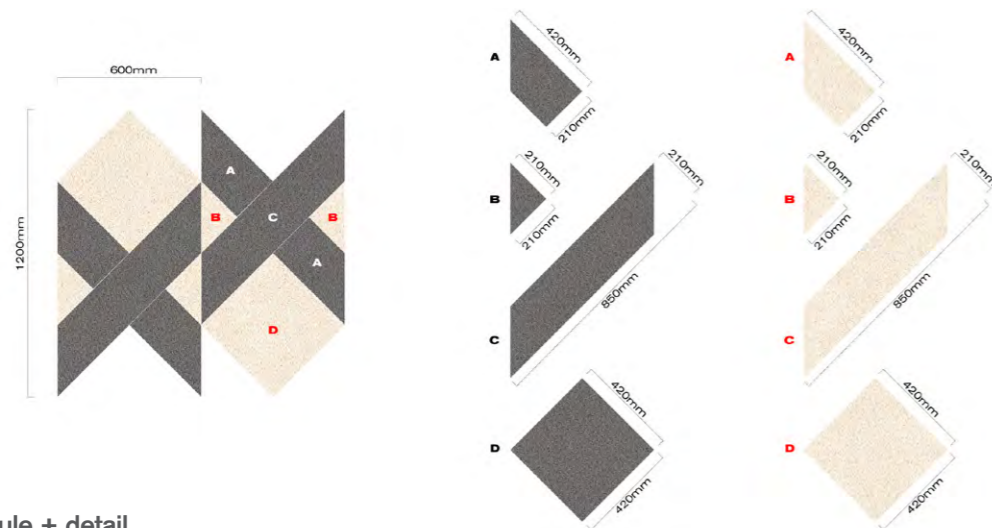


**AUTUMN AFTERNOON ACTIVITY ALONG
LAKE SHORE BLVD. PROMENADE**

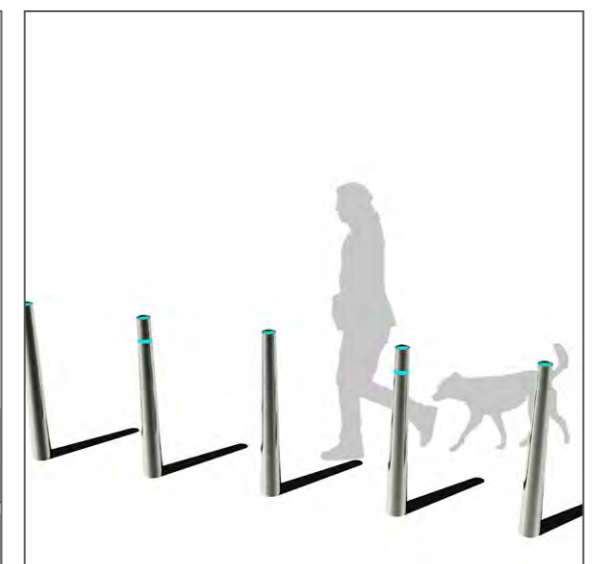
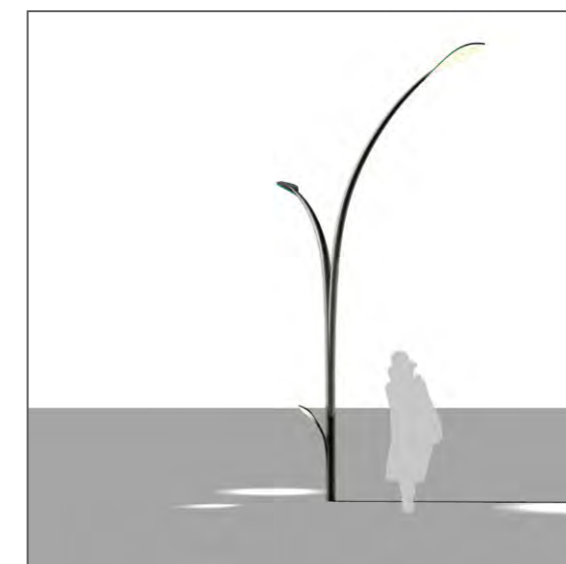
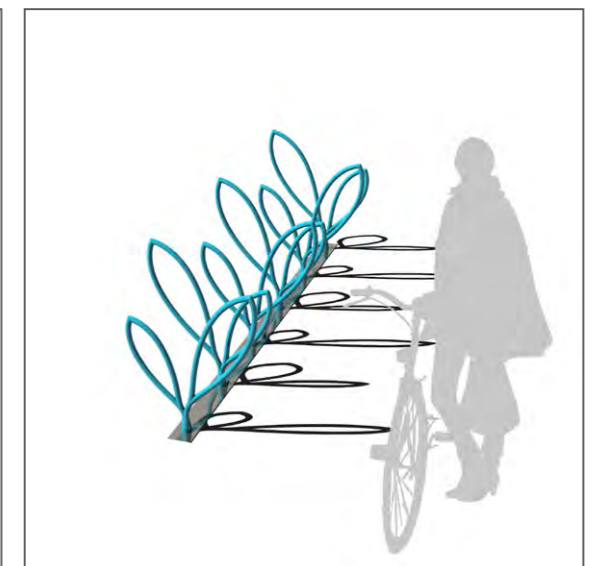
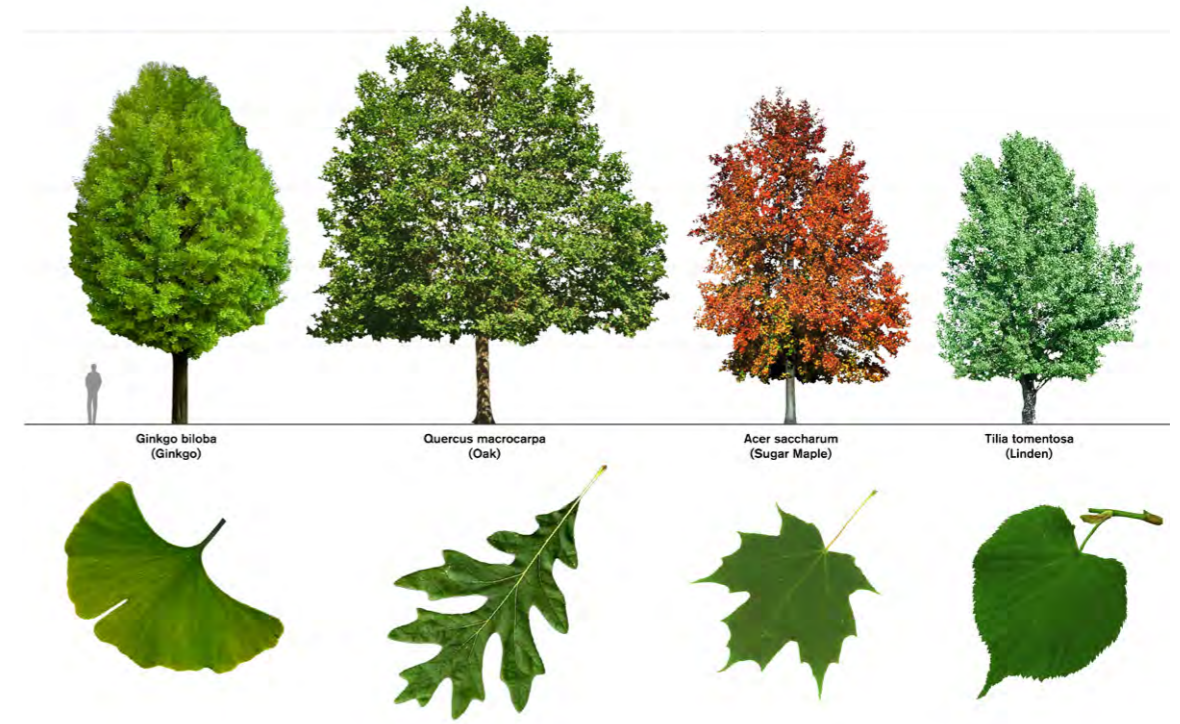


**NIGHT VIEW OF RECONFIGURED BOULEVARD
FROM ELEVATED PEDESTRIAN CROSSING**

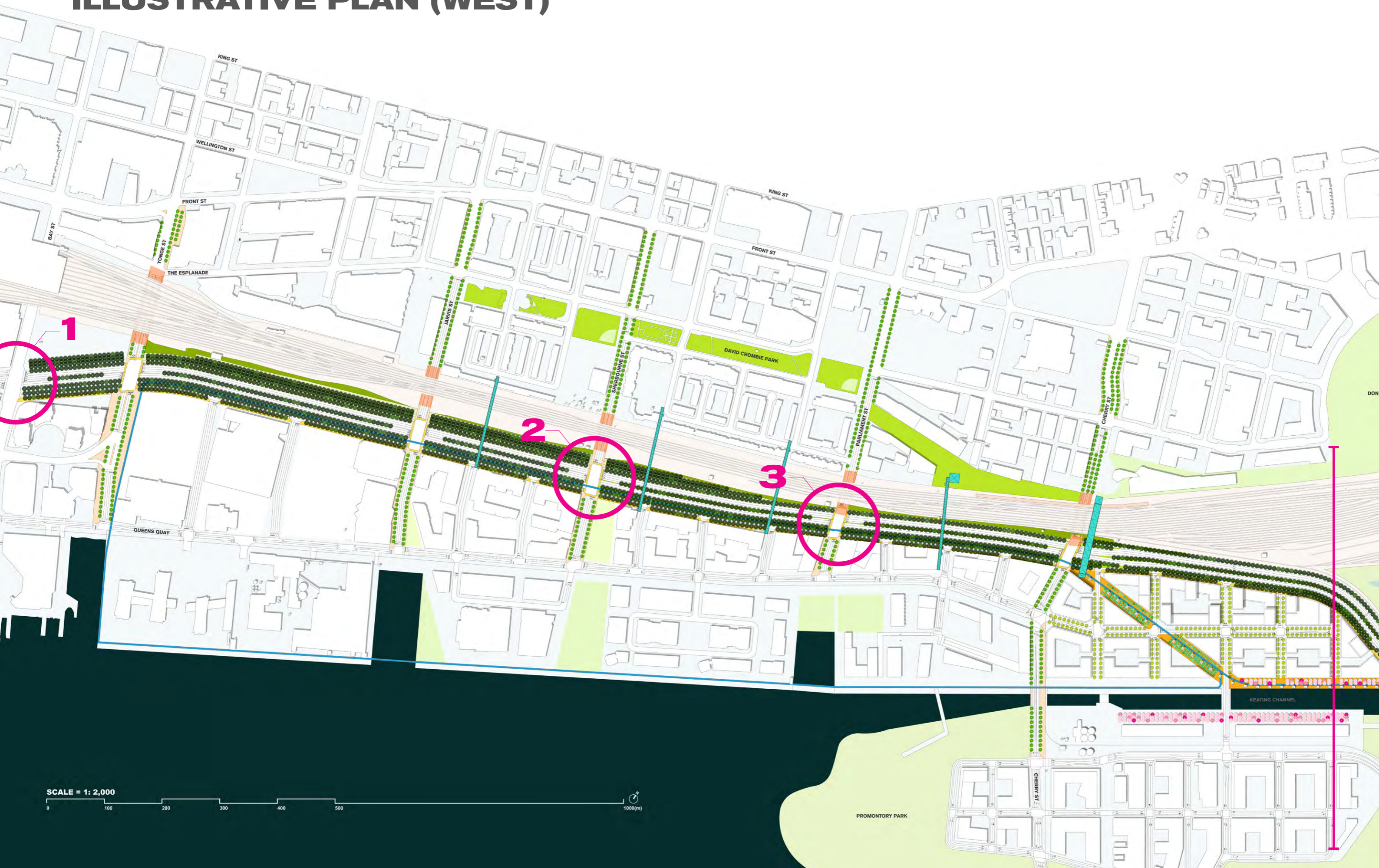
Today, Lake Shore Boulevard is a confusing ensemble of vehicular signage and over-scaled highway elements with few places to stop, sit and rest. The widening of the public realm and introduction of regularized pedestrian crossings will begin to alleviate much of this cacophony. Importantly, the use of bold paving, iconic tree planting, bespoke furnishing, transit shelters, bicycle racks, trash cans, bollards, lighting fixtures and signage will enhance the legibility and amenity of the corridor for social pedestrian uses.



