



Potential Mount Pleasant Road/ Jarvis Street/ Ted Rogers Way/ Charles Street East Intersection Improvements

November 2024



BA Group

Agenda



Existing Conditions



Opportunities



Potential Intersection Improvements

Existing Conditions

Existing Transportation Conditions

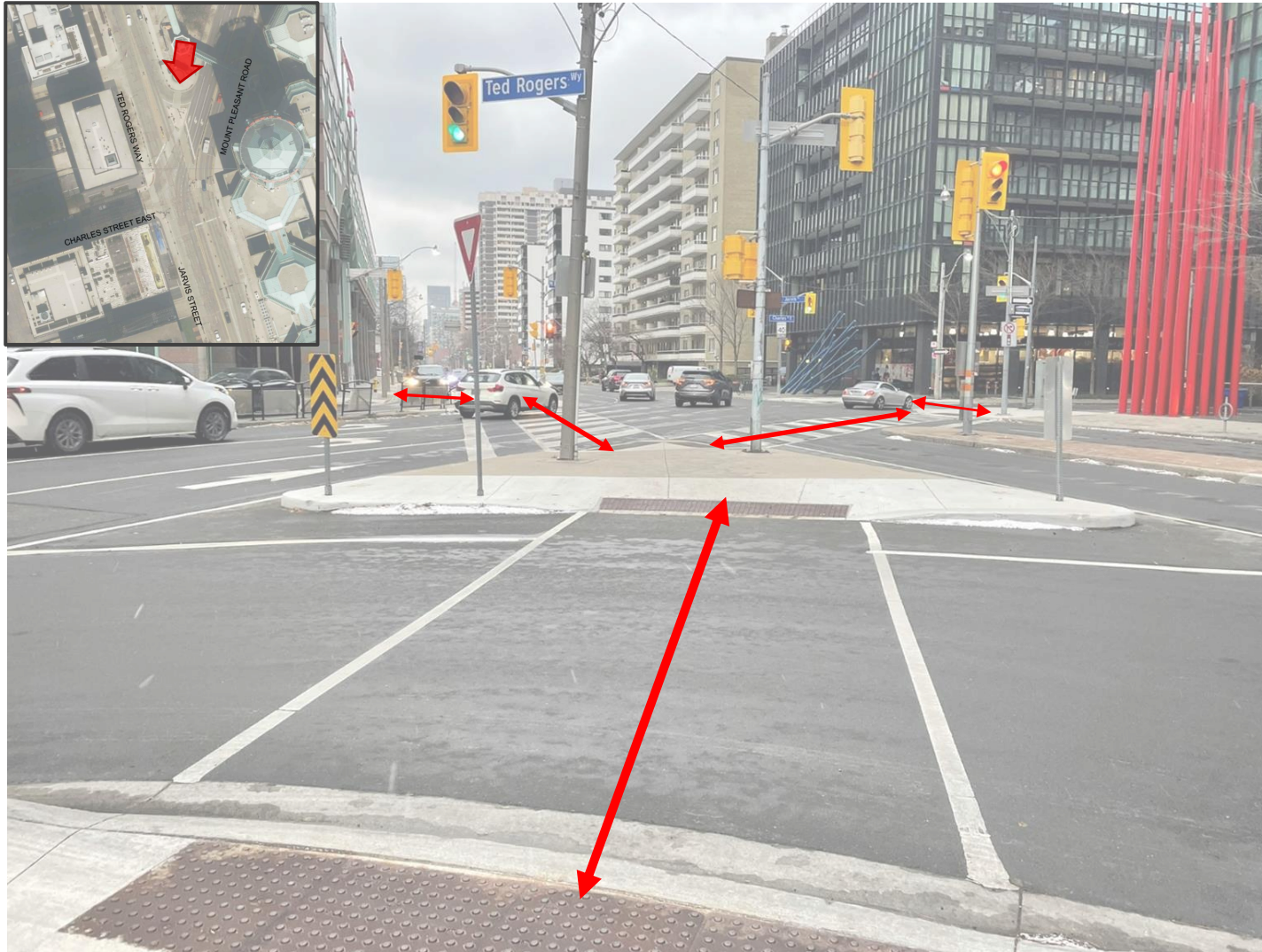
Existing Transportation Context

- The Mount Pleasant / Jarvis Street / Ted Rogers Way / Charles Street East intersection is located in the Bloor Yonge neighbourhood and provides a primary vehicular connection, particularly in the north-south direction as it connects the Bloor Street East, Jarvis Street and Mount Pleasant Road corridors.
- This area is well served by two subway stations (Sherbourne and Bloor-Yonge), offering connectivity both Line 1 and Line 2 subways.
- Intersection is surrounded by residential, employment, institutional, recreational and retail amenities and services.
- This area is well travelled from a vehicular and walkable perspective, and supports intensification from a mobility perspective.
- The way that Jarvis Street connects to Mount Pleasant Road, in particular, has created a highly car-oriented context around the Rogers properties. This connection reflects the City's previous transportation priorities of a historically automobile focus for these streets as key linkages serving the downtown area over time.
- There is, given the above, a weak pedestrian and public realm afforded on all elements of the surrounding street network that could be benefitted/enhanced in the context of current mobility priorities of the City.

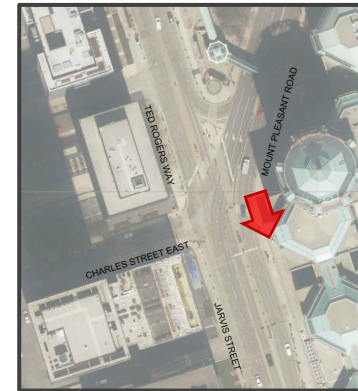


Existing Intersection Condition

Existing Condition (Looking South)



Pedestrians need to cross a **minimum** of 2 separate crosswalks to get to the northwest corner of the intersection, most which are angled and relatively long.



There is no crosswalk on the south leg of the intersection across Jarvis Street.

Existing Intersection Condition



Northeast corner of intersection looking East at Mount Pleasant and the existing pedestrian bridge.



Channelized island at the Northeast corner of the intersection looking southwest toward Charles Street East showing the angled crosswalk on the north leg of the intersection.



Channelized island at the Northeast corner of the intersection looking north towards Mount Pleasant and Ted Rogers Way.



East side of Ted Rogers Way looking south towards Mount Pleasant / Jarvis Street / Charles Street intersection.



Channelized island at the Southeast corner of the intersection looking North towards Mount Pleasant and Ted Rogers Way.



Channelized island at the Southeast corner of the intersection looking Northeast towards Mount Pleasant.



Southeast corner of the intersection looking north towards Ted Rogers Way and pedestrian barriers along Mount Pleasant.

Existing Intersection Condition

Issues / Constraints

4-lane roadway with on-street parking on both sides

Long angled crosswalks

Large paved area within intersection

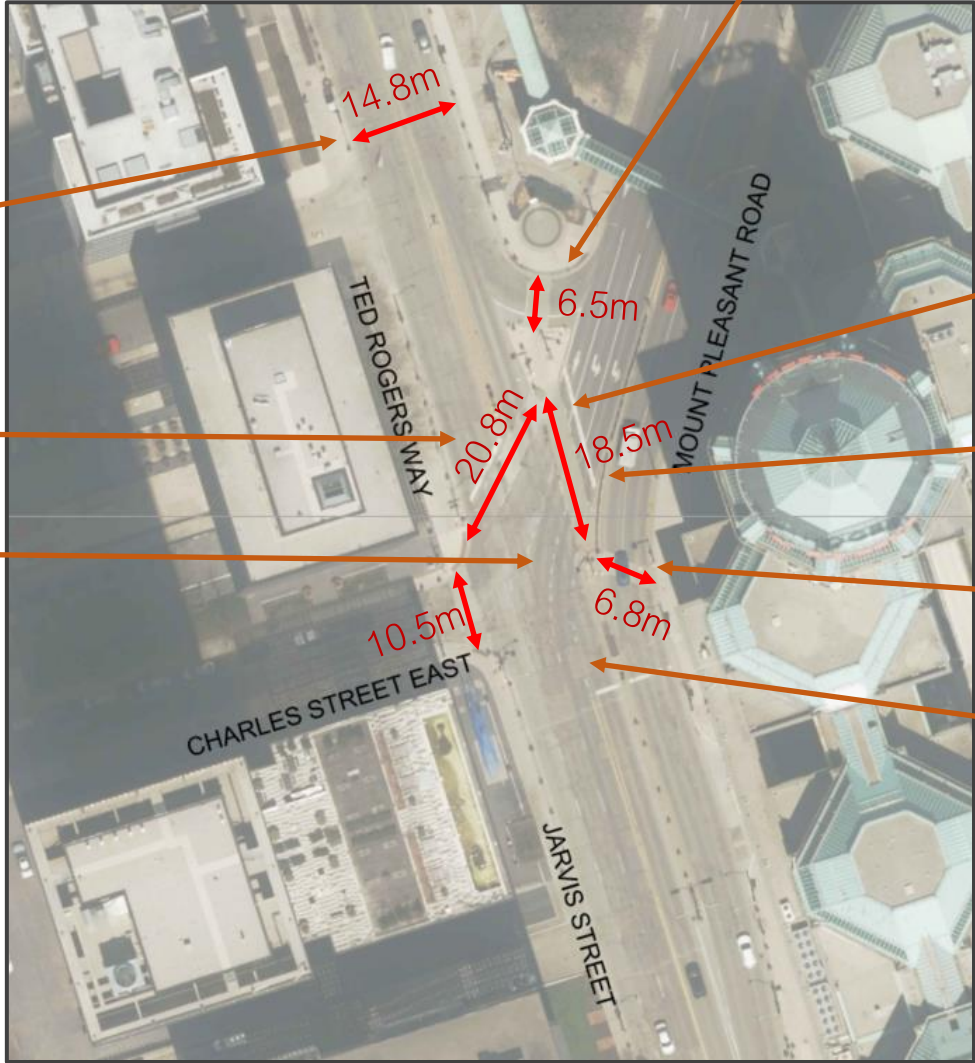
Right Turn channelization is unsafe for pedestrians as drivers are completing a U-turn, particularly in urban conditions

Angled stop bar

There are pedestrian barriers along the central median of Mount Pleasant Road to prevent pedestrians from informally crossing Mount Pleasant Road, however this shows that this is the most direct route.

