

Waterfront Design Review Panel January 23, 2019



West Don Lands – Block 8

Detailed Design

January 23, 2019

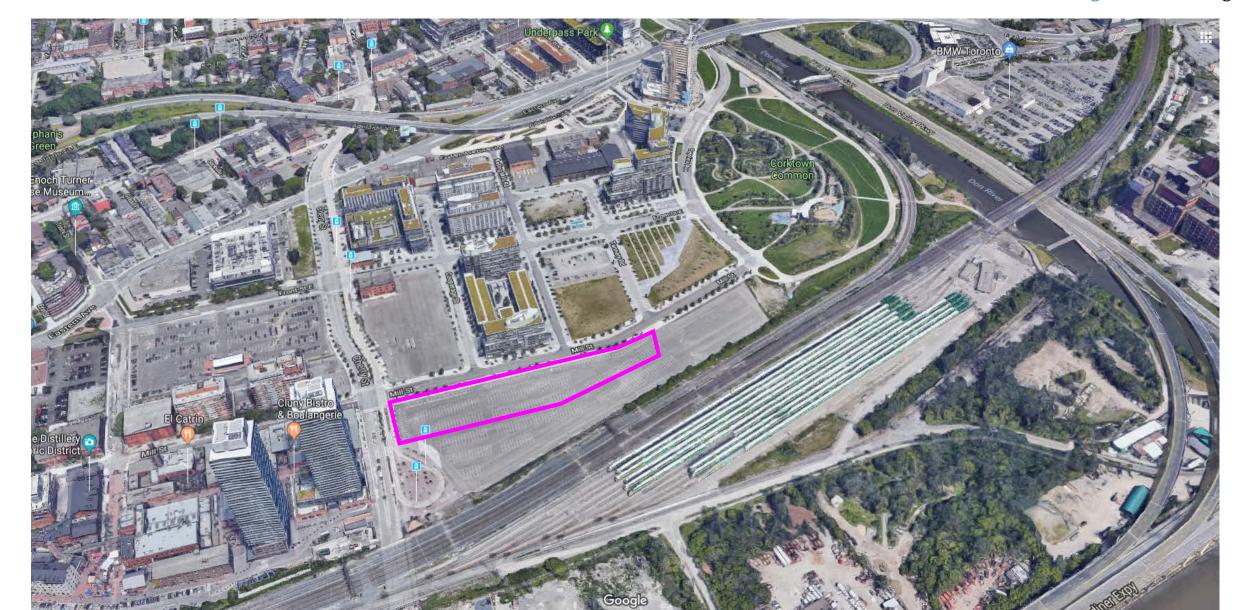
Project Description & Background

West Don Lands – Block 8

- Dream, Kilmer and Tricon were the successful proponents of Infrastructure Ontario's (IO) RFP for Blocks 8, 20, 3W, 4W and 7W in the WDL
- Part of the Province's Affordable Housing Program as well as the City's Open Doors program
- Block 8 proposed for a purpose built rental building with ancillary retail at-grade and also includes 30% affordable rental housing units
- First purpose-built rental building in the area
- Very tight delivery timeline as per the agreement with IO
- Blocks 3W, 4W, 7W and 20 will follow Block 8
- Blocks 8 and 20 are located east of Cherry St, with Blocks 3W, 4W and 7W located west of Cherry St

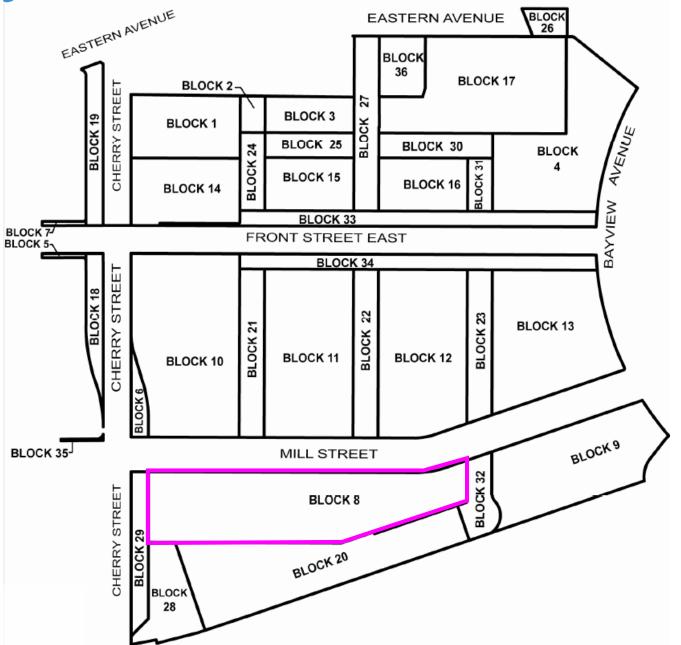
Site Context

West Don Lands – Block 8



Site Context

West Don Lands – Block 8



Site Context

West Don Lands Built Form

West Don Lands - Block 8



Policy Context – Central Waterfront Secondary Plan

West Don Lands - Block 8

Proponent: Dream, Kilmer, Tricon Design Team: architectsAlliance, Cobe Review Stage: Detailed Design

D21_A NEW BEGINNING FOR THE WEST DON LANDS

The West Don Lands will be redeveloped into diverse mixed-use communities. These communities will capitalize on their **strategic downtown location**, the synergy created by the simultaneous development of the Port Lands and their historic roots as part of the original town of York, as well as the Don River's new environmental health.

- (P32) Excellence in the design of public and private buildings, infrastructure (streets, bridges, promenades, etc.) parks and public spaces will be promoted to achieve quality, beauty and worldwide recognition.
- (P33) New development will be **located, organized and massed to protect view corridors**, **frame and support the adjacent public realm** and discourage privatization of public spaces. Built form will result in comfortable microclimates on streets, plazas and other parts of the public realm.
- (P10) The design of the public realm will be of a standard of excellence characteristic of the great city waterfronts of the world.
- (P11) The public realm will be defined by a coherent framework of streets, parks, plazas, buildings, viewing areas, walkways, boardwalks, promenades, piers, bridges and other public infrastructure and open space elements.

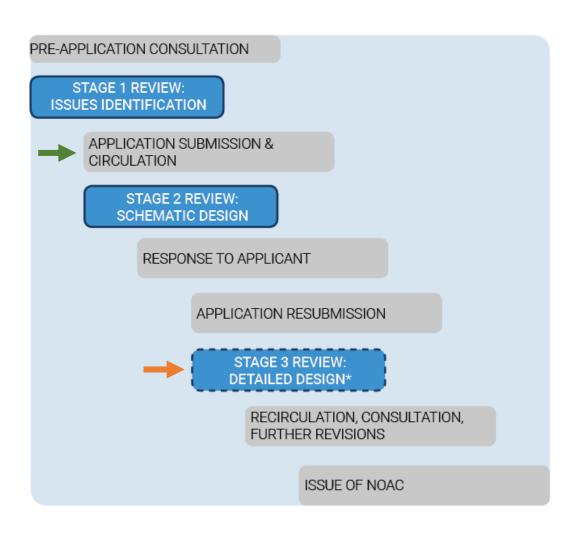
Project Approval Stage

DRP Stream 2: Private land – Site Plan Approval

West Don Lands – Block 8

Proponent: Dream, Kilmer, Tricon Design Team: architectsAlliance, Cobe Review Stage: Detailed Design

CITY OF TORONTO EVELOPMENT APPROVALS



Recap from September 2018

West Don Lands – Block 8

- Do not extend the retail spine from Tank House Lane along the laneway but focus it on Cherry Street. A small amount of retail related to the streetcar loop should be explored.
- Water feature may not be worth pursuing given the maintenance required
- The use of materials in the public realm requires further refinement
- The usability and accessibility of the podium amenities is successful
- Continuity of the public realm network is strong

New Elements of the Plan

West Don Lands – Block 8

- This presentation includes 2 new pedestrian bridge connections joining the buildings; added to the program since the last DRP
- The applicant has indicated the bridges were added to provide better connections to the shared amenity space
- Bridges are +6.75m high from public street level, 18m and 23m in length, and are located over privately owned public space (POPS)

City Planning Issues

West Don Lands – Block 8

Proponent: Dream, Kilmer, Tricon Design Team: architectsAlliance, Cobe Review Stage: Detailed Design

Elevated Pedestrian Bridges:

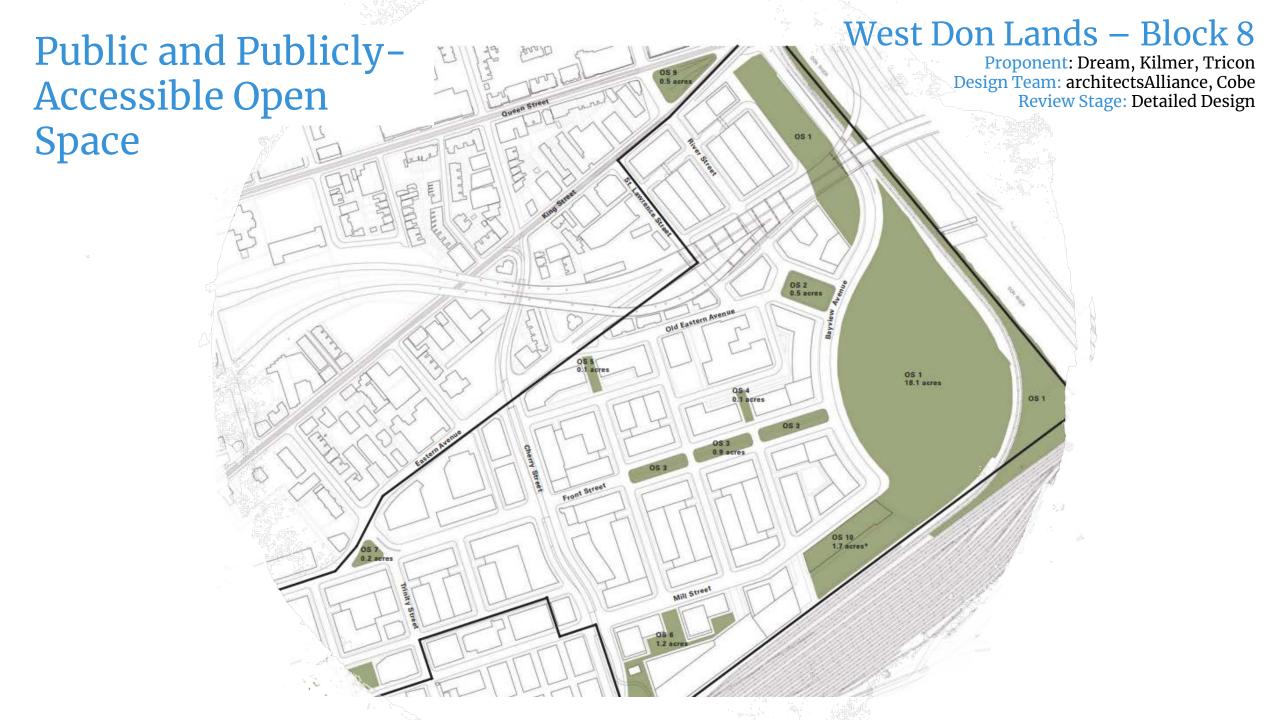
- Views, shadows, perching, ice & snow
- Most often reserved for civic uses such as hospitals, etc.
- Separates functions