paving module + detail

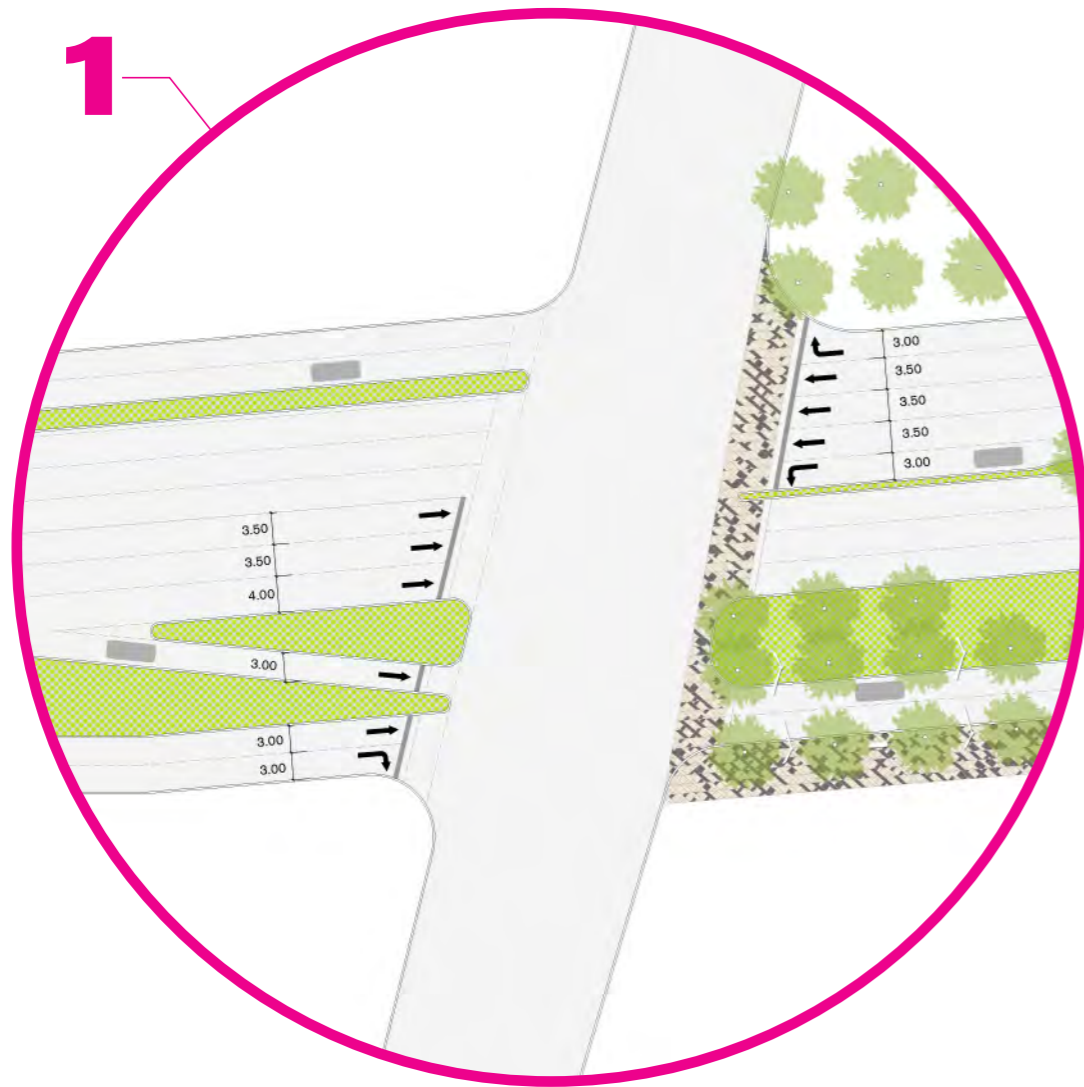


ILLUSTRATIVE PLAN (WEST)

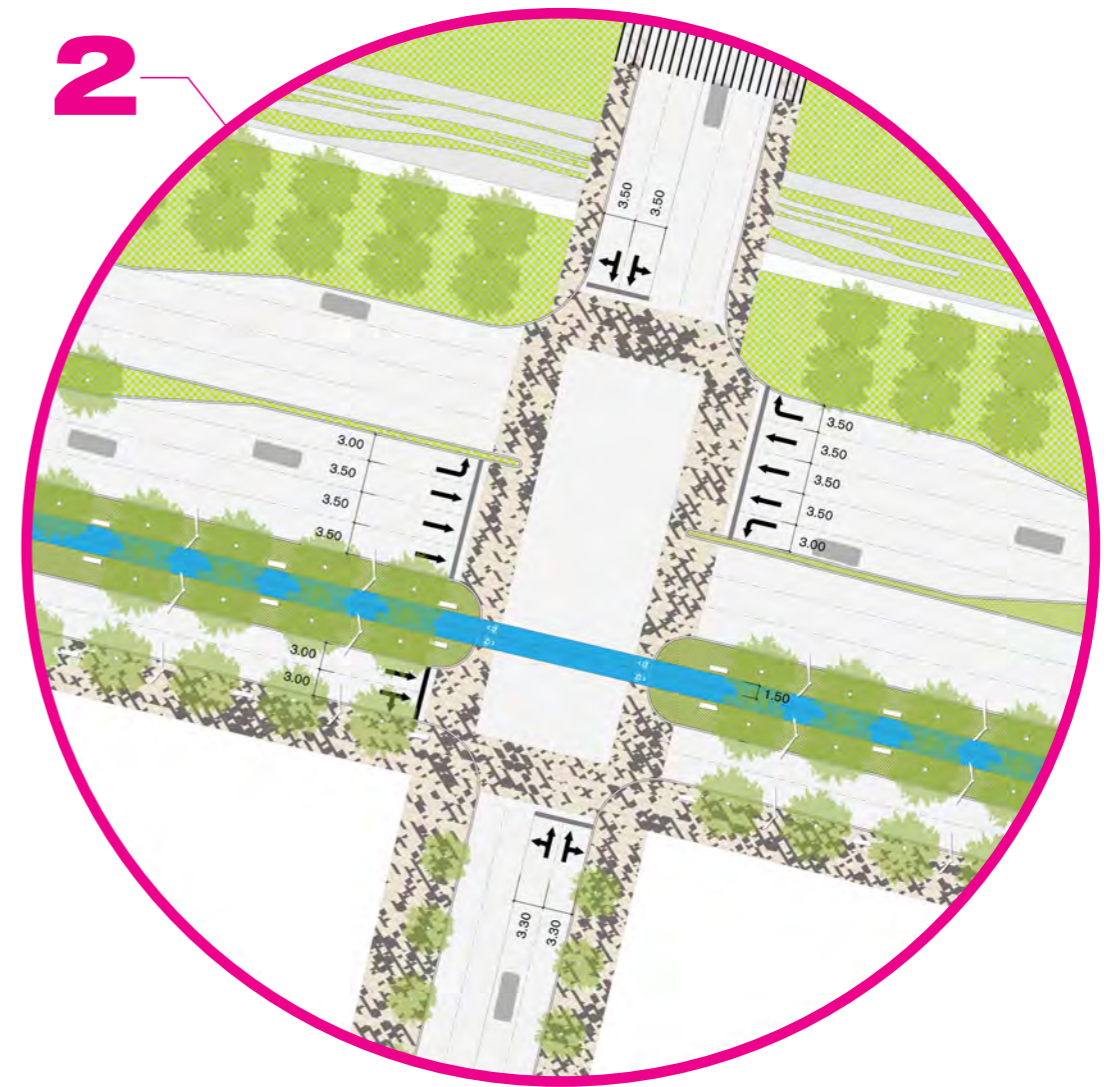


ILLUSTRATIVE PLAN (EAST)



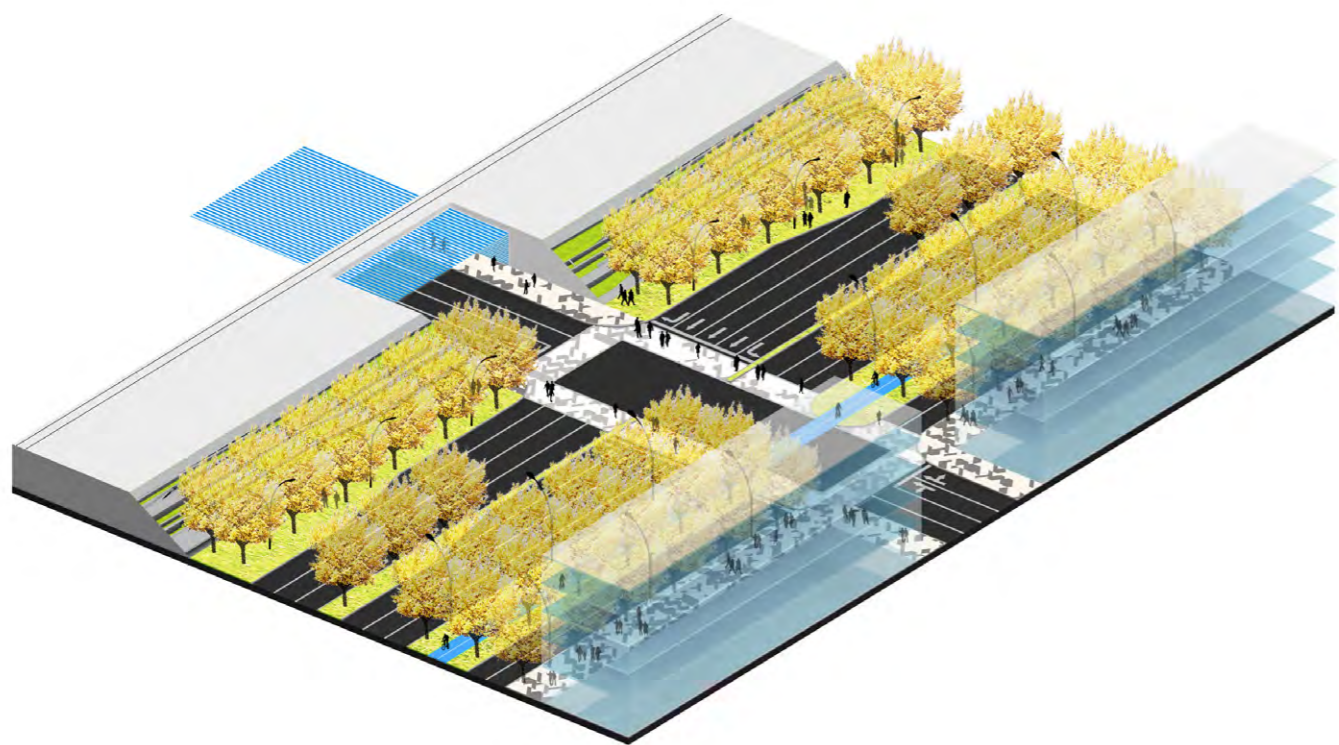


BAY STREET INTERSECTION (GRADE TO ELEVATED CONNECTION)