Two-step crosswalks on both north and south corners on eastern side of intersection.

No crosswalk along south leg of intersection and pedestrians trying to get across Jarvis Street need to cross 4 crosswalks to get across south leg of intersection, which are all on different signal phases.



Lengths of crosswalks are measured along the center of crosswalks.

Existing Intersection Condition

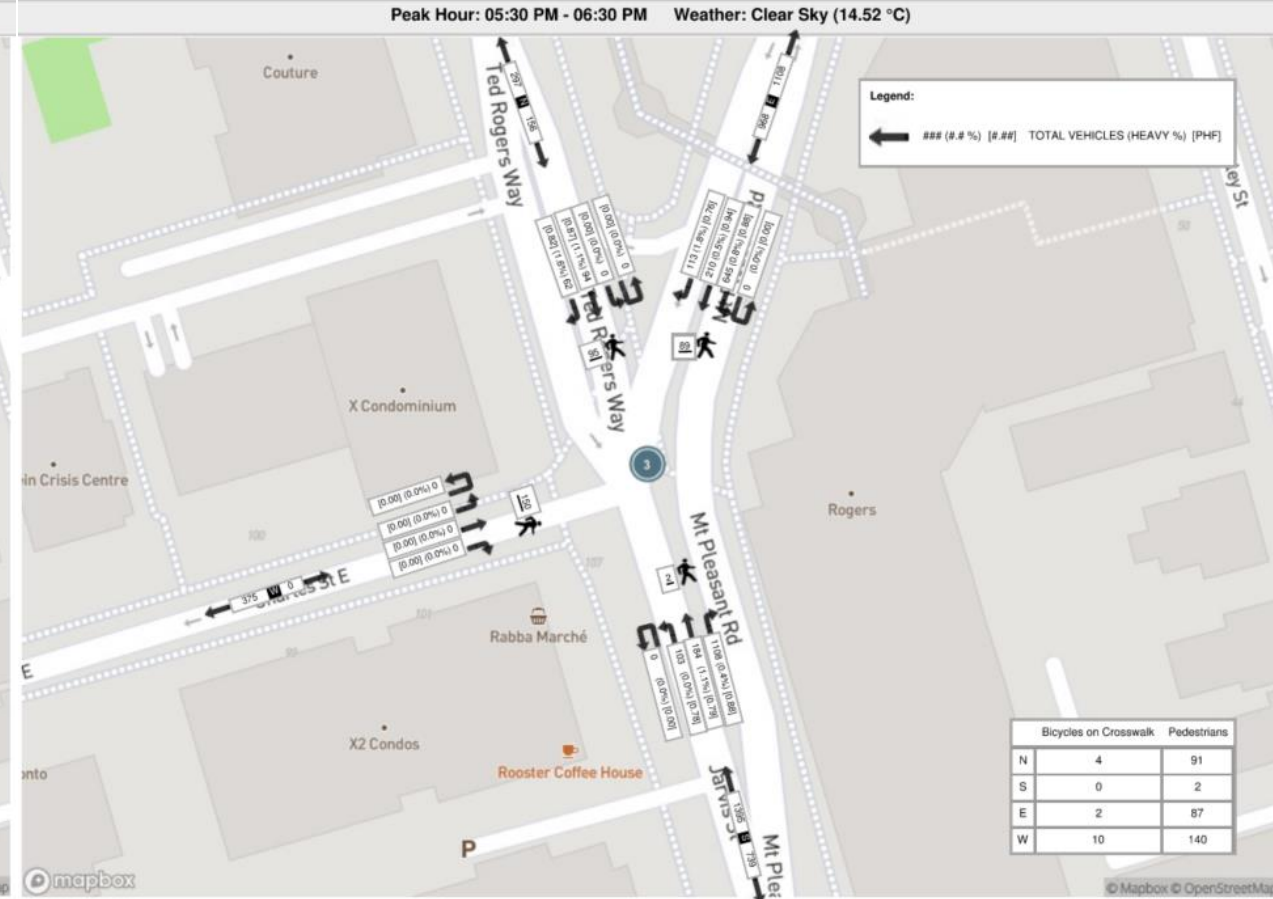
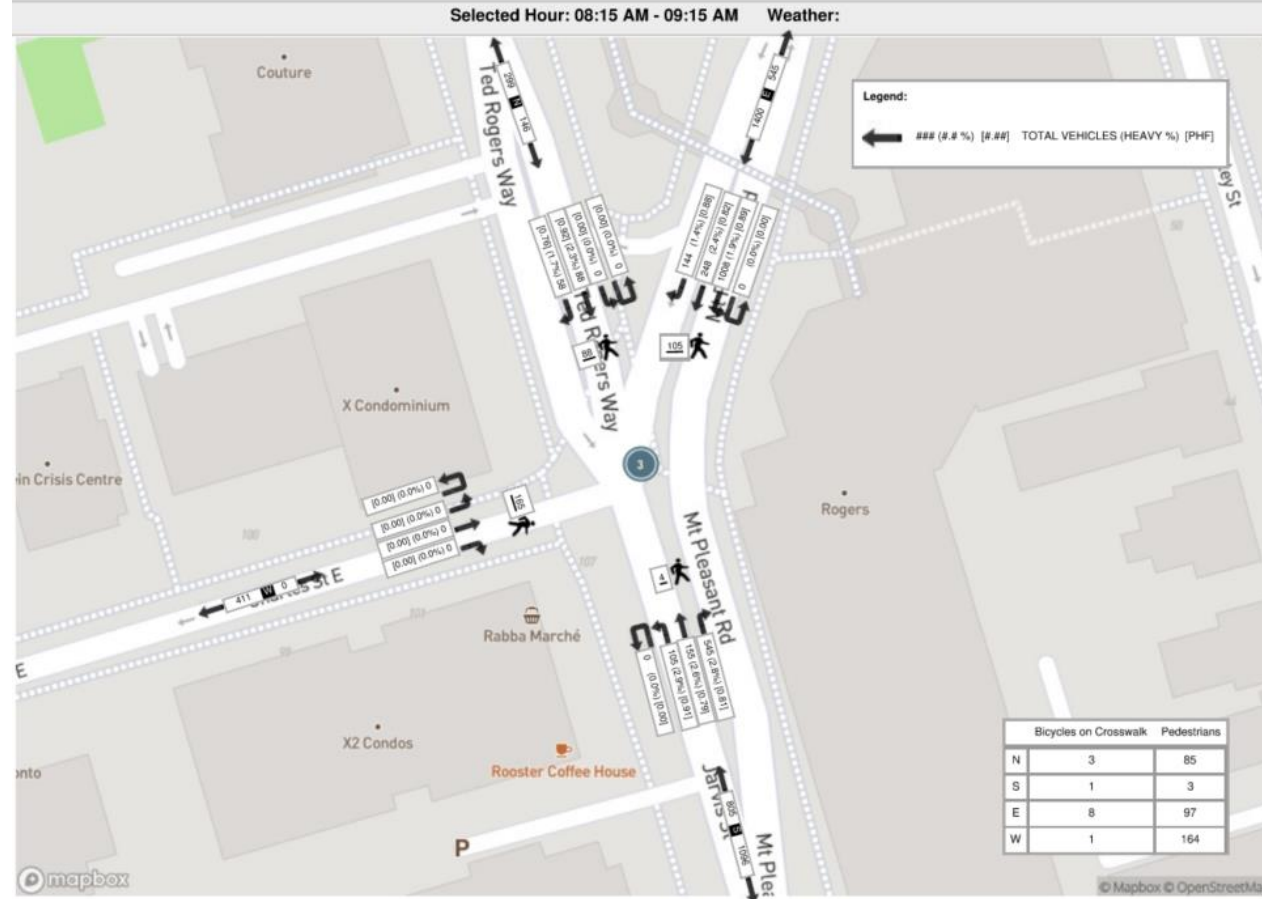
Turning Movement Data

Turning Movement Count
 Location Name: JARVIS & CHARLES ST / TED ROGERS WAY
 Date: Wed, Sep 27, 2023 Deployment Lead: David Chu

Turning Movement Count
 Location Name: JARVIS & CHARLES ST / TED ROGERS WAY
 Date: Wed, Sep 27, 2023 Deployment Lead: David Chu

Selected Hour: 08:15 AM - 09:15 AM Weather:

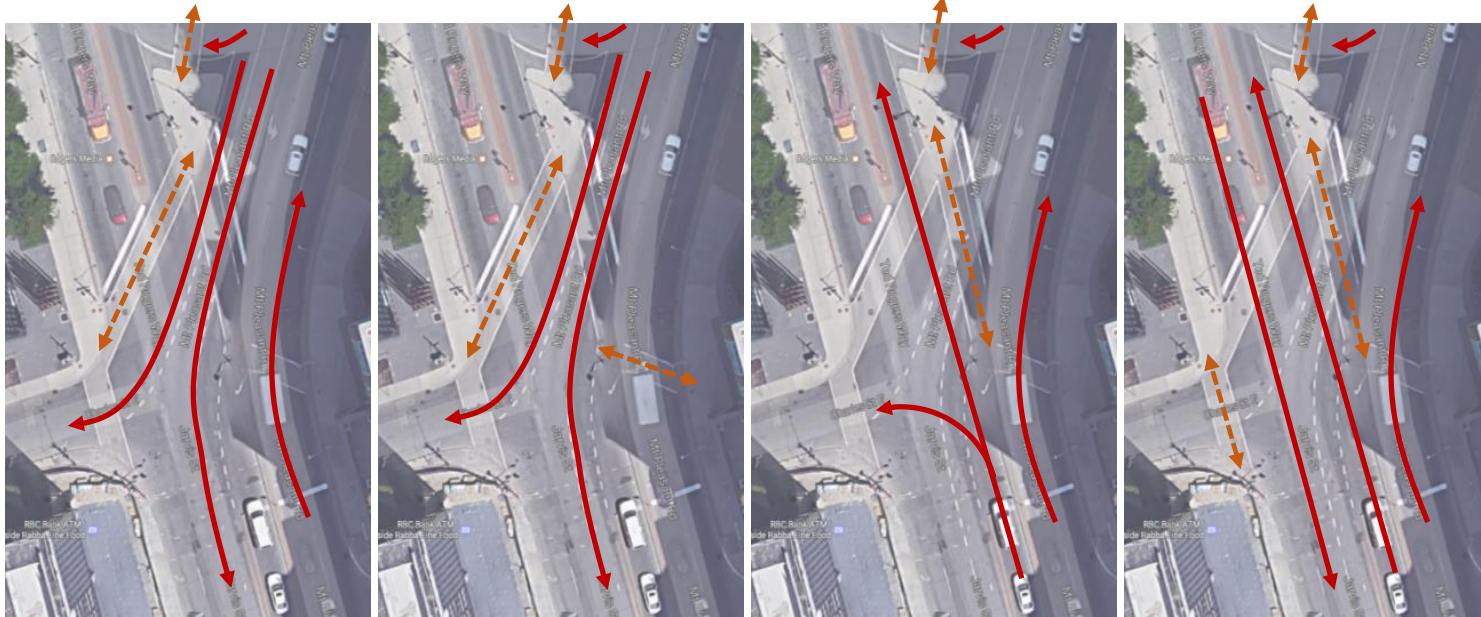
Peak Hour: 05:30 PM - 06:30 PM Weather: Clear Sky (14.52 °C)



Existing Signal Phasing Plan

95 second cycle length

↔ Pedestrian crossing
 → Vehicular movement permitted



Phase 1

Alternative Phase 1 – If southeast pedestrian crossing is called (only crossing that is callable)

Phase 2

Phase 3
 Pedestrians can only cross Charles Street East in this phase

33 seconds, if alternative phase 1 is not called then 52 seconds

19 seconds if called

12 seconds

31 seconds

Road	Movement	Time Allocation
Ted Rogers Way	Southbound	31 seconds
Jarvis Street	Northbound to Ted Rogers Way	43 seconds
	Westbound to Charles Street East	12 seconds
	Northbound to Mount Pleasant Road	76 seconds – 95 seconds
Mount Pleasant Road	Southbound to Jarvis Street or Charles Street East	52 seconds

LOCATION: Mt Pleasant Rd/Charles St & Jarvis St/Ted Rogers Way		ATD / DISTRICT / WARD: Area 1 / Toronto & East York / Ward 11 & 13					
MODE/COMMENT: FT		COMPUTER SYSTEM: TransSuite					
TCS: 13		CONTROLLER/CABINET TYPE: Econolite ASC/3-2100 / M					
PREPARED/CHECKED BY: R/BS/HL		CONFLICT FLASH: Red & Red					
PREPARATION DATE: March 16, 2017		DESIGN WALK SPEED: 1.0m/s (FDW based on full crossing @ 1.2m/s)					
IMPLEMENTATION DATE: September 7, 2017		CHANNEL/DROP: 5010/21					
		CONTROLLER FIRMWARE: 2.47.10					
NEMA Phase	Local Plan	OFF All Other Times				Phase Mode (Fixed, Demanded or Callable)	Remarks
		Pattern 1	Pattern 2	Pattern 3	Pattern 4		
1	Mt Pleasant Rd NB	WLK	7			Callable by ped pushbutton	Pedestrian Minimums: Across Jarvis St: EWWK = 7 sec, EWFD = 16 sec NSWK = 7 sec, NSFD = 16 sec Across NB Mt Pleasant Rd: EWWK = 7 sec, EWFD = 7 sec
		FDW	7				
		MIN	14				
		MAX 1	14				
		AMB	3				
		ALLR	1				
		SPLIT		19	19	19	19
2	Charles St OVERLAP A Mt Pleasant Rd	WLK	7			Fixed	Served concurrently with Ø2, Ø4 Always on except during Ø1
		FDW	18				
		MIN	25				
		MAX 1	25				
		AMB	4				
		ALLR	3				
		SPLIT		33	33	33	33
3	NOT USED	WLK					
		FDW					
		MIN					
		MAX 1					
		MAX 2					
		AMB					
		ALLR					
		SPLIT					
4	Jarvis St	WLK	7			Fixed	Intersection Layout:
		FDW	16				
		MIN	23				
		MAX 1	36				
		AMB	3				
		ALLR	4				
		SPLIT		43	43	43	43
5	NOT USED	WLK					
		FDW					
		MIN					
		MAX 1					
		AMB					
		ALLR					
		SPLIT					
6	Mt Pleasant Rd	WLK	7			Fixed	
		FDW	18				
		MIN	25				
		MAX 1	25				
		AMB	3				
		ALLR	3				
		SPLIT		52	52	52	52
7	Ted Rogers Way	WLK	33			Fixed	
		FDW	6				
		MIN	6				
		MAX 1	6				
		AMB	3				
		ALLR	1				
		SPLIT		12	12	12	12
8	Ted Rogers Way	WLK	7			Fixed	
		FDW	16				
		MIN	23				
		MAX 1	24				
		AMB	3				
		ALLR	4				
		SPLIT		31	31	31	31
		CL	95	95	95	95	
		OF	1	1	1	1	

NOTES: Charles St is one-way westbound street.

Opportunities

Transportation Opportunities

- Development in area can build upon evolution of Yonge – Bloor area into the shoulder areas along the underutilized Bloor Street East and Jarvis Street corridors.
- Working with the City's evolving streetscape and mobility priorities the car-centric area has great potential to be re-configured to improve pedestrian and active transportation connectivity, and the surrounding public realm.
- There are opportunities to work collaboratively with the City to explore modifications or reductions in the number of travel lanes on Jarvis Street and Ted Rogers to re-focus the emphasis on these corridors as car-orientated routes and improve the pedestrian and public realm. This collaboration could form part of a City-initiated process that reviews the Jarvis Street corridor's role, function, and character as it extends southwards to Lake Ontario's waterfront.



Potential Conceptual Intersection Improvements

Conceptual Intersection Improvements

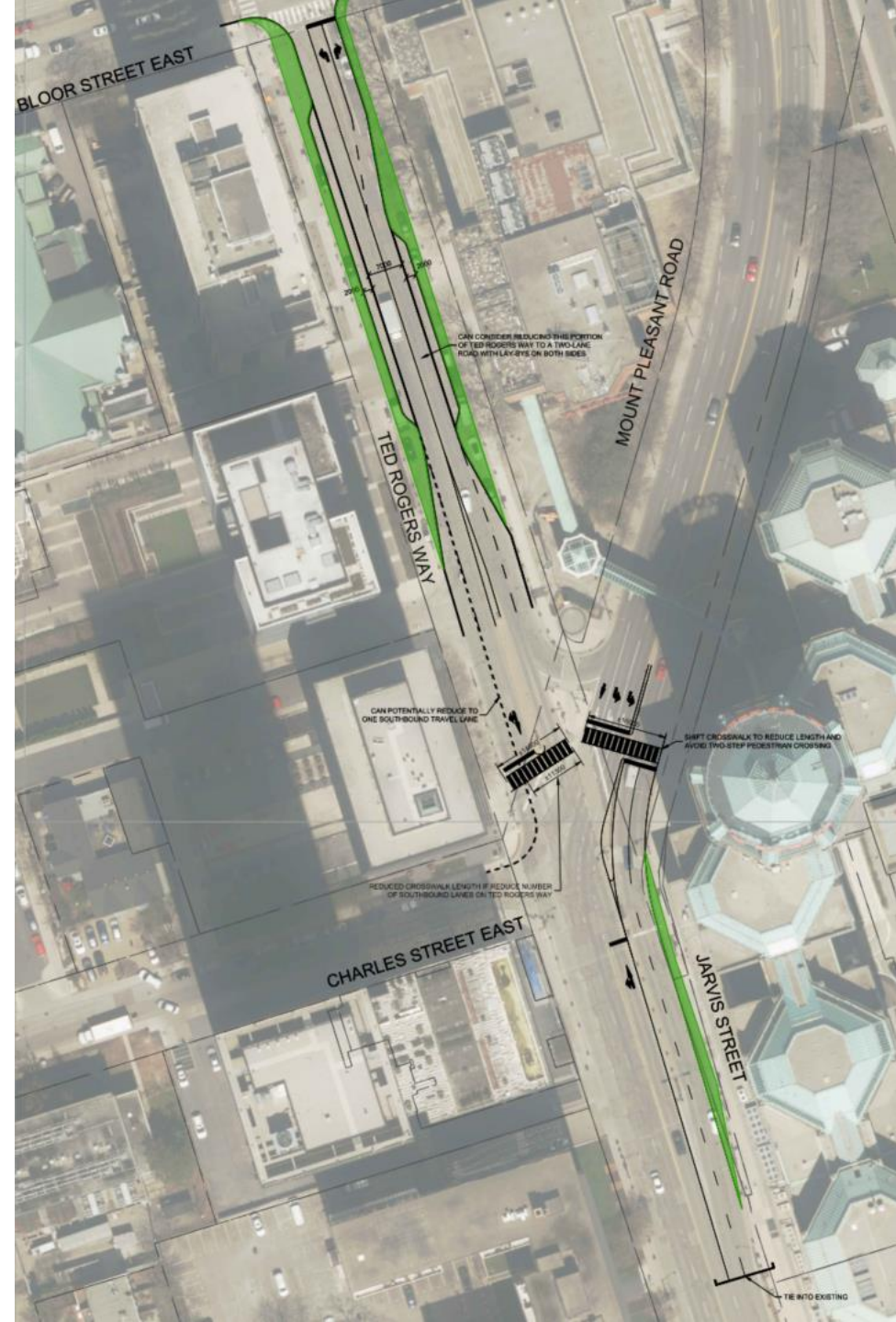
Option 1 – Crosswalk Improvements (Previous Option 1)

