Driving Parking Supply Down

The Key to Successful Urban Development

Presented by: Ralph Bond, BA Group

Urban Intensification

- Toronto is booming economically
- Sustainable Transit Oriented Development is the focus
- Parking Planning & Design is being challenged & changing

Primary Parking Challenges for Intensification

- Cost of garage versus surface parking
- Transition from suburban to urban travel patterns
- Parking Silos with little or no sharing
- Impact of Uber/Lyft/Car to Go, etc.
- Longer term impact of Autonomous Vehicles !!

Challenges Leading to

- Anxiety re the risk of overbuilding parking
- Emphasis on reducing capital cost
- Exploration of adaptive reuse of garages
- Increased desire for government to assist
- Higher investment return rates required

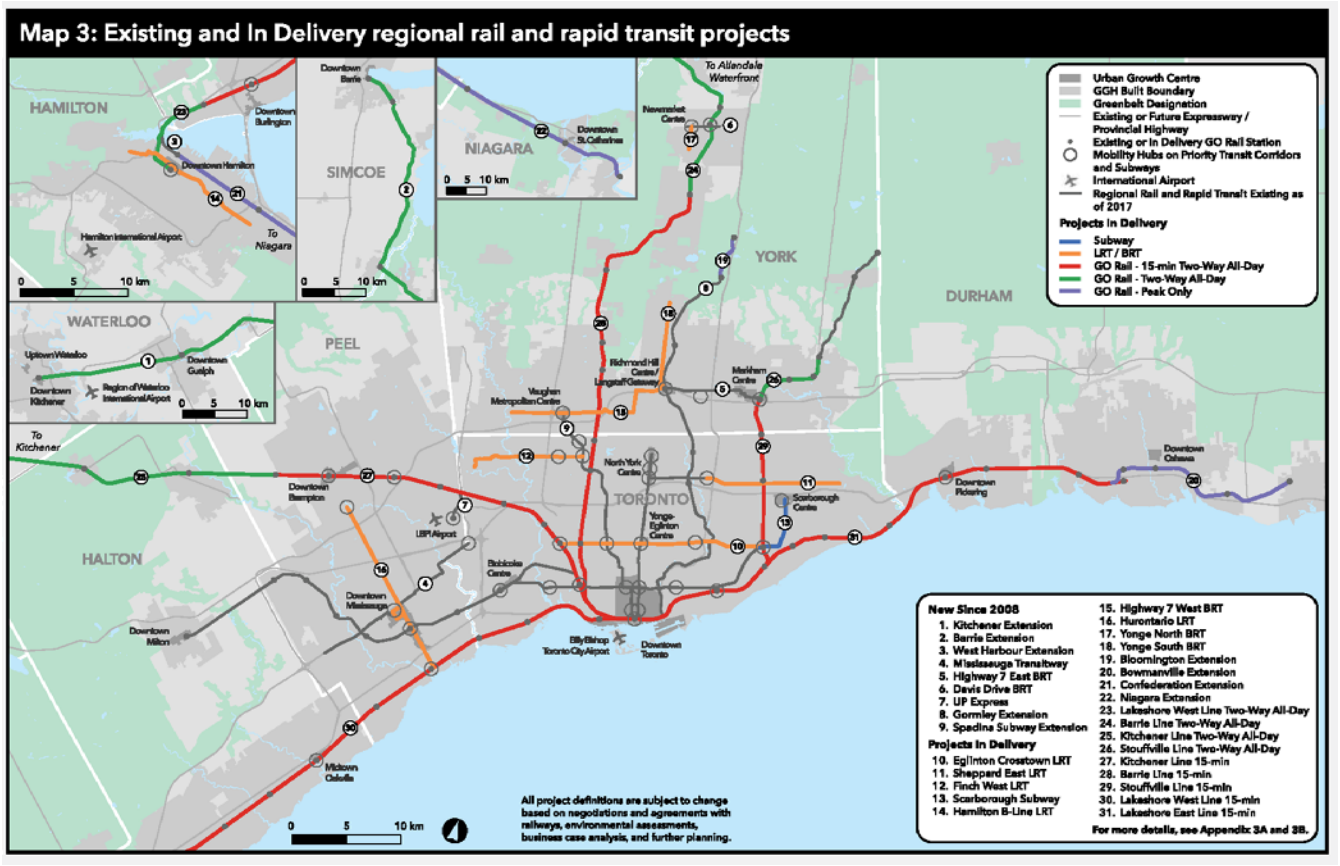
Parking Cost Reduction Options

- More above versus below ground garages
- More surface lots, less garages
- More shared parking
- Transportation Demand Management
- Just build less parking!?

