

# QUEENS QUAY SCHEMATIC DESIGN

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**WATERFRONT**Toronto

# QUEENS QUAY



**Design Update**  
**2010.05.12 Central Waterfront Community Update Meeting**  
**Presentation**

**West 8 + DTAH**

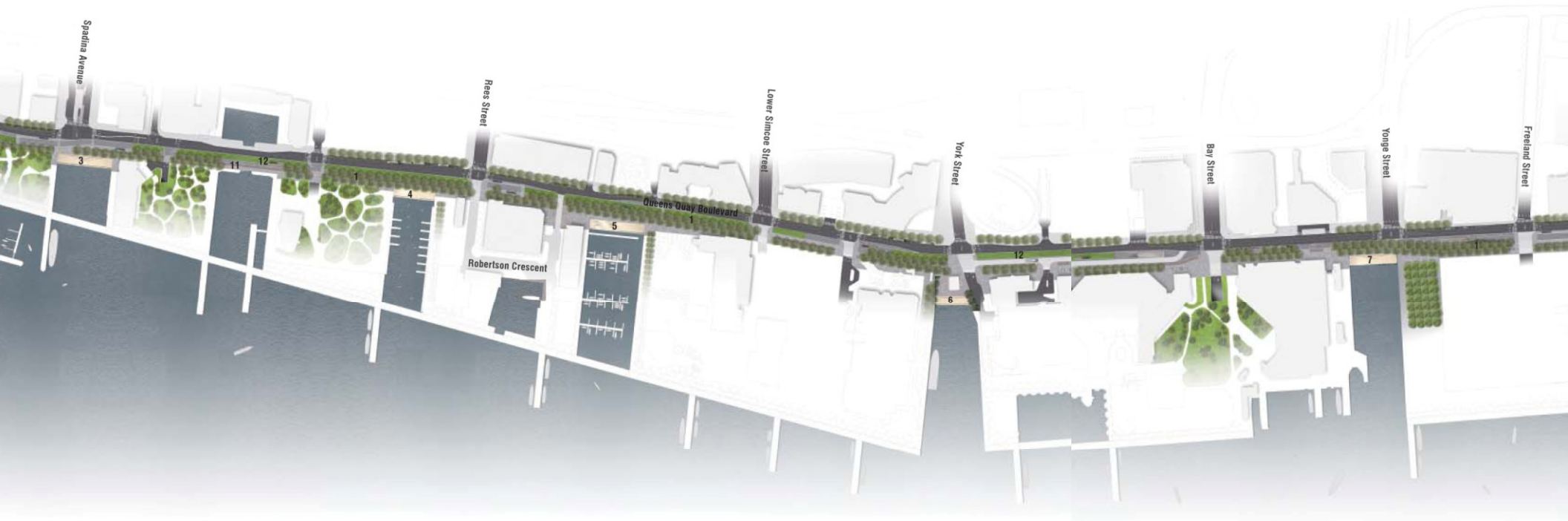
# Central Waterfront Innovative Design Competition, 2006





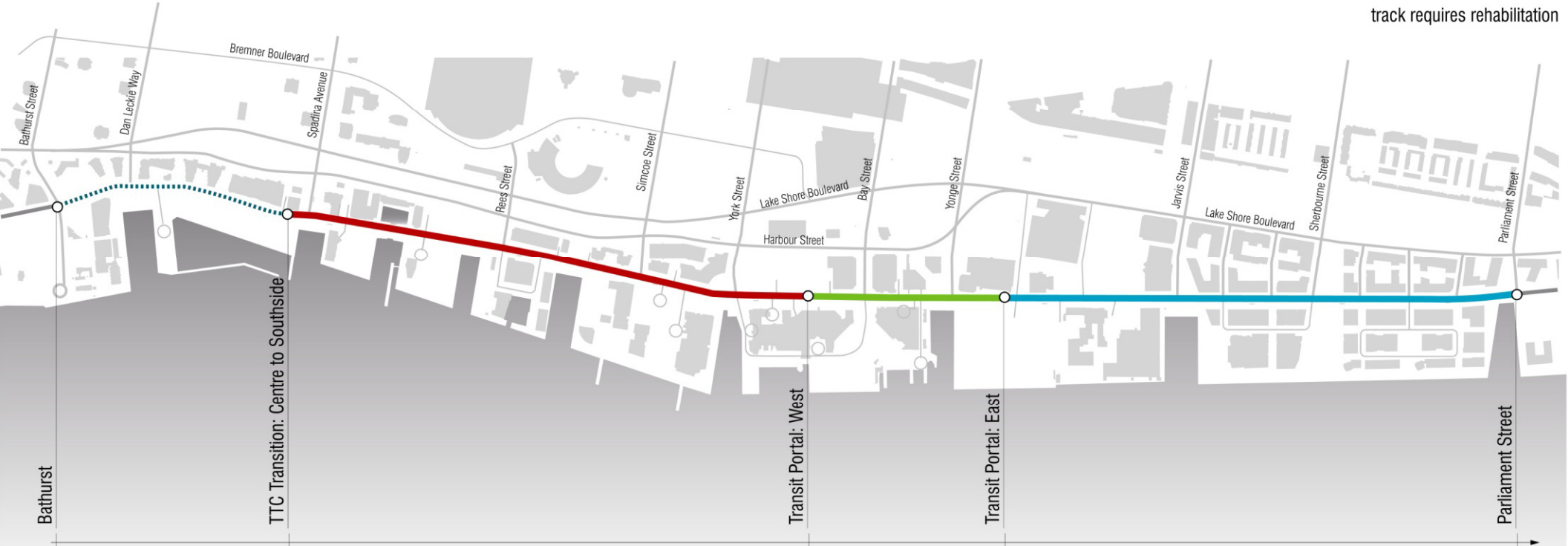
Toronto's Main Waterfront Street Connects Multiple Precincts  
Cohesive and Comprehensive Planning Required

# QUEENS QUAY ENVIRONMENTAL ASSESSMENT



# PROJECT BOUNDARIES

- Track Rehabilitation
- New TTC Track
- Transit Below Grade
- Potential future phase when track requires rehabilitation



Toronto Inner Harbour





# TYPICAL SECTION

Central Waterfront

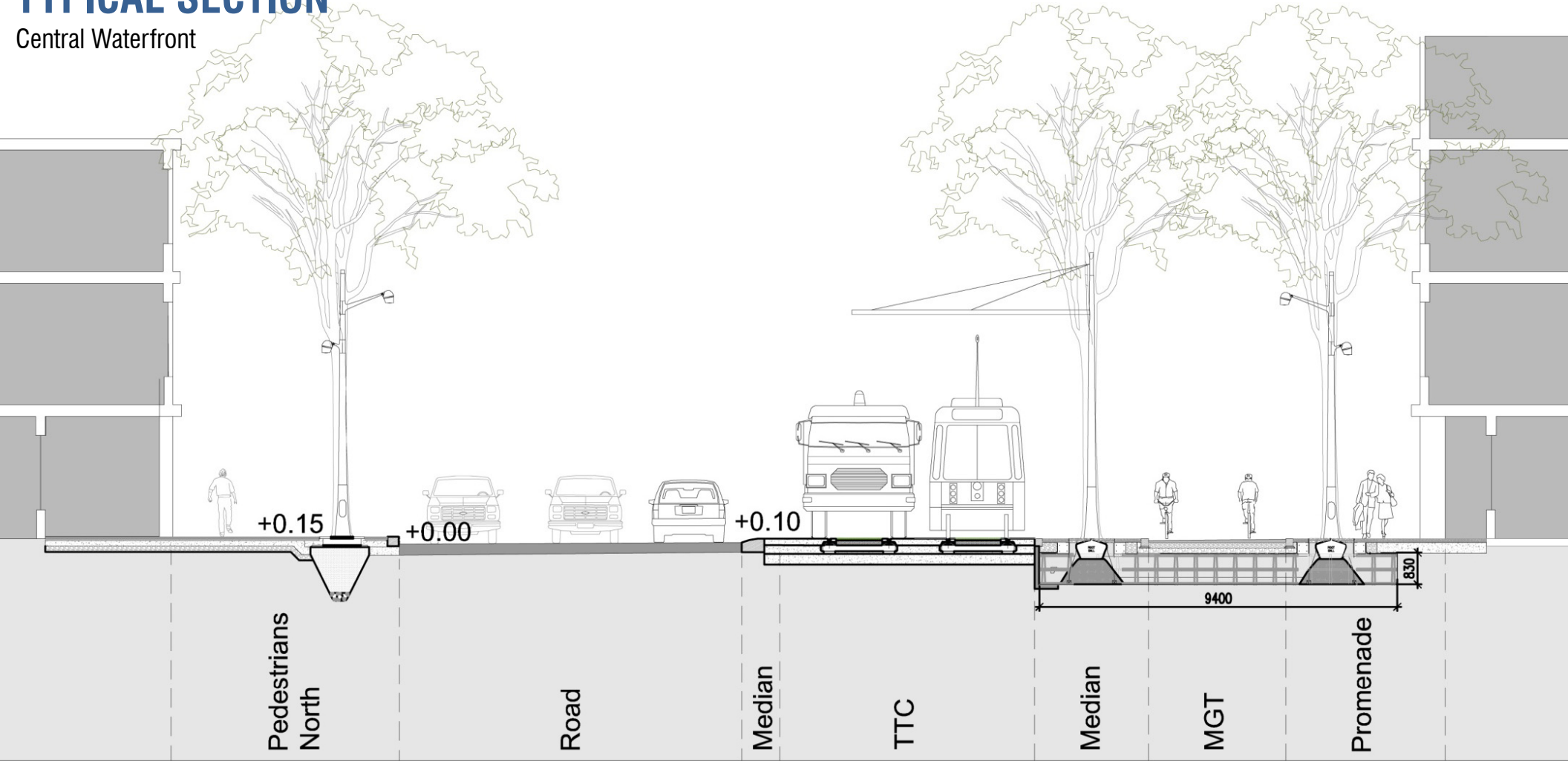
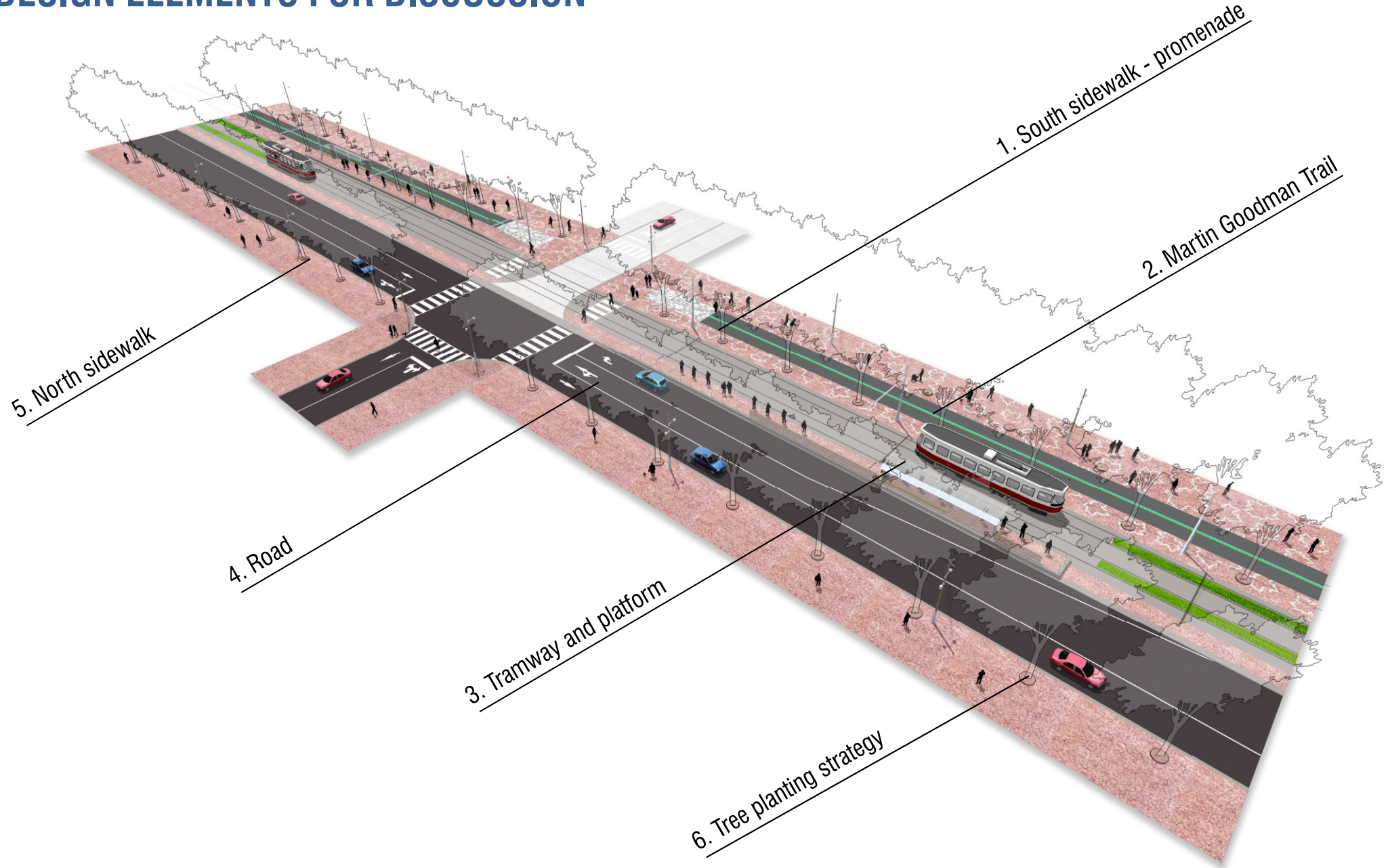