- Provide single crosswalk across Mount Pleasant Road
- Reduce angle of Ted Rogers Way crosswalk to reduce length from 20.8 metres to 14.8 metres.
- Can potentially reduce roadway width along Ted Rogers Way:
 - If incorporate parking lay-by's, roadway width could be reduced from 14.8 metres to 11 metres where there are parking lay-by's on both sides.
 - If reduce southbound travel lanes from two to one at signalized intersection of Mount Pleasant Road / Jarvis Street / Ted Rogers Way, north leg crosswalk can be reduced to 11.3 metres.



LEGEND

- AREA GAINED FOR OTHER USES (NOT ROADWAY)
- AREA REALLOCATED FOR ROADWAY WITHIN PUBLIC RIGHT-OF-WAY
- AREA REALLOCATED FOR ROADWAY WITHIN PRIVATE LAND

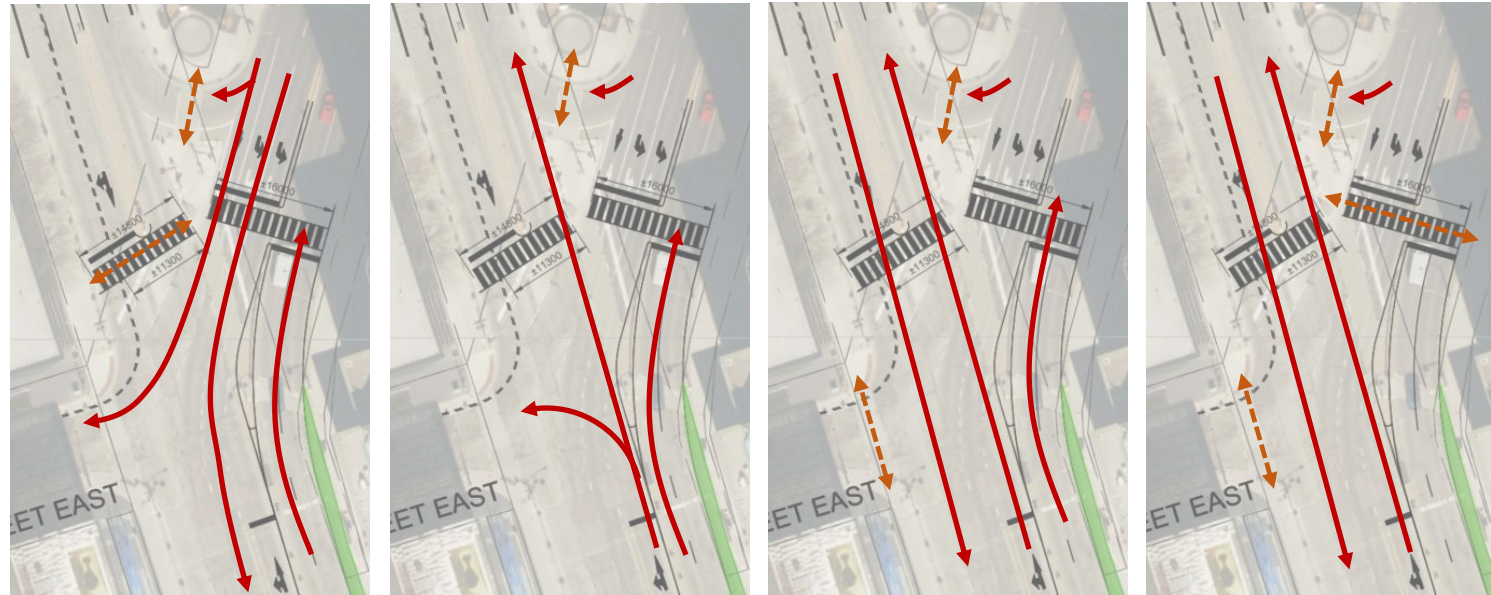


Conceptual Revised Signal Phasing Plan

Option 1 – Crosswalk Improvements (Previous Option 1)

95 second cycle length

-  Pedestrian crossing
-  Vehicular movement permitted



Phase 1

Phase 2

Phase 3

Alternative Phase 3 – If east leg pedestrian crossing is called.

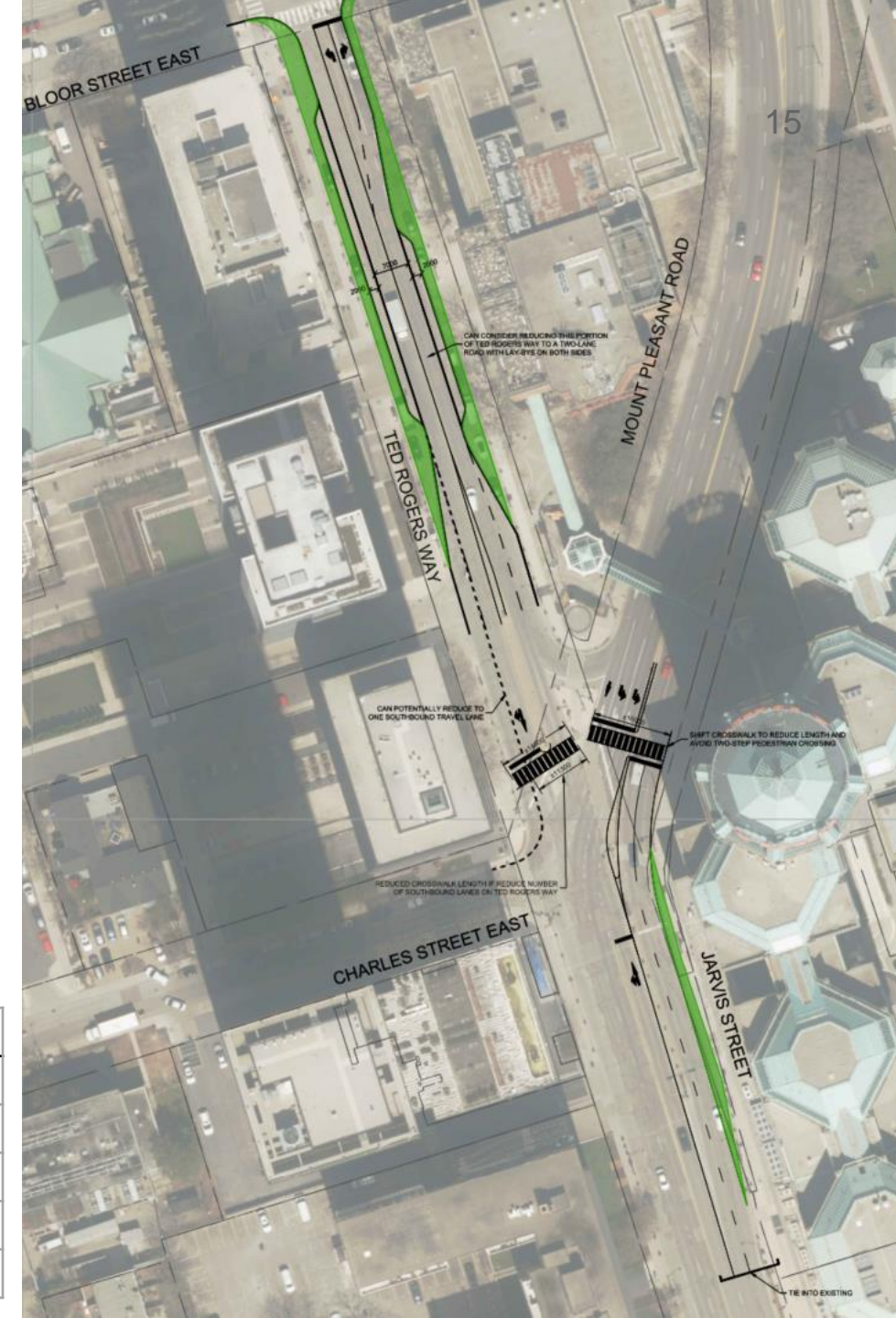
52 seconds

12 seconds

11 seconds, if alternative phase 3 is not called then 31 seconds

20 seconds if called

Road	Movement	Existing Time Allocation	Revised Time Allocation
Ted Rogers Way	Southbound	31 seconds	31 seconds
Jarvis Street	Northbound to Ted Rogers Way	43 seconds	43 seconds
	Westbound to Charles Street East	12 seconds	12 seconds
	Northbound to Mount Pleasant Road	76 seconds – 95 seconds	75 seconds – 95 seconds
Mount Pleasant Road	Southbound to Jarvis Street or Charles St E	52 seconds	52 seconds