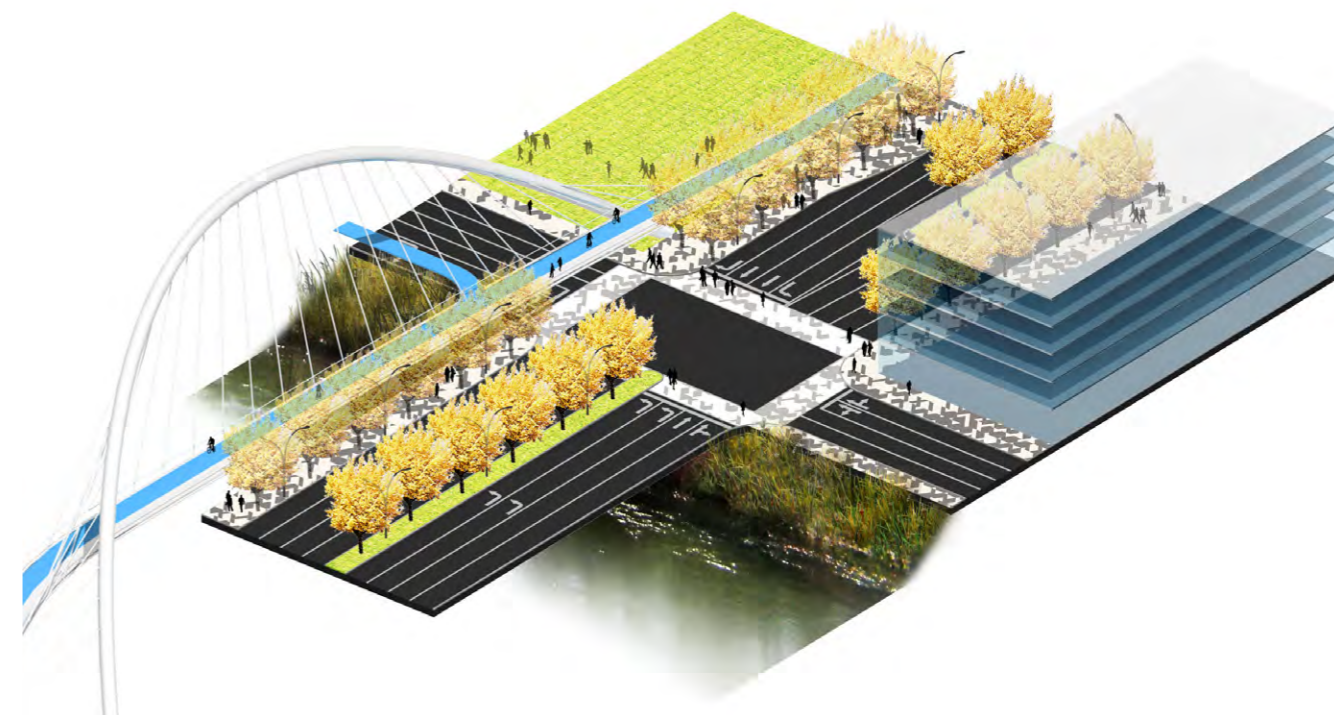
SHERBOURNE STREET INTERSECTION (TYPICAL WESTERN INTERSECTION)