Table top intersection



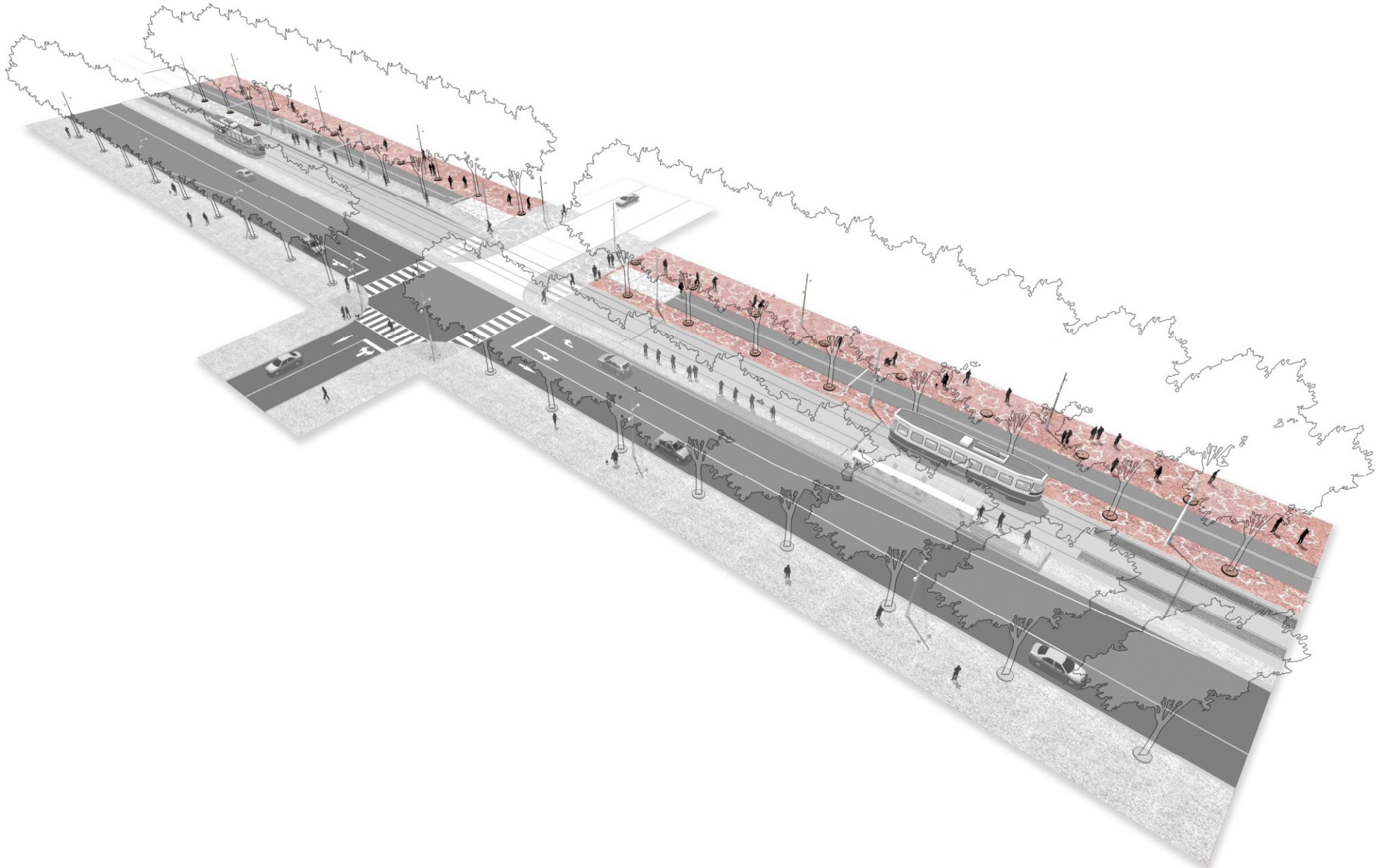
# DESIGN ELEMENTS FOR DISCUSSION



# 1. South side walk - promenade



South side walk - promenade

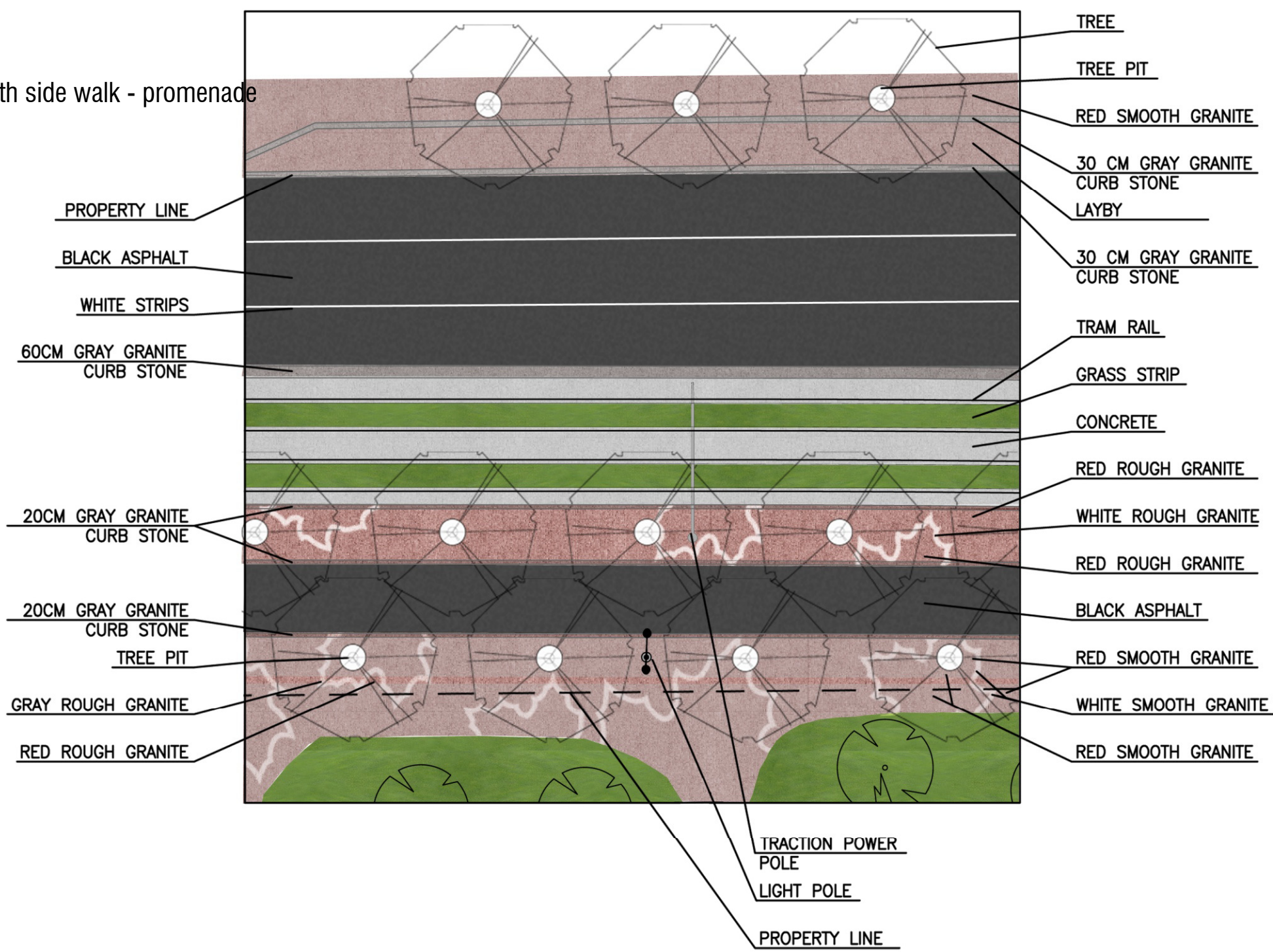


# South side walk - promenade

Trees + Mosaic



South side walk - promenade  
Plan



# South side walk - promenade

Trees + Mosaic



Two color mosaic - San Sebastian and Canadian Red



Contrast of texture



Outline mosaic pattern of the leaf motif

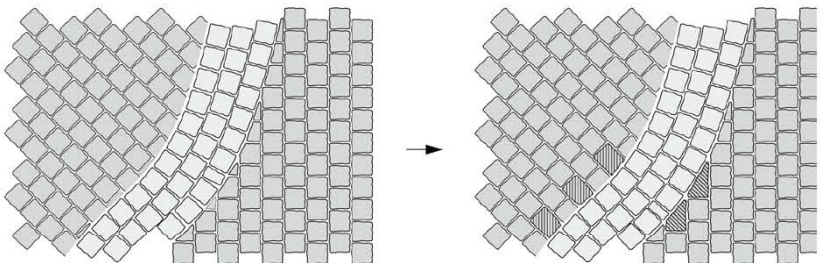


Paving Pattern Module

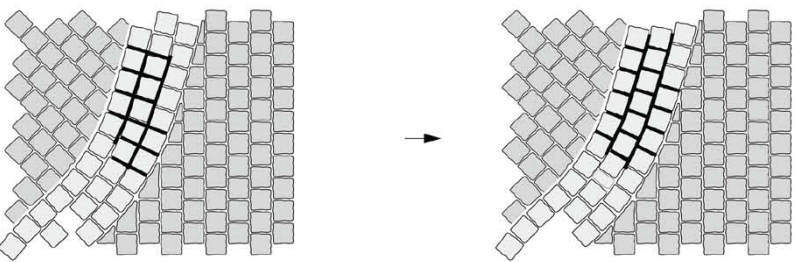


# South side walk - promenade

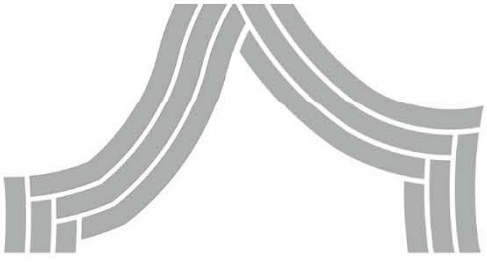
## Construction methodology



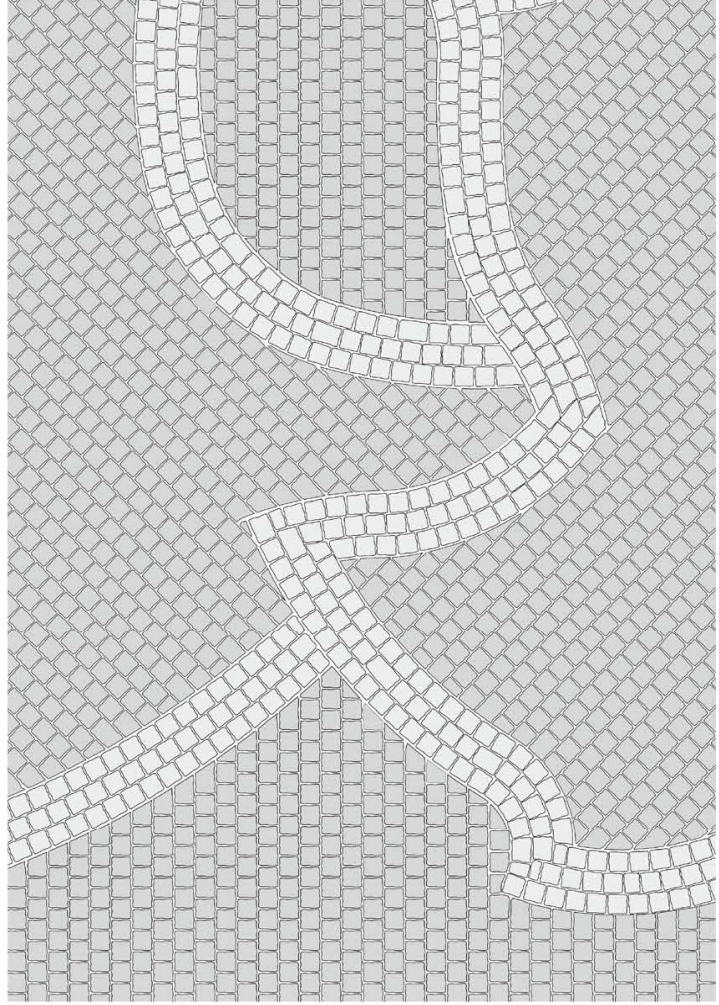
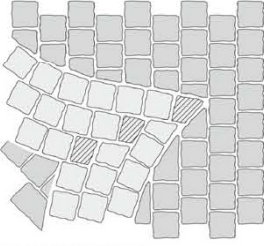
Avoid the use of stones smaller than 1/2 size. At the meeting points outline edges, use double length cobble, cuts as needed.



Avoid stacking of bond along the outline. Preserve the bond; use cut stones to avoid crossing joints



Maintain a consistent dominant paving bond with consistent intersection cuts at leaf tips.



Edge detail

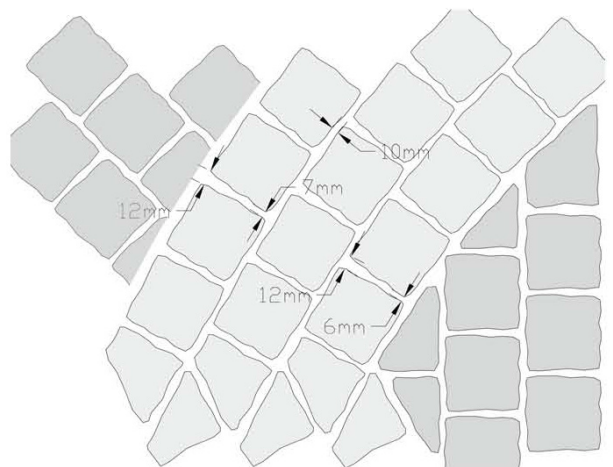
South side walk - promenade  
Reference pictures Sugar Beach



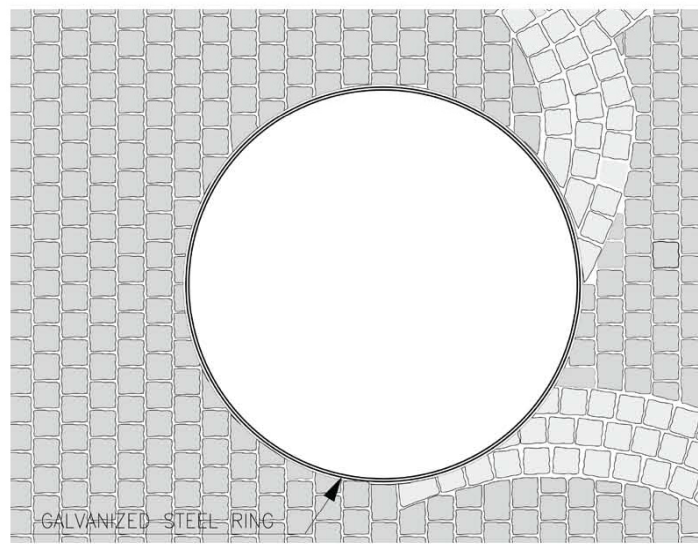


# South side walk - promenade

## Detail tree trench



Width of the joints 8mm with a tolerance of +/- 5mm



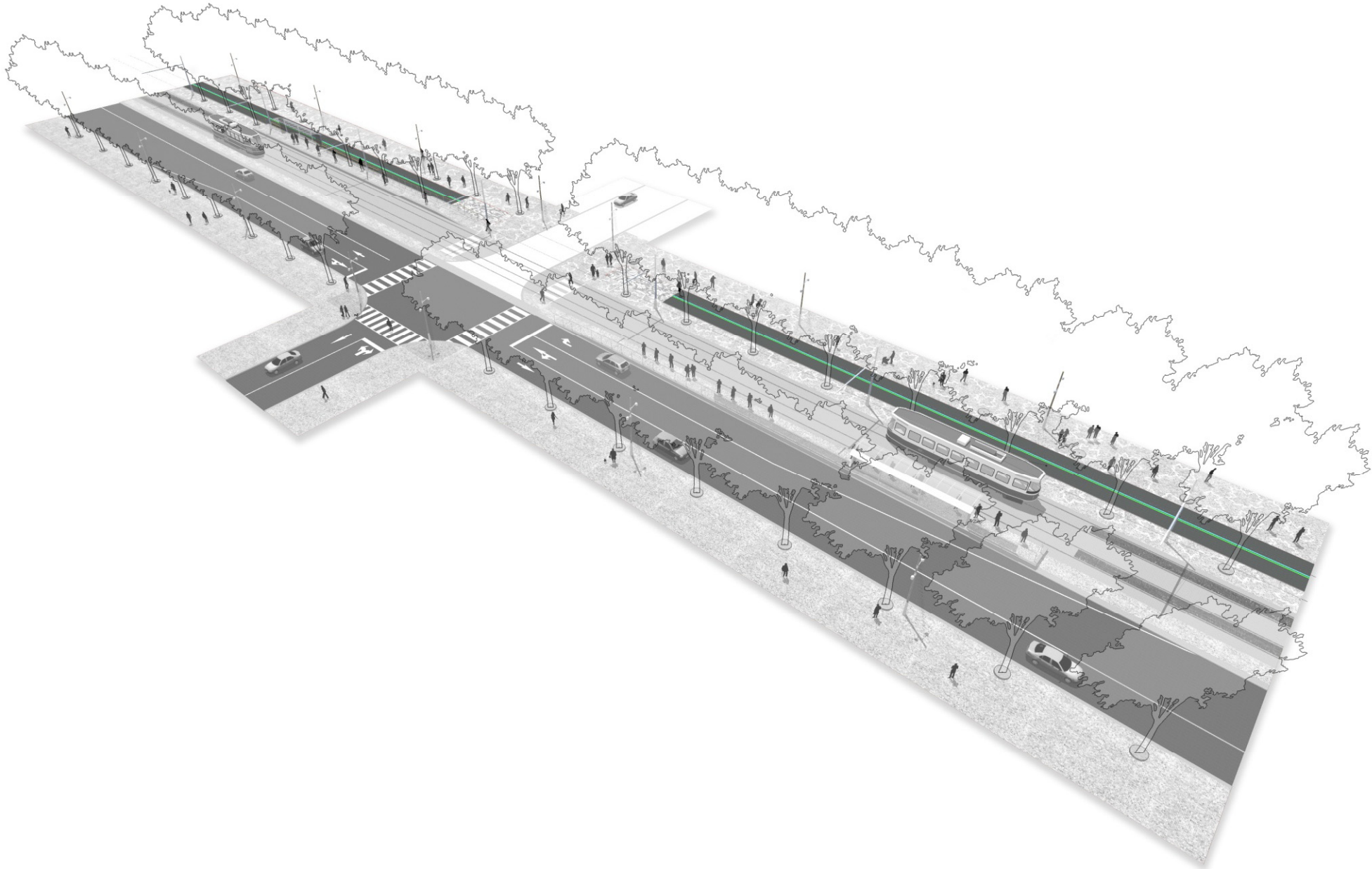
Tree pit detail



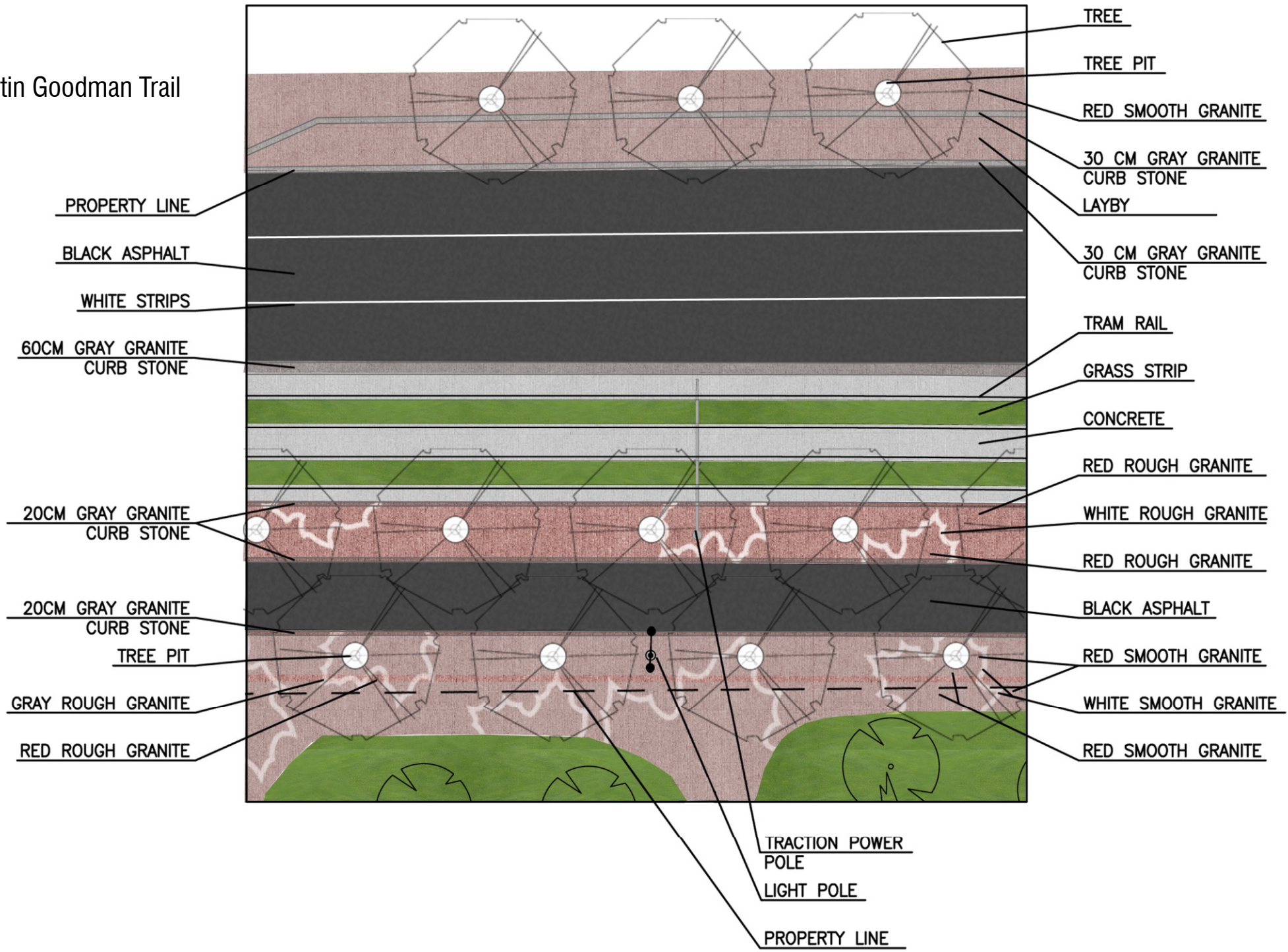
## 2. Martin Goodman Trail



# Martin Goodman Trail



Martin Goodman Trail  
Plan



# Martin Goodman Trail

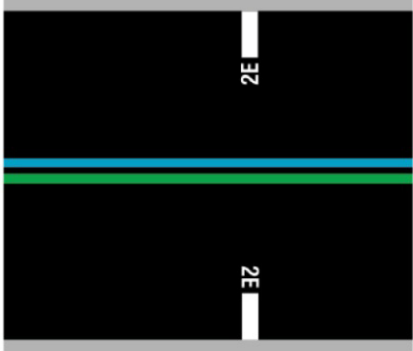
## Graphic Identity

1. Centreline Markings  
Blue and Green Striping



Maintain the well-established graphic language of the overall trail system - simply green and blue

2. Distance Markings  
White Stripe and Numeric Marker



Distance code was developed as relative distance to Yonge Street as a datum line, with markings every 500m

3. Special Place Markings  
Leaf Applique



Placed at discretion to indicate significant public destinations adjacent to the trail

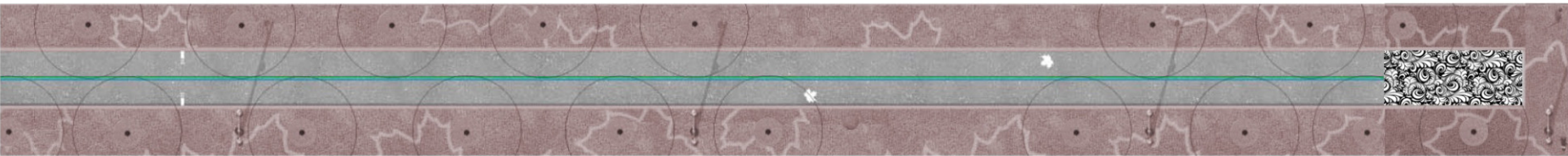
4. Intersecion Carpet  
10m long "canvas" for future street art



Indicates a transition into pedestrian areas where different modes intersect and caution/stopping is required



A prototype to be applied to all Waterfront Toronto implementation projects of the MGT