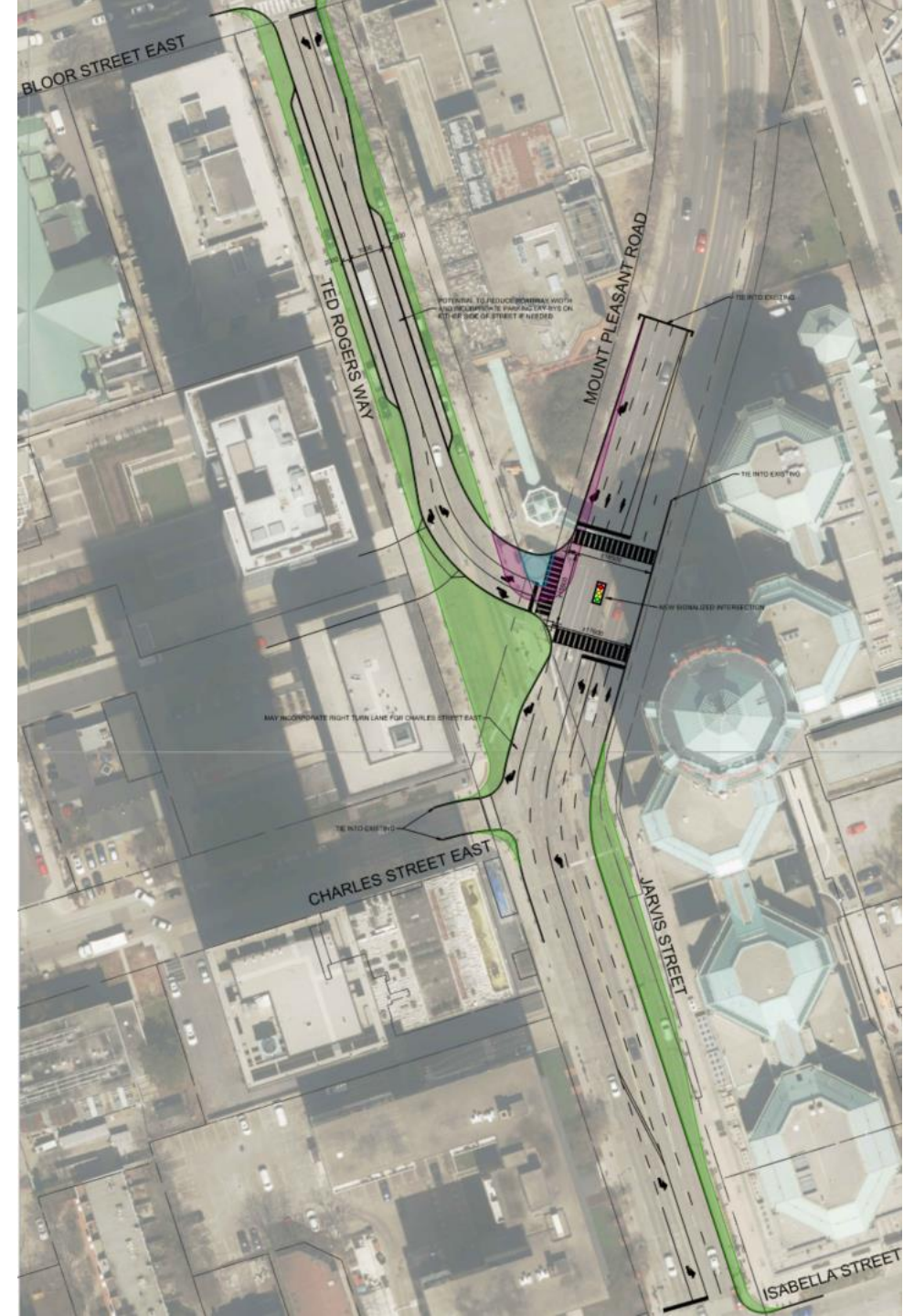
Conceptual Intersection Improvements

Option 2A – Formal Signalized T-Intersection (Previous Option 2) Assumes Portion of Private Lands

- Relocate signalized intersection towards Mount Pleasant Road to provide a T-intersection between Ted Rogers Way / Mount Pleasant Road / Jarvis Street.
- Configuration requires a portion of private land as indicated in blue.
- Charles Street East would be accessed off Jarvis Street directly.
- Lane configuration is maintained on Mount Pleasant Road and Jarvis Street, with a right turn lane and left turn lane, respectively.
- Configuration accommodates left turn lane from Ted Rogers Way unto Mount Pleasant Road that does not exist today.
- Potentially consider reducing roadway width and incorporating parking lay-by's on Ted Rogers Way. If incorporate parking lay-by's, roadway width could be reduced from 14.8 metres to 11 metres where there are parking lay-by's on both sides.

LEGEND

- AREA GAINED FOR OTHER USES (NOT ROADWAY)
- AREA REALLOCATED FOR ROADWAY WITHIN PUBLIC RIGHT-OF-WAY
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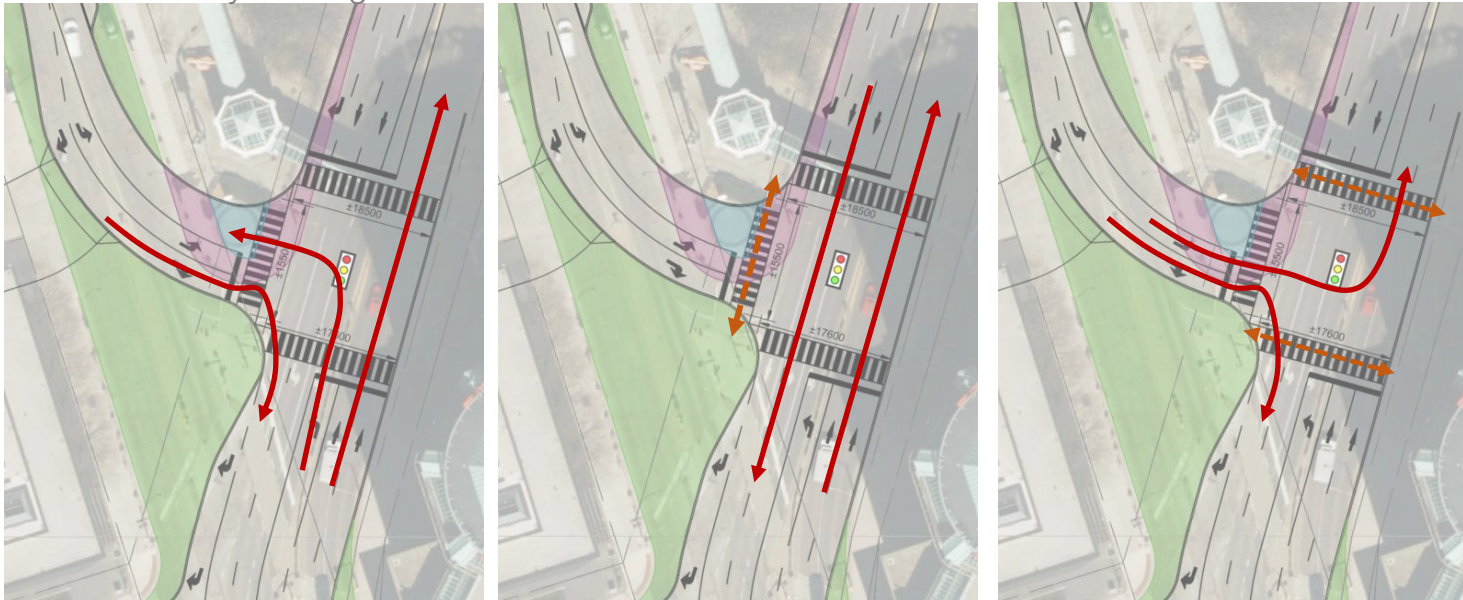
Conceptual Revised Signal Phasing Plan

Option 2A – Formal Signalized T-Intersection (Previous Option 2)