Examples

- **Mississauga Downtown Core**
  - Major Mixed Use Centre & Mobility Hub

- **Vaughan Metropolitan Centre**
  - Mobility Hub Redevelopment Area



Examples Context

Mississauga Downtown Core

Parking Supply Reduction Factors

- Area planned as an urban downtown core with more compact, connected, mixed-use development
- Reduced parking will support compact built form and reduce cost barriers to desired development types (e.g. office)
- Very high level of transit, as service with north side of downtown core is an Anchor Mobility Hub:
    - City Centre Transit Terminal
    - City Centre Regional GO Bus Terminal
    - East-West Transitway BRT line
    - Future Hurontario LRT line (2022+-)
- Significant potential for walking and cycling for shorter trip lengths
- Anticipated increase in use of ride hailing services
- Use of transportation demand management initiatives:
    - car/van pooling
    - car sharing
    - parking pricing/supply management

Square One Shopping Centre Supply Reductions

Down from 5.4 to 4.57 spaces per 100 sm in 2002

Reduced to 4.3 per 100 sm in 2014 (4.0 per 1000 sq.ft.)

A total ***reduction of 1950 spaces*** (15 acres) for a 178,000 sm centre

2000 to 2016 22% more customers while demand dropped by 18% !

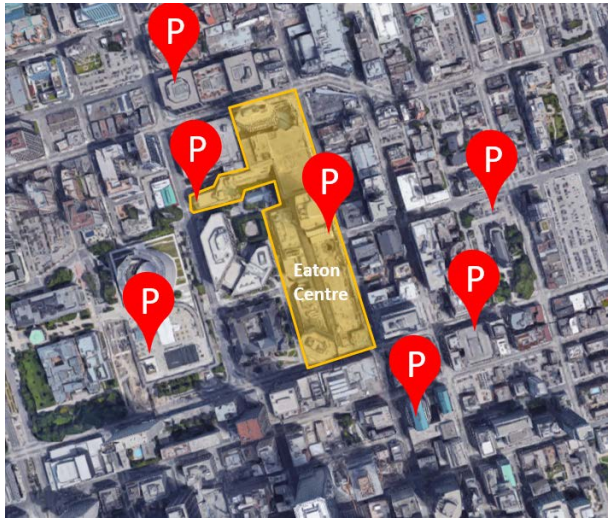
Oxford Properties Shared Parking Zone

PROPOSED SHARED PARKING ZONE

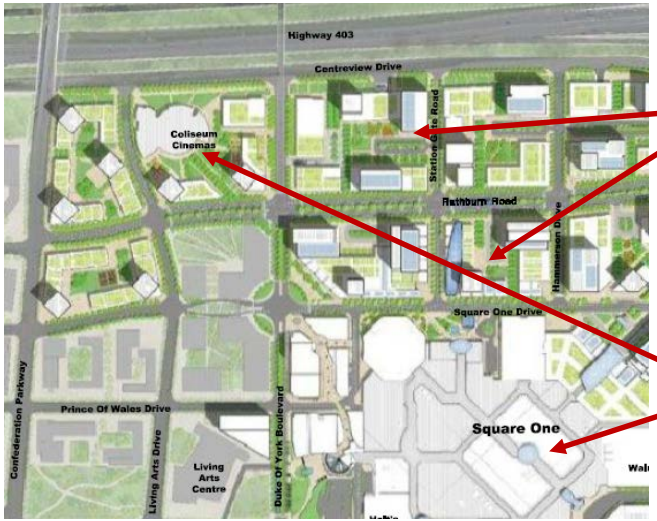
The Basic Concept of Shared Parking

A shift away from planning for absolute peak supply for each use, recognizing that:

1) urban cores provide diverse parking options, and



2) the variations in peak parking times between land uses creates an opportunity to share parking supply



Higher daytime/ weekday use

Higher evening/ weekend use

Sheridan College Shared Parking

- Original supply provided in two City lots (350 sp) & LAC garage(435 sp)
- City/College wants to free up surface lots for future development
- Sheridan makes shared parking arrangement with Cinema Owner for 472 spaces with 10 Year term
- Long Term Supply solution to be determined?