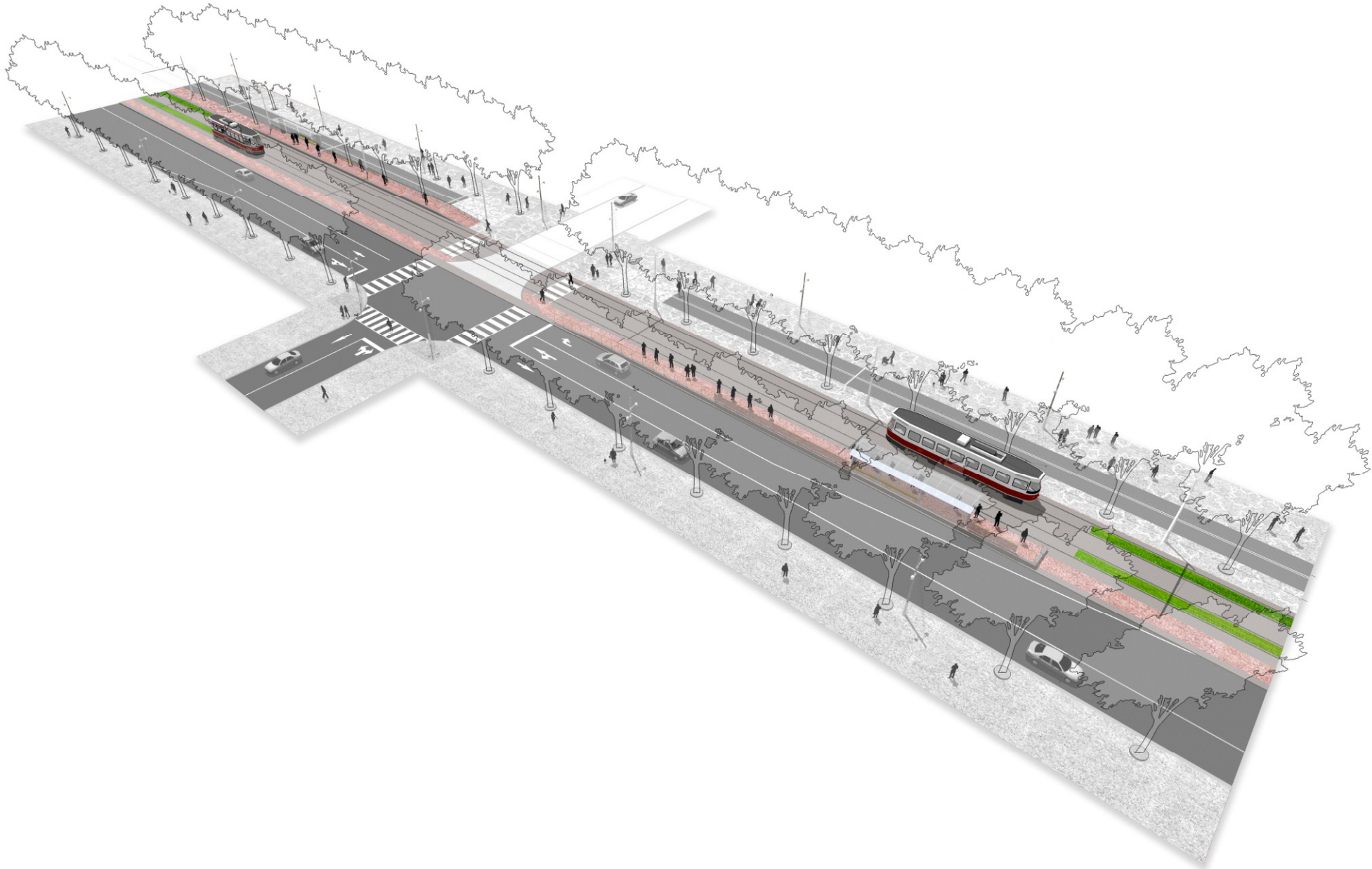


Impression within Central Waterfront

### 3. TTC Right of Way & Platforms

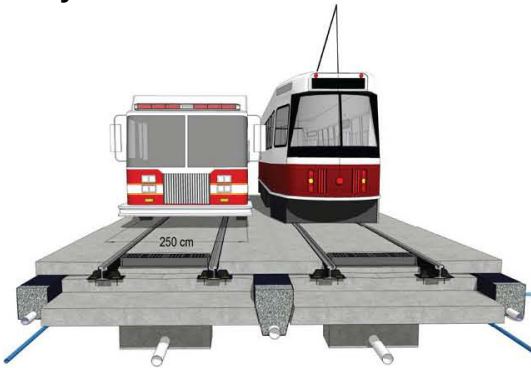


TTC Right of Way



# TTC Right of Way materials

Scenario's

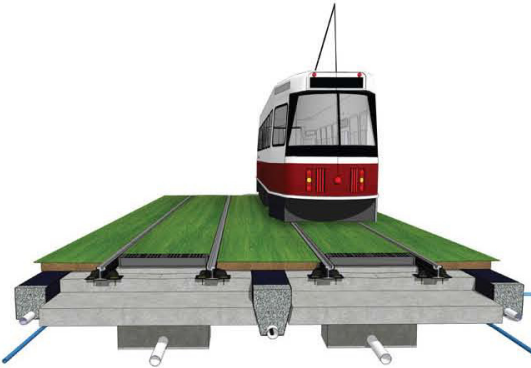


1

## Scenario 1 - Concrete Trackbed

Existing TTC detail  
 EMS ride on TTC track  
 Pro:  
 Standard TTC detail

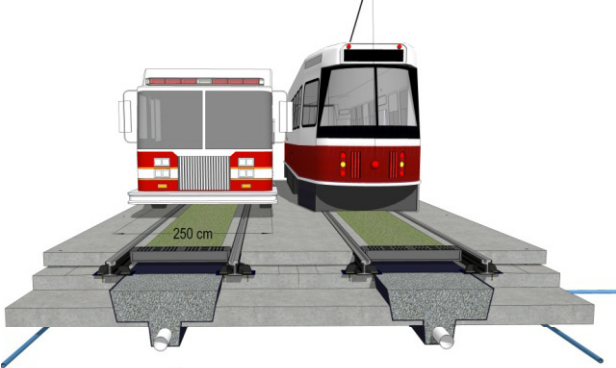
Contra:  
 Image, Noise, Dust, pollution



2

## Scenario 2 - Grass Tramtrack

No EMS on TTC track  
 Inovative construction  
 - Grass species  
 - Soil / Reinforcment  
 - Drainage  
 - Rail corrosion  
 - Irrigation  
 - maitenance  
 Pro:  
 Image, Noise absorption,  
 Runoff attenuation  
 Contra:  
 Special track design



3

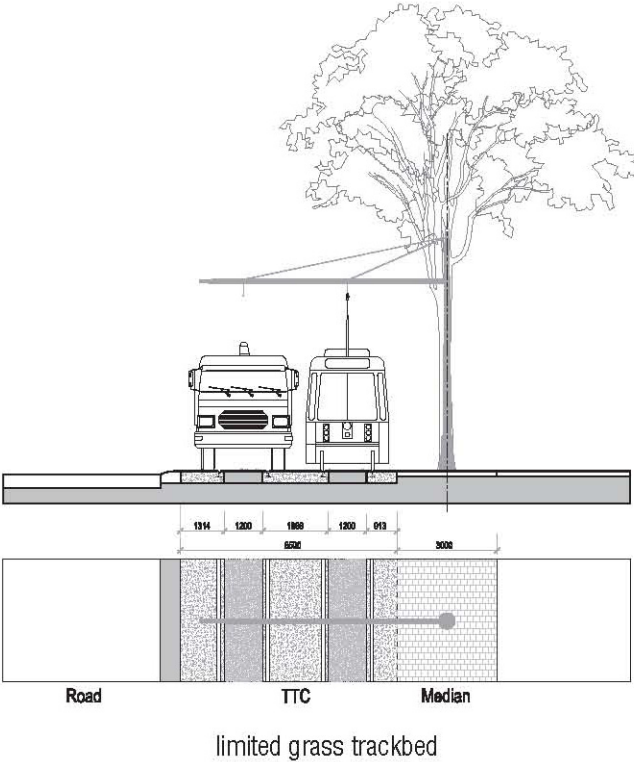
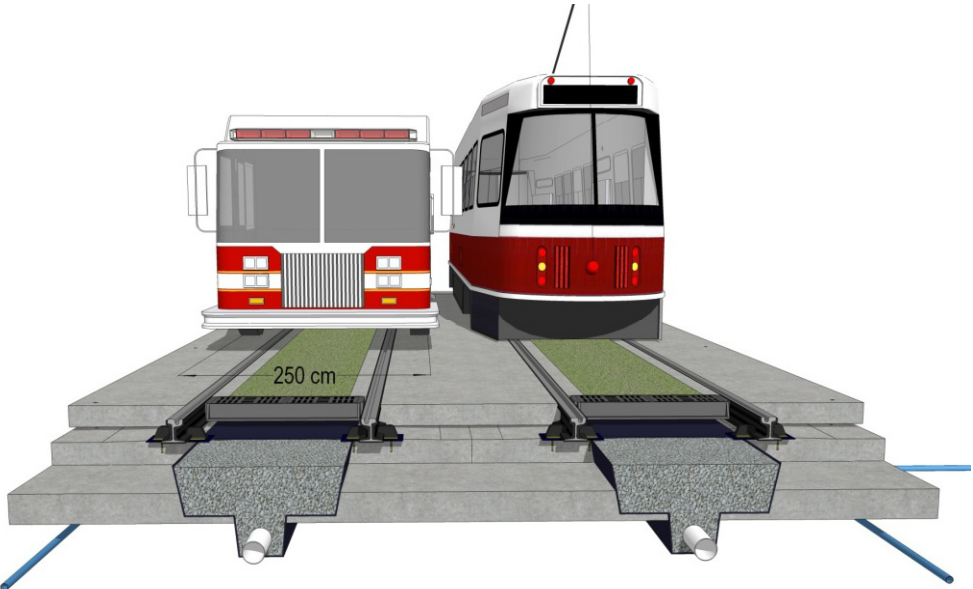
## Scenario 3 - Limited Grass Track

EMS ride on TTC track  
 Modifying existing TTC track detail  
 Adding reinforced grass  
 - Grass species  
 - Soil / Reinforcment  
 - Drainage  
 - Rail corrosion  
 - Irrigation  
 - maitenance  
 Pro:  
 EMS on tracks  
 Contra:  
 Image



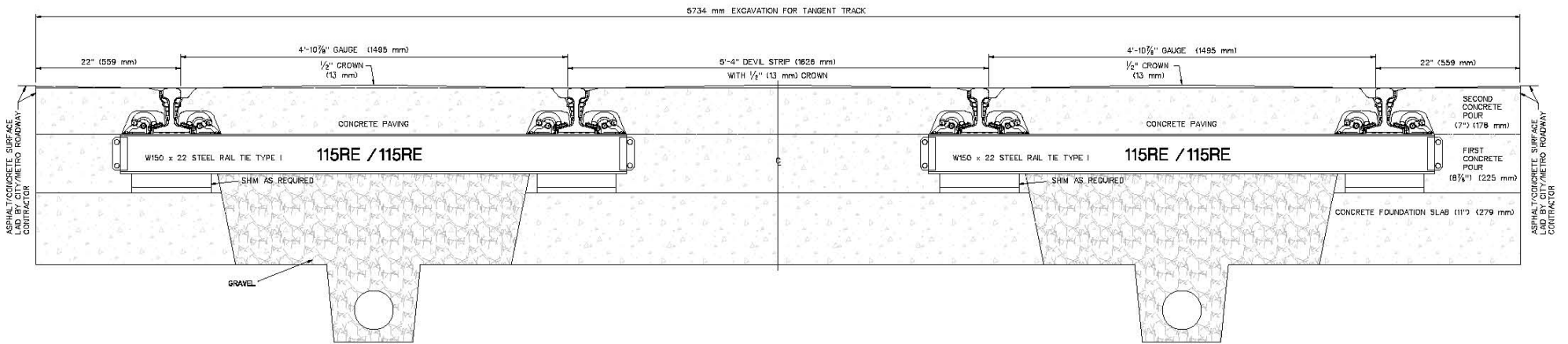
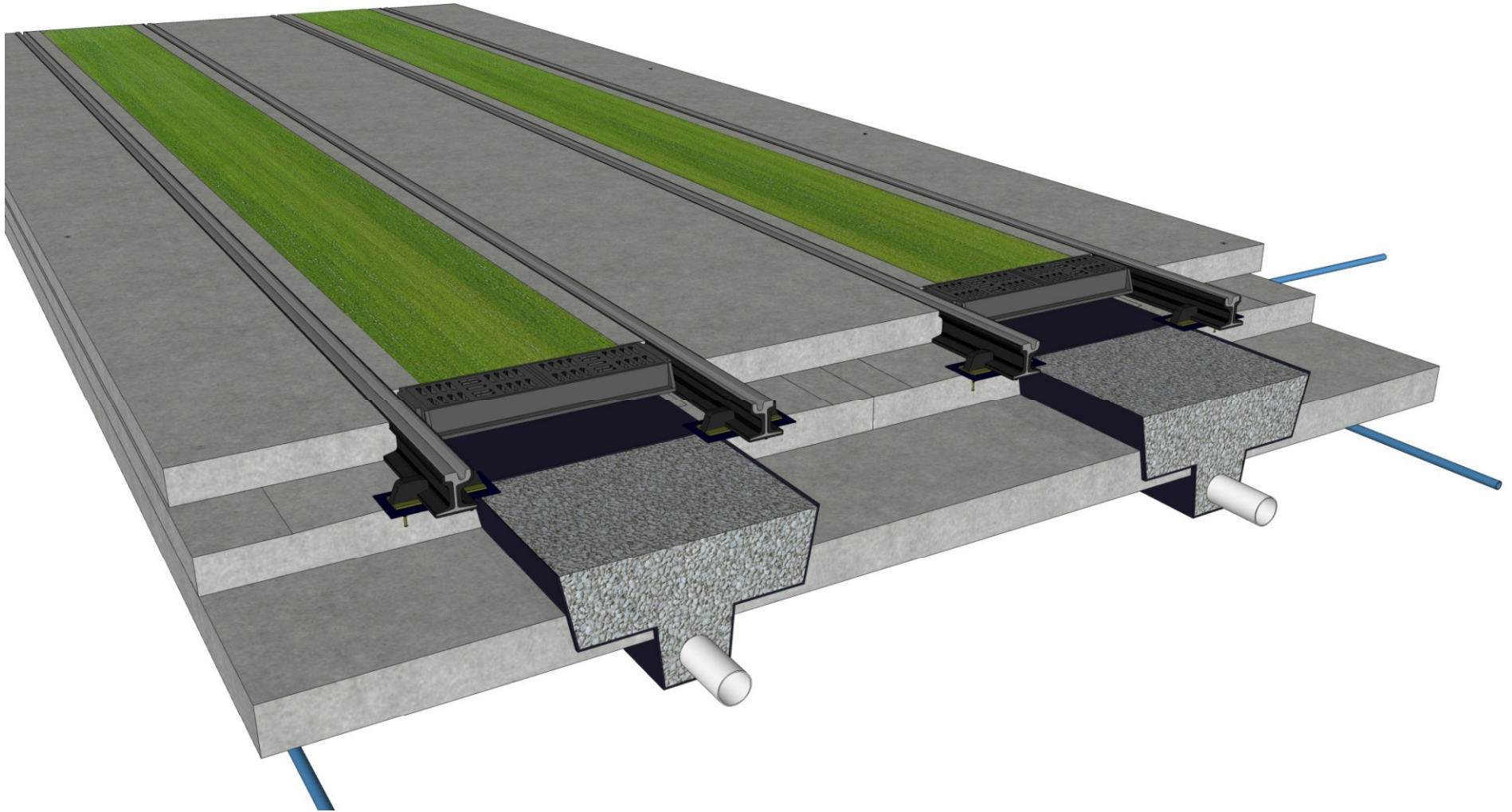
# TTC Right of Way materials

Preferred scenario – Tramway with grass between the rails



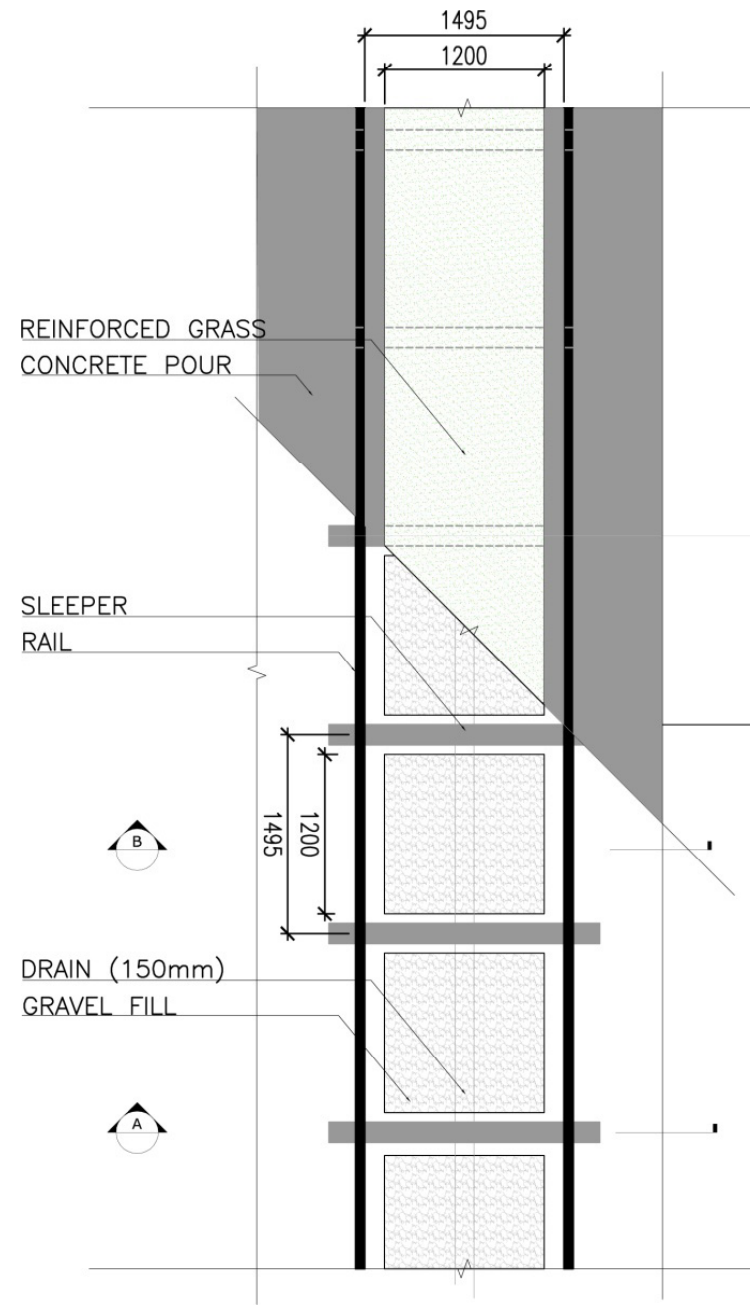
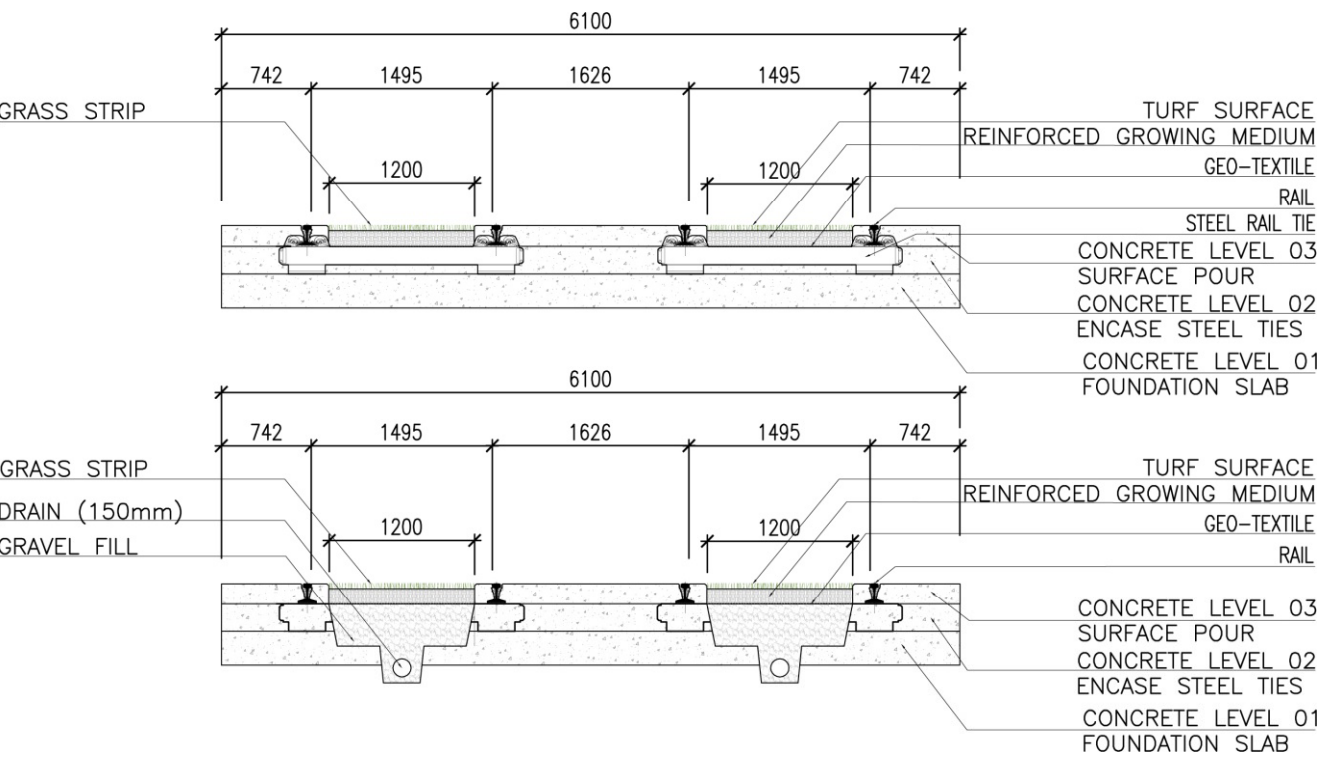
## Limited grass track

- Objective: Use standard TTC details with modifications for turf requirements.
- Single concrete level with direct fixation detail. Similar to TTC subway. Provide drainage system as required. Float concrete as required for positive drainage.
- Modified Concrete Level 03 to include two Grass strips in between the rails. with appropriate reinforcement, growing medium and turf.
- Install rail filler block to address stray corrosion.