Assumes Portion of Private Lands

95 second cycle length

-  Pedestrian crossing
-  Vehicular movement permitted



Phase 1

12 seconds

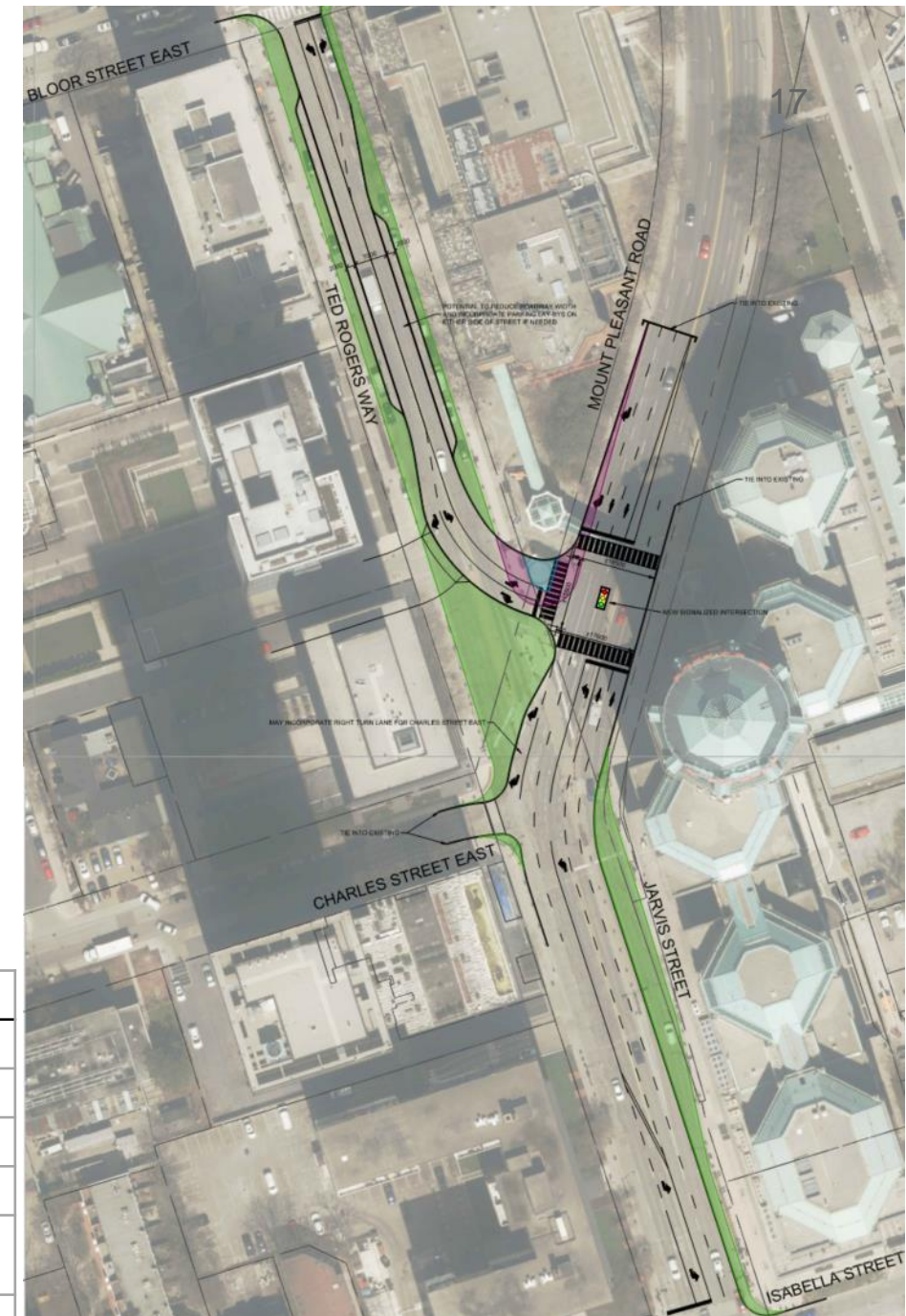
Phase 2

60 seconds

Phase 3

23 seconds

Road	Movement	Existing Time Allocation	Revised Time Allocation
Ted Rogers Way	Southbound to Jarvis Street	31 seconds	35 seconds
	Northbound to Mount Pleasant Road	--	23 seconds
Jarvis Street	Northbound to Ted Rogers Way	43 seconds	12 seconds plus permissive turns
	Westbound to Charles Street East	12 seconds	Permissive turns not part of signal
	Northbound to Mount Pleasant Road	76 seconds – 95 seconds	60 seconds
Mount Pleasant Road	Southbound to Jarvis Street or Charles St E	52 seconds	60 seconds



Conceptual Intersection Improvements

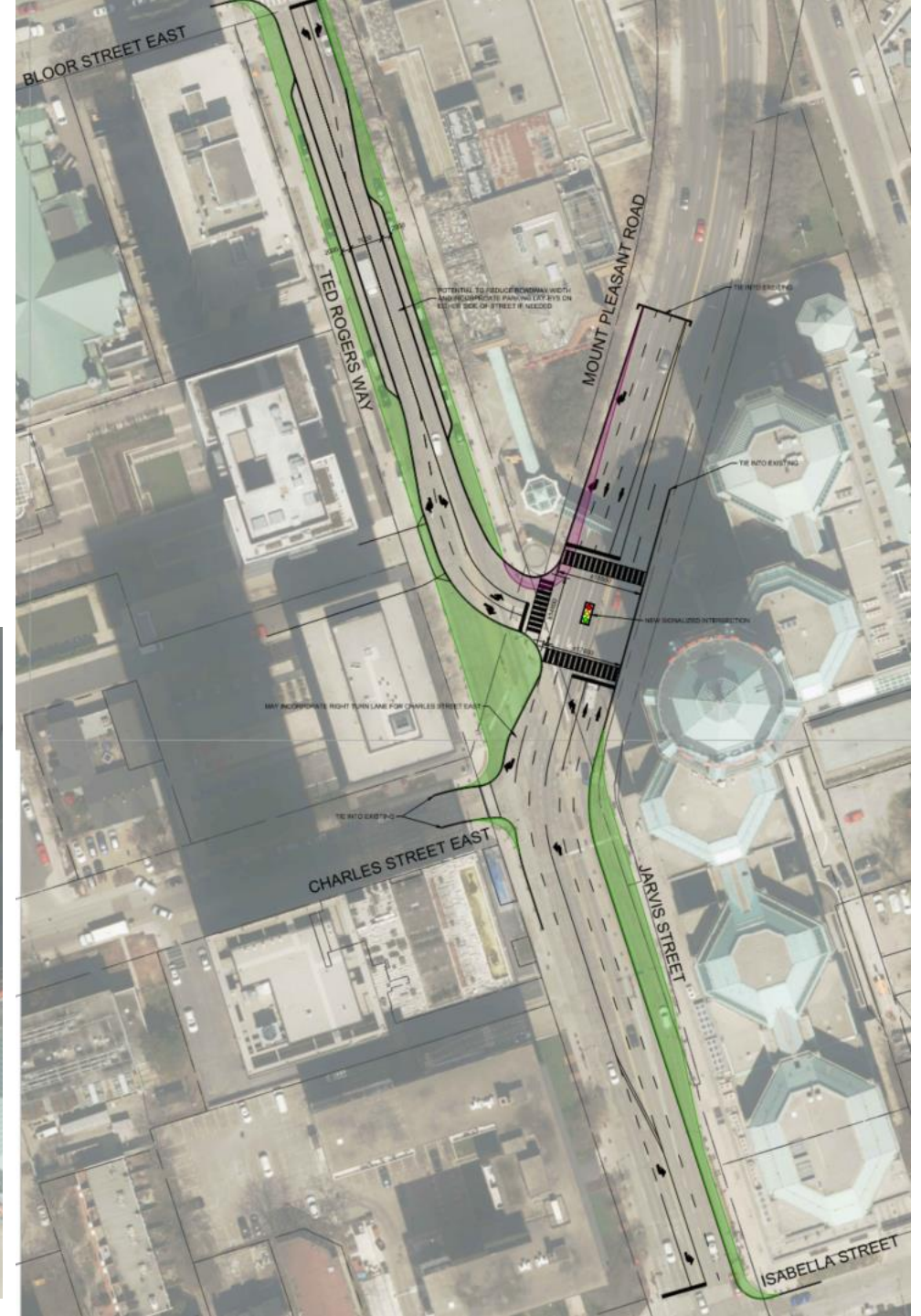
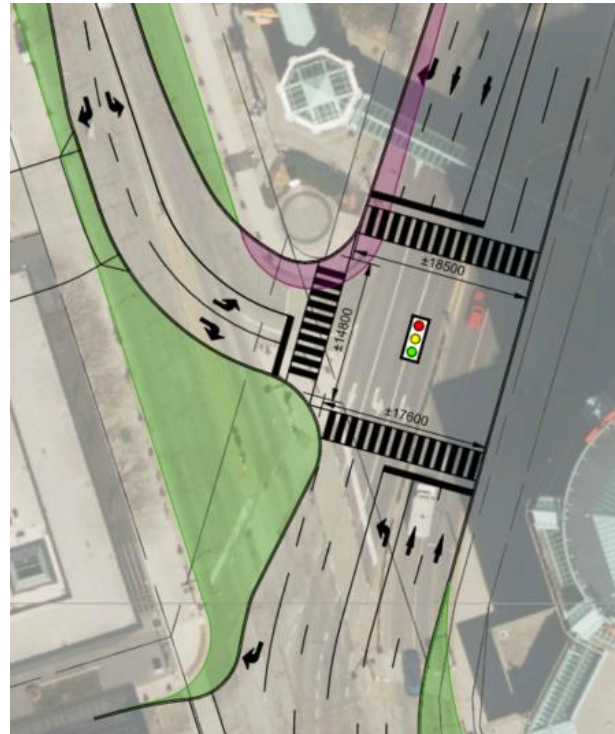
Option 2B – Formal Signalized T-Intersection (Variation of Option 2A)

Road Modifications are within Public Right-Of-Way

- Variation of option 2A where roadway geometry is revised to accommodate the pavement modifications within public right-of-way.
- The pedestrian sidewalk between Ted Rogers Way and Mount Pleasant Road may need to be provided as an easement.
- Relocates signalized intersection towards Mount Pleasant Road to provide a T-intersection between Ted Rogers Way / Mount Pleasant Road / Jarvis Street.
- Charles Street East would be accessed off Jarvis Street directly.
- Lane configuration is maintained on Mount Pleasant Road and Jarvis Street, with a right turn lane and left turn lane, respectively.
- Configuration accommodates left turn lane from Ted Rogers Way unto Mount Pleasant Road that does not exist today.
- Potentially consider reducing roadway width and incorporating parking lay-by's on Ted Rogers Way. If incorporate parking lay-by's, roadway width could be reduced from 14.8 metres to 11 metres where there are parking lay-by's on both sides.