3

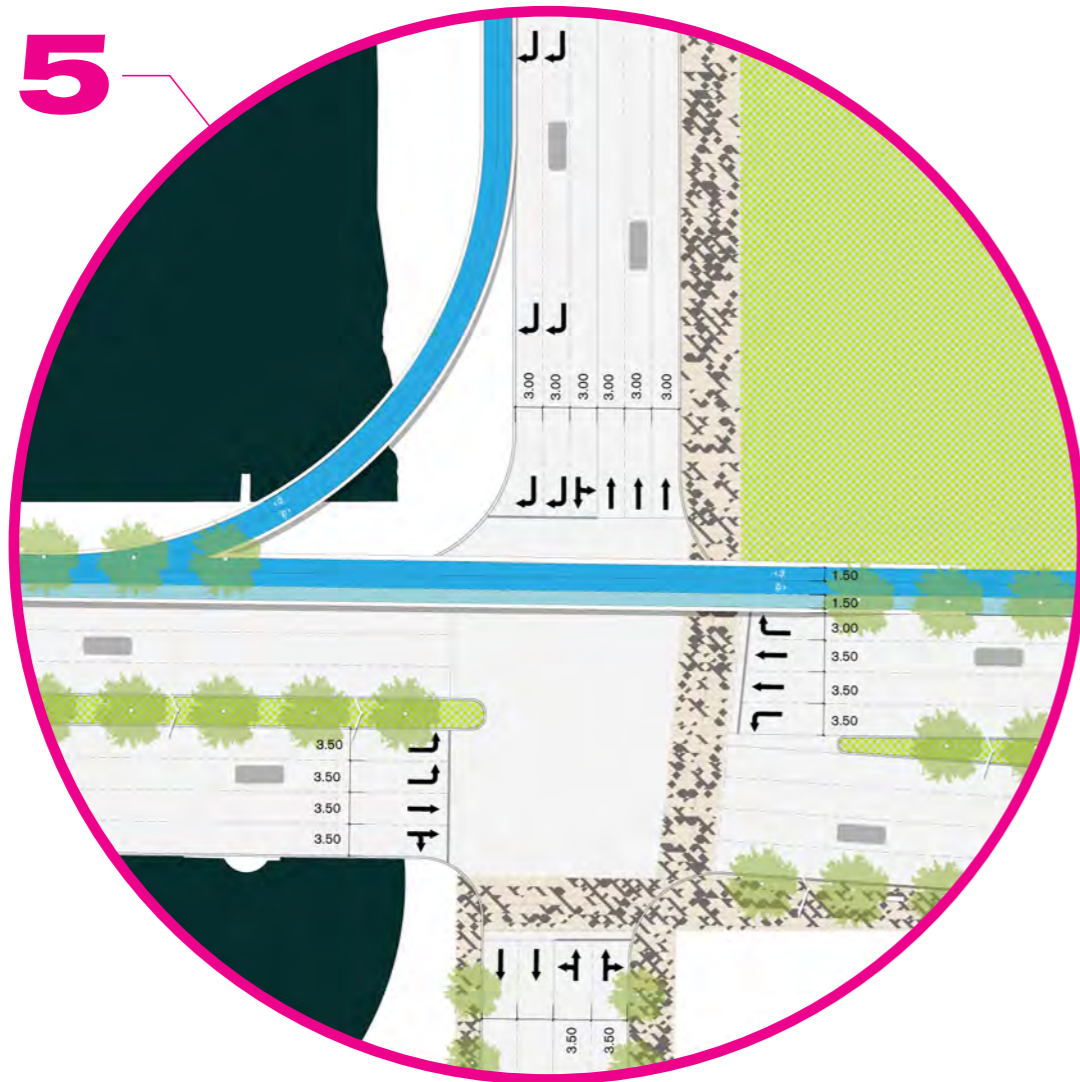


PARLIAMENT STREET INTERSECTION AND CROSSING

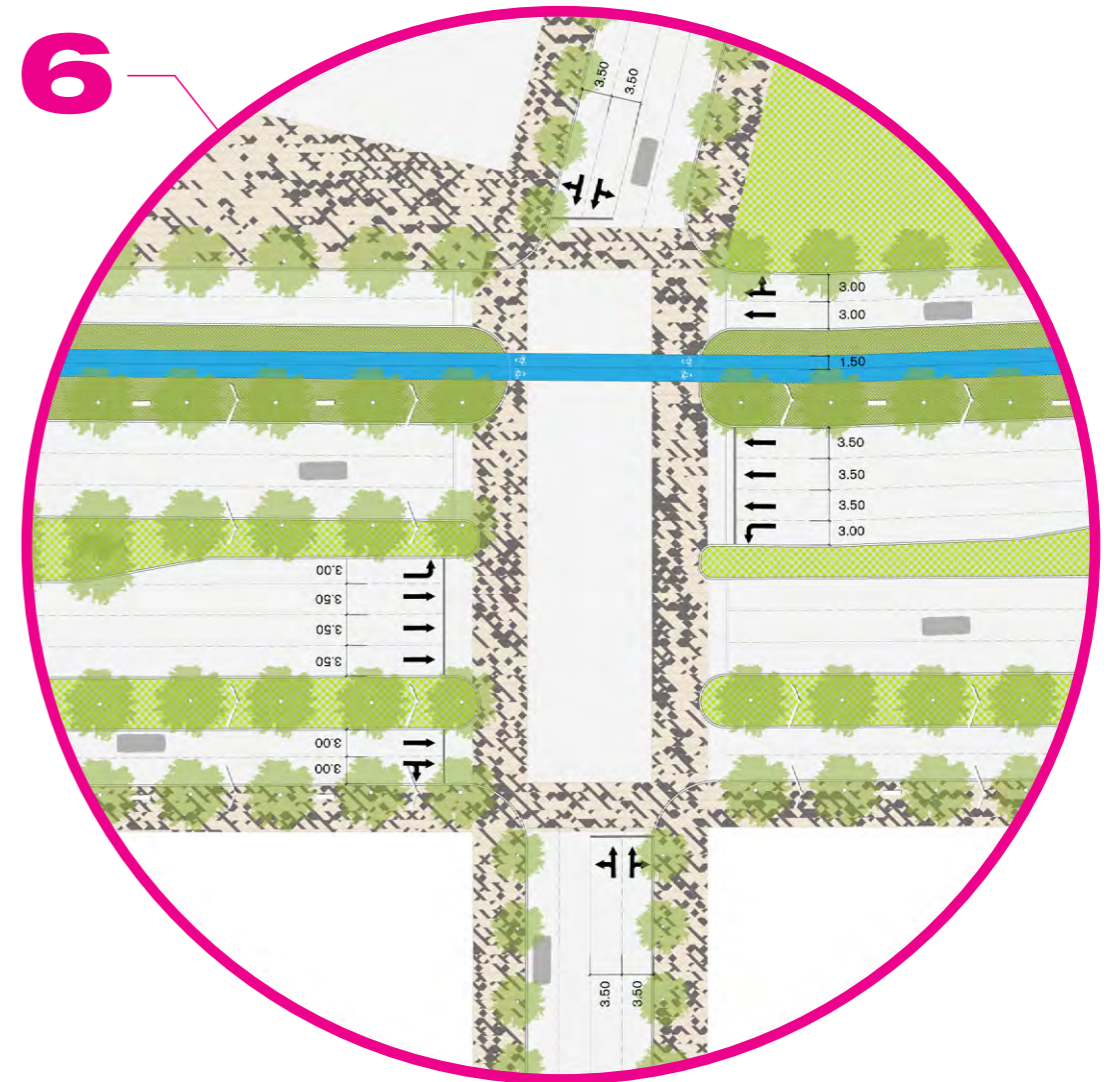
4



DON VALLEY PARKWAY INTERSECTION



DON VALLEY PARKWAY - LAKE SHORE BOULEVARD INTERSECTION



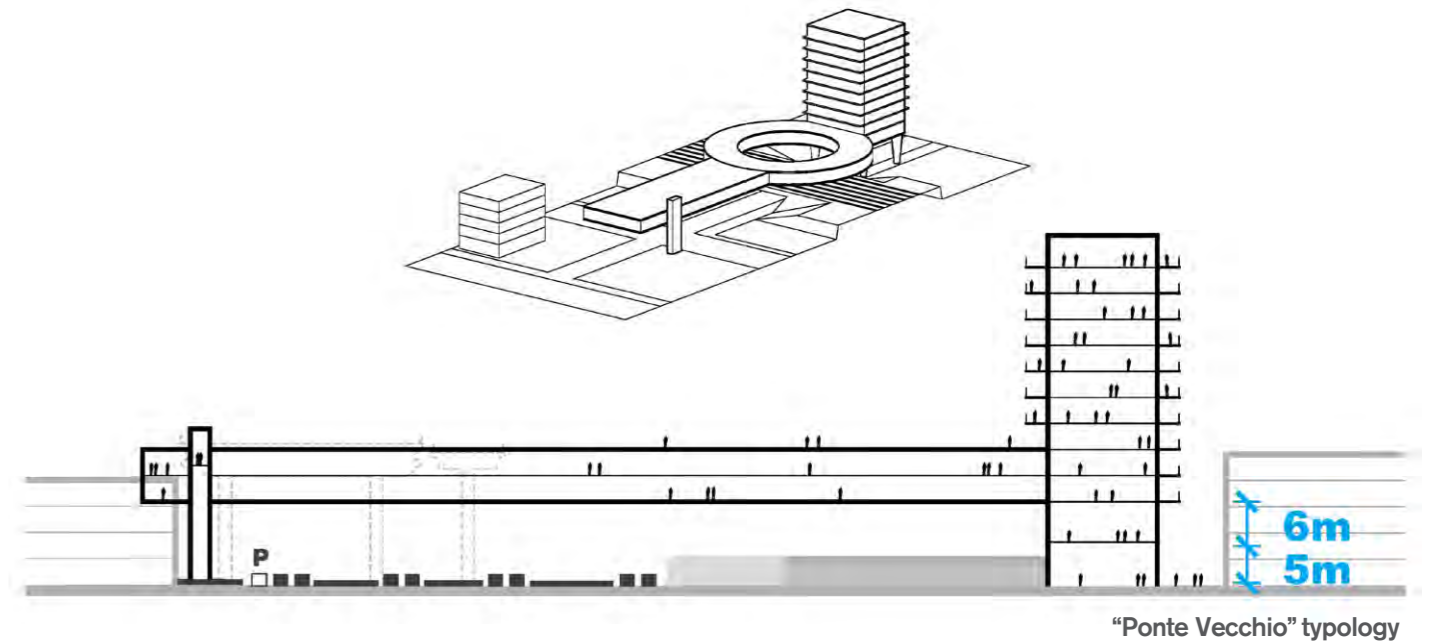
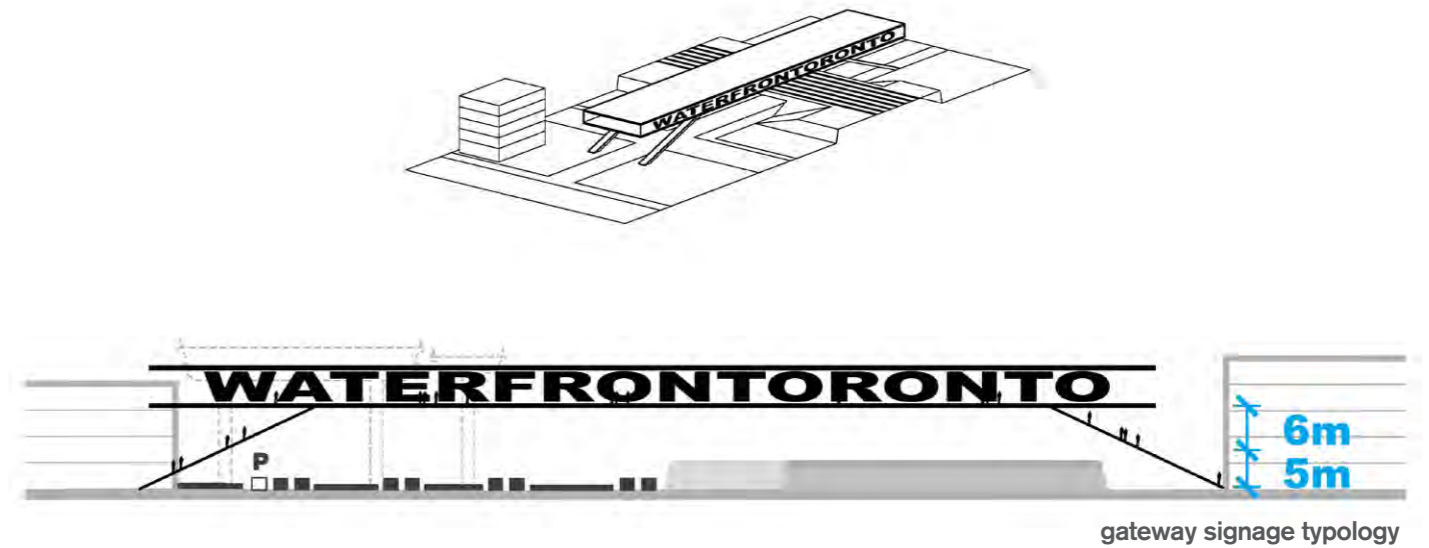
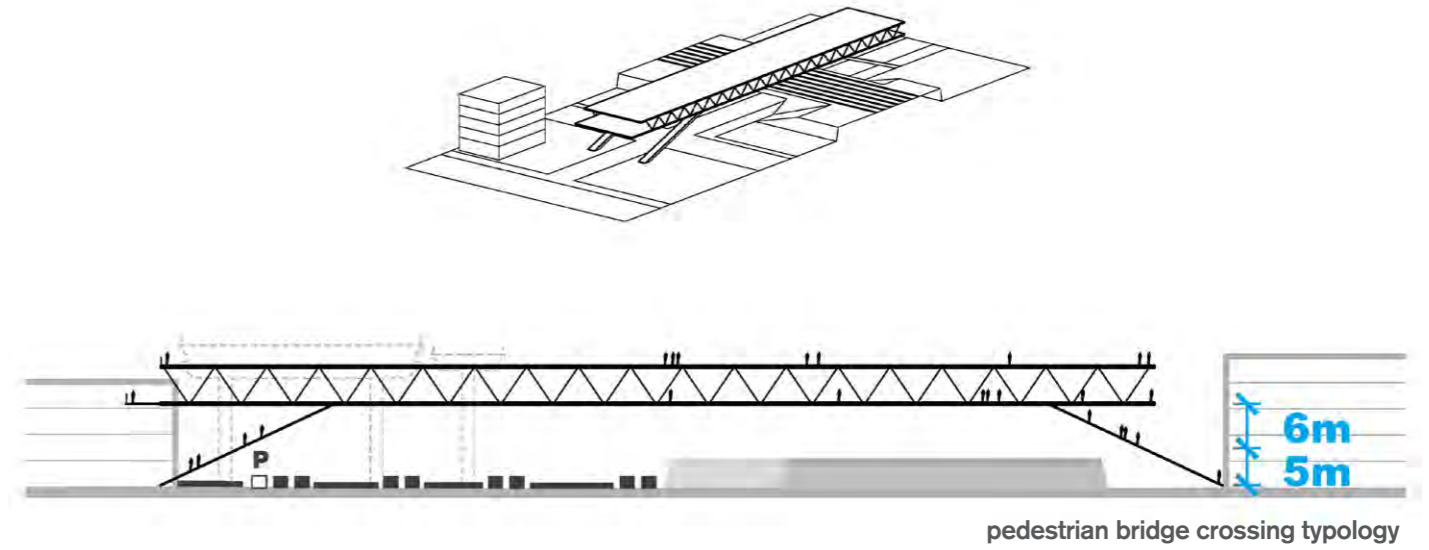
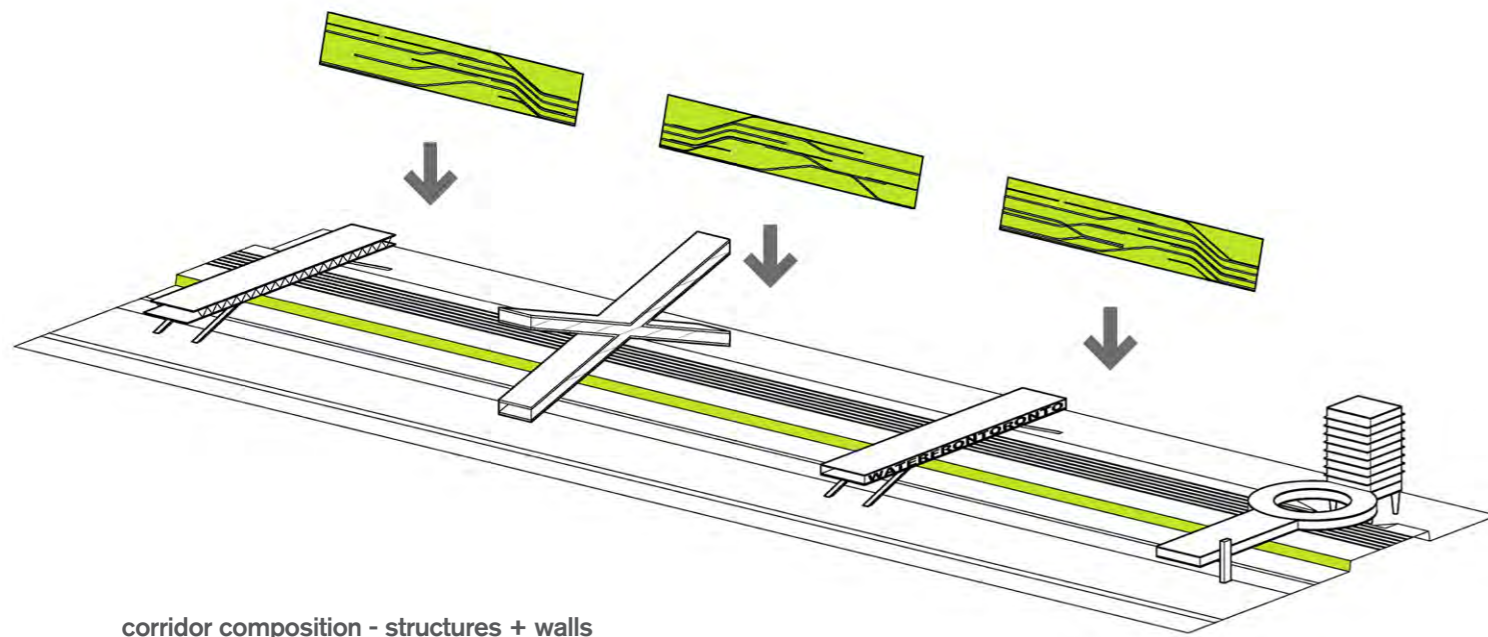
CARLAW AVENEUE INTERSECTION (TYPICAL EASTERN INTERSECTION)