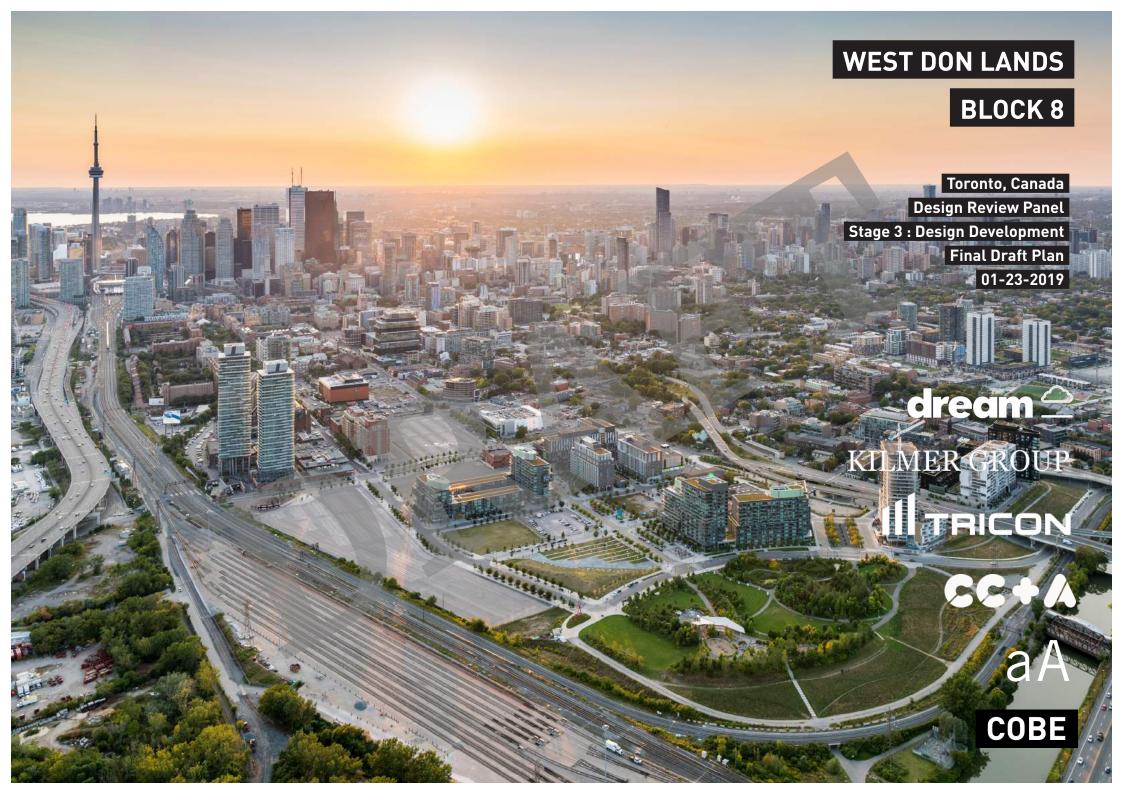
Alignment of Building 8A & 8B with Tank House Lane:

- Maintains a visual connection to and from the Distillery district
- The conceptual massing in the Precinct Plan show an alignment between the buildings on the north side of Tank House Lane on both sides of Cherry Street
- Pinching and reduction of the envisioned open space system
- Undulating facades can be achieved without compromising the intended alignment

Historic Cherry Street Switching Tower:

- Seamless integration with the re-located Tower on Block 20
- Grades, materials, shared access
- Future coordination with City and Metrolinx planned





Contents

- 1. DRP 2 Issues / Comments
- 2. Design Status
- 3. Facade Materiality
- 4. Landscape
- 5. Sustainability
- 6. Appendix

Issues / Comments DRP 2

DRP#2 ISSUES IDENTIFICATION RESPONSE

SEPTEMBER 26, 2018

CONSENSUS COMMENTS

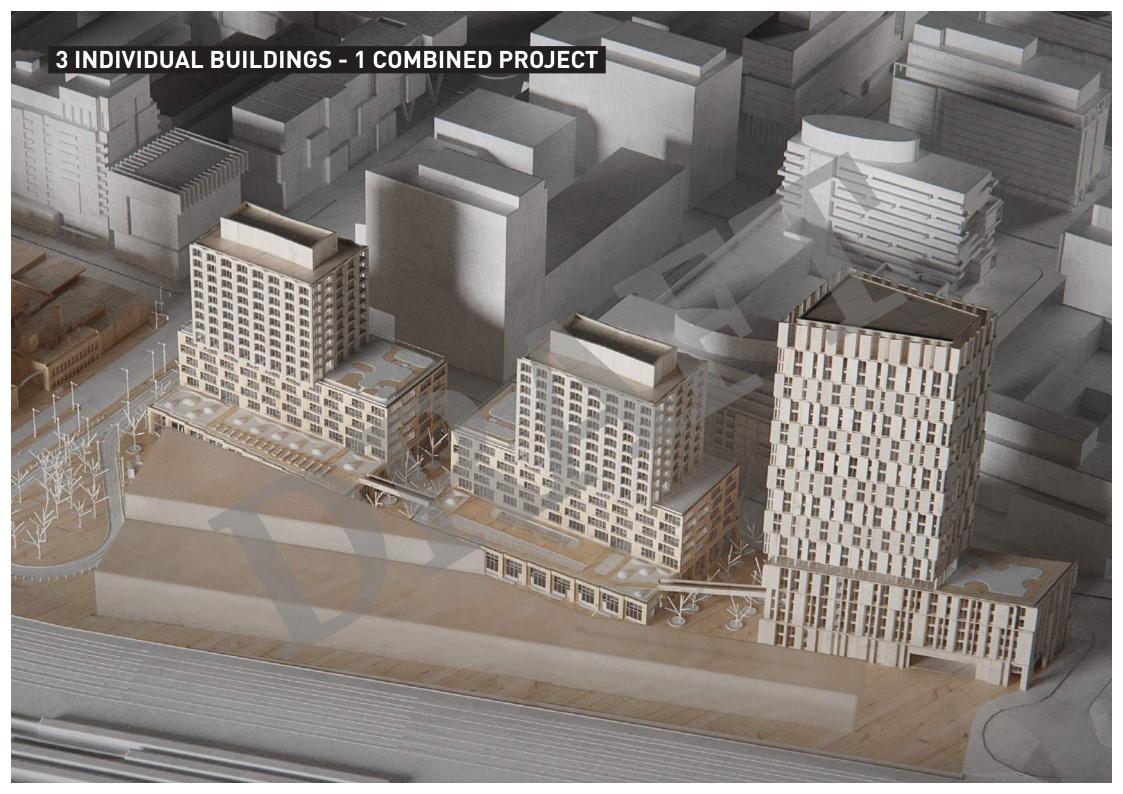
- 1. Integration of market and affordable units is very positive.
- 2. Minimizing loading access to one location is supported.
- 3. Continuity of the public realm network is strong.
- 4. The usability and accessibility of the podium amenities is successful.
- 5. Water feature may not be worth pursuing given the maintenance required.
- 6. Do not extend the retail spine from Tank House Lane along the laneway but focus it on Front Street. A small amount of retail related to the streetcar loop should be explored.
- 7. The use of materials in the public realm requires further refinement.