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- AREA REALLOCATED FOR ROADWAY WITHIN PRIVATE LAND



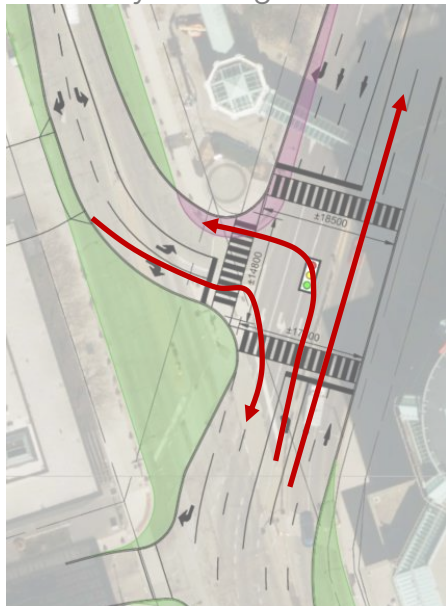
Conceptual Revised Signal Phasing Plan

Option 2B – Formal Signalized T-Intersection (Variation of Option 2A)

Road Modifications are within Public Right-Of-Way

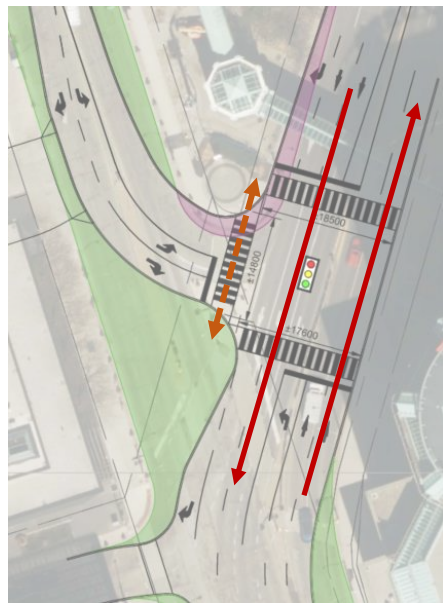
95 second cycle length

-  Pedestrian crossing
-  Vehicular movement permitted



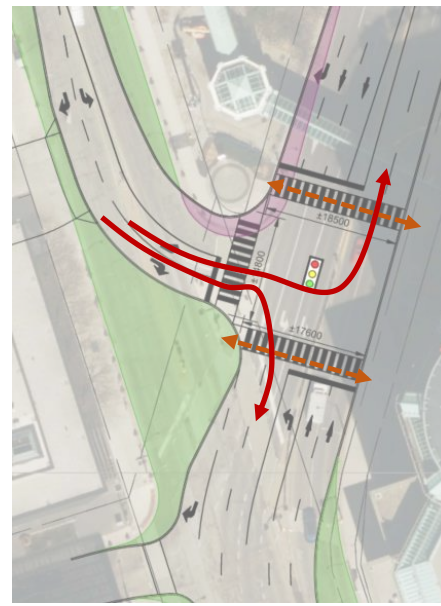
Phase 1

12 seconds



Phase 2

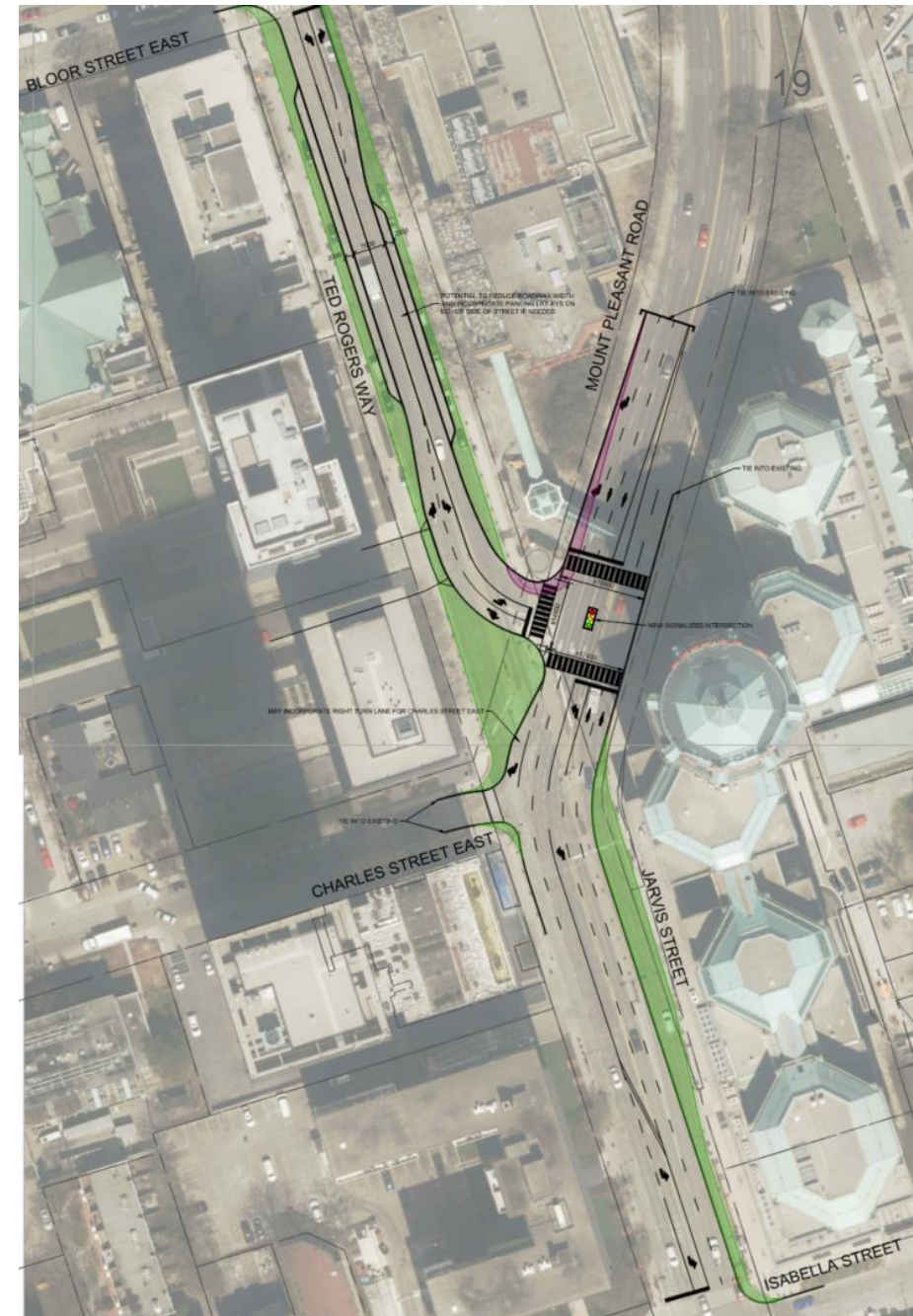
60 seconds



Phase 3

23 seconds

Road	Movement	Existing Time Allocation	Revised Time Allocation
Ted Rogers Way	Southbound to Jarvis Street	31 seconds	35 seconds
	Northbound to Mount Pleasant Road	--	23 seconds
Jarvis Street	Northbound to Ted Rogers Way	43 seconds	12 seconds plus permissive turns
	Westbound to Charles Street East	12 seconds	Permissive turns not part of signal
	Northbound to Mount Pleasant Road	76 seconds – 95 seconds	60 seconds
Mount Pleasant Road	Southbound to Jarvis Street or Charles St E	52 seconds	60 seconds



Conceptual Intersection Improvements

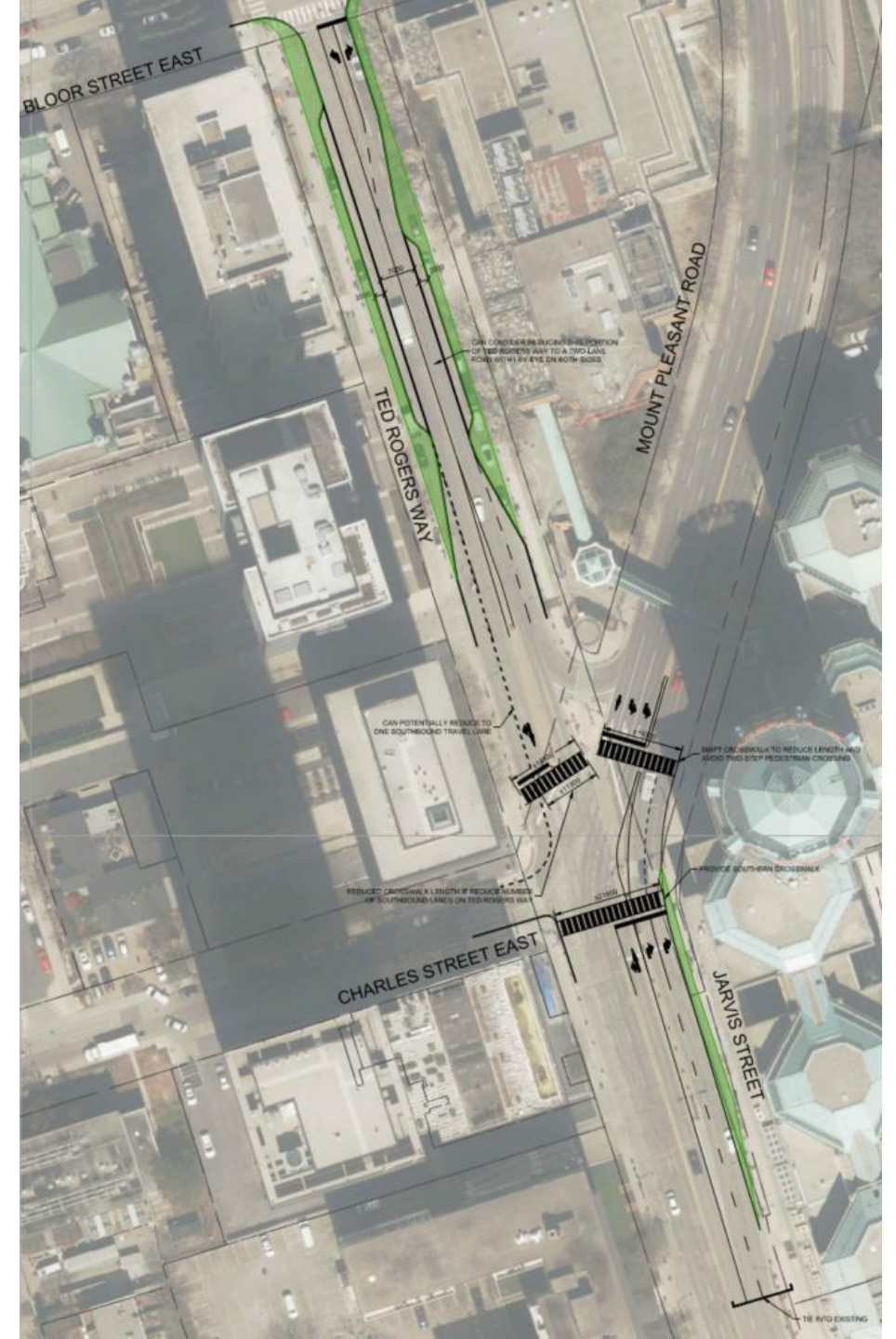
Option 3 – Crosswalk Improvements with Additional Southern Crosswalk (New Option)