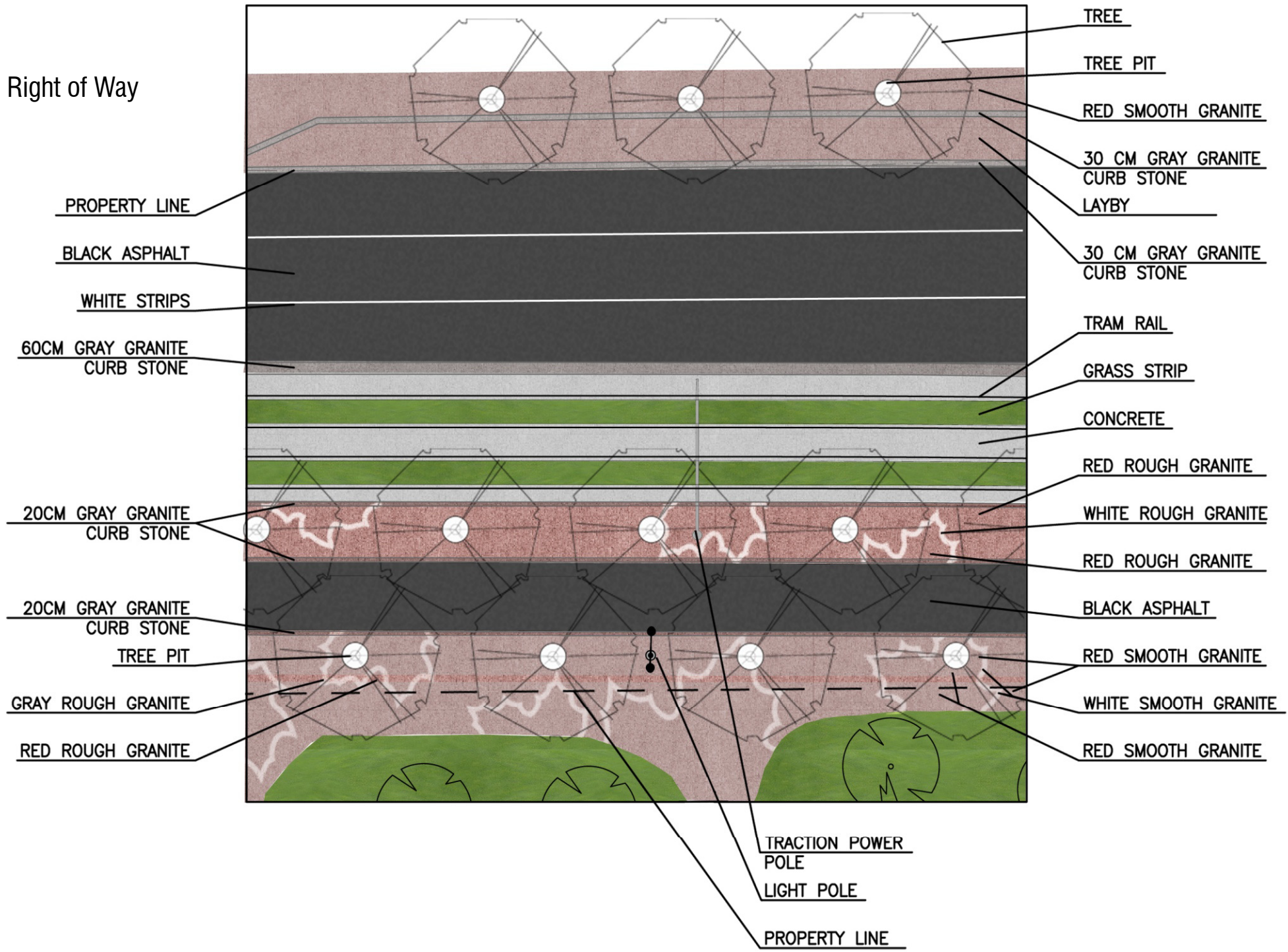


# TTC Right of Way materials

## Details - Tramway with grass between the rails



TTC Right of Way  
Plan



TREE

TREE PIT

RED SMOOTH GRANITE

30 CM GRAY GRANITE CURB STONE

LAYBY

30 CM GRAY GRANITE CURB STONE

TRAM RAIL

GRASS STRIP

CONCRETE

RED ROUGH GRANITE

WHITE ROUGH GRANITE

RED ROUGH GRANITE

BLACK ASPHALT

RED SMOOTH GRANITE

WHITE SMOOTH GRANITE

RED SMOOTH GRANITE

PROPERTY LINE

BLACK ASPHALT

WHITE STRIPS

60CM GRAY GRANITE CURB STONE

20CM GRAY GRANITE CURB STONE

20CM GRAY GRANITE CURB STONE

TREE PIT

GRAY ROUGH GRANITE

RED ROUGH GRANITE

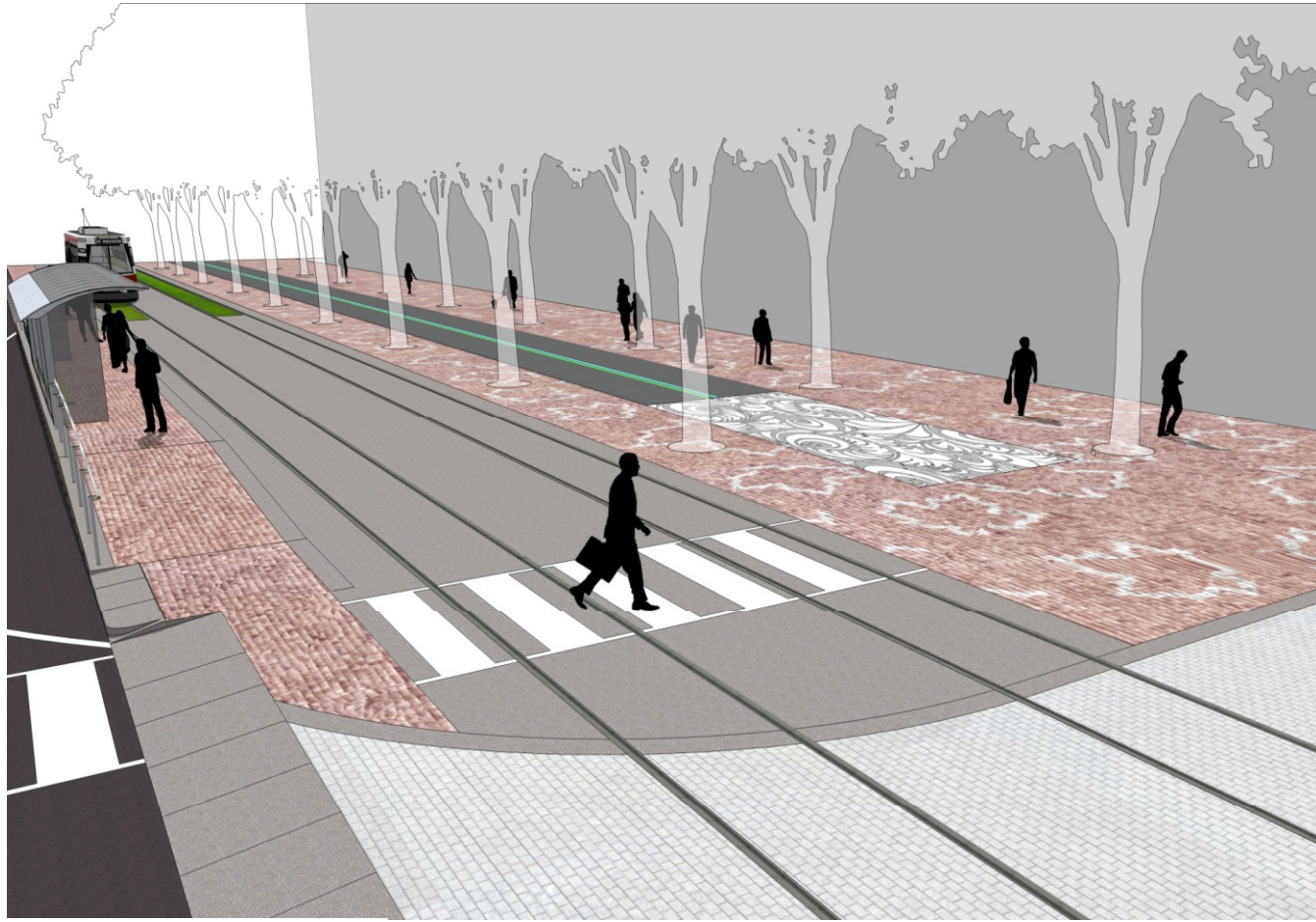
TRACTION POWER POLE

LIGHT POLE

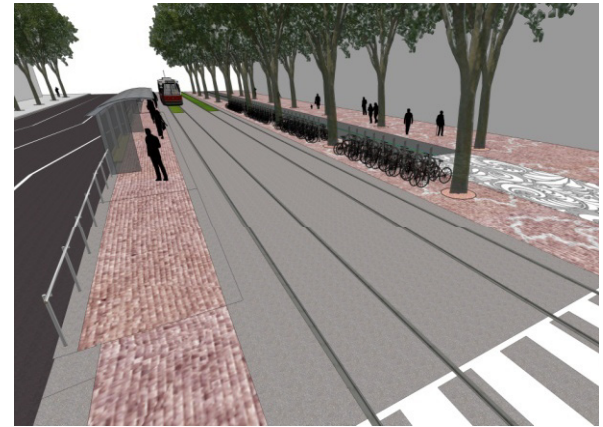
PROPERTY LINE

# TTC Right of Way - median

Median between TTC Right of Way and Martin Goodman Trail



Rough granite cobble stone paving strip



Bicycle racks perpendicular to tracks



Reference Coolsingel Rotterdam

# TTC Right of Way - median

Median between TTC Right of Way and road

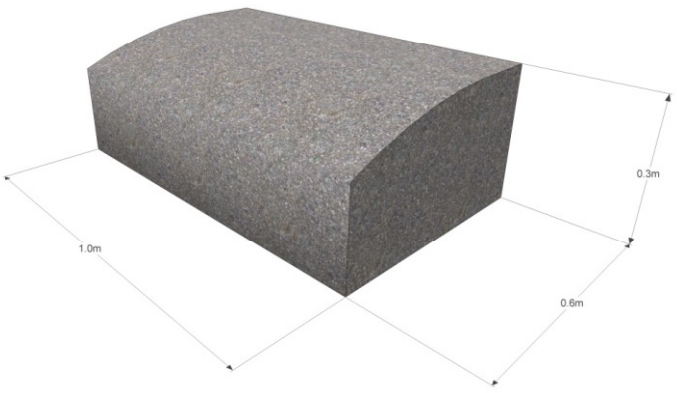


Grey granite curb stone 250x600x1000mm

## References

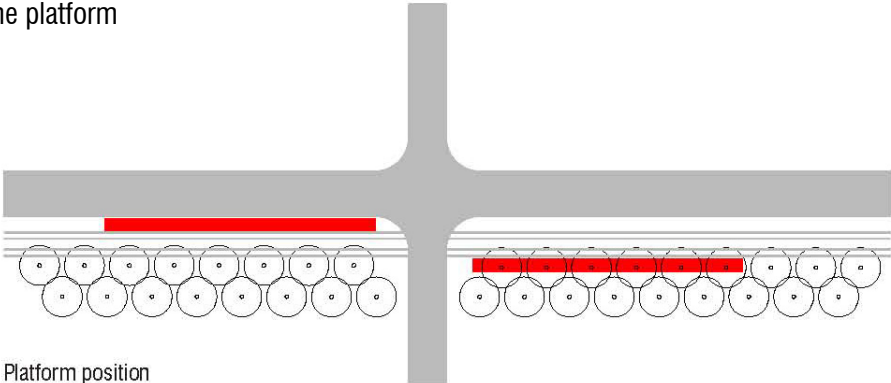


## Detail curb stone

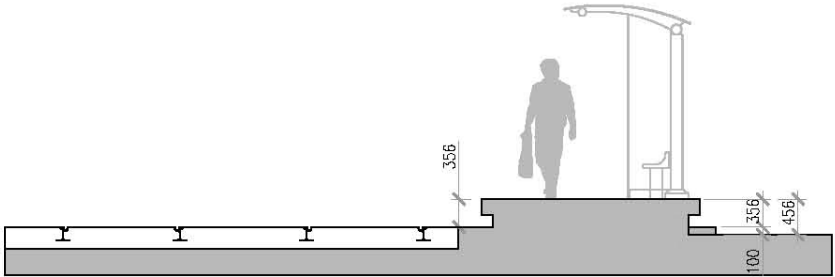


# Platform design

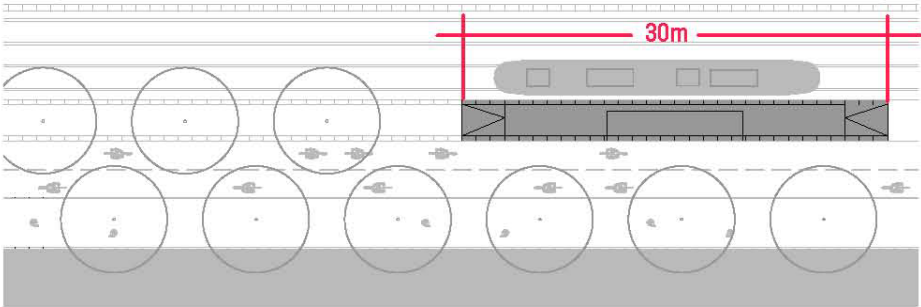
Location of the platform



Platform position



Platform height



Central Waterfront, TTC Platform 30m



Platform design  
Furniture on platform



Shelter



Rotterdam



Wavedecks Toronto



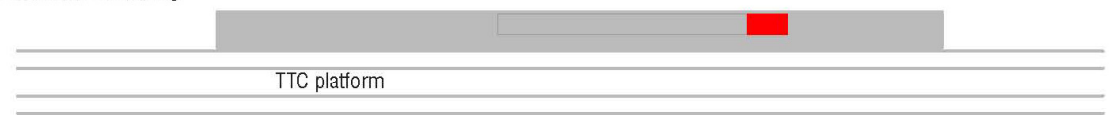
Lean seat - handrail



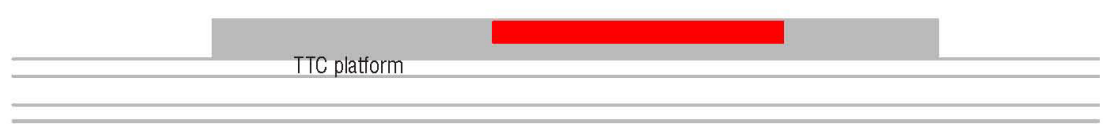
**Platform design**  
Position of furniture on platform



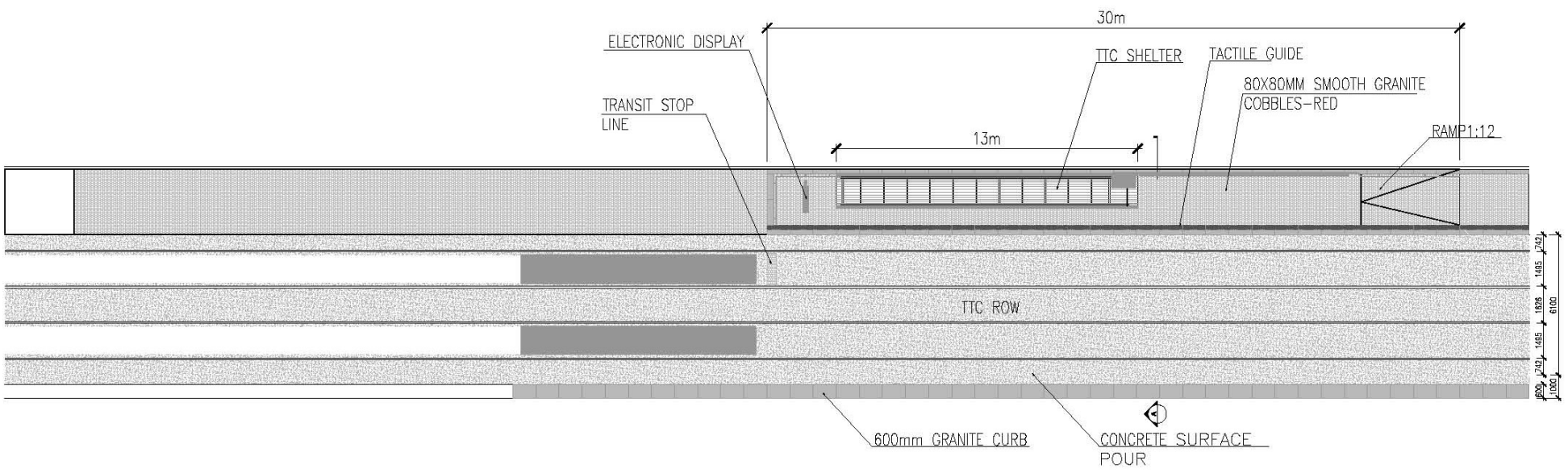
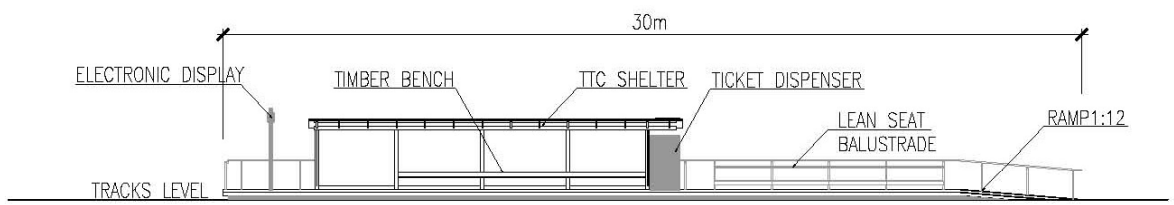
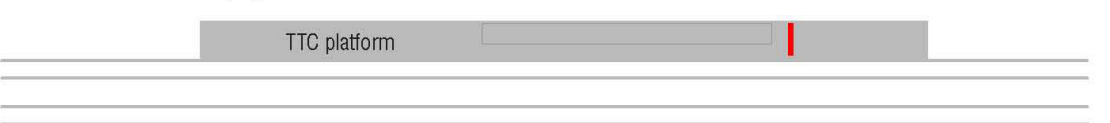
**Platform Ticketing**