Design Status

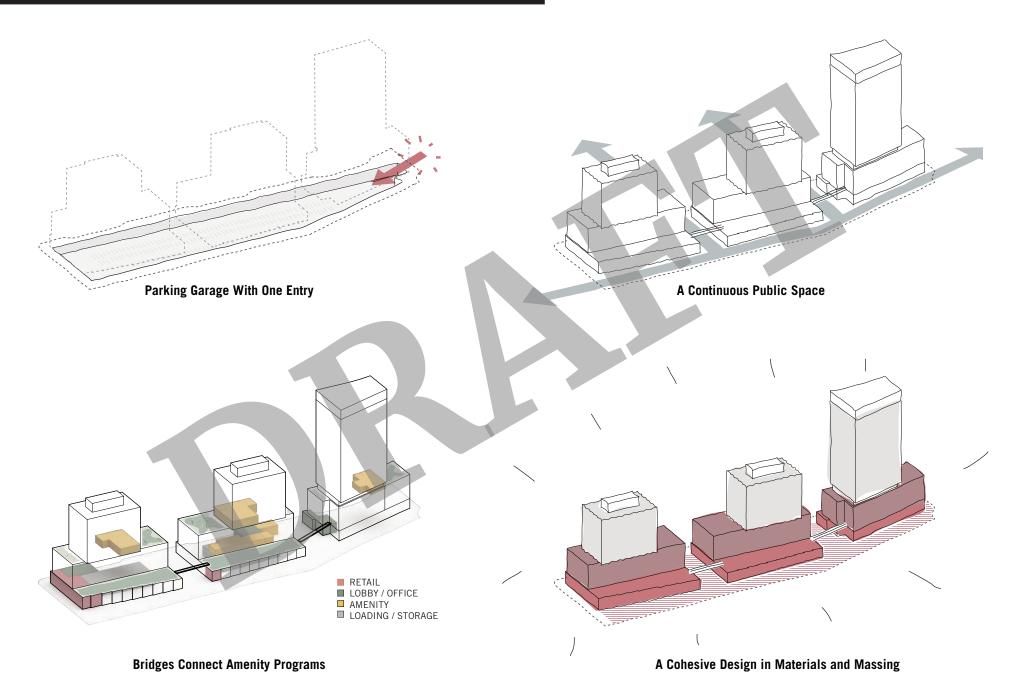


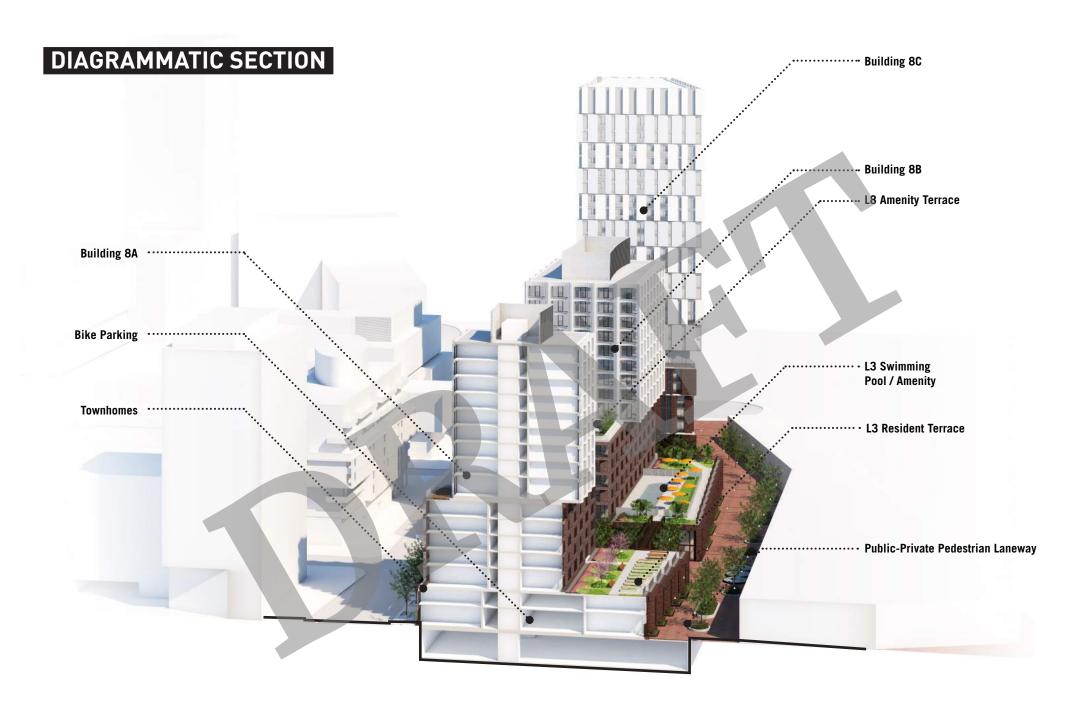
MASSING CONCEPT TAKING INSPIRATION FROM THE NEIGHBORHOOD



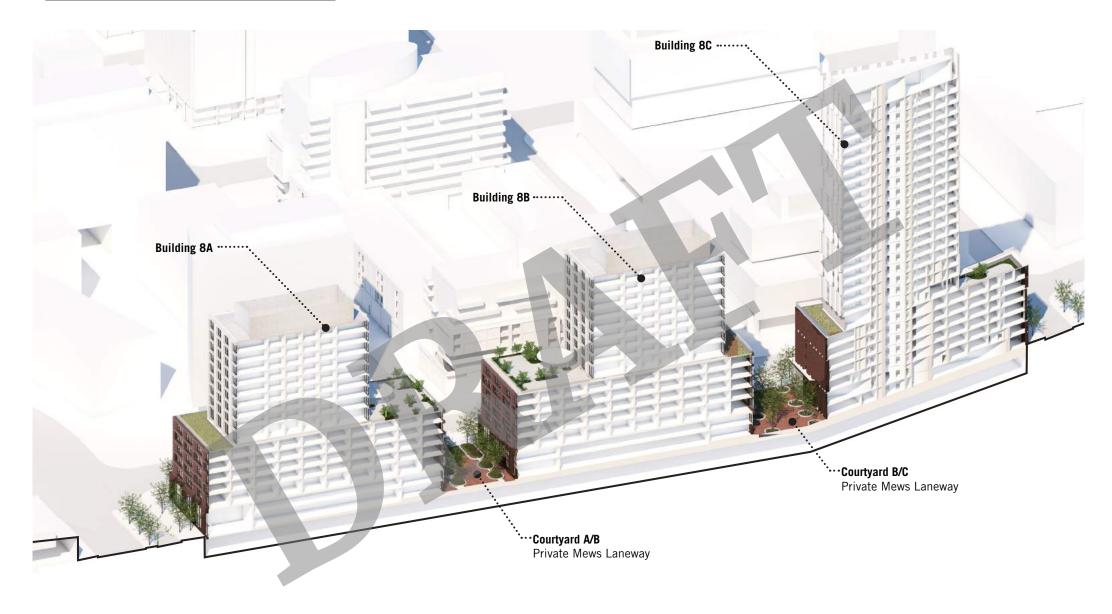


3 INDIVIDUAL BUILDINGS - 1 COMBINED PROJECT



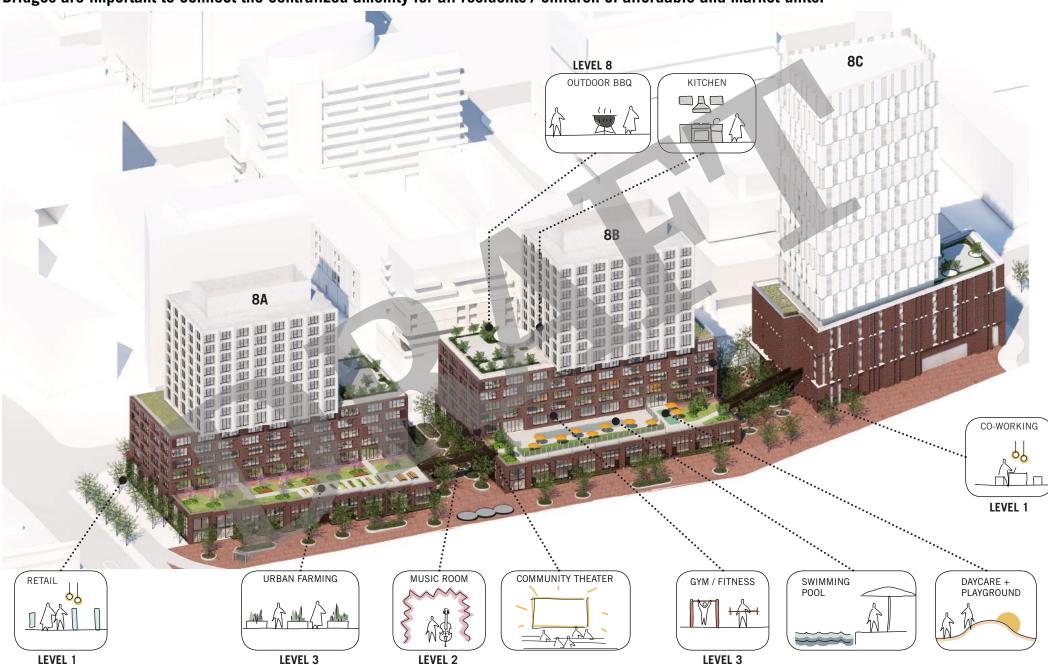


DIAGRAMMATIC SECTION



CENTRALIZED AMENITIES

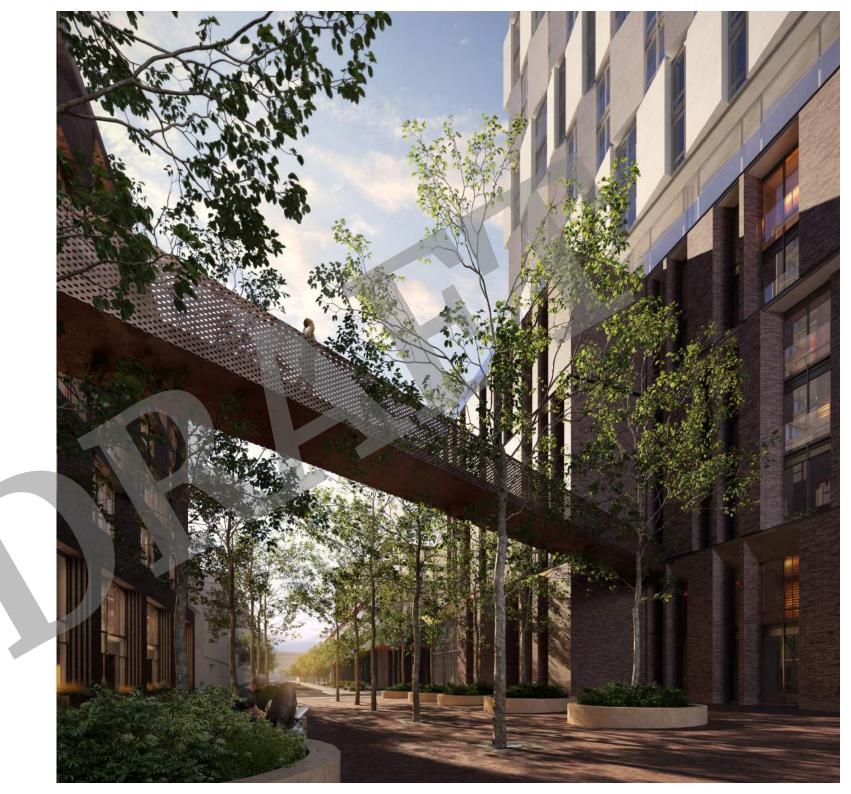
Bridges are important to connect the centralized amenity for all residents / children of affordable and market units.



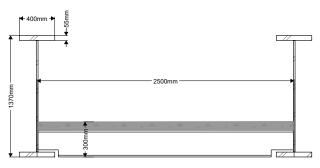
COOPERAGE ST LOOKING NORTH



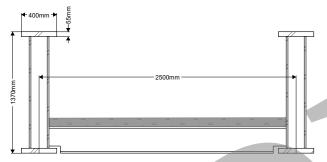
ROLLING MILLS LOOKING NORTH



BRIDGE DESIGN DETAILS



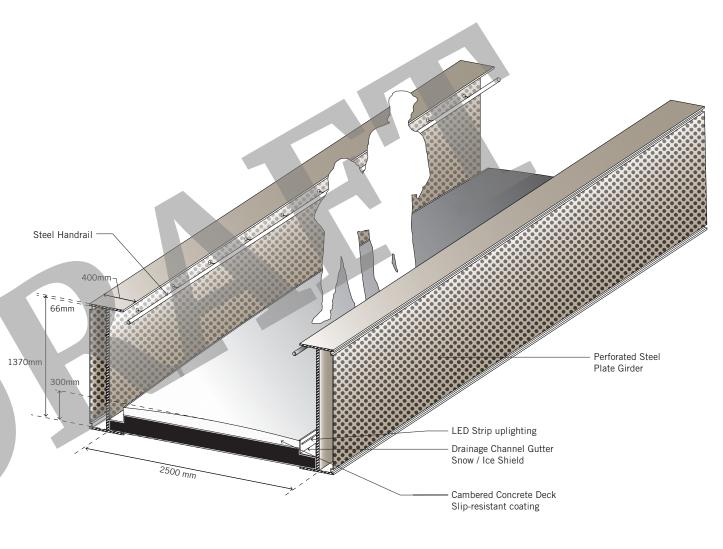
Perforated Steel Plate Girder Option Single Web