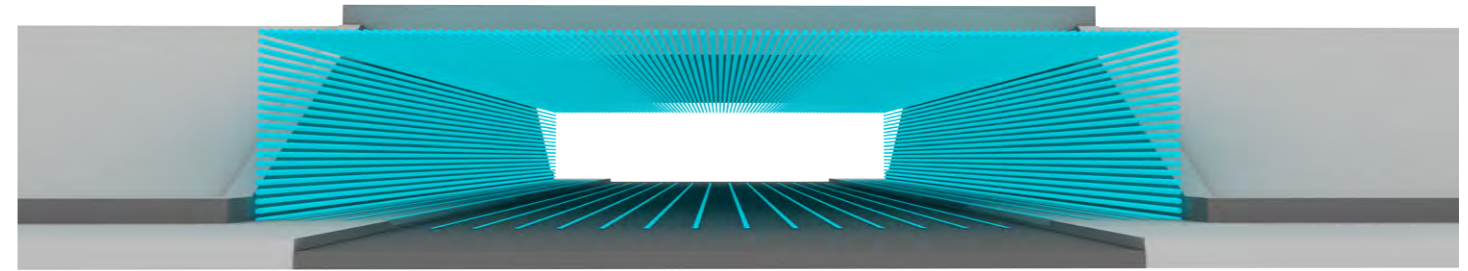
2) N-S NEIGHBOURHOOD CONNECTIONS

The Gardiner is not the only barrier to pedestrian movement from the north, south to the waterfront; the GO Transit rail berm is an equally significant obstacle to waterfront access because of its limited number of crossings and their diminutive scale. In order to overcome these barriers to movement - both physical and perceptual - clear articulation of existing crossing points is necessary, as well as the introduction of new typologies of crossing.

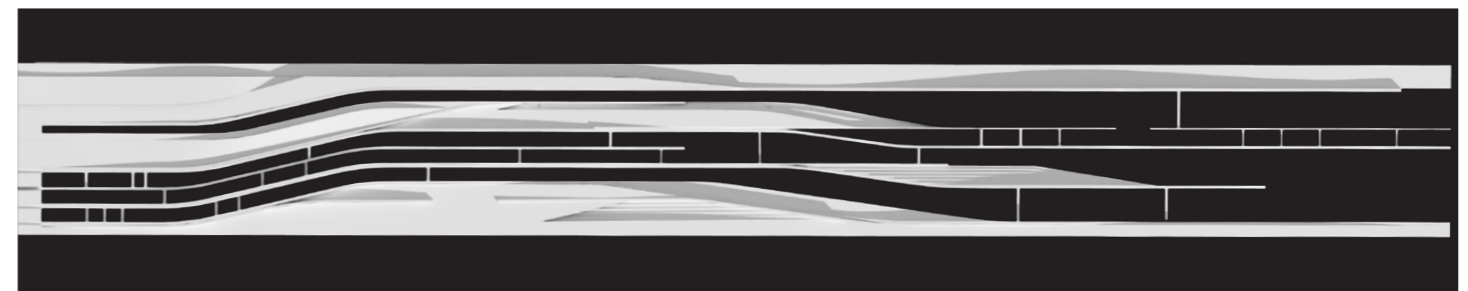
We propose that each of the underpasses at Jarvis, Sherbourne, Parliament and Cherry are retrofitted with an architectural sleeve that announces the presence of the public access point; illuminates its volume; and demarcates that particular entry to the Waterfront District. These media sleeves are part of a larger streetscape strategy that extends the paving and furnishing of the Lake Shore Boulevard north into the existing neighborhoods of the City. Paired with a distinct planting regime and a unique urban floor, these north-south thoroughfares are recognized as the gateways from the neighborhoods to the Waterfront.

In addition to the existing crossing points, we also propose the introduction of three new typologies of crossing at strategic points along the length of the corridor. These crossings take the form of architectural objects and include large-scale signage; iconic pedestrian bridges; and at Cherry Street, a new 21st century Ponte Vecchio - a fully programmed mixed-use cultural building that links the Distillery District directly with the Lower Don Lands development.