**Platform Shelter**

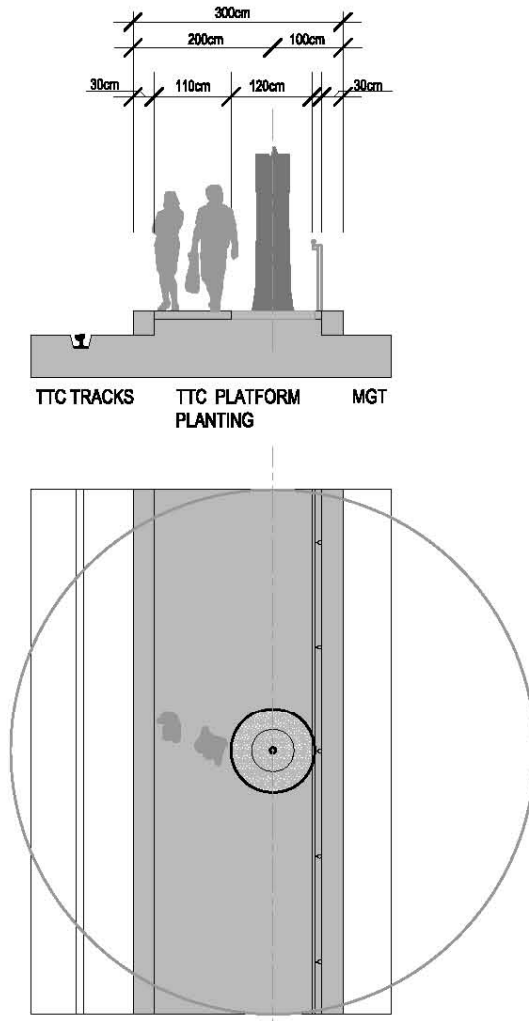
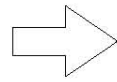
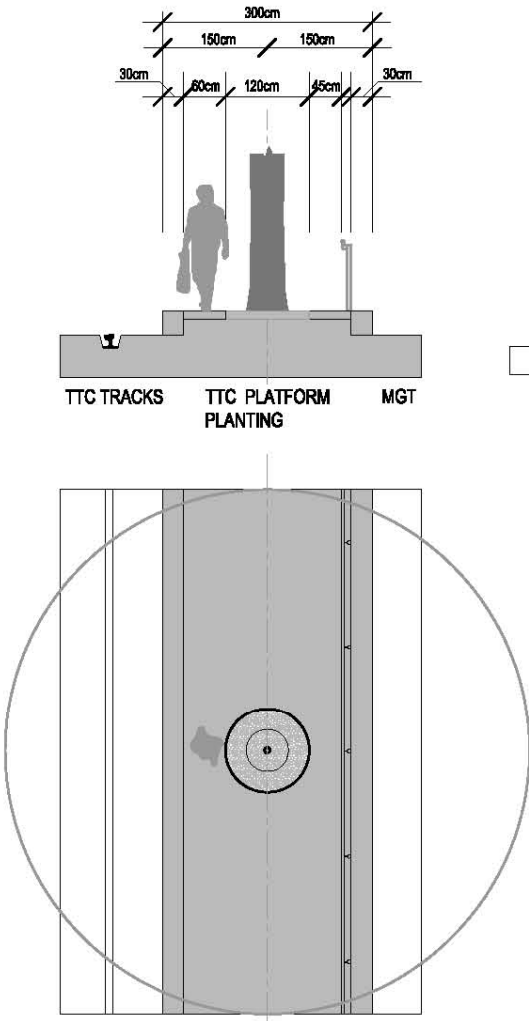
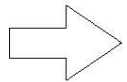
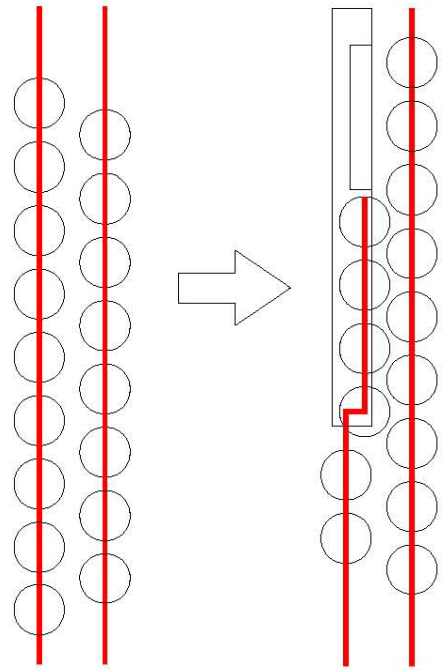


**Platform electronic display**



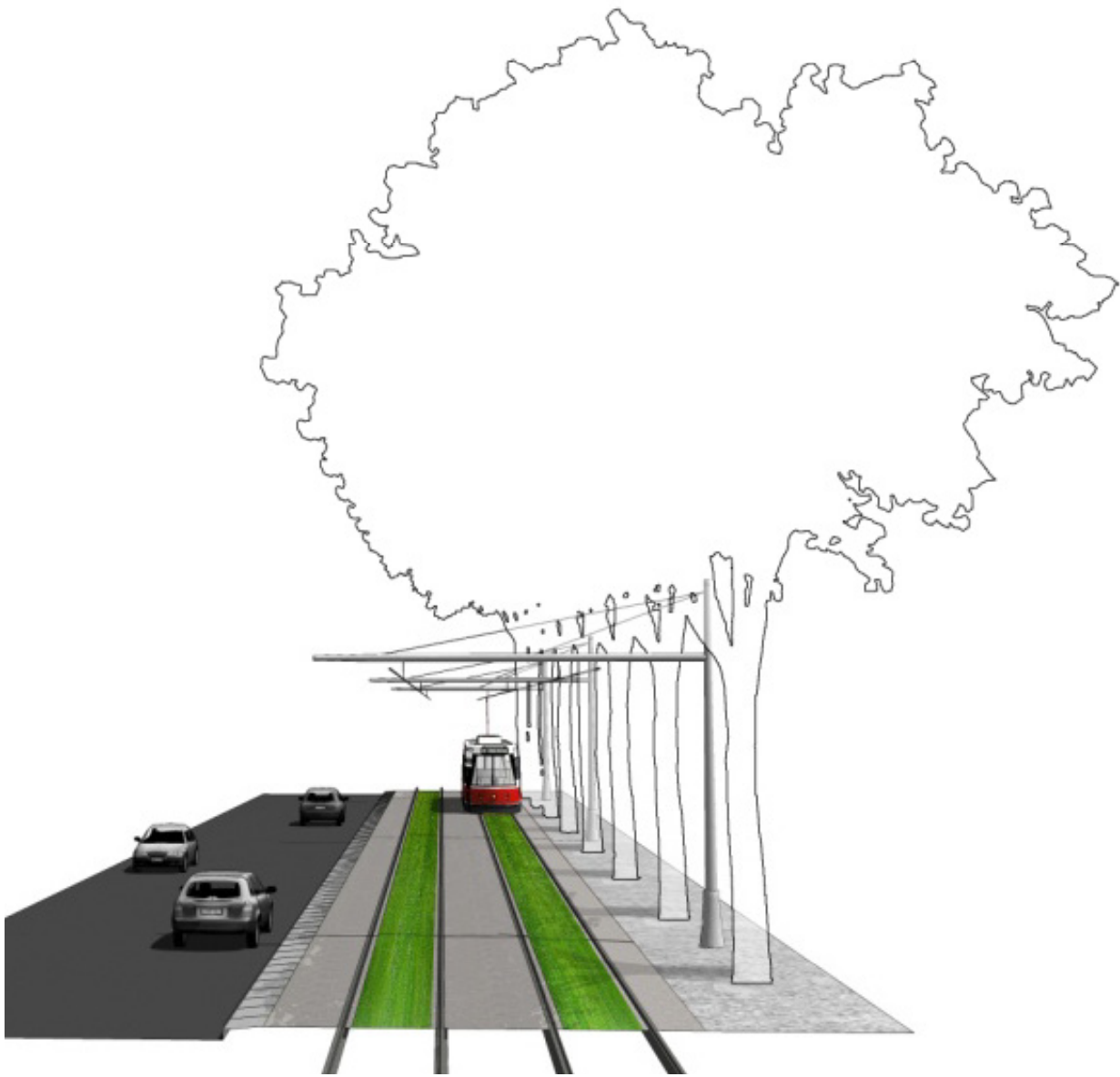
# Platform design

Trees on platform



Trees stands asymmetrical on the platform

TTC Right of Way  
Side traction power poles - cantilevers



# TTC Right of Way

Side traction power poles – cantilevers - detail

5480

400 1458 2800 700 484

CONCRETE SLAB  
GRANULAR FILL  
WALL LUMINAIRE

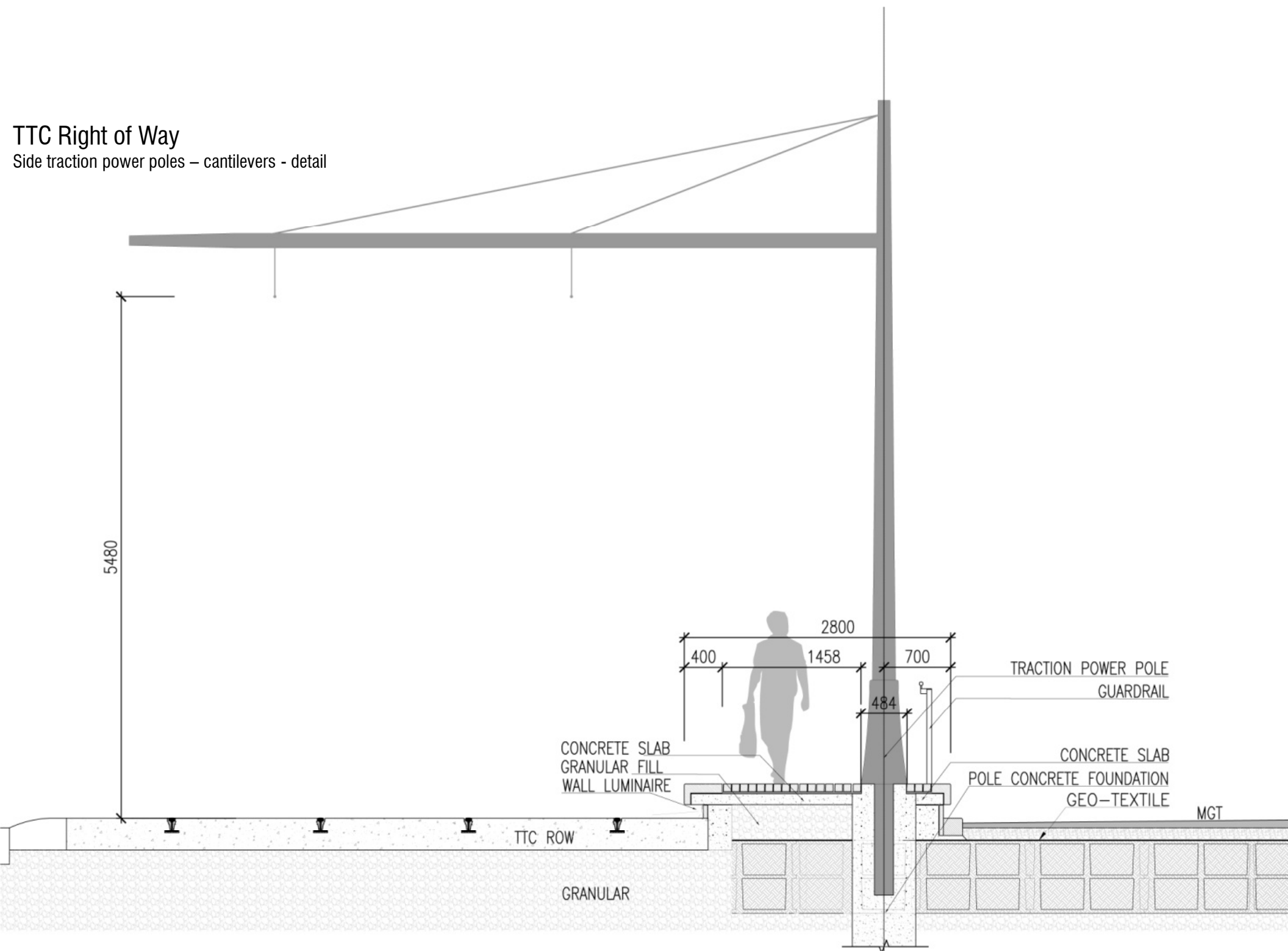
TRACTION POWER POLE  
GUARDRAIL

CONCRETE SLAB  
POLE CONCRETE FOUNDATION  
GEO-TEXTILE

MGT

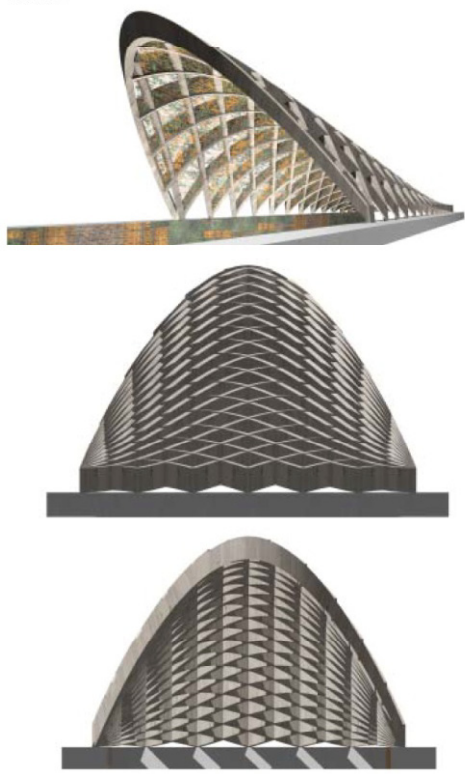
TTC ROW

GRANULAR



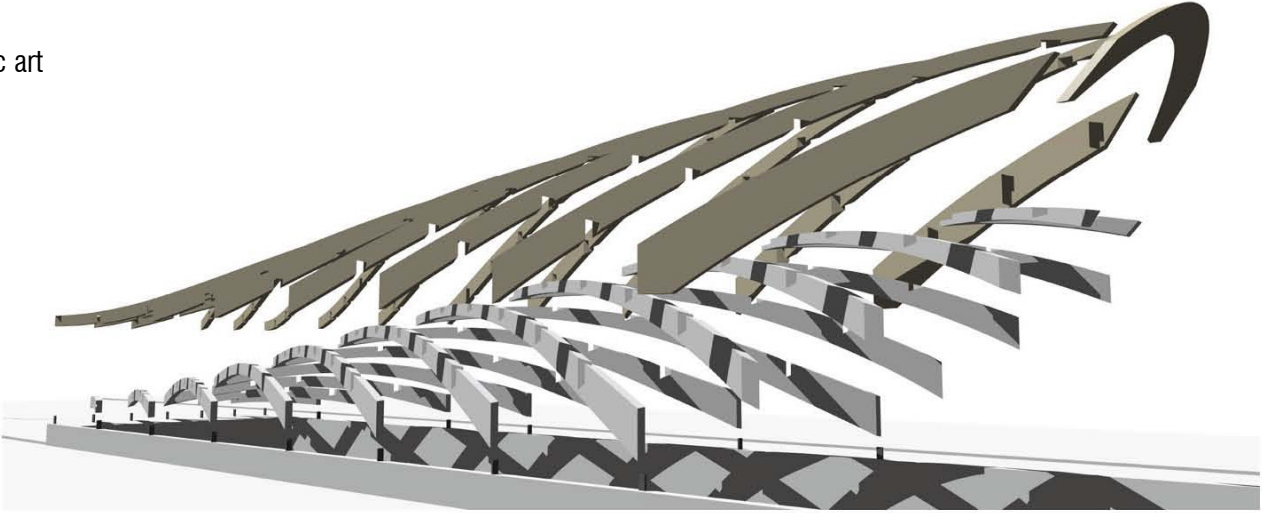
# TTC Right of Way

Transit infrastructure as public art



Impression of the timber canopy integrated within the streetscape. The canopies address the transit operators' need for gradual shading during the transition from interior to exterior routes while creating an integrated element to celebrate the transit experience.

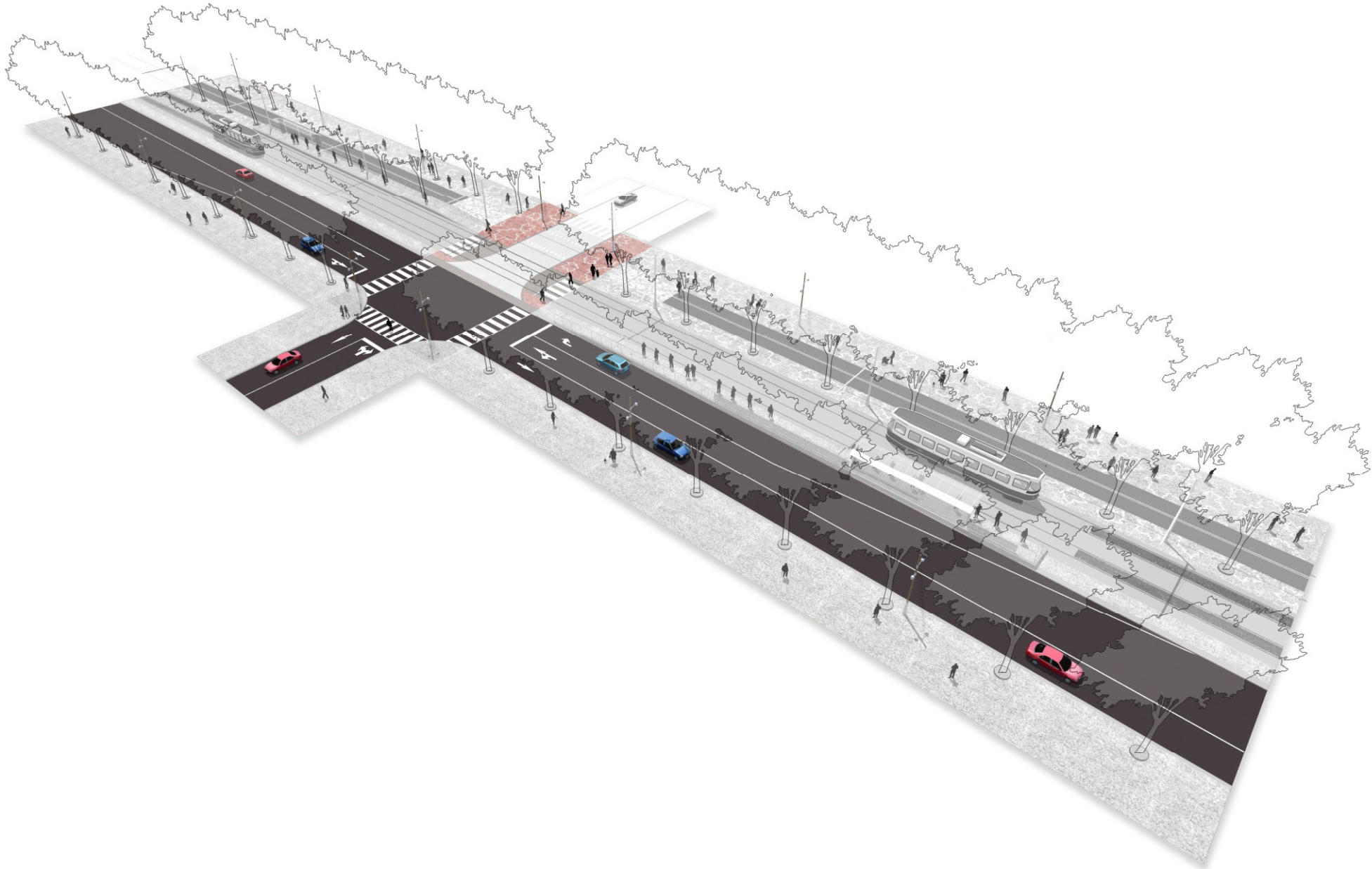
TTC Right of Way  
Transit infrastructure as public art