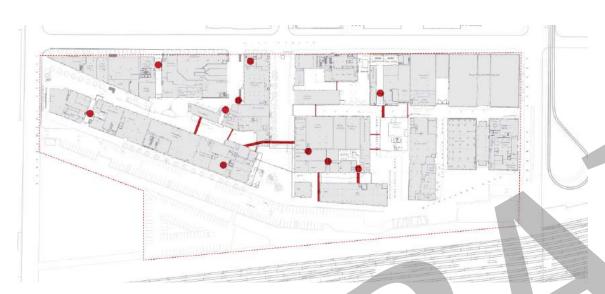
Perforated Steel Plate Girder Option

<u>Double Web</u>





DISTILLERY DISTRICT

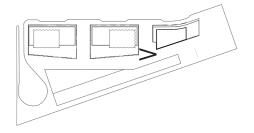


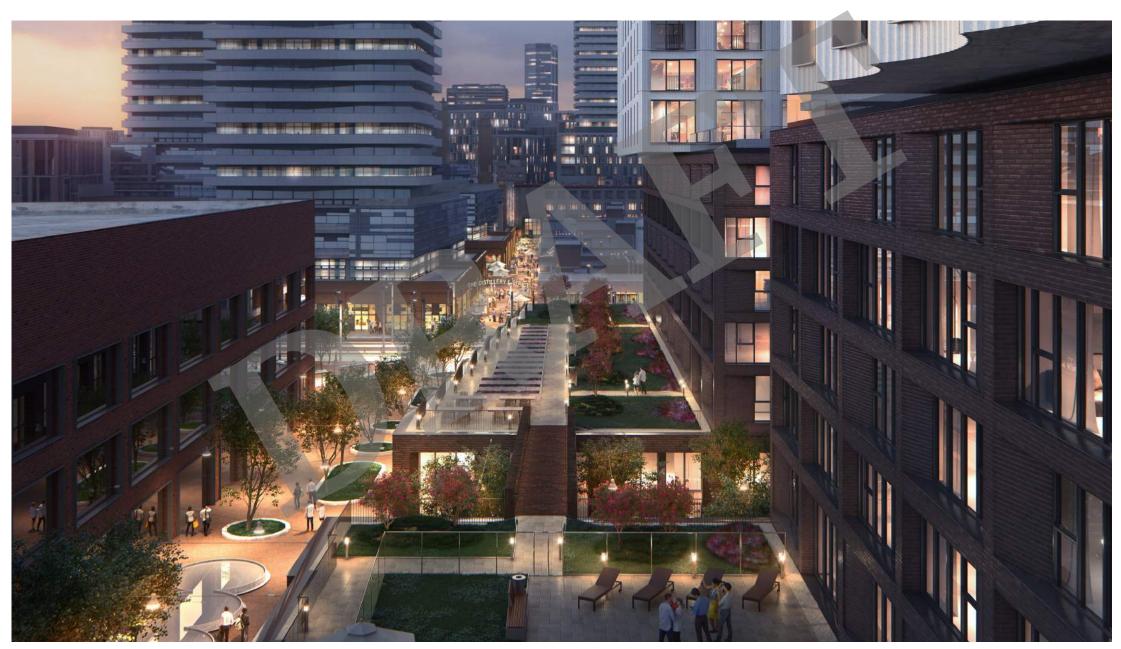


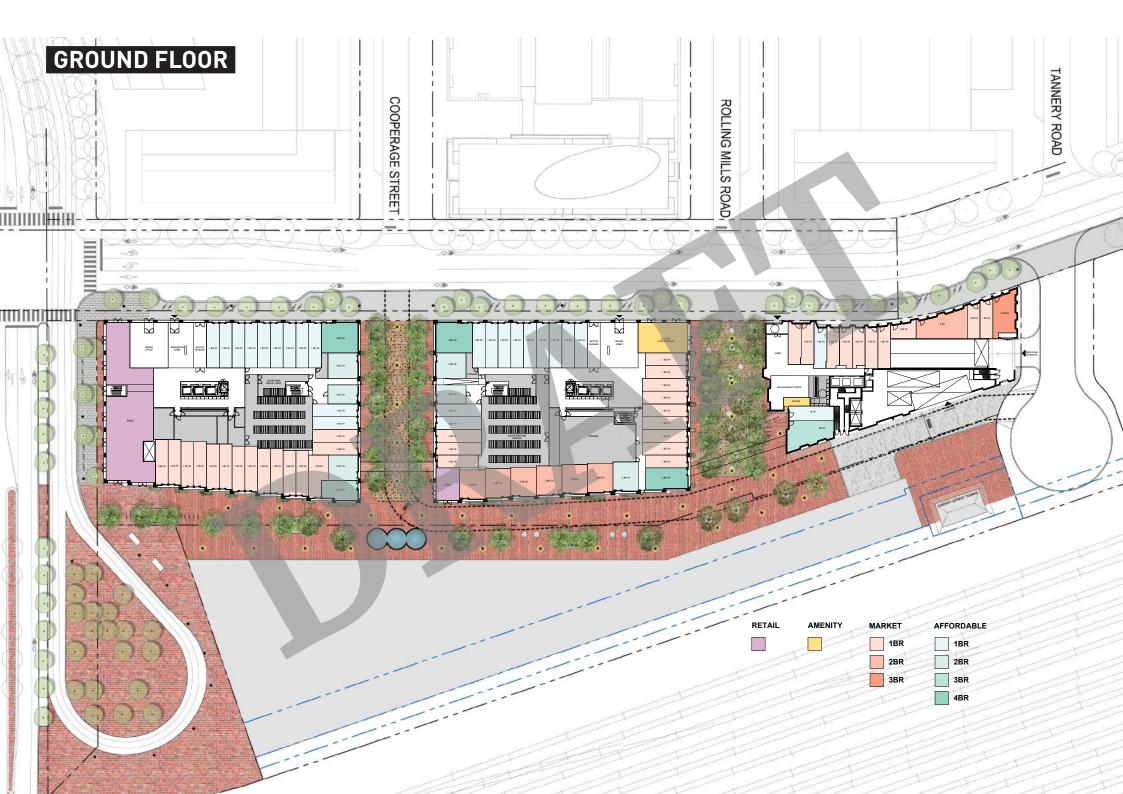




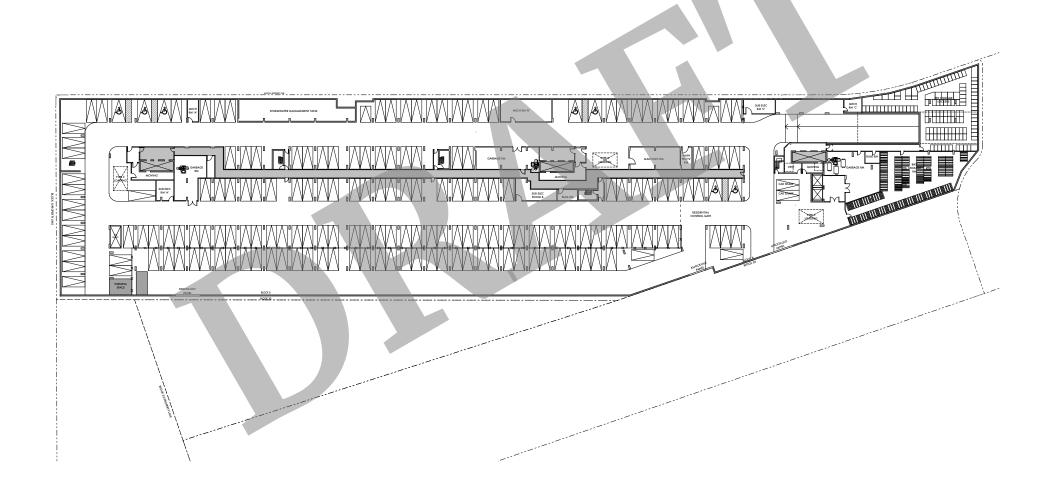
AERIAL VIEW LOOKING SOUTH 8A / 8B BRIDGE CONNECTION







L-PARKING 8A, 8B, 8C



FLOOR PLANS







LEVEL 3 AMENITY

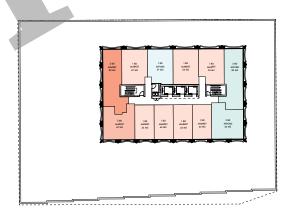






LEVEL 8 AMENITY

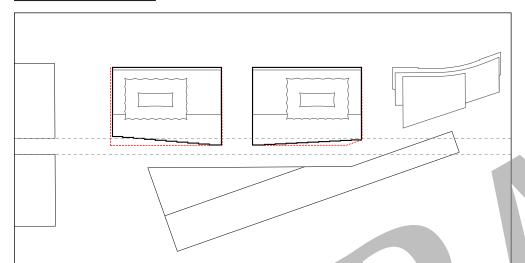




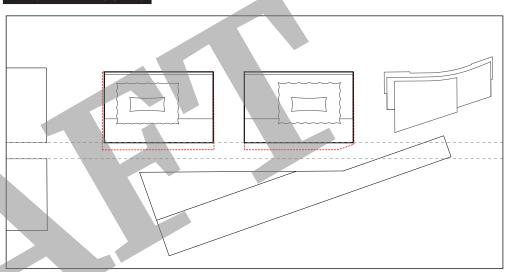


TANK HOUSE LANE ALIGNMENT

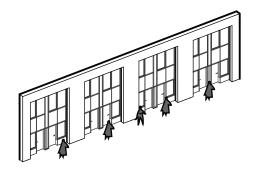
CURRENT DESIGN



ALIGNED MASSING

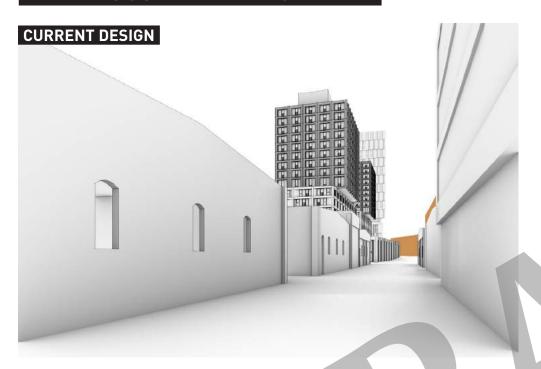


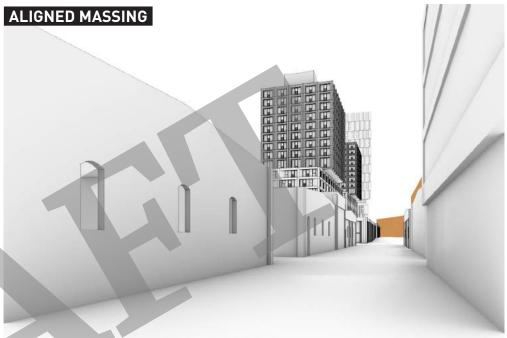






TANK HOUSE LANE ALIGNMENT

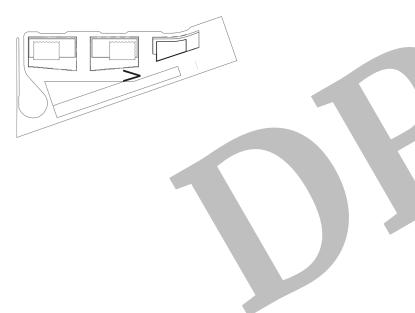








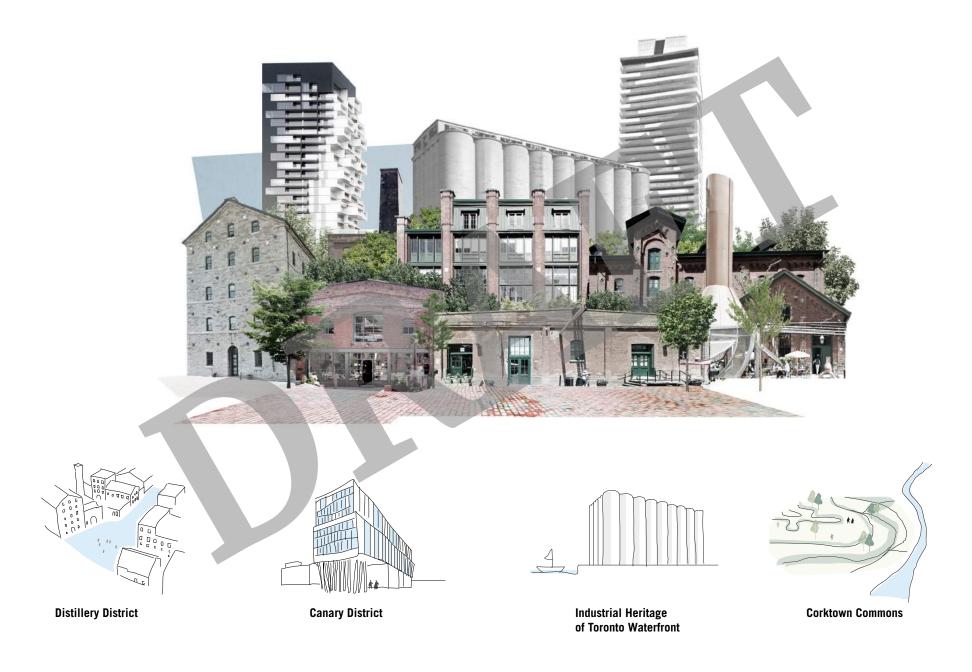
TANKHOUSE LANE



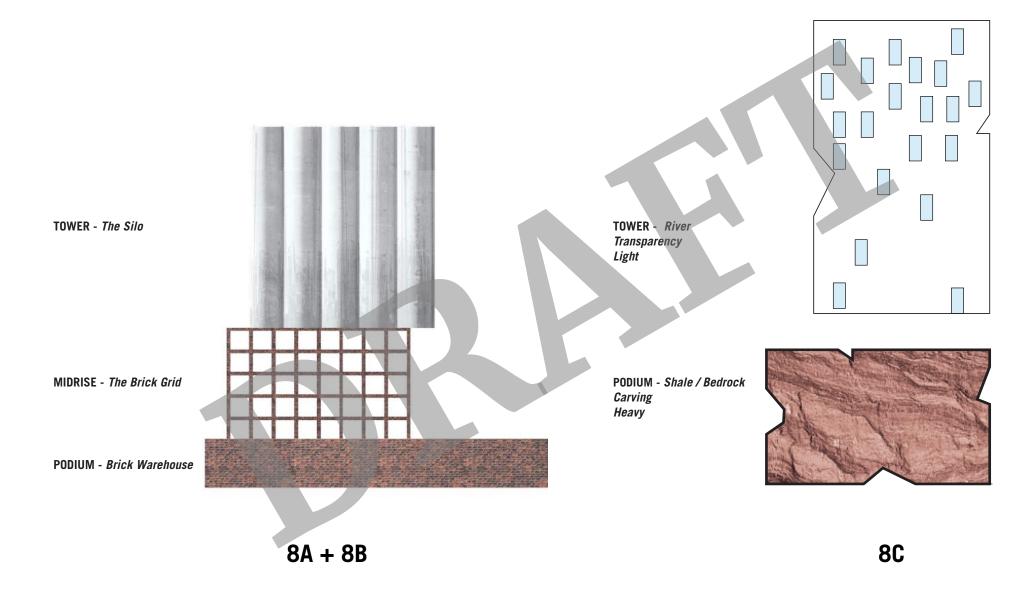


Facade Materiality

A VIBRANT ARCHITECTURAL NEIGHBORHOOD INSPIRATIONAL COLLAGE

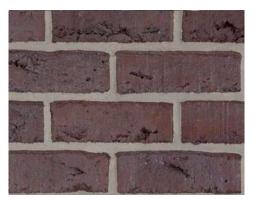


MATERIAL CONCEPT 8A/8B/8C



MATERIALS, COLOR AND FINISH SAMPLES

BASE - 8A / 8B MEDIUM IRONSPOT BRICK