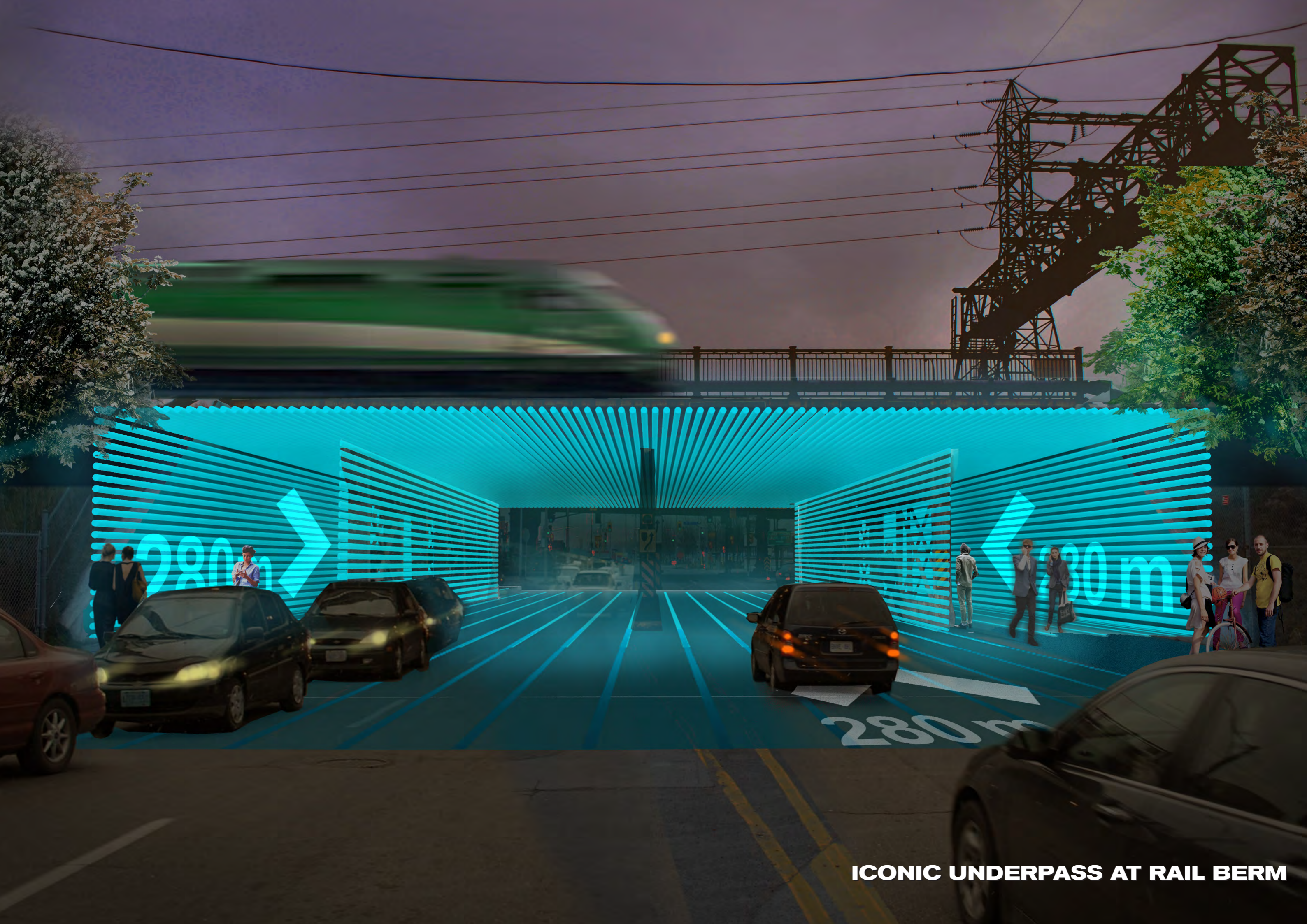




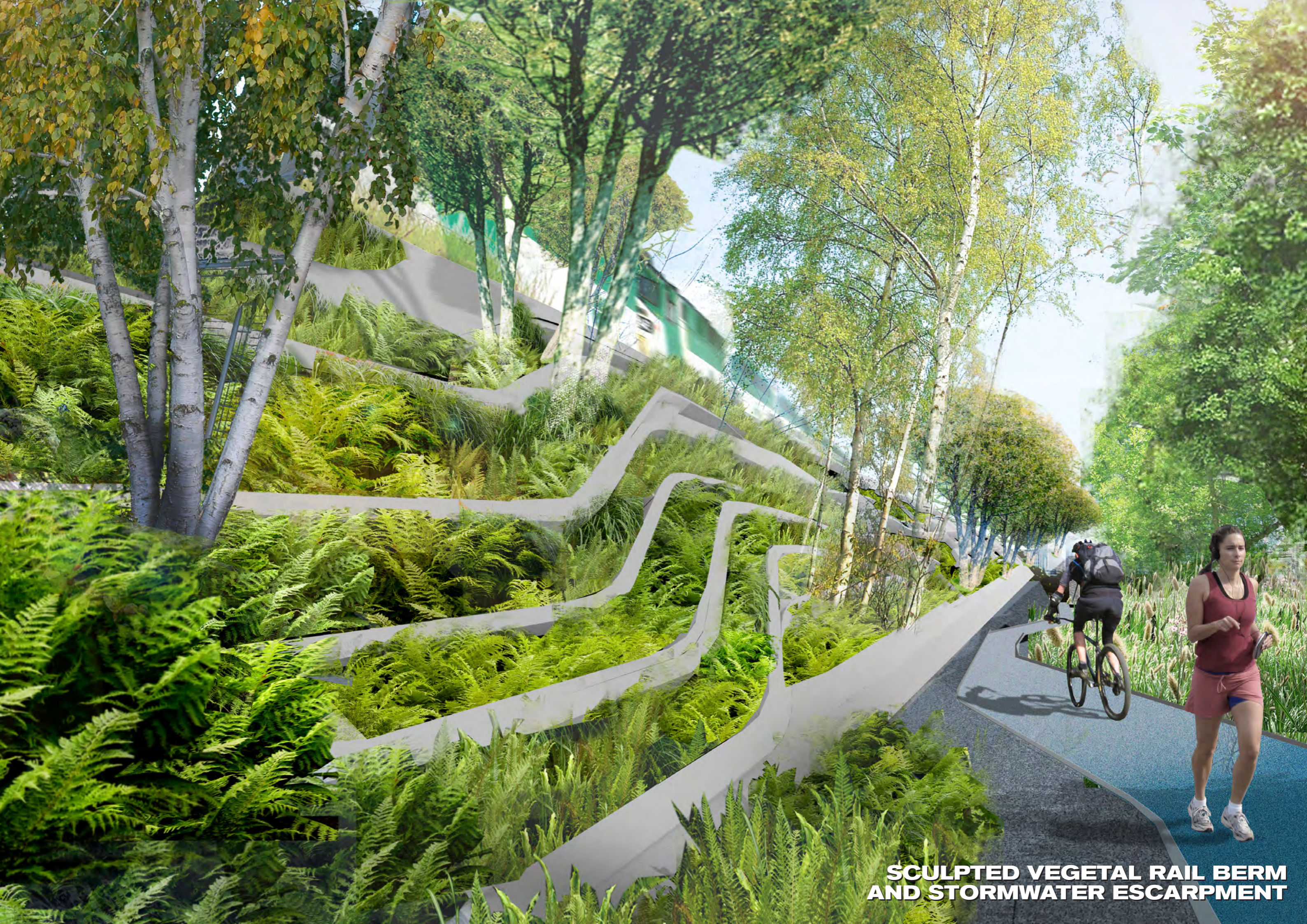
underpass media sleeves



sculpted vegetative rail berm escarpment



ICONIC UNDERPASS AT RAIL BERM

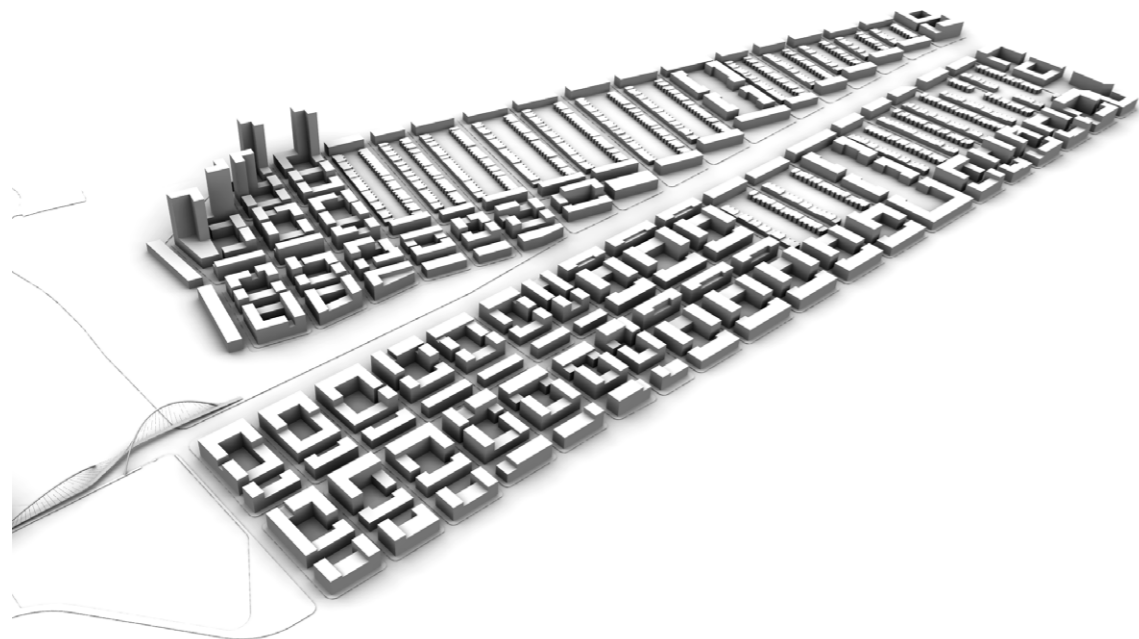
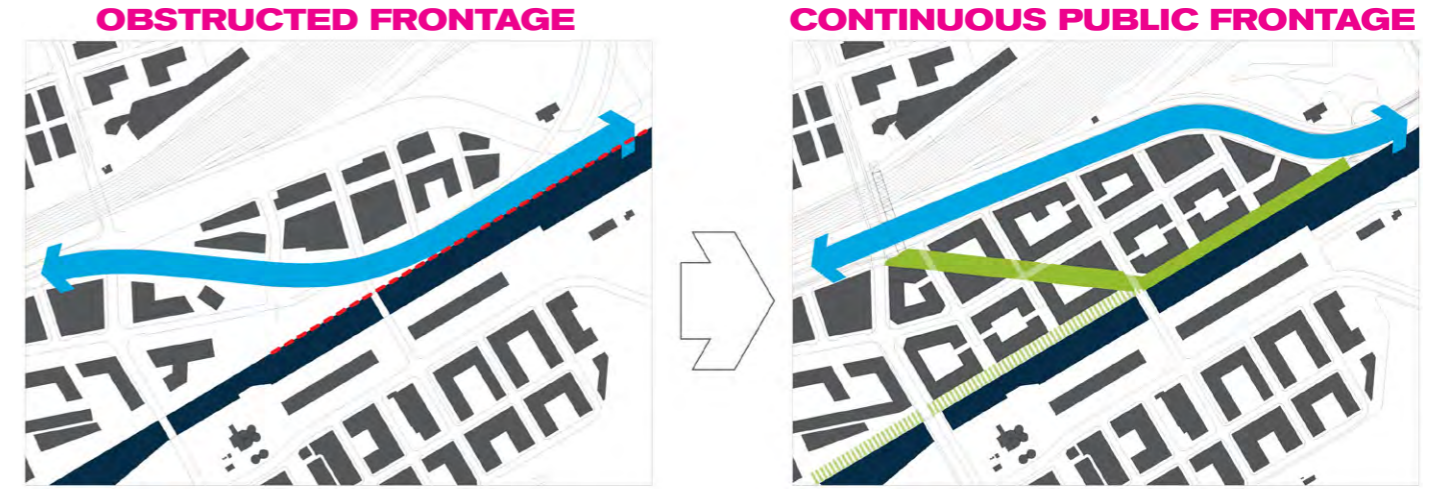


**SCULPTED VEGETAL RAIL BERM
AND STORMWATER ESCARPMENT**

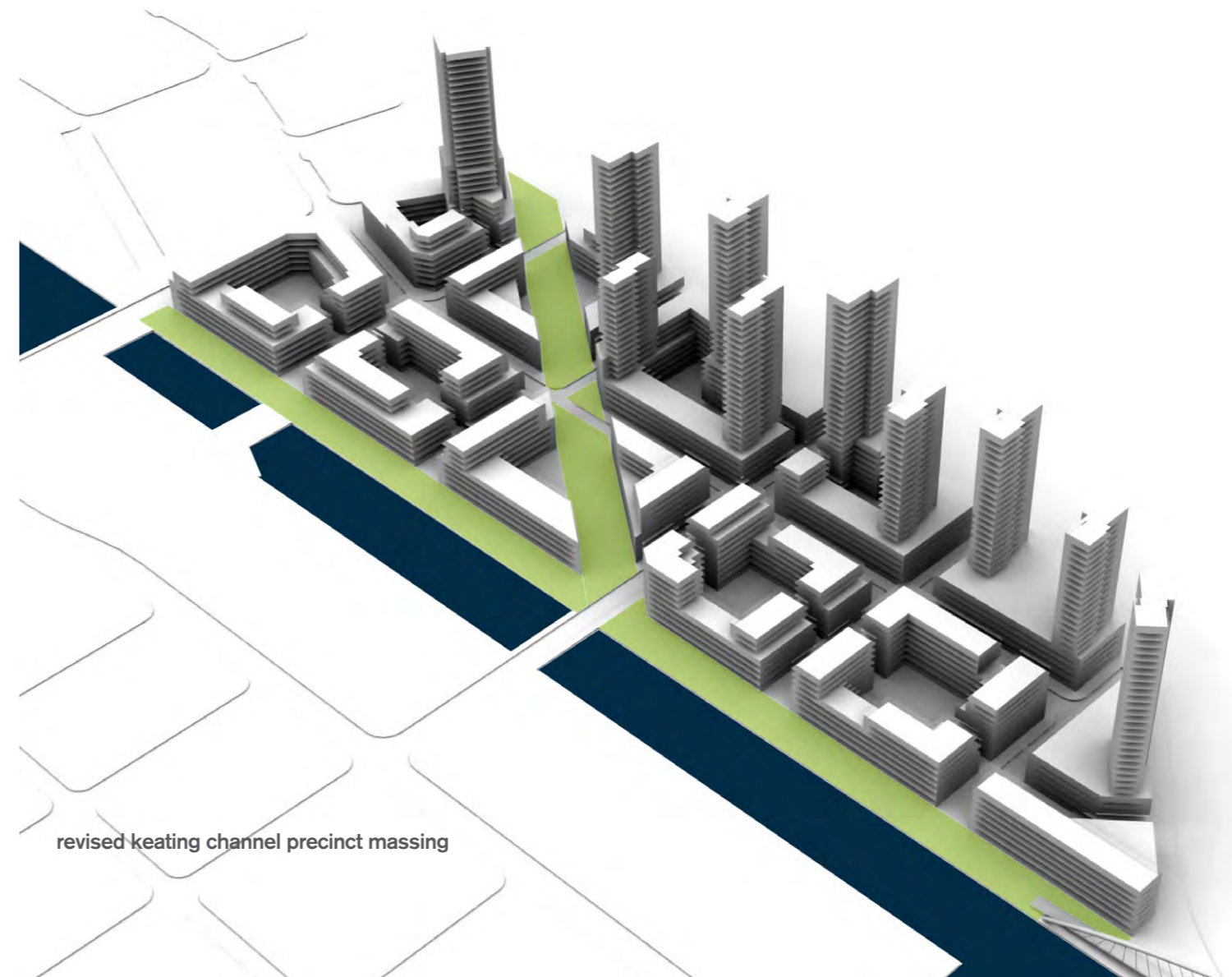
2) REALIGNMENT + ENHANCED FRONTAGE

While generally the alignment of the proposed Lake Shore Boulevard follows that of the existing Gardiner Expressway, the one location where it has been modified significantly improves the overall development opportunity of the adjacent blocks. Rather than allowing the corridor to cut directly through the development of the Keating Channel Precinct - cutting off development from the water and isolating the portion adjacent to the rail yards - we shift the Lake Shore Boulevard corridor to the northern edge of the precinct adjacent to the line of the rail berm.

This move has two significant results: The first is that the two transportation corridors (rail and vehicular) are aligned and bundled, lessening their impact on adjacent development parcels. The second is that Keating Channel precinct is no longer cut in half by a major vehicular artery, and the entire length of the precinct has frontage on the Keating Channel rather than only 50% allowing for the 18m minimum public right of way to be continued from Downtown all the way to mouth of the Don River. This move dramatically improves the overall development potential of the precinct, and consolidates the buildings into a coherent series of blocks.



eastern lake shore boulevard districts - extend existing neighborhoods to the water



revised keating channel precinct massing



**WINTER ACTIVITY
ALONG LOCAL STREETS**



**EXPANDED PUBLIC FRONTAGE
ALONG KEATING CHANNEL**

SUBMISSION BOARDS

TORONTO'S GREAT STREET THE LAKE SHORE BOULEVARD CORRIDOR

The removal of the Gardiner Expressway is a major step toward reconnecting the city and the waterfront. The major step toward reconnecting the city and the waterfront is the removal of the Gardiner Expressway. The major step toward reconnecting the city and the waterfront is the removal of the Gardiner Expressway. The major step toward reconnecting the city and the waterfront is the removal of the Gardiner Expressway.