# 4. ROAD

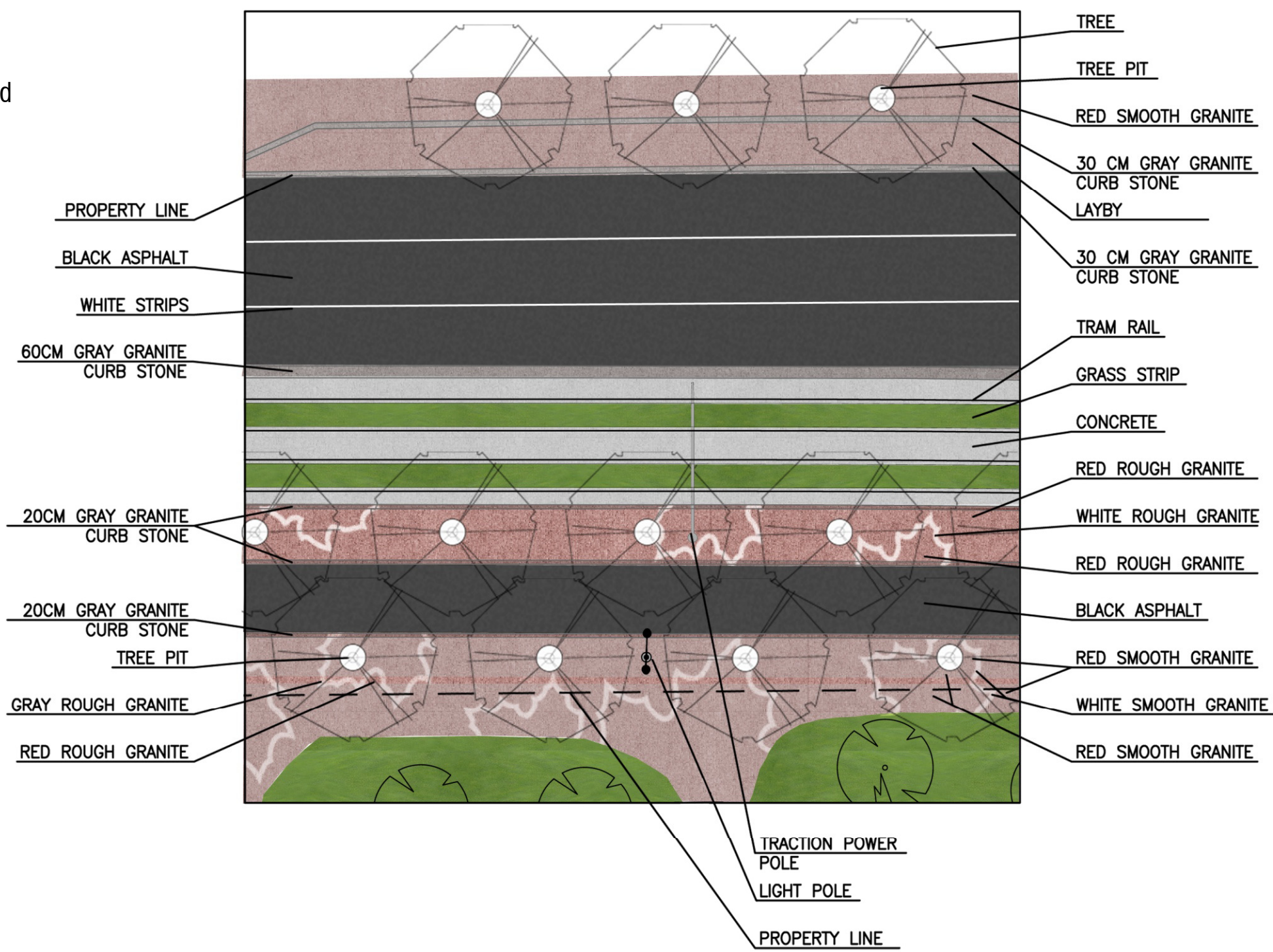


Road

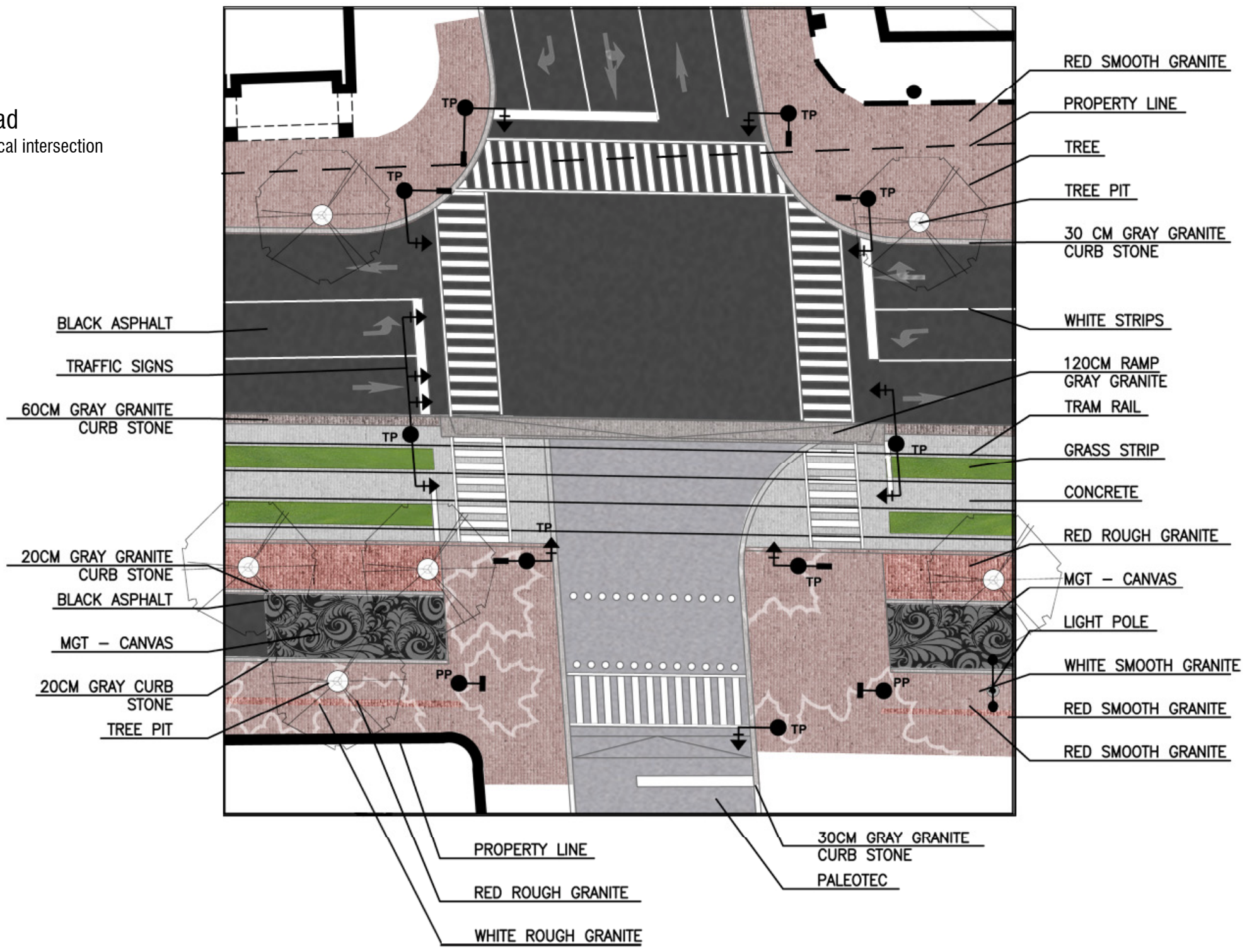




Road Plan



Road  
Typical intersection



RED SMOOTH GRANITE

PROPERTY LINE

TREE

TREE PIT

30 CM GRAY GRANITE CURB STONE

WHITE STRIPS

120CM RAMP GRAY GRANITE

TRAM RAIL

GRASS STRIP

CONCRETE

RED ROUGH GRANITE

MGT - CANVAS

LIGHT POLE

WHITE SMOOTH GRANITE

RED SMOOTH GRANITE

RED SMOOTH GRANITE

BLACK ASPHALT

TRAFFIC SIGNS

60CM GRAY GRANITE CURB STONE

20CM GRAY GRANITE CURB STONE

BLACK ASPHALT

MGT - CANVAS

20CM GRAY CURB STONE

TREE PIT

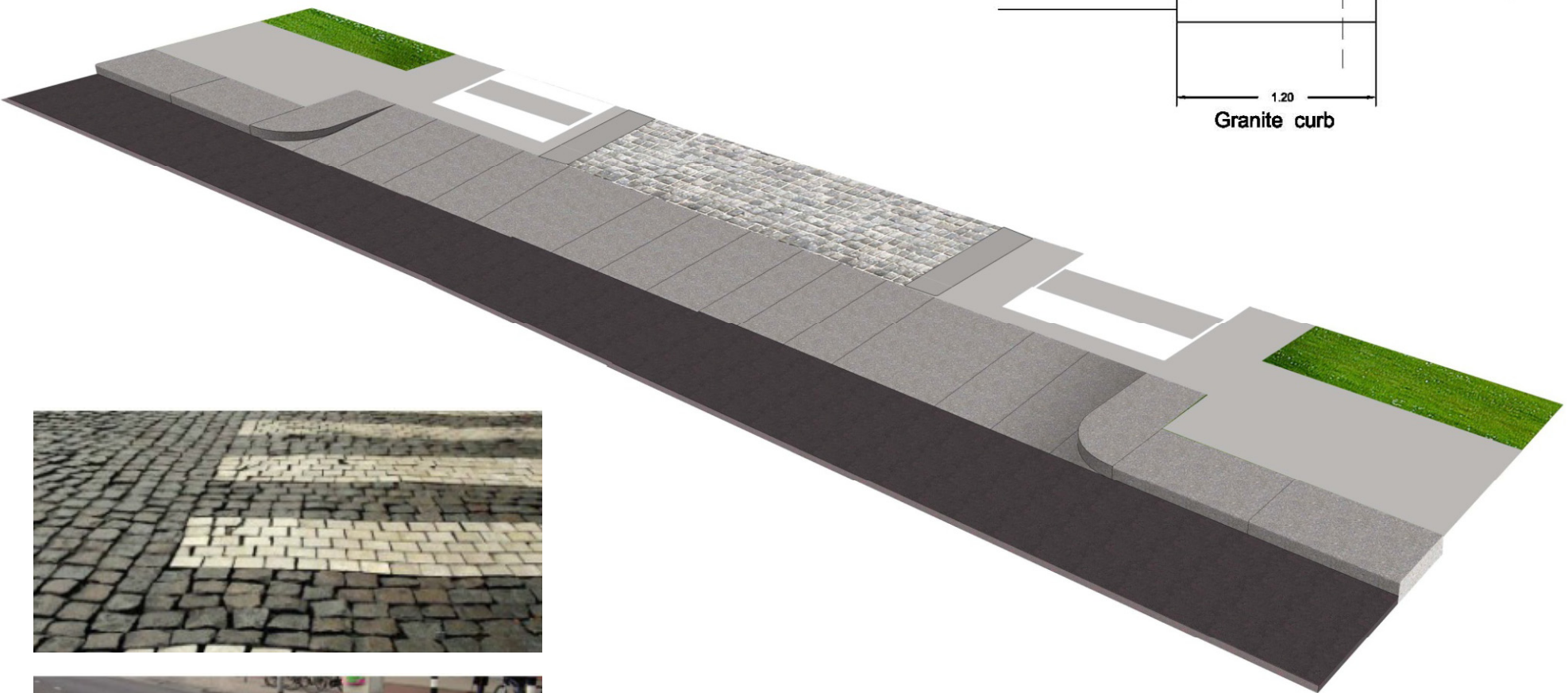
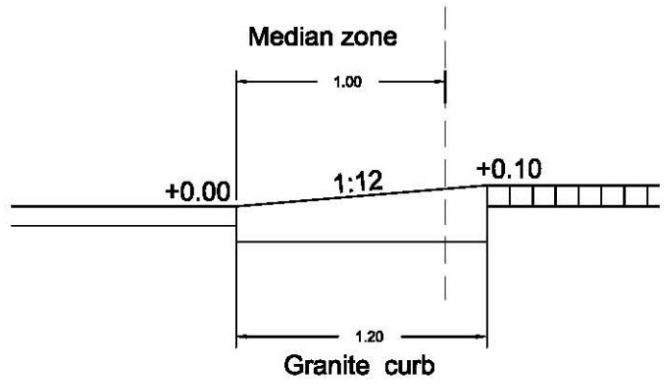
PROPERTY LINE

RED ROUGH GRANITE

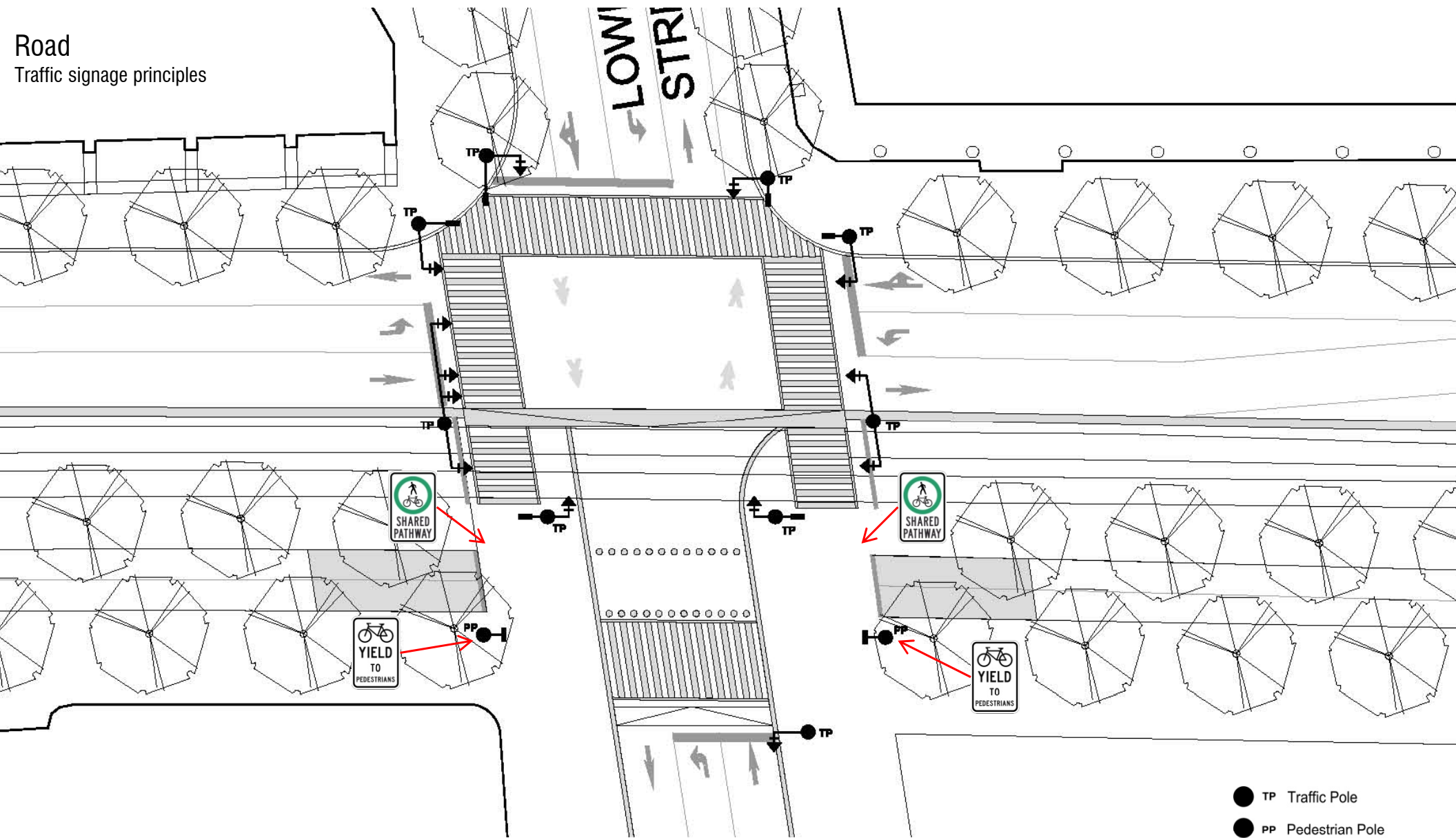
WHITE ROUGH GRANITE

30CM GRAY GRANITE CURB STONE  
PALEOTEC

Road  
Detail – curb radii strategy



Road  
Traffic signage principles

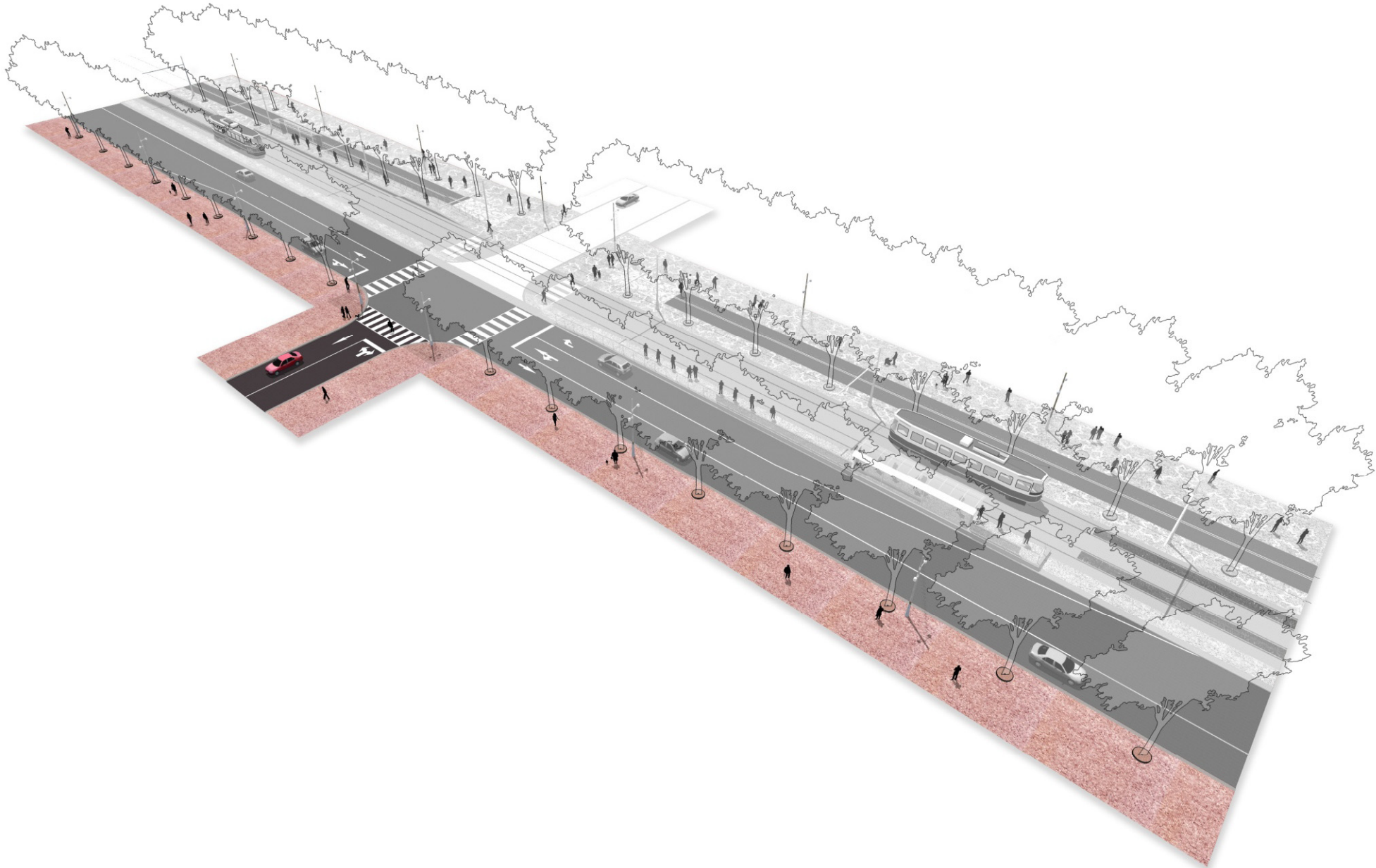


- TP Traffic Pole
- PP Pedestrian Pole
- ← Signal Head
- ▬ Pedestrian Signal Head
- Bike Signal Head

# 5. NORTH SIDE WALK



North side walk



# North side walk

## Street Elements

Sidewalks should use a higher quality materials than typical Toronto sidewalks.

1. Granite Curb



Caledonia Grey  
 Waterjet Finish - top  
 Split Face - vertical face  
 per EBF Public Realm detail

2. Lighting



Bulk Purchase item  
 9.0 m Pole  
 1 Long Arm and 1 Short Arm

3. Tree



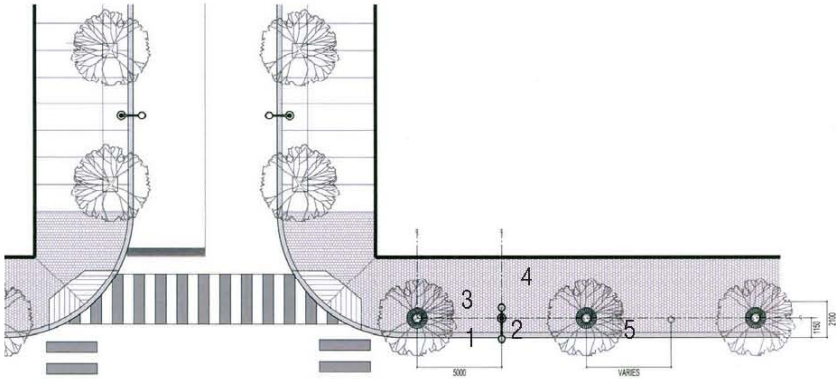
Tree species to be determined  
 1 type of tree

4. Paving



Red granite or concrete  
 t.b.c.