MID-RISE - 8A/8B/8C + BASE - 8C MEDIUM IRONSPOT SMOOTH BRICK



TOWER - 8A / 8B SANDBLASTED PRECAST CONCRETE



TOWER - 8C SANDBLASTED PRECAST CONCRETE













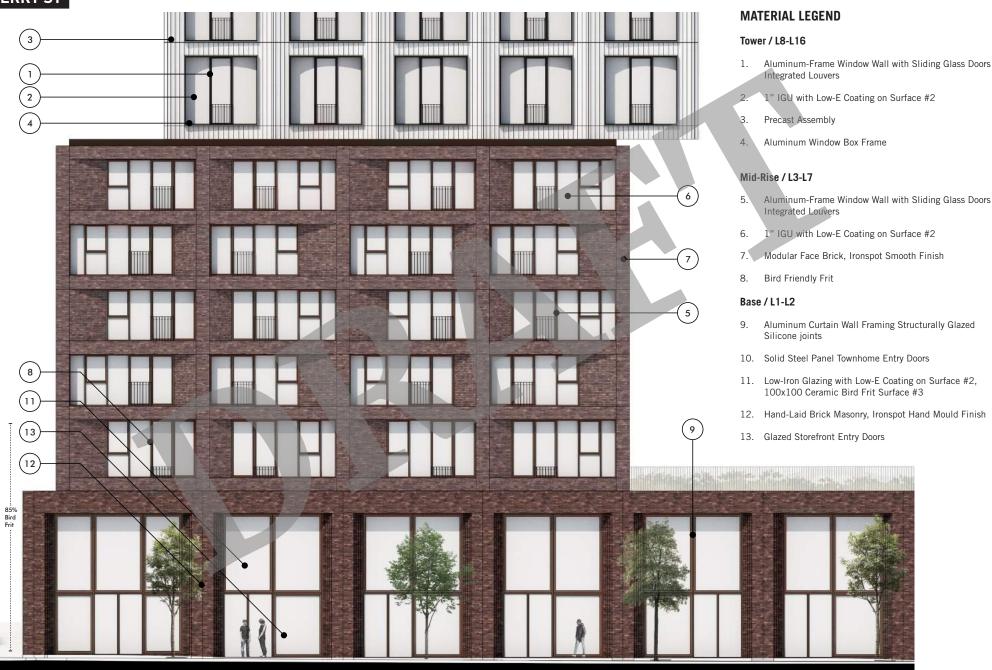








ENLARGED FACADE ELEVATION CHERRY ST

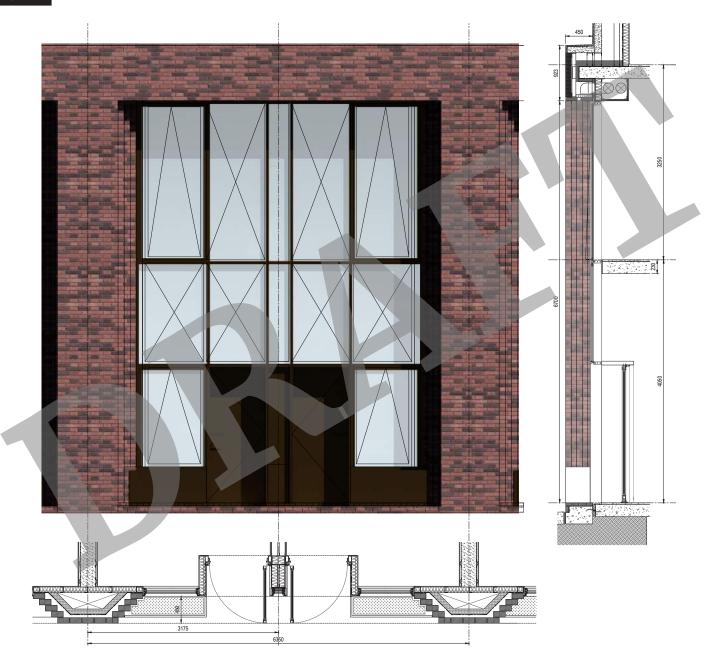




PODIUM - BRICK WAREHOUSE BLOCK 8A + 8B LEVELS 1-2



PODIUM - BRICK WAREHOUSE BLOCK 8A + 8B LEVELS 1-2



MIDRISE - BRICK GRID BLOCK 8A + 8B LEVELS 3-7



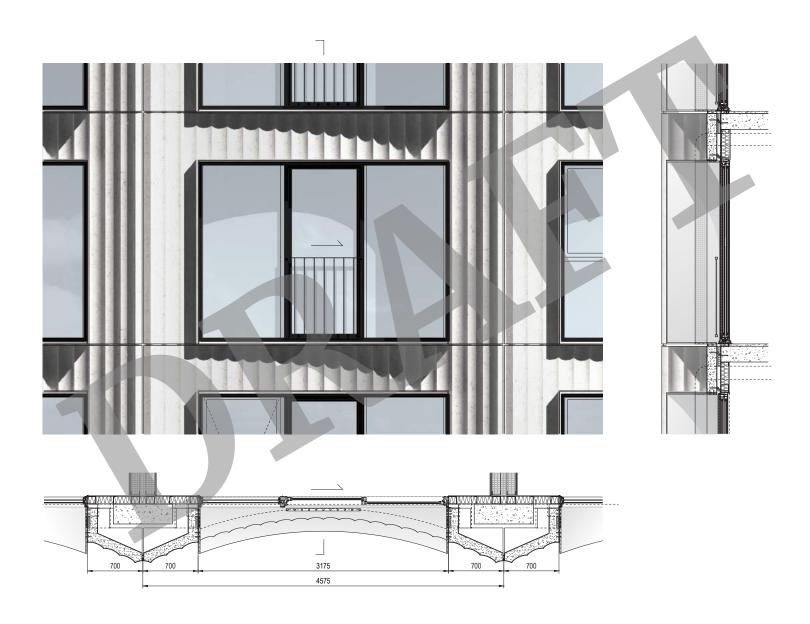
MIDRISE - BRICK GRID BLOCK 8A and 8B LEVELS 3-7



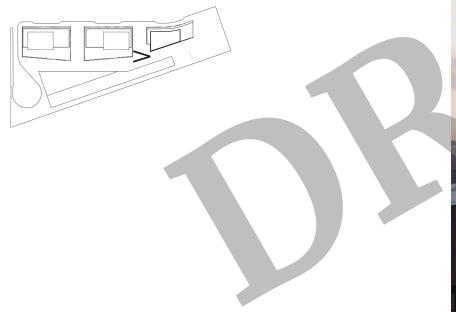
TOWER - THE SILO BLOCK 8A and 8B LEVELS 8-16



TOWER - THE SILO BLOCK 8A and 8B LEVELS 8-16

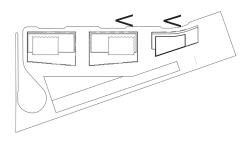


AERIAL VIEW LOOKING SOUTH 8A / 8B PODIUM

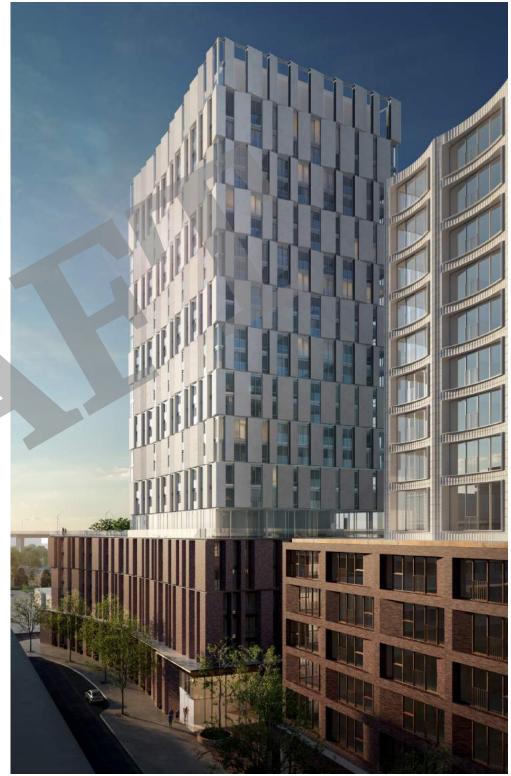


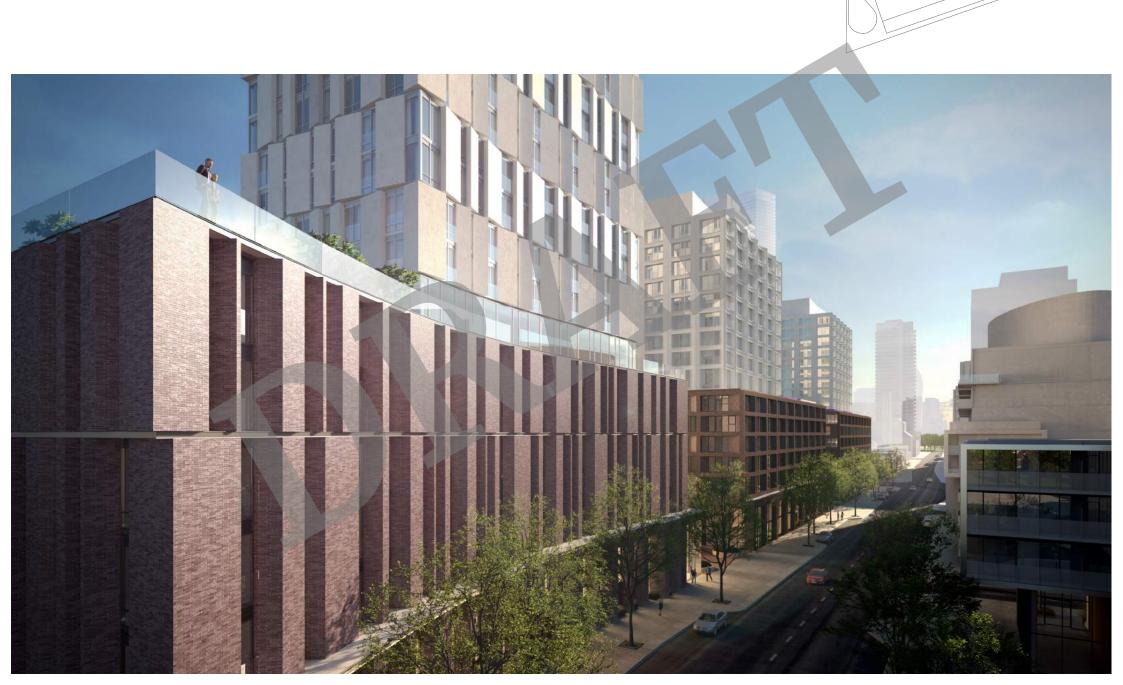


BLOCK 8C LOOKING EAST ON MILL









GROUND FLOOR ELEVATIONS BLOCK 8C

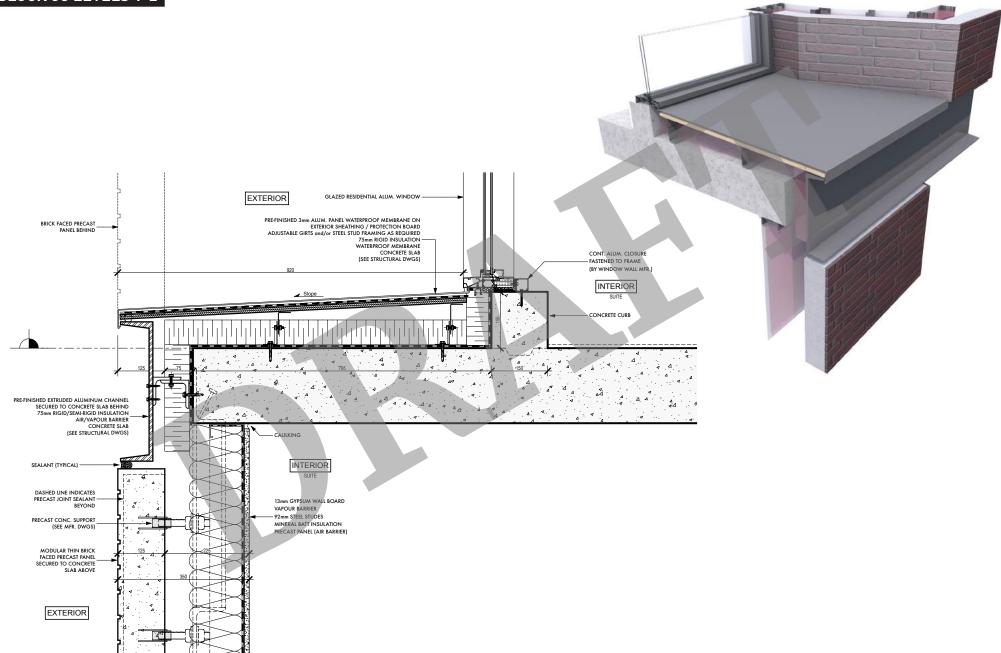


- 1 Glazed Curtain Wall
- (2) Hand-laid Brick Masonry
- 3 Prefinished Aluminum Panel
- (4) Glazed Balcony Guard
- Aluminum Frame Window Wall W/ Sliding Glass Doors; Integrated Louvers
- **6** Aluminum Feature