THE TRAFFIC EQUATION: 'EXPRESSION TO STREET'

We propose a multi-modal, green, tree-lined street to replace the Gardiner. Generously sized lanes for C&B, Multi and Light Rail, the new 2.5-mile long street, rising from Yonge to Lake Street. Redesigning and safe pedestrian interactions encourage change from the neighbourhood to the Lakefront.

THE EXPERIENCE OF THE SITUATION TODAY

Mr. Christopher, Daily Commuter (parental car): "Driving home along the Don Valley Parkway the morning is frustrating, travel speeds are slow and I feel angry. The competition wants people to drive super aggressively and unsafely."

Mr. Matty, Cyclist: "The corridor is definitely more of a barrier than it is an amenity for cyclists. The high levels of congestion and frequent heavy congestion on Lake Shore from the Gardiner and Don Valley make this a place I go out of my way to avoid."

Mr. and Mrs. M.J. Residents: "The new Lake Shore Boulevard creates a real sense of place. I could never have imagined living around here 10 years ago. The street's design is a great example of how the north-south street makes getting down to the water completely intuitive."



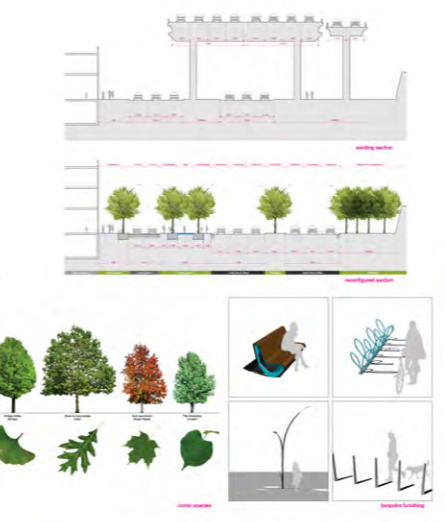
1) THE GREAT STREET

Presently, a lateral cross section of the Gardiner Expressway/Lake Shore Boulevard corridor is more than 80% asphalt or concrete surfacing and structure for cars, trucks, and buses, with less than 20% devoted to planting, sidewalks, and the public realm.

The design of the new Great Street reduces this ratio, devoting nearly 50% of the corridor to the public realm and to planting and greenery. Sidewalks are widened from their current 2.4m dimension to a minimum of 3m, allowing for generous widths that provide planting and seating. Local traffic is separated from the main flow of the corridor, reducing vehicle speeds adjacent to pedestrian areas. An additional benefit is the public realm to the south side adjacent to development and the completed divided lanes for bicycles and pedestrians, as well as generous areas for planting and seating.

The area adjacent to the rail line on the northern edge of the Boulevard varies in dimension over the length of the corridor. However, where feasible the barrier is modified with a sculptural, modular design system that creates a more open and well-connected environment, with increased seating, stormwater retention and vertical greening. This site, in combination with the greenery of the new boulevard, further enhances the overall quality of the Lake Shore Boulevard corridor.

CONCRETE BARRIER POINT **VEGETATED BARRIER POINT**



2) N-S NEIGHBOURHOOD CONNECTIONS

The Gardiner is the only barrier to pedestrian movement from the north, south to the waterfront. The 50' Transit all lanes is an equally significant obstacle to waterfront access because of the limited number of crossings and their directional nature. In order to restore the barrier to movement, both physical and perceptual, clear pedestrian crossings are provided to connect the north side to the waterfront.

We propose that each of the intersections of Jarvis, Sheppard, Parliament and Cherry are reinforced with an architectural element that announces the presence of the public realm, provides a visual cue, and demonstrates the particular way to the waterfront. This element is a sculptural, modular design system that creates a more open and well-connected environment, with increased seating, stormwater retention and vertical greening. This site, in combination with the greenery of the new boulevard, further enhances the overall quality of the Lake Shore Boulevard corridor.

In addition to the existing crossings points, we also propose the introduction of three new crossings points, including a new crossing point at the intersection of the Don Valley Parkway and Lake Shore Boulevard. This new crossing point is a sculptural, modular design system that creates a more open and well-connected environment, with increased seating, stormwater retention and vertical greening. This site, in combination with the greenery of the new boulevard, further enhances the overall quality of the Lake Shore Boulevard corridor.

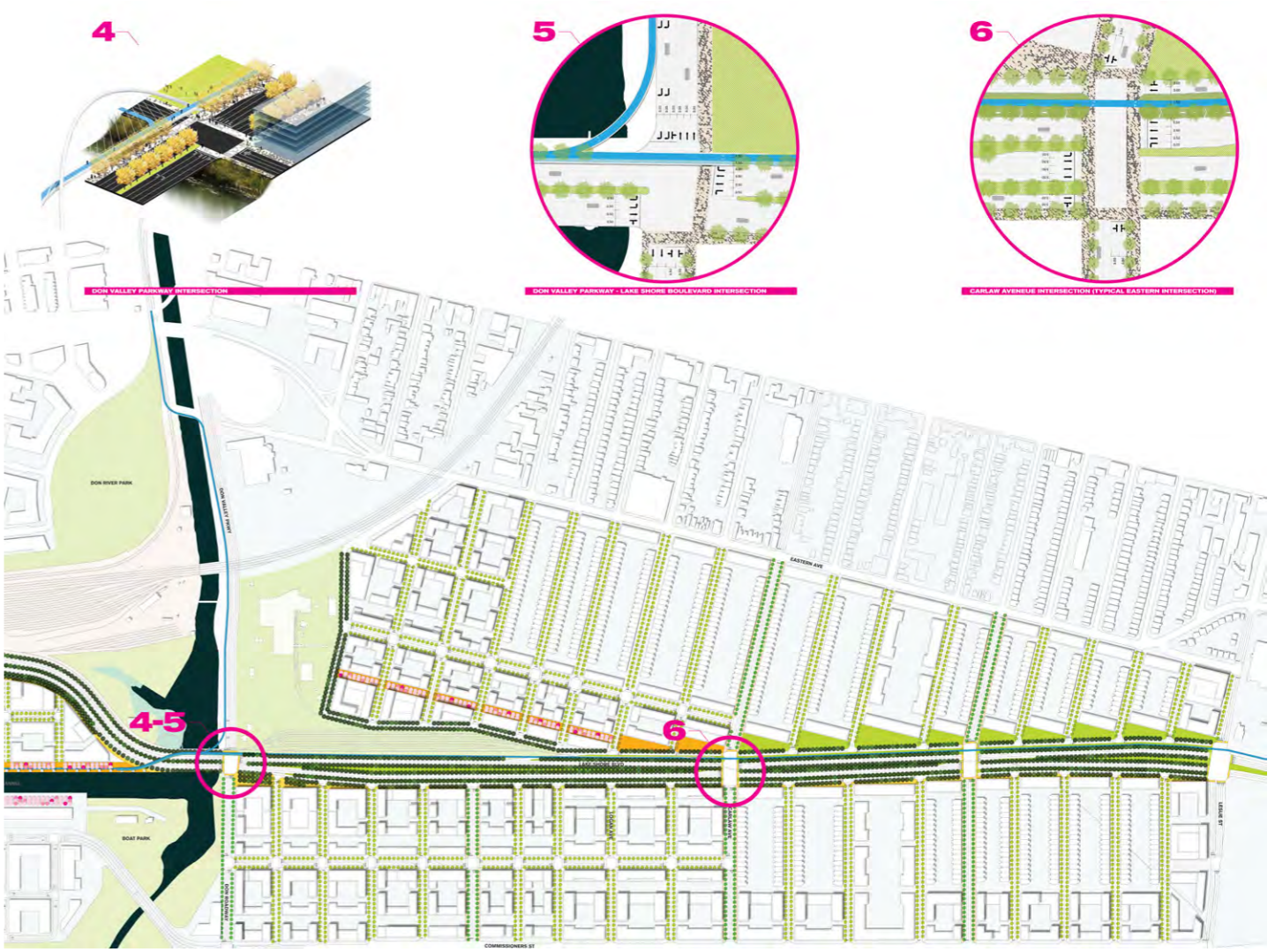
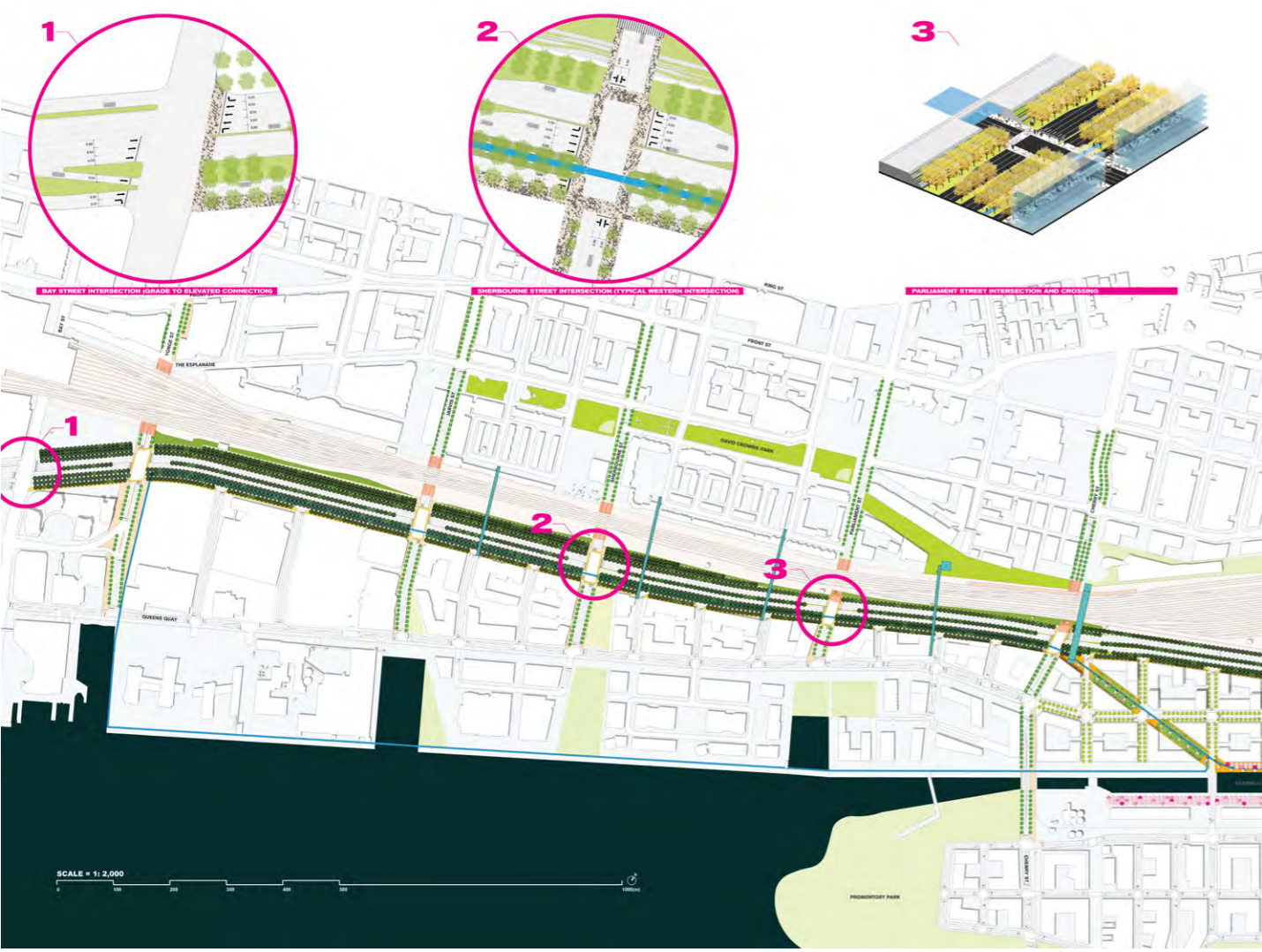
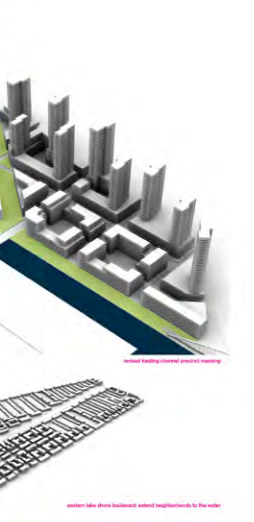


3) REALIGNMENT + ENHANCED FRONTAGE

While generally the alignment of the proposed Lake Shore Boulevard follows that of the existing Gardiner Expressway, the one location where it has been modified significantly is at the intersection of the Don Valley Parkway and Lake Shore Boulevard. This modification is a result of the need to provide a more direct and efficient route to the waterfront, and to provide a more direct and efficient route to the waterfront.