Proposed Shared Parking Reductions

Land Use	Percentage of Peak Period			
	Morning	Noon	Afternoon	Evening
Proposed Requirement Retail (Downtown) Core Commercial SQ1	60 (60)	75 (75)	80 (100)	65 (90)
Existing Requirement Retail Centre/Retail Store/Personal Service Establishment Retail	80 (80)	90 (100)	90 (100)	90 (70)
Proposed Requirement Cinema	0 (10)	25 (40)	25 (65)	100 (100)
Proposed Requirement Sheridan College	90 (0)	100 (0)	90 (0)	0 (0)
Existing Requirement Office/Medical Office/Financial Institution	100 (10)	90 (10)	95 (100)	10 (10)
Existing Requirement Restaurant/Convenience Restaurant/Take-out Restaurant	20 (20)	100 (100)	30 (50)	100 (100)
Existing Requirement Overnight Accommodation	70 (70)	70 (70)	70 (70)	100 (100)
Existing Requirement Residential-Resident Residential - Visitor	90 (90) 20 (20)	65 (65) 20 (20)	90 (90) 60 (60)	100 (100) 100 (100)

Proposed Individual Land Use Supply Reductions

Land Use	Current By-Law	Proposed Revisions
Retail Center	4.3	3.8
CC1 Retail (Downtown) Core Commercial Square One	4.57	3.8
Office	3.2	2.1
Medical Office (Real Estate Office)	6.5	4.85
Financial Institution	5.5	4.85
Night Club	25.2	9.0
Personal Service Establishment	4.3	3.8
Restaurant	16.0	9.0
Restaurant less than 220 sq. m	N/A	3.8
Retail Store	4.3	3.8
Apartment Dwelling	1.0 resident spaces per unit 0.15 visitor spaces per unit	For residents: 0.7 spaces per Bachelor unit 0.7 spaces per 1 Bedroom unit 0.9 spaces per 2 Bedroom unit 1 spaces per 3 Bedroom unit For visitors: 0.15 visitor spaces per unit

Square One reduction will accommodate average Saturday

Office rate based on 40% non-auto mode share target

Resident Rate based on VMC & non auto mode share target

Parking Master Planning for Future

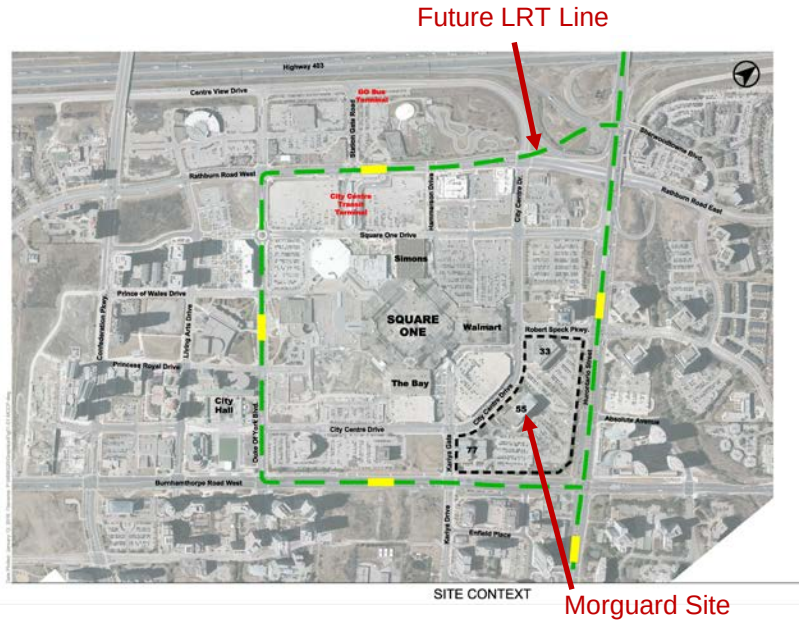
SQUARE ONE PROPERTIES FUTURE DEVELOPMENT CONCEPT

Careful Master Planning will be required to manage the transition from surface parking to garage parking