PODIUM TOWNHOUSE BLOCK 8C LEVELS 1-2

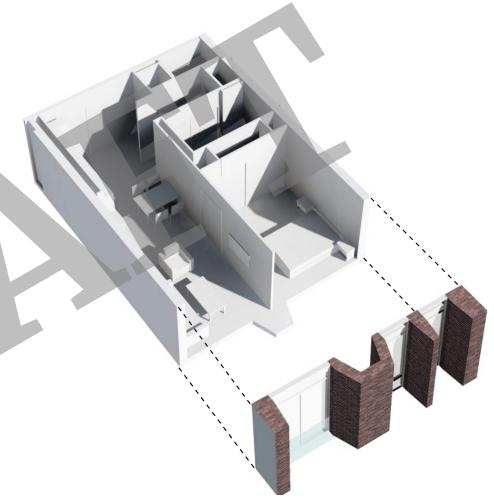


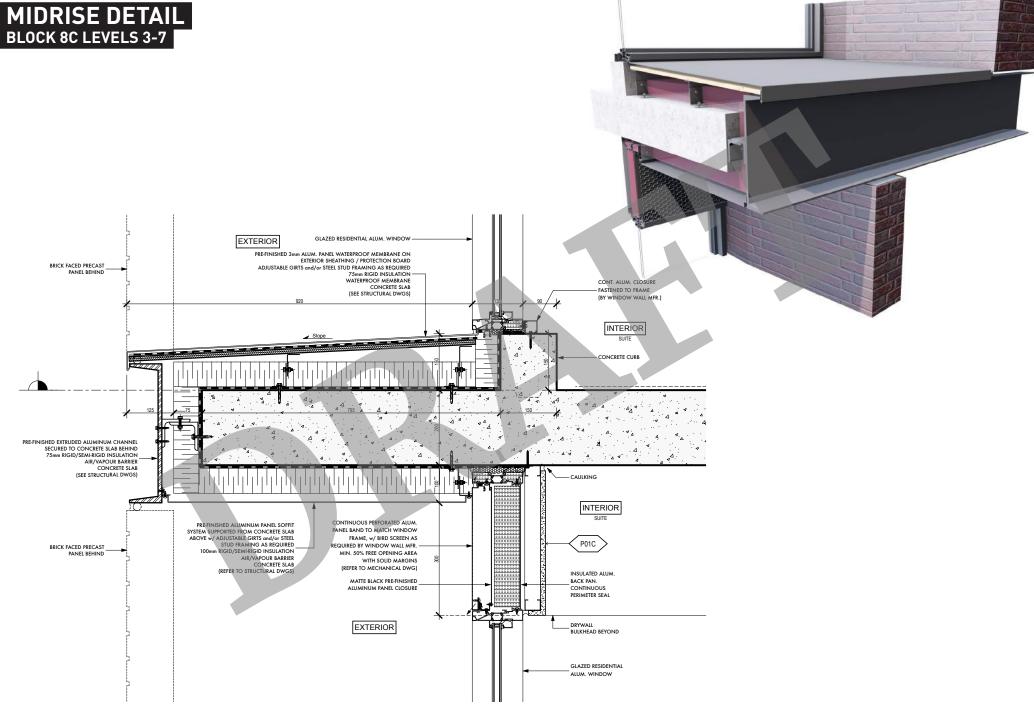
PODIUM DETAIL BLOCK 8C LEVELS 1-2



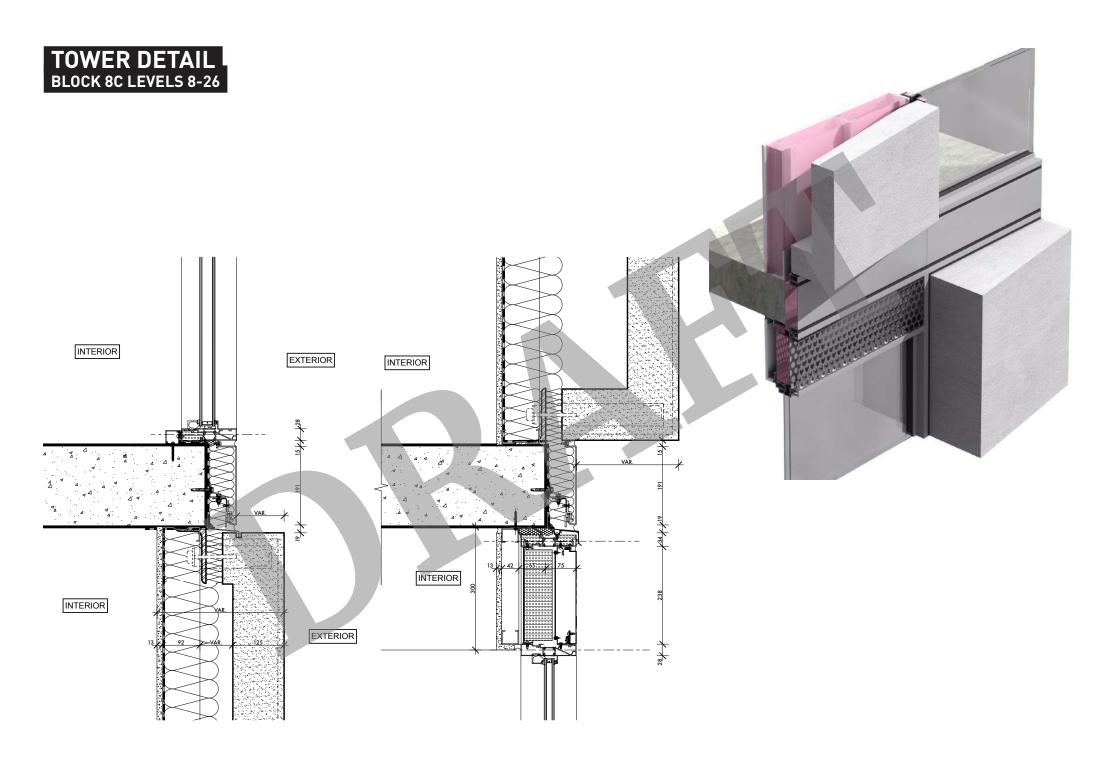




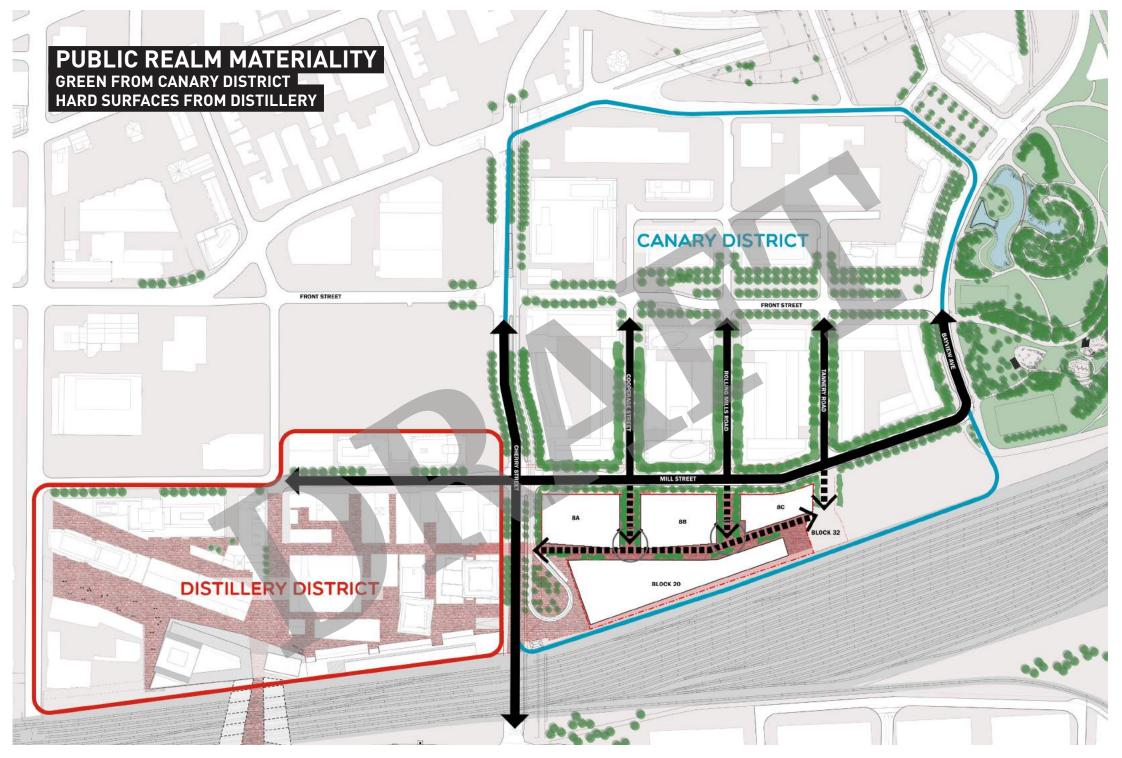








Landscape





PHASE 1 - GROUND LEVEL HARD SURFACES + TREES



GROUND FLOOR AND PUBLIC REALM SECTIONAL RELATIONSHIPS



Tram Loop Plaza Retail



Cherry Street Retail



Mill Street Townhomes



Cooperage Street Townhomes

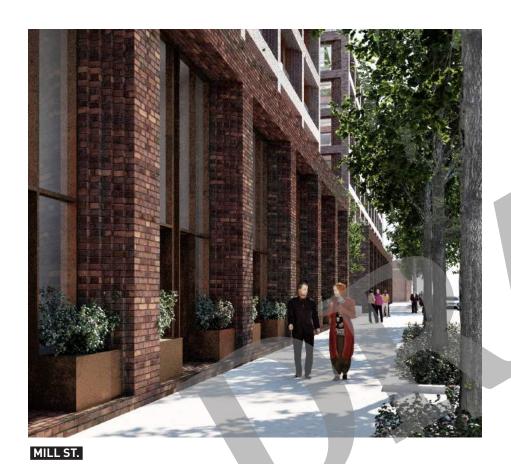


Mill Street / Rolling Mills Residential Entrance



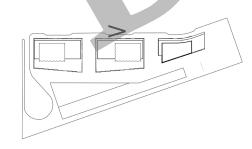
8C Mill Street Townhomes

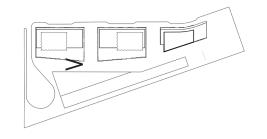
EDGE CONDITION - TOWNHOUSES



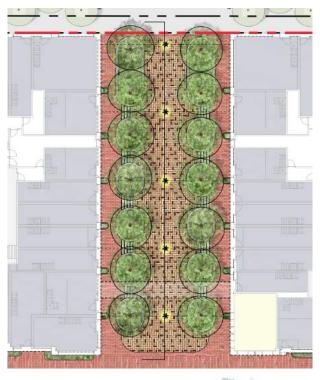


TANKHOUSE LANE





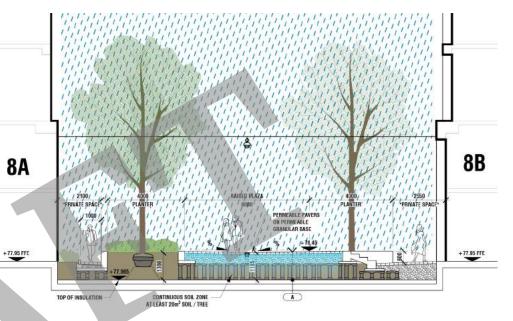
COURTYARD A/B



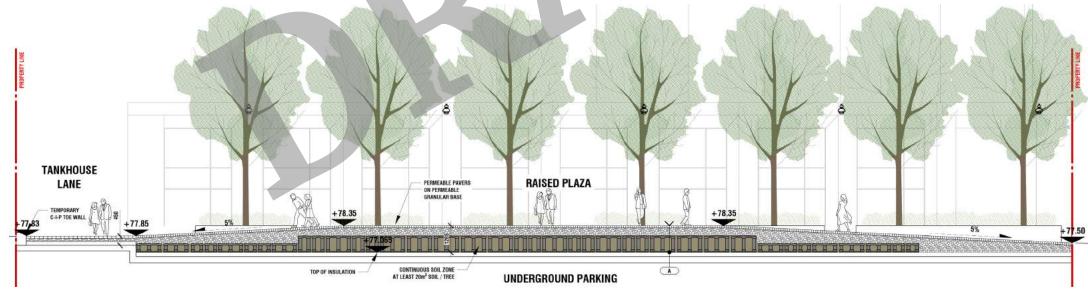


SUSTAINABILITY FEATURES