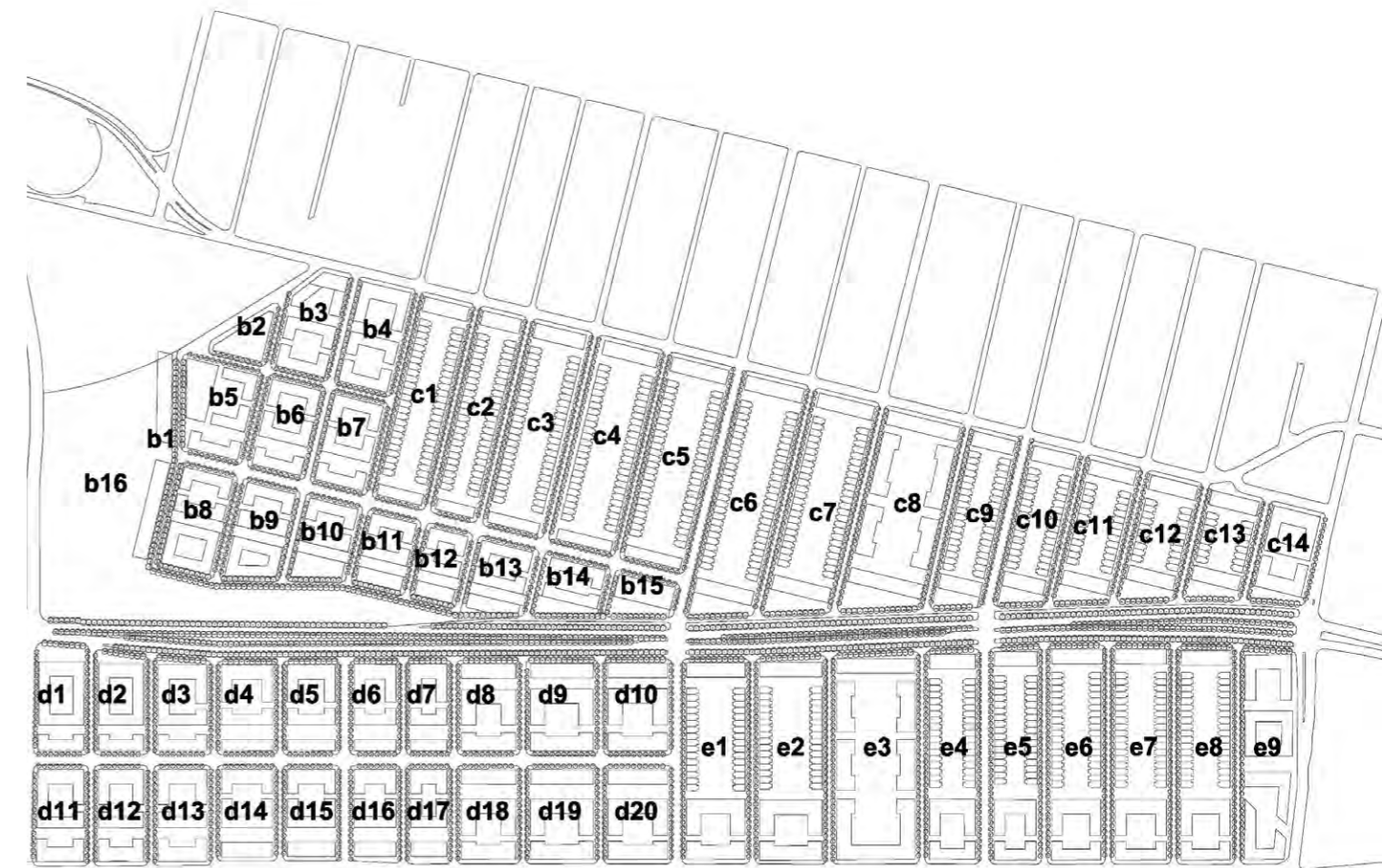
This change has significant results. The first is that the new transportation corridor is a more direct and efficient route to the waterfront, and to provide a more direct and efficient route to the waterfront. The second is that the new transportation corridor is a more direct and efficient route to the waterfront, and to provide a more direct and efficient route to the waterfront.

REINFORCED FRONTAGE **CONTINUOUS PUBLIC FRONTAGE**



MASTER PLAN SUMMARY

DEVELOPMENT SUMMARY MAP



SUMMARY - AREA D (WEST PORT LANDS)

A	B	C	D	E	F	G	H	I	J
Block Number	Block Description	Block Type	Site Area (Hectares)	Maximum Block Height (m)	Average Block Height (m)	Maximum Building Storeys	Total (GFA m ²)	Office %	Office (GFA m ²)
d1	Mixed Use	Ds	1.10	40	30	8	31,700	10%	3,170
d2	Mixed Use	Ds	1.03	40	30	8	31,200	10%	3,120
d3	Mixed Use	Ds	1.03	40	30	8	31,500	10%	3,150
d4	Mixed Use	Ds	1.06	40	30	8	30,600	10%	3,060
d5	Mixed Use	Ds	1.00	40	30	8	29,100	10%	2,910
d6	Mixed Use	Ds	0.90	40	30	8	26,500	10%	2,650
d7	Mixed Use	Ds	0.80	40	30	8	24,100	10%	2,410
d8	Mixed Use	Ds	1.13	40	30	8	38,000	10%	3,800
d9	Mixed Use	Ds	1.28	40	30	8	42,700	10%	4,270
d10	Mixed Use	Ds	1.22	40	30	8	40,900	10%	4,090
d11	Mixed Use	Ds	1.05	40	30	8	32,900	10%	3,290
d12	Mixed Use	Ds	1.02	40	30	8	31,100	10%	3,110
d13	Mixed Use	Ds	1.08	40	30	8	32,700	10%	3,270
d14	Mixed Use	Ds	1.08	40	30	8	32,500	10%	3,250
d15	Mixed Use	Ds	1.02	40	30	8	30,700	10%	3,070
d16	Mixed Use	Ds	0.92	40	30	8	27,800	10%	2,780
d17	Mixed Use	Ds	0.83	40	30	8	24,900	10%	2,490
d18	Mixed Use	Ds	1.16	40	30	8	38,000	10%	3,800
d19	Mixed Use	Ds	1.33	40	30	8	42,800	10%	4,280
d20	Mixed Use	Ds	1.26	40	30	8	40,850	10%	4,085
			21.30				660,550		66,055

SUMMARY - AREA E (EAST PORT LANDS)

A	B	C	D	E	F	G	H	I	J
Block Number	Block Description	Block Type	Site Area (Hectares)	Maximum Block Height (m)	Average Block Height (m)	Maximum Building Storeys	Total (GFA m ²)	Office %	Office (GFA m ²)
e1	Mixed Use	Ds	2.60	40	20	8	47,800	10%	4,780
e2	Mixed Use	Ds	2.77	40	20	8	49,200	10%	4,920
e3	Mixed Use	Ds	3.44	40	20	8	60,100	10%	6,010
e4	Mixed Use	Ds	2.20	40	20	8	41,900	10%	4,190
e5	Mixed Use	Ds	2.10	40	20	8	40,700	10%	4,070
e6	Mixed Use	Ds	2.39	40	20	8	44,500	10%	4,450
e7	Mixed Use	Ds	2.46	40	20	8	45,000	10%	4,500
e8	Mixed Use	Ds	2.37	40	20	8	44,300	10%	4,430
e9	Mixed Use	Ds	2.21	40	20	8	56,700	10%	5,670
			22.54				430,200		43,020

PHASES

A	B
Description	Phase Number
Keating Channel Precinct	1
East Don Lands + West Port Lands	2
East Port Lands + Leslieville Extension	3

Auto-Calculation

K	L	M	N	O	P	Q	R
Retail %	Retail (GFA m ²)	Residential %	Residential (GFA m ²)	Other %	Other (GFA m ²)	Phase #	Notes
10%	3,170	65%	20,605	15%	4,755	2	
10%	3,120	65%	20,280	15%	4,680	2	
10%	3,150	65%	20,475	15%	4,725	2	
10%	3,060	65%	19,890	15%	4,590	2	
10%	2,910	65%	18,915	15%	4,365	2	
10%	2,650	65%	17,225	15%	3,975	2	
10%	2,410	65%	15,665	15%	3,615	2	
10%	3,800	65%	24,700	15%	5,700	2	
10%	4,270	65%	27,755	15%	6,405	2	
10%	4,090	65%	26,585	15%	6,135	2	
10%	3,290	65%	21,385	15%	4,935	2	
10%	3,110	65%	20,215	15%	4,665	2	
10%	3,270	65%	21,255	15%	4,905	2	
10%	3,250	65%	21,125	15%	4,875	2	
10%	3,070	65%	19,955	15%	4,605	2	
10%	2,780	65%	18,070	15%	4,170	2	
10%	2,490	65%	16,185	15%	3,735	2	
10%	3,800	65%	24,700	15%	5,700	2	
10%	4,280	65%	27,820	15%	6,420	2	
10%	4,085	65%	26,553	15%	6,128	2	
	66,055		429,358		99,083		

K	L	M	N	O	P	Q	R
Retail %	Retail (GFA m ²)	Residential %	Residential (GFA m ²)	Other %	Other (GFA m ²)	Phase #	Notes
10%	4,780	65%	31,070	15%	7,170	3	
10%	4,920	65%	31,980	15%	7,380	3	
10%	6,010	65%	39,065	15%	9,015	3	
10%	4,190	65%	27,235	15%	6,285	3	
10%	4,070	65%	26,455	15%	6,105	3	
10%	4,450	65%	28,925	15%	6,675	3	
10%	4,500	65%	29,250	15%	6,750	3	
10%	4,430	65%	28,795	15%	6,645	3	
10%	5,670	65%	36,855	15%	8,505	3	
	43,020		279,630		64,530		



fo

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