- Provide single crosswalk across Mount Pleasant Road
- Provide crosswalk across Jarvis Street south of Charles Street East
- Reduce angle of Ted Rogers Way crosswalk to reduce length from 20.8 metres to 14.8 metres.
- Can potentially reduce roadway width along Ted Rogers Way:
 - If incorporate parking lay-by's, roadway width could be reduced from 14.8 metres to 11 metres where there are parking lay-by's on both sides.
 - If reduce southbound travel lanes from two to one at signalized intersection of Mount Pleasant Road / Jarvis Street / Ted Rogers Way, north leg crosswalk can be reduced to 11.3 metres.



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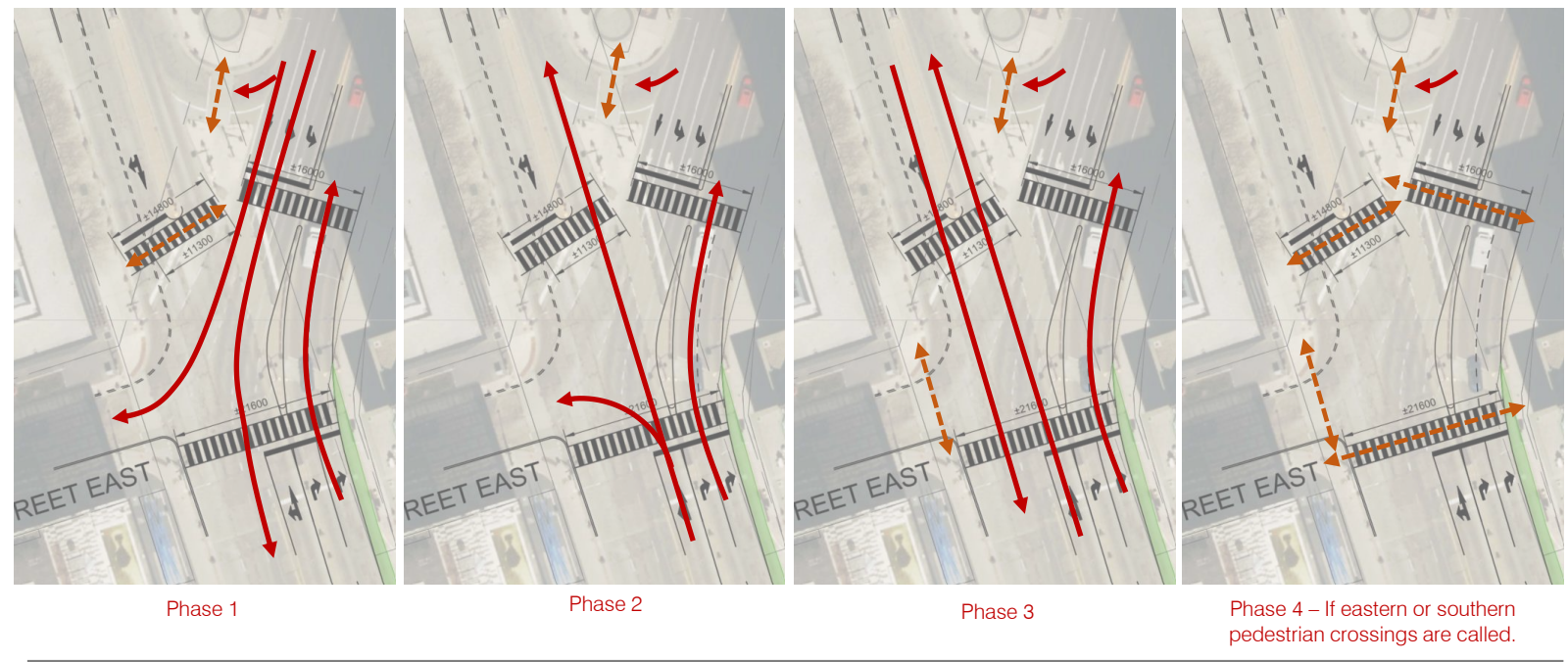


Conceptual Revised Signal Phasing Plan

- ↔ Pedestrian crossing
- Vehicular movement permitted

Option 3 – Crosswalk Improvements with Additional Southern Crosswalk (New Option)

95 second cycle length



Phase 1

Phase 2

Phase 3

Phase 4 – If eastern or southern pedestrian crossings are called.

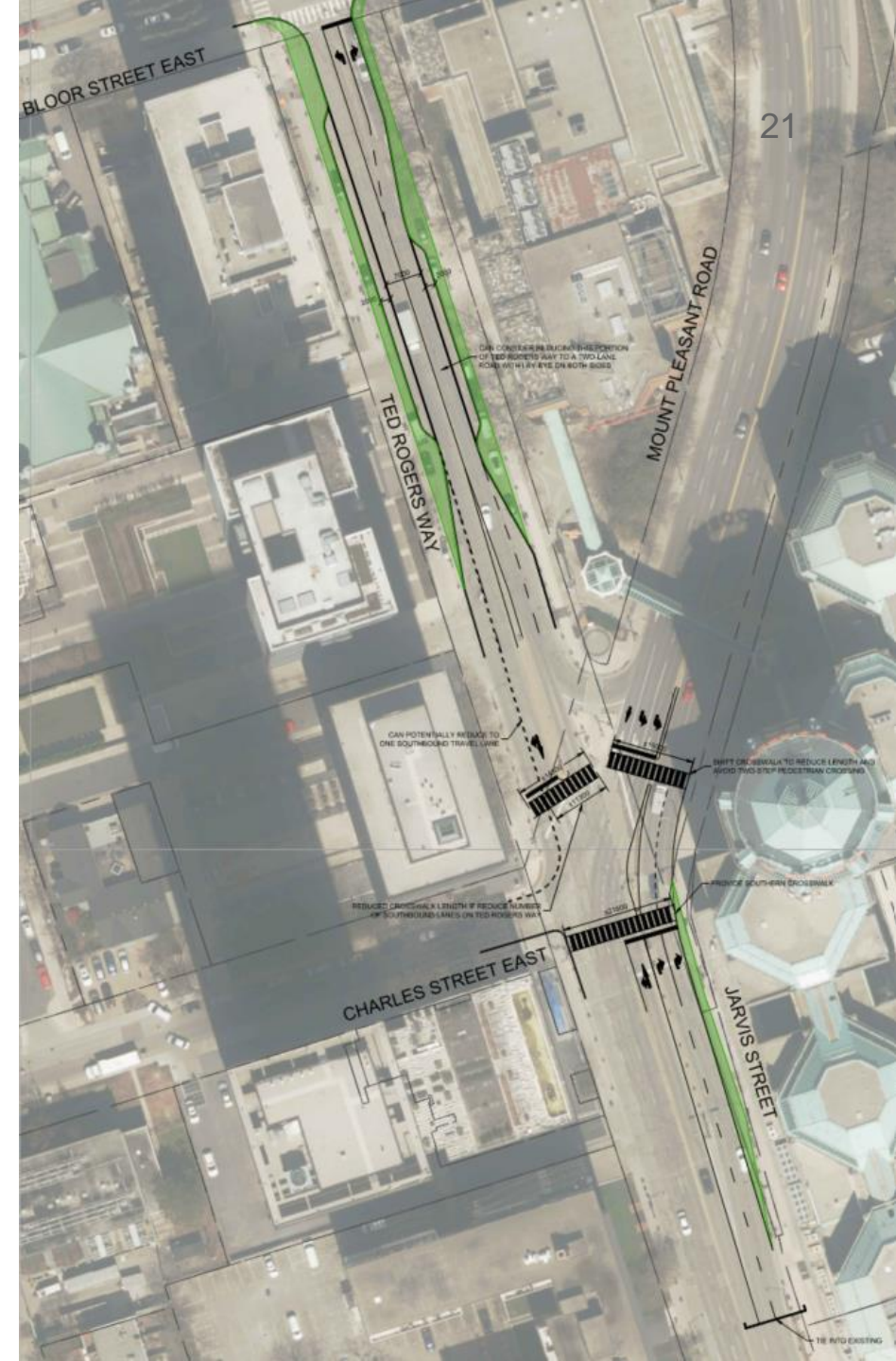
52 seconds

6 seconds

12 seconds, phase 4 is not called then 37 seconds

25 seconds if crosswalks are called

Road	Movement	Existing Time Allocation	Revised Time Allocation
Ted Rogers Way	Southbound	31 seconds	12-37 seconds
Jarvis Street	Northbound to Ted Rogers Way	43 seconds	18 - 43 seconds
	Westbound to Charles Street East	12 seconds	6 seconds
	Northbound to Mount Pleasant Road	76 seconds – 95 seconds	70 seconds – 95 seconds
Mount Pleasant Road	Southbound to Jarvis Street or Charles St E	52 seconds	52 seconds



MOVEMENT IN URBAN ENVIRONMENTS