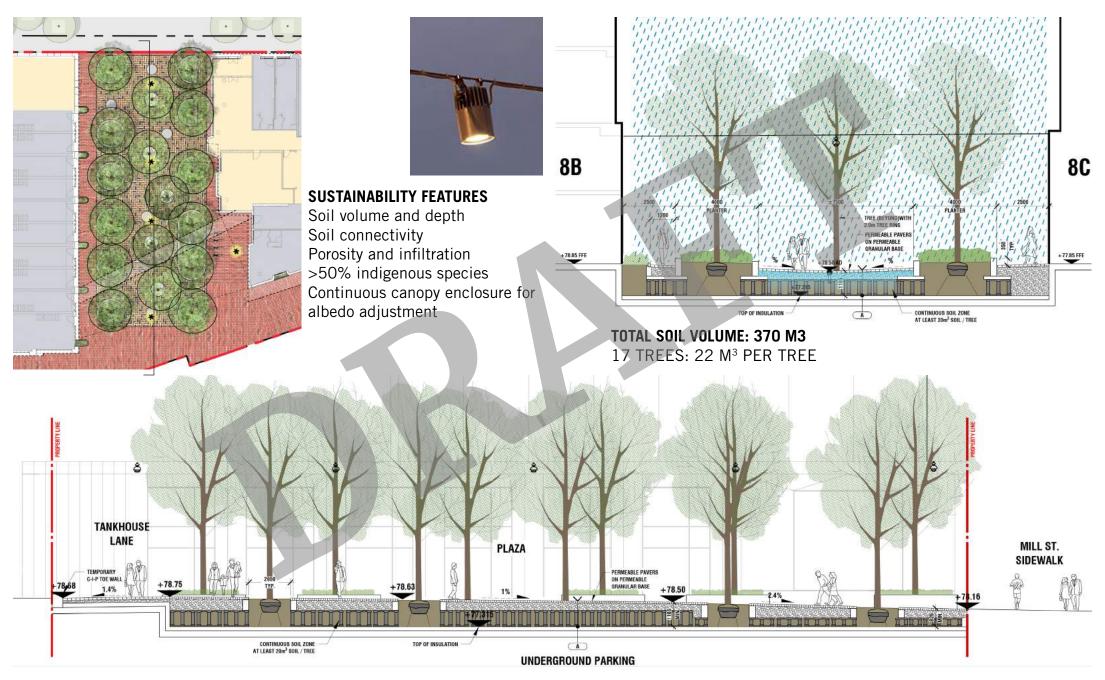
Soil volume and depth
Soil connectivity
Porosity and infiltration
>50% indigenous species
Continuous canopy enclosure for
albedo adjustment



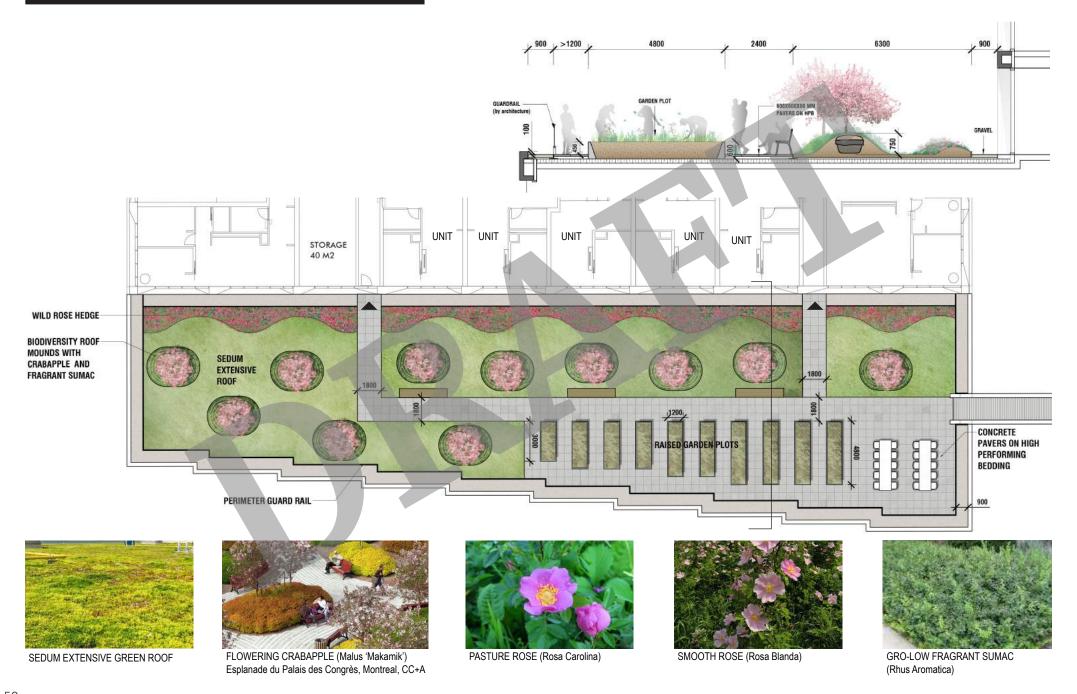
TOTAL SOIL VOLUME: 395 M³
14 TREES: 28 M³ PER TREE

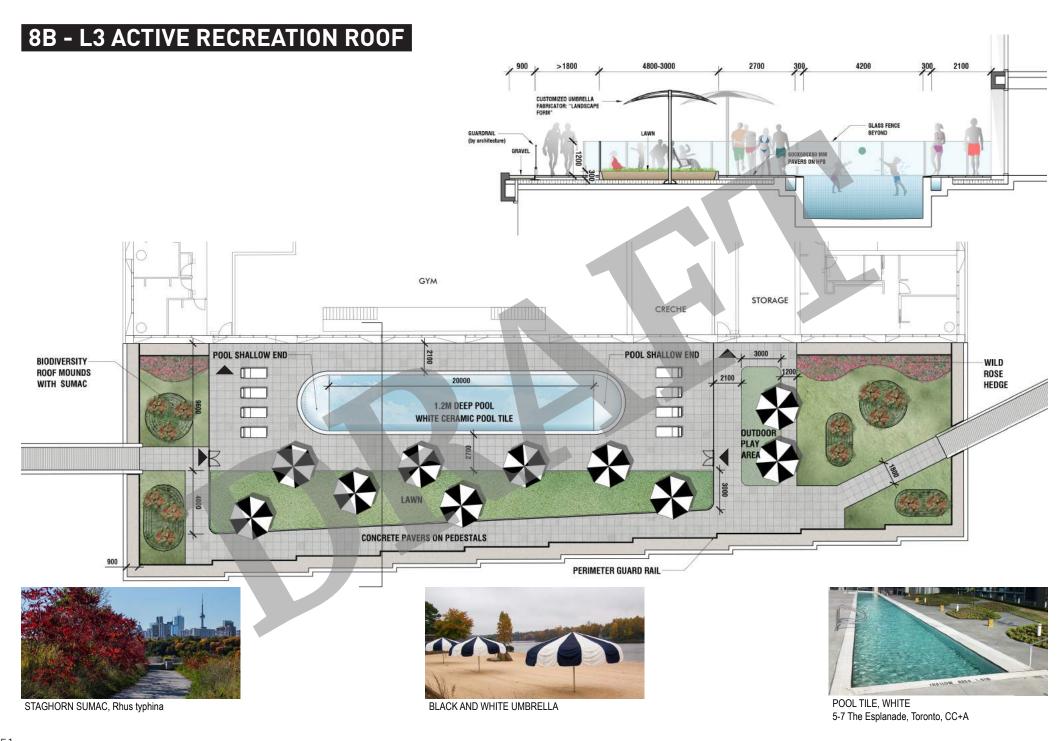


COURTYARD B/C



8A - L3 COMMUNITY GARDEN ROOF





8A - L3 COMMUNITY GARDEN ROOF



8A + 8B AL FRESCO LOUNGE ROOF



8C AL FRESCO LOUNGE ROOF OUTDOOR KITCHEN & DINNING (1 BBQ) 9M DIAMETER WHITE PERGOLA SEDUM ROOF OUTDOOR LIVING ROOM 700 OUTDOOR KITCHEN & DINNING (1 BBQ) VARIES VARIES

8B AL FRESCO LOUNGE ROOF



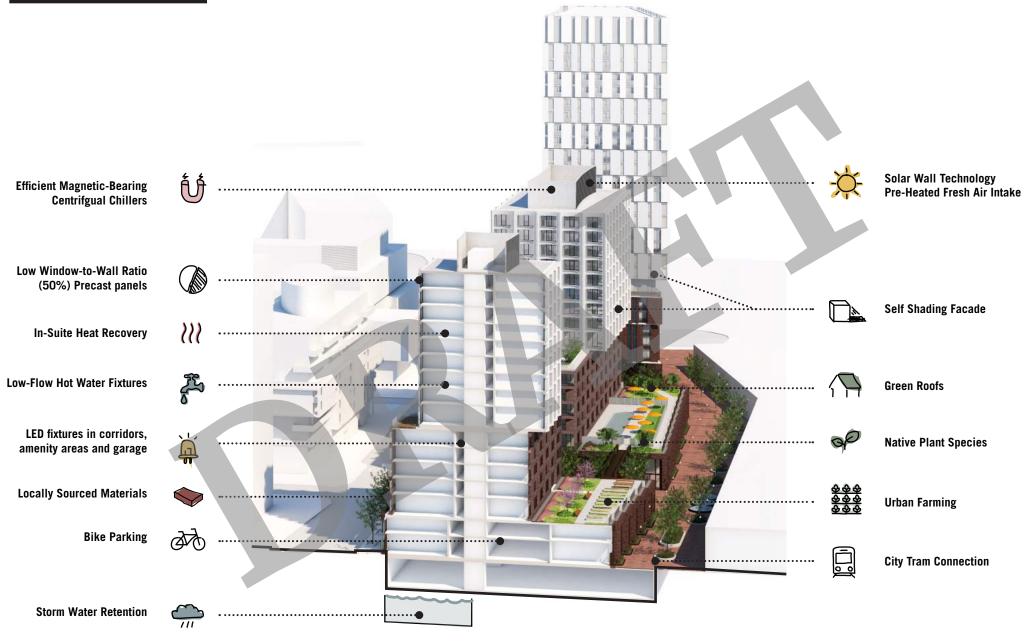
8B AMENITY DECK AERIAL



8B AMENITY DECK PERSPECTIVE

Sustainability

SUSTAINABILITY



ENERGY PERFORMANCE - INITIAL GOALS VS. CURRENT ACHIEVEMENTS

Currently meeting or exceeding all of the initial energy goals we established at the beginning of the project:

Program / Standard	Requirement / Initial Goal	Current Site-wide Performance
LEED v4 NC, Gold	At least a 5% cost improvement over NECB 2011	Expecting a 26% - 30% cost improvement
СМНС	15% better than NECB 2015	29% better than NECB 2015
TGS Tier 1	150/ hottor their NECD 2015 CD 10 2017	270/ hottouthou NECD 2045
OBC's SB-10	15% better than NECB 2015 SB-10 2017	27% better than NECB 2015
Energy Use Intensity	Max 170 kWh/m2/yr	150 kWh/m2/yr
GHG Intensity	Max 20 kgCO2e/m2/yr	18 kgCO2e/m2/yr

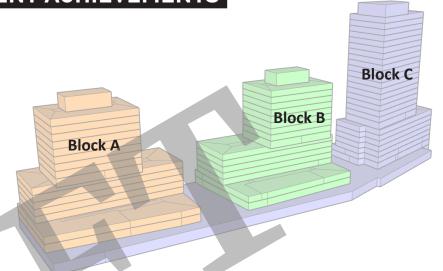
Current energy savings are primarily the result of:

- Envelope: relatively low window to wall ratio (~50%), and precast wall panels instead of window wall with spandrel panels
- High-performance glazing selection: Double-glazed IGUs with Low-e coating, argon gas, and thermally broken frames
- **Green roof** with enhanced thermal performance (R-30)
- In-suite heat recovery ventilation units with at least 55% sensible heat recovery effectiveness
- Variable speed drives in primary pumps and fans
- Highly efficient magnetic-bearing centrifugal chillers
- Condensing boilers for space & DHW heating, including for heating corridor rooftop units
- Low-flow hot water fixtures
- High-efficacy LED fixtures in at least corridors, amenity areas, and the parking garage

ENERGY PERFORMANCE - INITIAL GOALS VS. CURRENT ACHIEVEMENTS

A breakdown by building has also been completed to get a higher resolution of energy end use.

The team is also currently undergoing feasibility assessments for renewable energy systems, including SolarWall and Enwave, described on the following slides.



End Use Breakdown
(ekWh)
Space Heating
Space Cooling
Lighting
Fans
Pumps
Domestic Hot Water
Receptacle

Total Energy (ekWh)
EUI (ekWh/m2/year)
Peak Electricity (kW)
GHGi (kg CO2e/m2/year)
TEDI (ekWh/m2/year)

	Block A	
SB-10 Reference	Proposed	% Better
1,699,929	1,142,757	32.8%
213,011	216,097	-1.4%
390,118	367,575	5.8%
497,091	356,678	28.2%
45,235	18,206	59.8%
913,921	587,547	35.7%
351,517	351,517	0.0%

4,110,822	3,040,377	26.0%
199.8	147.8	26.0%
459.8	423.2	8.0%
26.3	18.2	31.1%
72.1	50.1	30.5%

	Block B	
SB-10 Reference	Proposed	% Better
1,663,636	1,097,083	34.1%
212,359	185,802	12.5%
372,885	352,205	5.5%
501,556	345,998	31.0%
44,551	16,418	63.1%
921,716	592,557	35.7%
346,023	346,023	0.0%

4,062,726	2,936,085	27.7%
194.6	140.6	27.7%
453.2	402.3	11.2%
25.7	17.4	32.3%
69.5	47.4	31.9%

Block C & Parking					
SB-10 Reference	Proposed	% Better			
2,328,567	1,537,303	34.0%			
270,956	244,889	9.6%			
577,384	540,361	6.4%			
749,504	546,826	27.0%			
61,840	22,307	63.9%			
1,149,677	739,100	35.7%			
434,624	434,624	0.0%			

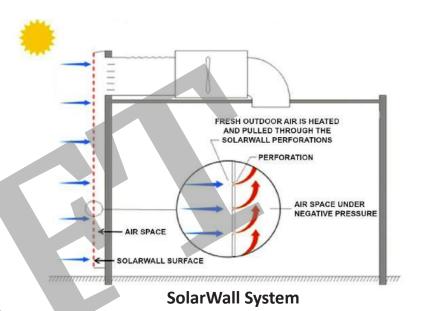
5,572,552	4,065,408	27.0%
217.8	158.9	27.0%
632.1	589.3	6.8%
28.4	19.3	31.9%
79.5	54.2	31.9%

SOLAR WALL - BLOCK 8A & 8B

The feasibility of installing SolarWall systems to preheat the corridor ventilation using solar energy is being explored. The mechanical penthouses of Blocks 8A and 8B are under consideration for the solar collector locations.

While the energy and cost-saving potential of the SolarWall system is dependent on the size of collector and the volume of air supplied to the corridors, the feasibility study suggests:

- Potential energy reduction of 5%-7% below current proposed energy use for each of Blocks 8A and 8B a 3% site-wide energy reduction
- Potential for additional 1 LEED point



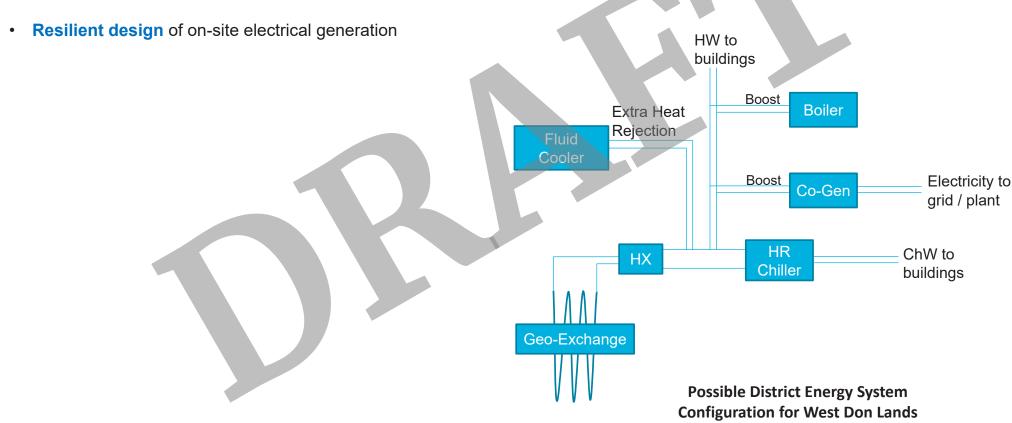
SolarWall Systems

Possible SolarWall Collector Location

ENWAVE POSSIBILITIES

The feasibility of a district energy system for the West Don Lands is being assessed in collaboration with Enwave. For Block 8, this district energy system could mean:

- Shared thermal energy demand among other buildings in the district, reducing overall energy use
- Reduced carbon emissions through heat pump-based solution



PRELIMINARY LEED SCORECARD

Total Available Points: 110
Points Required for Gold: 60
Points Currently Targeted: 66

D Y ? N

Ir	itegr	ated	Des	sign Process (IP)
	1			IPc1: Integrative Process (1 pt)
	1			Total Integrated Design Process (IP)

13	2	1	Total Location and Transportation (LT)
1			LTc8: Green Vehicles (1 pt)
		1	LTc7: Reduced Parking Footprint (1 pt)
1			LTc6: Bicycle Facilities (1 pt)
3	2		LTc5: Access to Quality Transit (1-5 pts)
5			LTc4: Surrounding Density and Diverse Uses (1-5 pts)
2			LTc3: High Priority Site (2 pts)
1			LTc2: Sensitive Land Protection (1 pt)

Υ	nabl		SSp1: Construction Activity Pollution Prevention
1			SSc1: Site Assessment (1 pt)
		2	SSc2: Protect or Restore Habitat (2 pts)
	1		SSc3: Open Space (1 pt)
2	1		SSc4: Rainwater Management (2-3 pts)
2			SSc5: Heat Island Reduction (1-2 pts)
1			SSc6: Light Pollution Reduction
6	2	2	Total Sustainable Sites (SS)

Re	gior	ity (RP)		
	2	2		RPc1.1-1.4: Regional Priority (1-4 pts)
	2	2		Total Regional Priority (RP)

D Y ? N

20	5	8	Total Energy & Atmosphere (EA)
	2		EAc7: Green Power and Carbon Offsets (1-2 pts)
1			EAc6: Enhanced Refrigerant Management
	1	2	EAc5: Renewable Energy Production (1-3 pts)
		2	EAc4: Demand Response (2 pts)
1			EAc3: Advanced Energy Metering
12	2	4	EAc2: Optimize Energy Performance (1-18 pts)
6			EAc1: Enhanced Commissioning (2-6 pts)
Υ			EAp4: Fundamental Refrigerant Management
Y			EAp3: Building-Level Energy Metering
Υ			EAp2: Minimum Energy Performance
Y			EAp1: Fundamental Commissioning and Verification

W	ater	Effic	cien	cy (WE)
	Υ			WEp1: Outdoor Water Use Reduction
	Y			WEp2: Indoor Water Use Reduction
	Y			WEp3: Building-Level Water Metering
7	2			WEc1: Outdoor Water Use Reduction (1-2 pts)
	3	1	2	WEc2: Indoor Water Use Reduction (1-6 pts)
		2		WEc3: Cooling Tower Water Use (2 pts)
	1			WEc4. Water Metering
	6	3	2	Total Water Efficiency (WE)

In	Innovation in Design (ID)						
	4	1		IDc1.1 - IDc1.5: Innovation in Design (Strategy TBD)			
	1			IDc2: LEED Accredited Professional			
	5	1		Total Innovation in Design (ID)			

Legend:

D: Documented

Y: Targeted

?: Possible / Not Yet Determined

N: Not Targeted

	Y			MRp1: Storage & Collection of Recyclables
	Υ			MRp2: Construction Waste Management Planning
		3	2	MRc1 Building Life-Cycle Impact Reduction (2-5 pts)
	1		1	MRc2: BPDO - Environmental Product Declarations (1-2 pts)
	1		1	MRc3: BPDO - Sourcing of Raw Materials (1-2 pts)
	1		1	MRc4: BPDO - Material Ingredients (2 pts)
1	2			MRc5: Construction Waste Management (2 pts)
	5	3	5	Total Materials & Resources (MR)

Ind	oor	Env	iror	nmental Quality (EQ)
	Υ			EQp1: Minimum Indoor Air Quality Performance
	Υ			EQp2: Environmental Tobacco Smoke (ETS) Control
	1	1		EQc1: Enhanced Indoor Air Quality Strategies (1-2 pts)
	2	1		EQc2: Low-Emitting Materials (1-3 pts)
	1			EQc3: Construction Indoor Air Quality Management Plan
	1	1		EQc4: Indoor Air Quality Assessment (2 pts)
	1			EQc5: Thermal Comfort
	1	1		EQc6 Interior Lighting (1-2 pts)
		2	-1	EQc7: Daylight (3 pts)
	1			EQc8: Quality Views
		1		EQc9: Acoustic Performance
	8	7	1	Total Indoor Environmental Quality (EQ)

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