5. Tree Ring



# 6. TREE PLANTING STRATEGY



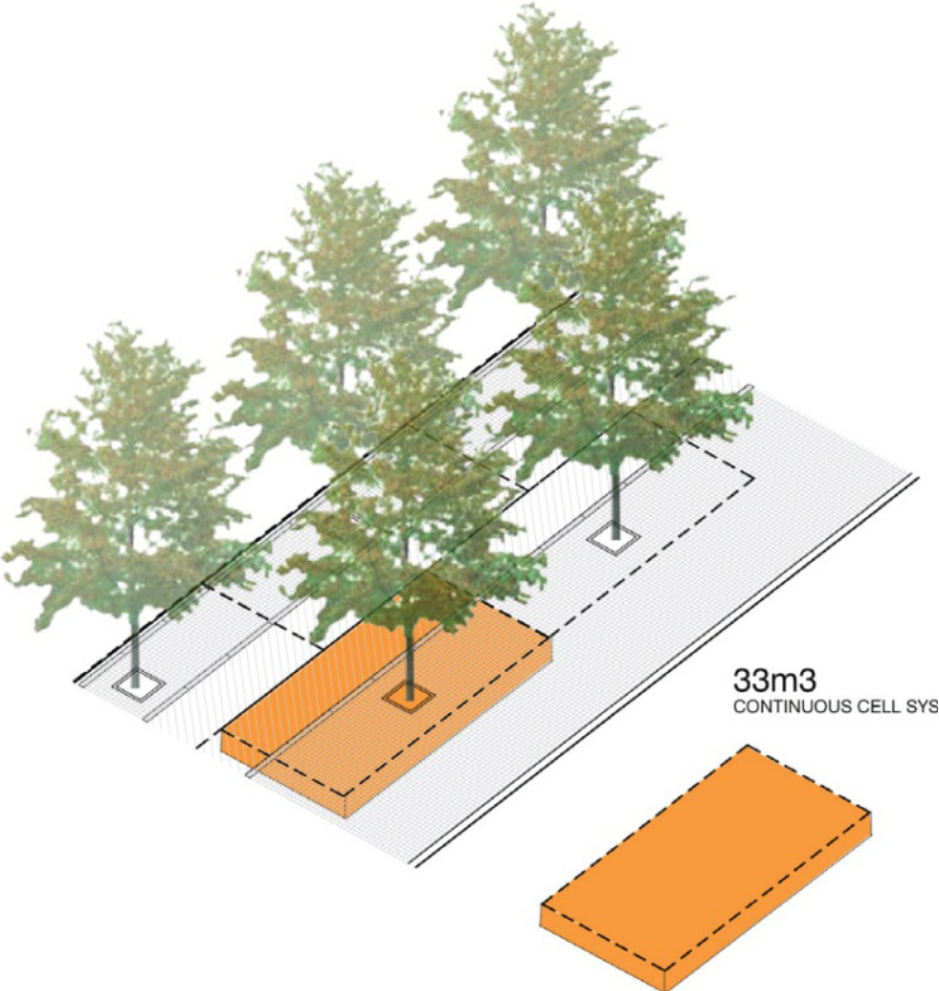


# Tree planting strategy

South and North side

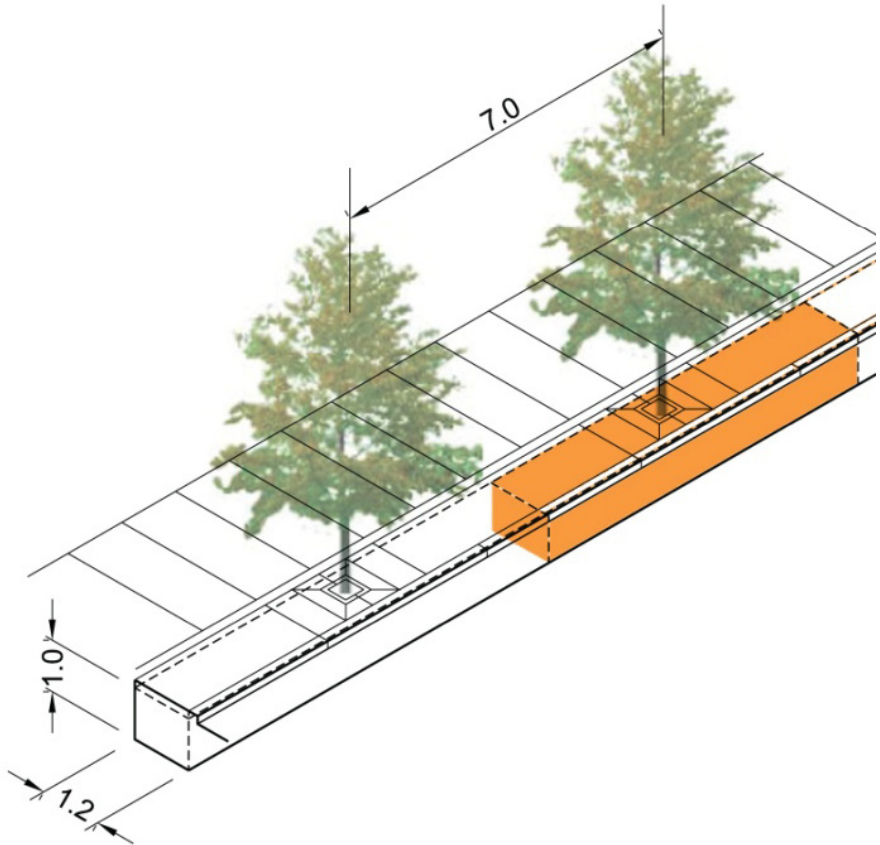
## South Side

Continuous silva cell system under trees and Martin Goodman Trail - approximately 33m<sup>3</sup>/tree



## North Side

Continuous tree trench system similar or greater than soil volume of City of Toronto Standard - approximately 8.7m<sup>3</sup>/tree



# Tree planting strategy

## Species selection

### South Side



*Platanus x acerifolia* 'Bloodgood'  
(Bloodgood London Planetree)

*Platanus x acerifolia* 'Columbia'  
(Columbia Planetree)

*Platanus x acerifolia* 'Yarwood'  
(Yarwood Planetree)



### North Side Street Trees

Diverse variety of native species and hardy cultivars, planted to suit available soil conditions.



*Gleditsia triacanthos* 'Skyline'  
(Skyline Honeylocust)



*Tilia flavescens* 'Glenleven'  
(Glenleven Linden)

*Tilia cordata* 'Greenspire'  
(Greenspire Linden)

*Tilia americana x euchlora*  
'Redmond' (Redmond Linden)



*Pyrus calleryana*  
(Bradford Pear)

# 7. MATERIALS, FURNISHING & WAYFINDING

## Materials Catalogue

### Paving Surfaces

**Granite Mosaic**  
2-tone granite pavers forming mosaic leaf pattern (Outline and Silhouette)



Outline leaf mosaic

**Granite Types**  
Canadian Red and San Sebastian Grey for Mosaic; Caledonia Grey for curbstones on streetscapes



Royal Canadian Red



San Sebastian Grey



Caledonia Grey

**Granite cobbles**  
Size: 90 x 90 x 80mm  
Top finish: Light Waterjet  
Side finish: Split  
Joints: 5-8mm

**Concrete unit paver**  
Paleo Tec auto-blocking precast pavers



Paleo Tec - light grey

### Materials & Finishes

**Wood**  
Yellow Cedar - Structural Timbers  
Ipe - Decking and Benches



Yellow Cedar - Structural Glulam Timbers



Ipe - Decking and Benches

**Metal Finishes**  
Laser cut steel and cast aluminum with paint system application  
Galvanized steel  
Stainless Steel - brushed



RAL 7016 Anthracite grey



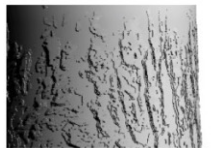
RAL 7048 Pearl mouse grey



Galvanized steel



Stainless steel - brushed



Cast Aluminum - sand mold, bark texture

**Colours**  
For use on signage applications



RAL 7016 Anthracite grey



RAL 7048 Pearl mouse grey



Pantone



Pantone



Pantone

**Details**  
For use throughout the waterfront



Stainless steel guiding spots



Stainless steel handrail



Stainless steel bollard



Galvanized steel mooring



Galvanized steel toe rail



Large sized toe rail



Garbage & Recycling bin

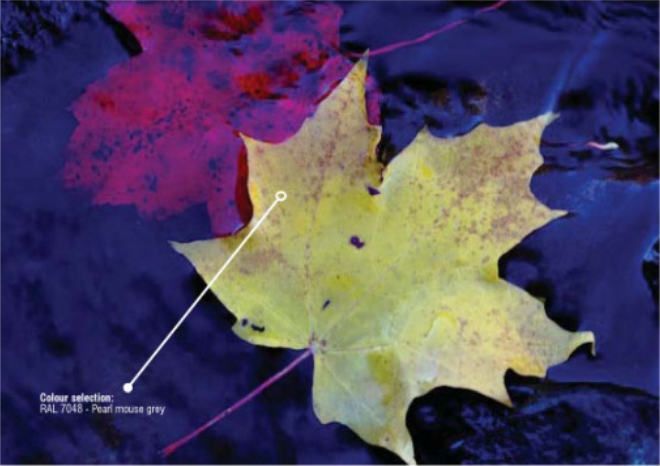
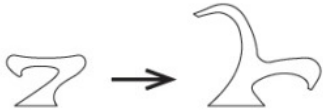


Preserve existing mooring elements where possible - paint anthracite grey (RAL 7016)

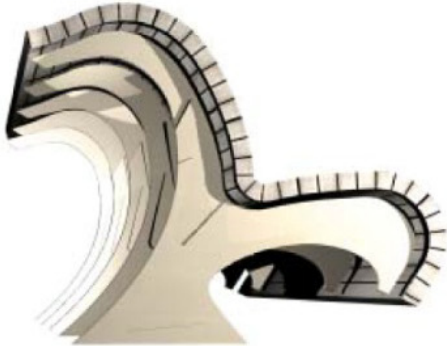


Yellow coated warning spots

Furnishing  
Family of Benches



1. Basic bench



2. Bench with backrest



# Furnishing

City of Toronto Public Facilities

Basic Transit Shelter  
No.101.1



Narrow Transit Shelter  
No.101.2



Canopy Transit Shelter  
No.101.3



City of Toronto transit shelters should be adopted for Queens Quay Boulevard; however, upgrades are recommended to include a wood (lpe) bench inside shelter to match the language of benches proposed for the Central Waterfront.

Note: A special custom shelter design is recommended at the foot of Yonge Street, to be designed in conjunction with the proposed new Ferry Terminal and water transit hub.

Litter/Recycling Receptacle  
No.102.1



Litter/Recycling Receptacle  
No.102.2



Litter/Recycling Receptacles should be adopted for Queens Quay Boulevard only.

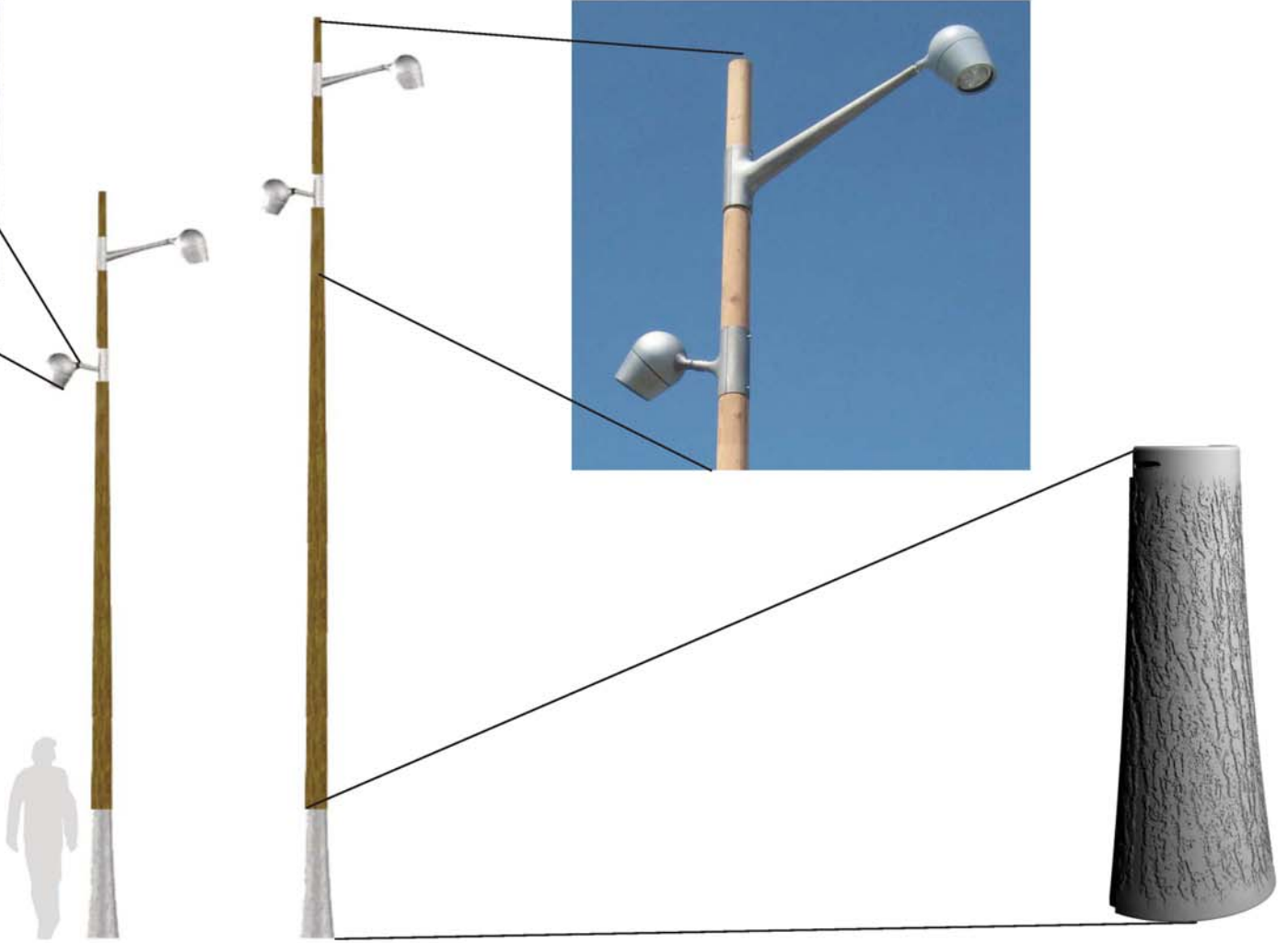
Multi-Publication Structure  
No.104.1A



Automated Public Toilet  
No.106



Placement of these structures within the public realm must be carefully considered.

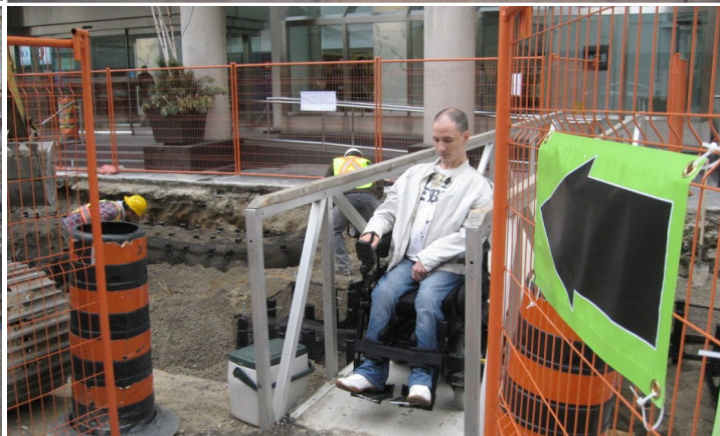








# CONSTRUCTION STAGING

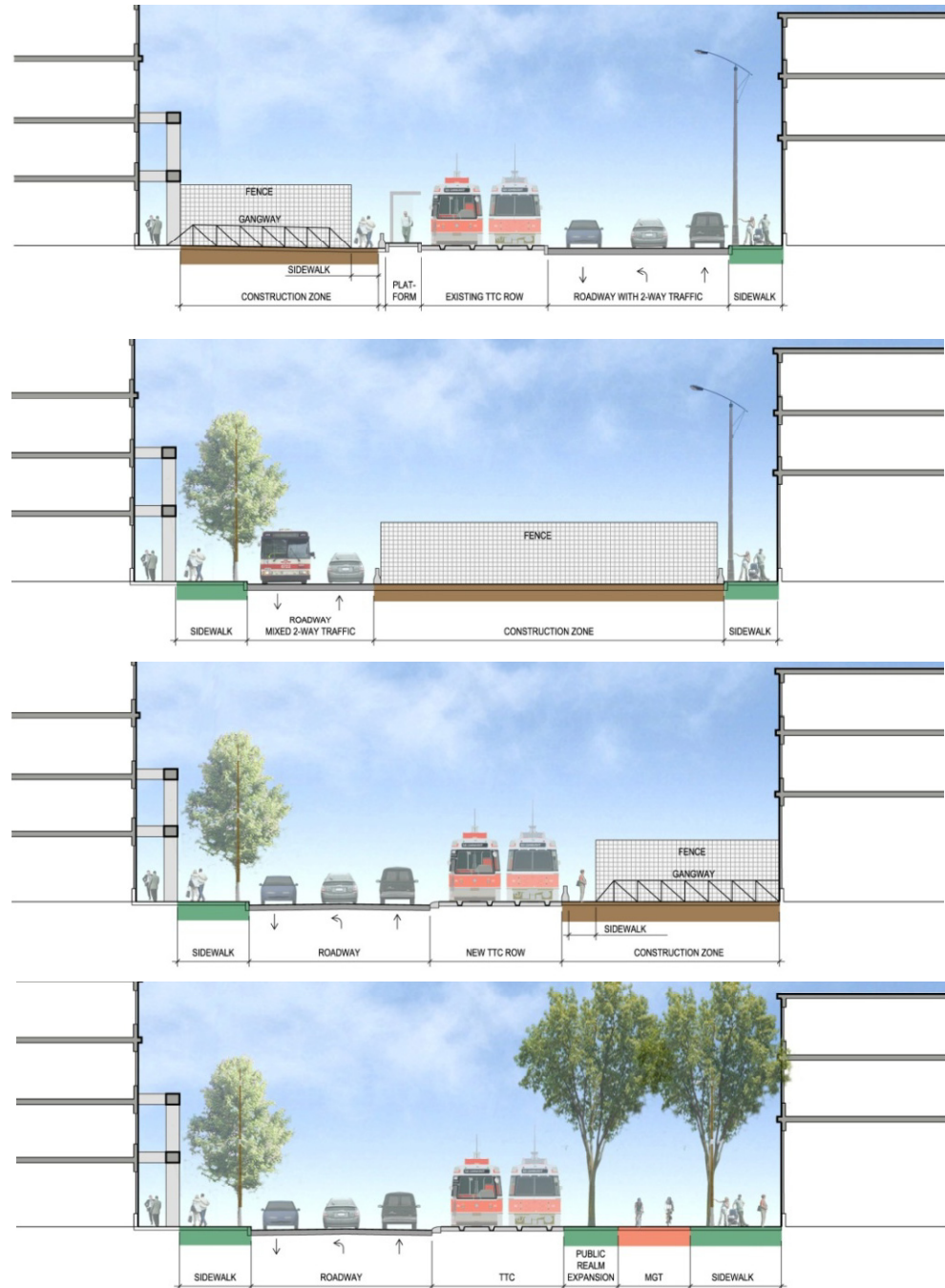


# 1. OBJECTIVES

- Minimize construction duration and disruption
- Provide a safe construction area for public and workers
- Provide access for all transportation modes at all times
- Provide regular, up-to-date and accessible communications and community outreach
- **Make a commitment to the plan**