Recipricol agreements between land parcels

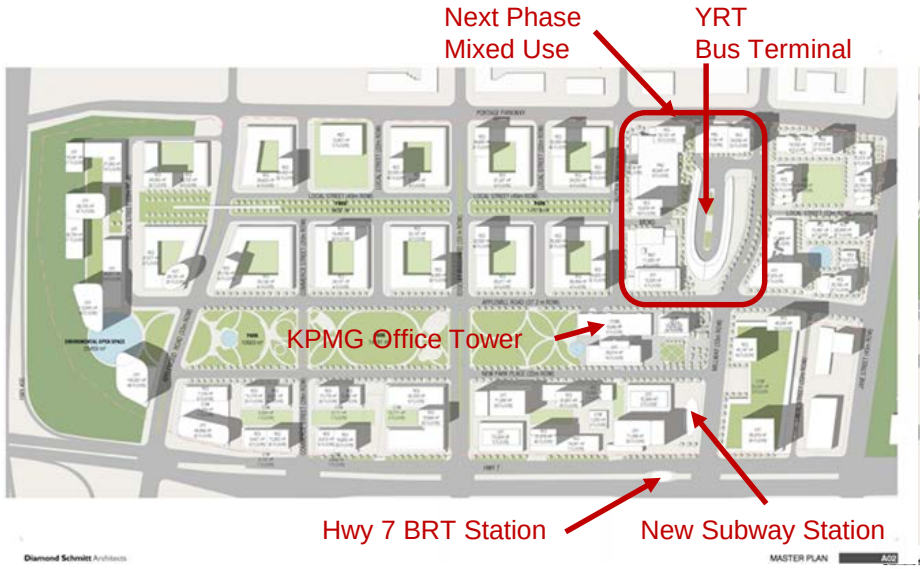
Strata Titles may be required

Morguard Properties - **Shared Parking helps but not enough**



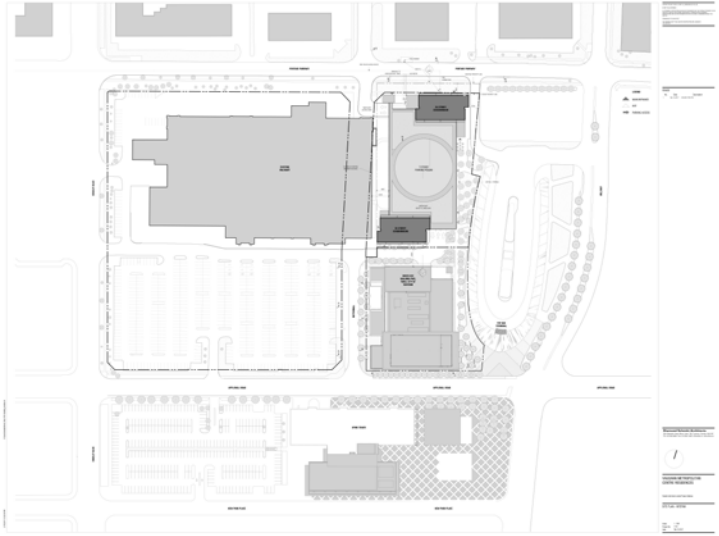
Vaughan Metropolitan Centre a few years ago