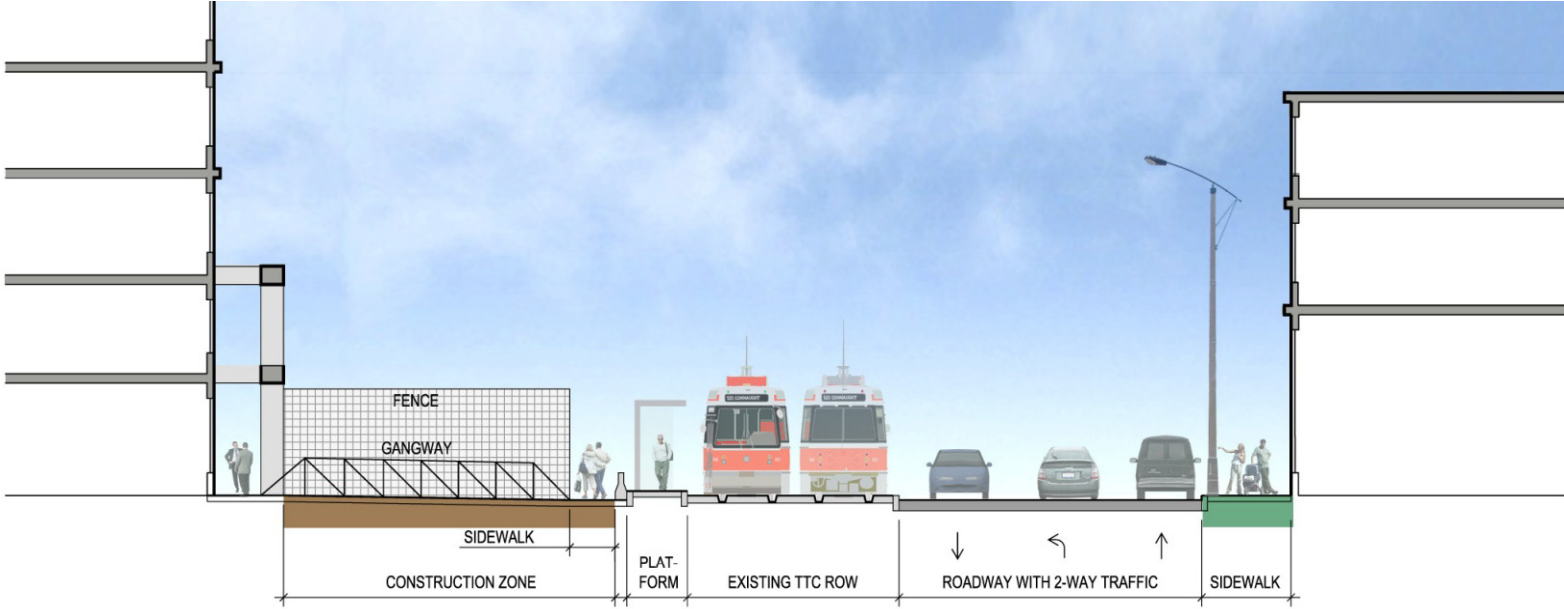
# 2. CONSTRUCTION STAGING

- Possible Order of Construction:
  - Stage 1: Roadway and north sidewalk
  - Stage 2: TTC
  - Stage 3: Linear Park (i.e. MGT and south sidewalk)
- Subject to detailed assessments and stakeholder consultation



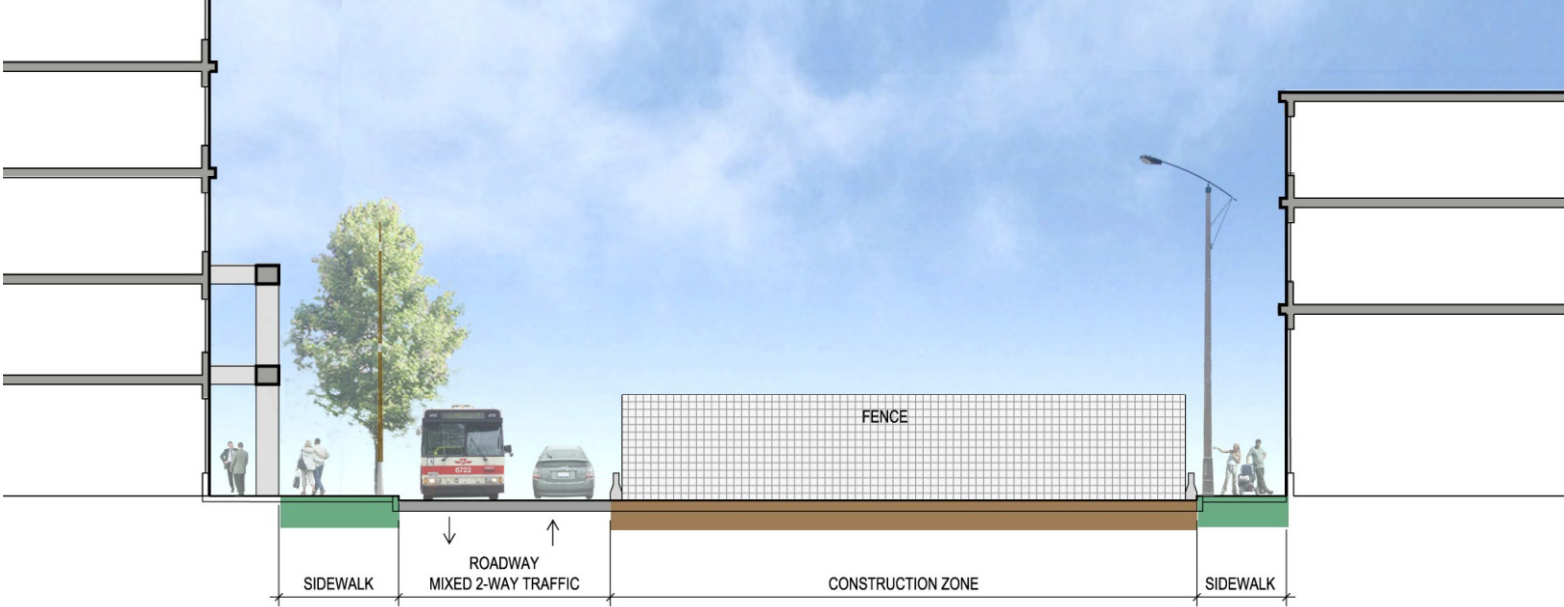
# Stage 1: North Side

- Access to residences and businesses provided for all modes.
- North of TTC right-of-way closed to vehicular traffic for construction of sidewalk, roadway and utilities.
- TTC streetcar to operate in existing right-of-way.
- 2-way traffic on south side. Potential for turn restrictions



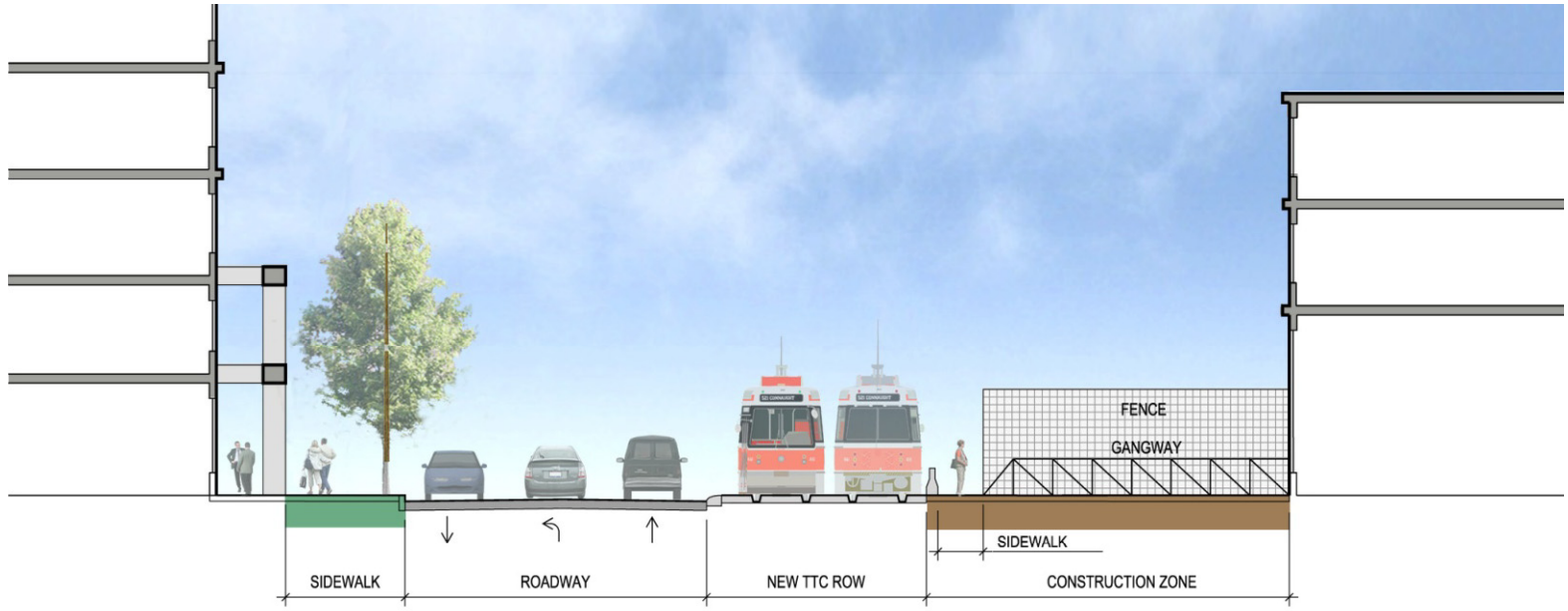
# Stage 2: TTC Right of Way

- Access to residences and businesses provided for all modes
- South of north roadway closed to vehicular traffic for construction of LRT right-of-way and utilities
- TTC to operate buses on-street
- 2-way traffic on north side. Potential for turn restrictions
- South side used for storage, staging and construction access



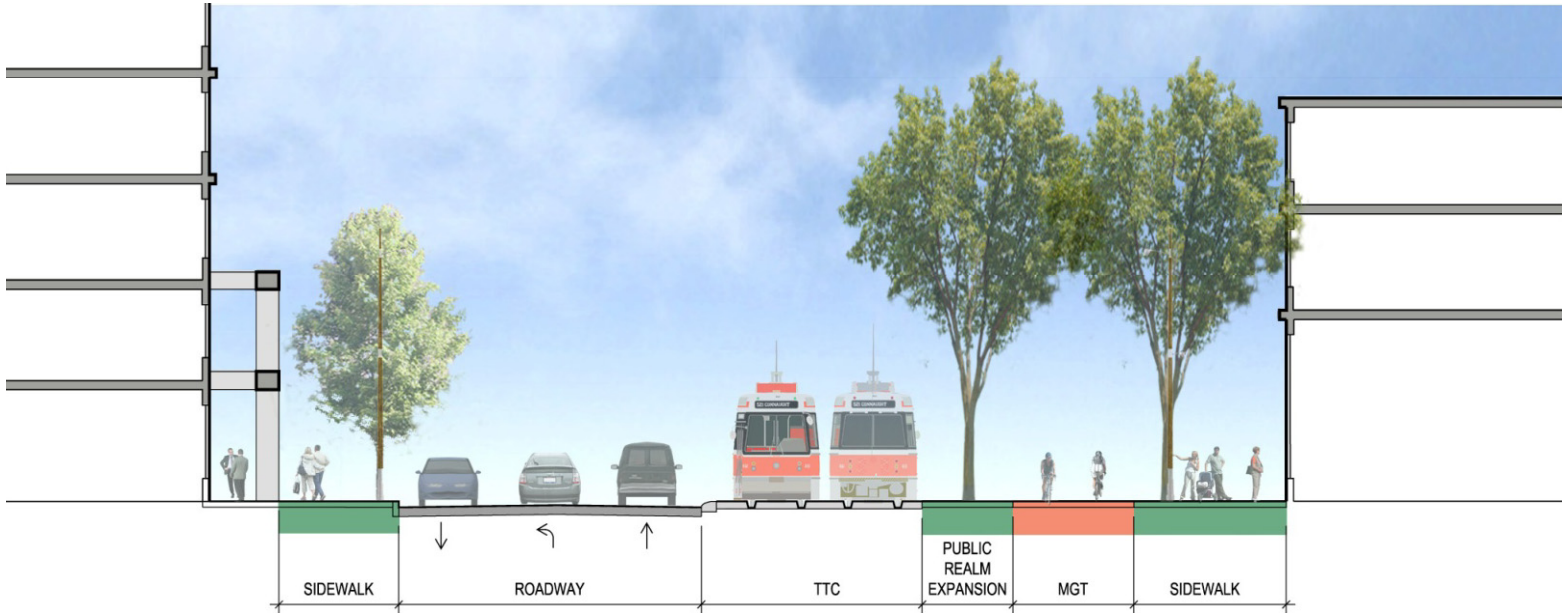
# Stage 3: South Side and Linear Park

- Access to residences and businesses provided for all modes
- South of TTC right-of-way closed to vehicular traffic for linear park construction and utilities
- TTC may begin operating streetcars
- 2-way traffic on completed north side



# Stage 4: Completed Construction

- South side promenade and north sidewalk fully accessible
- TTC LRT service and roadway fully operational
- Martin Goodman Trail open



# 3. CONSIDERATIONS

- Pedestrian, transit, cyclist and vehicular traffic
- Construction duration:
  - Short (days)
  - Medium (weeks)
  - Long (months)
- Seasonal conditions  
(e.g. weather, community)
- Special events
- Construction methodology  
(e.g. equipment, lay down areas, working zone, access/egress)
- Impact on subsequent stages



# 3. ISSUES AND TOOLS

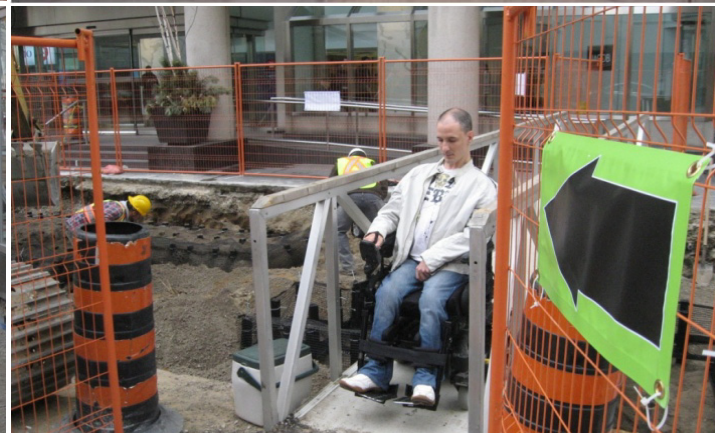
## General

Issues	Possible Tools
<b>Understanding needs of community</b>	<b>Pre-planning with community</b>
<b>Minimizing duration of work</b>	<b>Contractual requirements (e.g. incentives, night work, 24/7, one contractor) Planning and consultation with stakeholders Utilities planning and coordination</b>
<b>Minimizing area of construction zone</b>	<b>Just-in-time delivery of construction materials Specify construction zones and access points</b>
<b>Access to/from Queens Quay</b>	<b>Maintain or provide temporary facilities for all modes Way finding and communications program Special event and seasonal traffic coordination</b>
<b>Nuisance effects (e.g. noise, dust, parking)</b>	<b>Implement and enforce management plans.</b>

# 3. ISSUES AND TOOLS

## Pedestrian and Cyclist Access

- Provide east-west flow and north-south crossings at all times
- Provide delineation from traffic and construction zones
- Provide access to building entrances



# 3. ISSUES AND TOOLS

## Transit Access

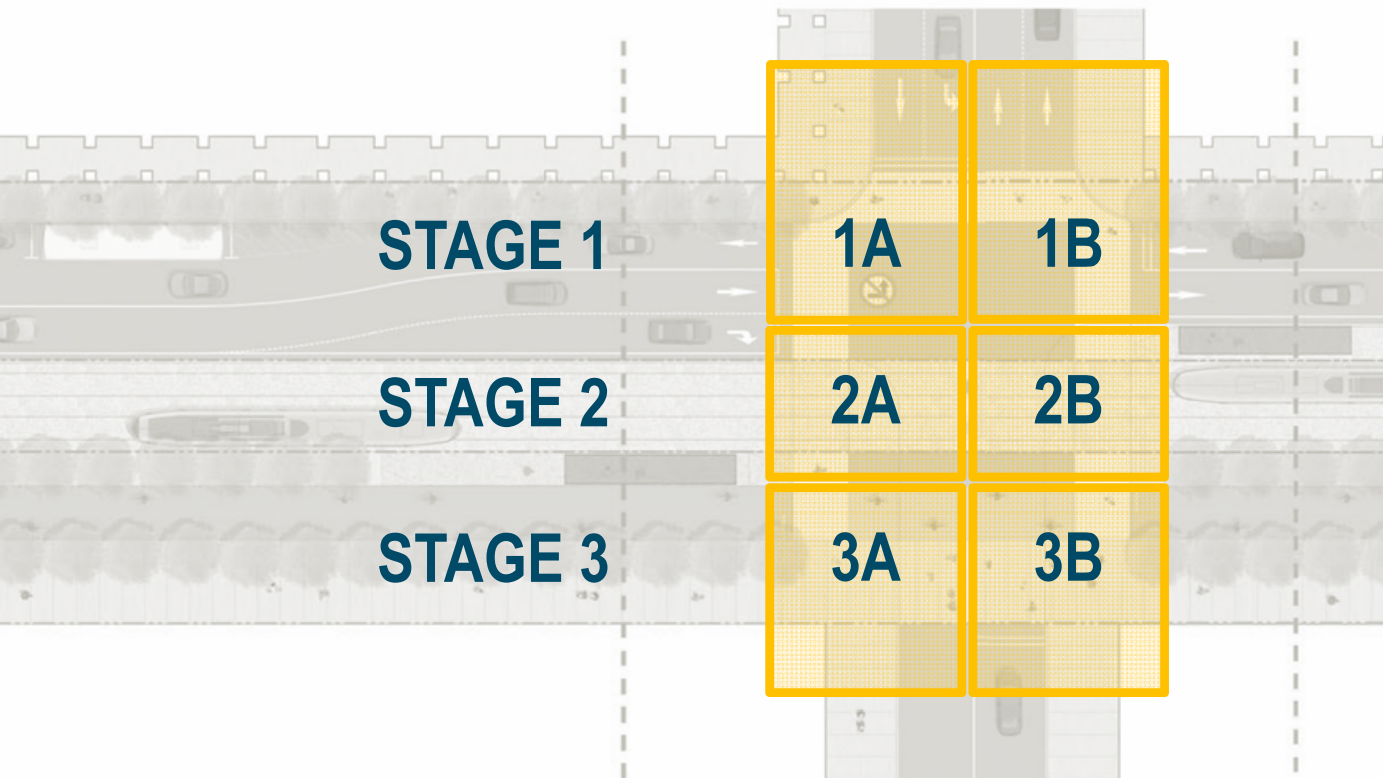
- Maintain access to stops
- Continued transit service through construction



# 3. ISSUES AND TOOLS

## Vehicular Access

- Provide access to intersections, entrances and loading areas at all required times
- Staged blocks and intersections construction



# 3. ISSUES AND TOOLS

## Community Outreach

- Regular updates
  - Physical – message boards, leaflets, mailers
  - Internet – email, discussion boards, website, RSS, social networks
- Advance notification of construction activities
- Accessible
- Liaison groups
- Staffed street front project office



**WATERFRONT**Toronto

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- opportunities
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Toronto's main waterfront street is being transformed into a showpiece for the city.

### queens quay boulevard

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#### creating a world-class waterfront street

Queens Quay Boulevard, which runs east-west parallel to the lakefront, is the waterfront's main

#### the vision for queens quay

Waterfront Toronto has long recognized the importance of transforming Queens Quay into a world-class boulevard. Because Queens Quay runs the length of Toronto's waterfront, giving

#### quick facts

**Boundaries:** Along Queens Quay Boulevard from Spadina Avenue to Parliament Street

**Design team:** West 8 + DTAH

**Length:** 3 kilometres