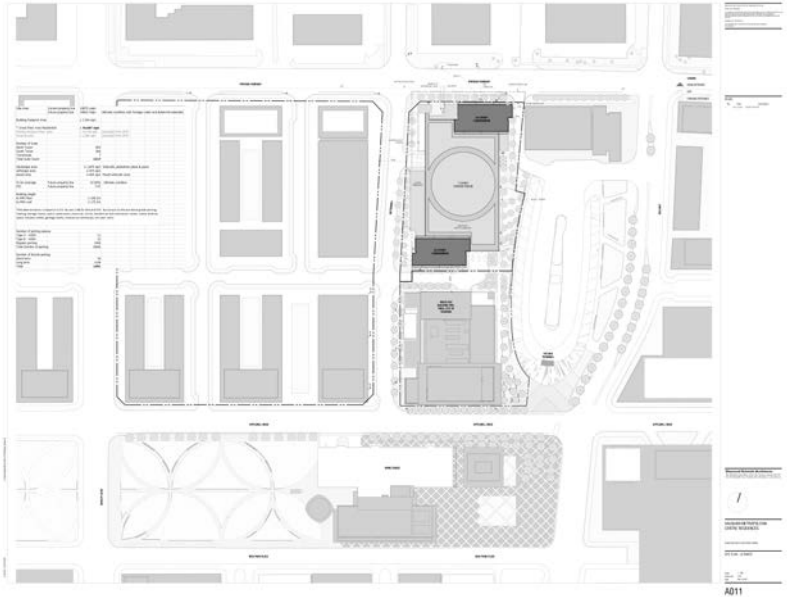
Proposed Northside Master Plan



Initial Development Phases

Initial Development Phases Site Plan





Substantial Reduction in Parking Supply

TABLE 1 VEHICULAR PARKING SUPPLY – REQUIRED & PROPOSED

Use	Units	By-law Minimum Parking Rate	By-law Minimum Required Parking	Proposed Parking Rate	Proposed Parking Supply
Resident					
North Tower	604				
106 1 Bedroom & **293** 1 Bedroom + Den		0.7 / Unit	279	0.5 / Unit	302
205 2 Bedroom		0.9 / Unit	164		
South Tower	606				
106 1 Bedroom & **294** 1 Bedroom + Den		0.7 / Unit	280	0.5 / Unit	303
206 2 Bedroom		0.9 / Unit	185		
Townhouse	7	0.9 / Unit	7	0.5 / Unit	4
Subtotal	*1217*		*915*		***609***

Notes:
1. Residential Visitor parking is proposed to be shared with other non-residential uses as outlined in Section 3.4.

Remarkable Reduction in resident parking supply - 0.5 spaces per unit

Shared Parking in Central Garage

TABLE 1 TOWER 1-2 GARAGE – WEEKDAY PARKING SHARING CALCULATIONS

Use		Rate	Parking Req'm	Morning		Noon		Afternoon		Evening	
				% of Demand	Req'm	% of Demand	Req'm	% of Demand	Req'm	% of Demand	Req'm
Residential	Towers 1 & 2 1121 Units	0.50 / unit	561	100%	561	100%	561	100%	561	100%	561
	Subtotal		561								
Shared Parking											
Residential Visitor	Towers 1 & 2 1121 Units	0.15 / unit	168	80%	210	55%	145	80%	210	100%	263
	Tower 3 631 Units		95								
	Subtotal		263								
Mixed Use Building Parking	Place of Assembly (includes YMCA, Library, and Recreational Department uses) 10,525 m²	1.0 / 100m²	105	70%	74	70%	74	70%	74	100%	105
	Retail 345 m²	2.5 / 100m²	9	65%	6	90%	8	80%	7	100%	9
	Office 12,020 m²	1.5 / 100m²	182	100%	182	90%	164	95%	173	10%	18
Peak Requirement (Residential + Peak Shared Amount)				1033		951		1025		956	

Notes:
1. Peak parking requirement has been highlighted.

TABLE 2 TOWER 1-2 GARAGE – WEEKEND PARKING SHARING CALCULATIONS

Use		Rate	Parking Req'm	Morning		Noon		Afternoon		Evening	
				% of Demand	Req'm	% of Demand	Req'm	% of Demand	Req'm	% of Demand	Req'm
Residential	Towers 1 & 2 1121 Units	0.5 / unit	561	100%	561	100%	561	100%	561	100%	561
	Subtotal		561								
Shared Parking											
Residential Visitor	Towers 1 & 2 1121 Units	0.15 / unit	168	100%	263	100%	263	100%	263	100%	263
	Tower 3 631 Units		95								
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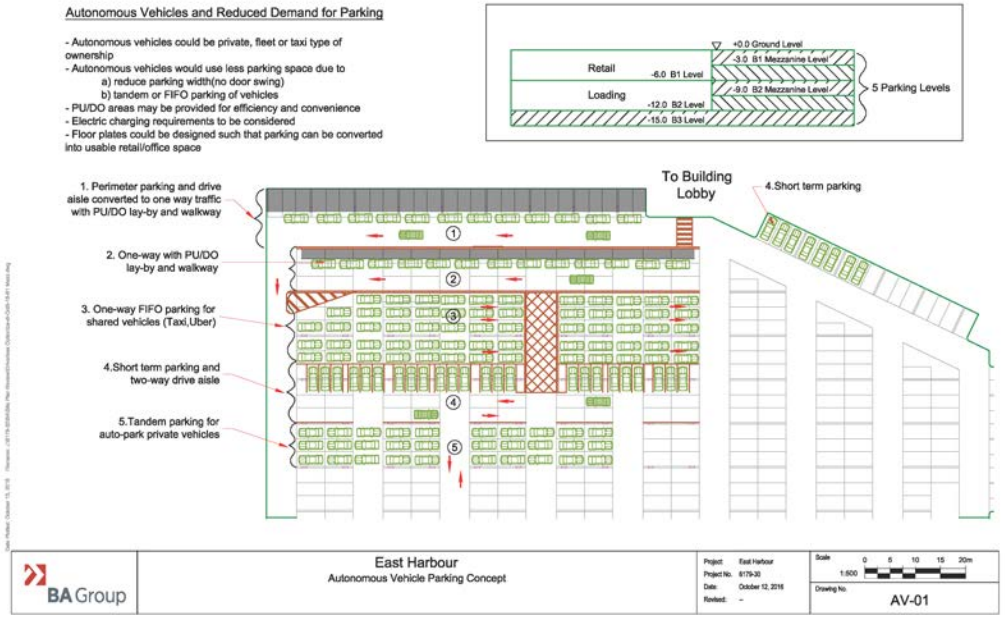
	Retail 345 m²	2.5 / 100m²	9	80%	7	85%	8	100%	9	40%	4
	Office 12,020 m²	1.5 / 100m²	182	10%	18	10%	18	10%	18	10%	18
Peak Requirement (Residential + Peak Shared Amount)				923		924		925		951	

Notes:
1. Peak parking requirement has been highlighted.

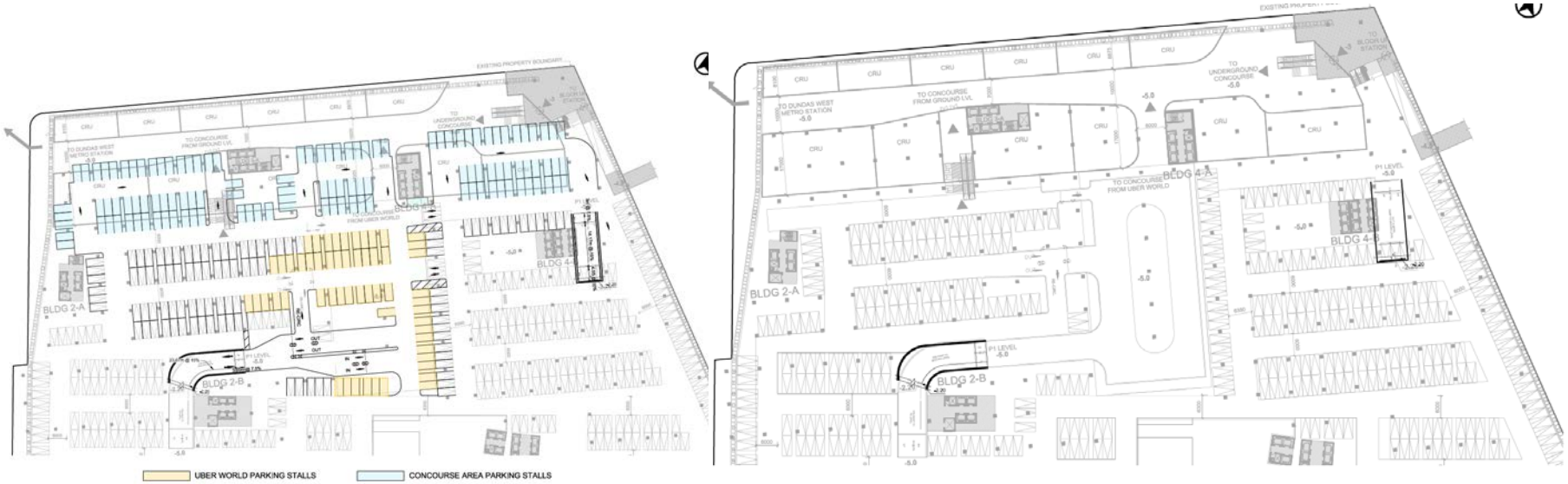
As indicated above, the weekday peak parking demand is 1033 spaces. The weekend peak parking demand is 951 spaces. These demands include separated residential parking for Towers 1 and 2, residential visitor parking for all three towers, and the required parking for the Mixed Use Building. The proposed parking supply in the Tower 1-2 garage is 1100 spaces, in excess of the required parking supply.

East Harbour, Toronto



Underground Garage
Future Proofing
Conceptual Planning

Bloor-Dundas Mixed Use Development, Toronto



Ride Hailing Future Proofing Concept

Conversation

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