City of Sault Ste. Marie

Welcome

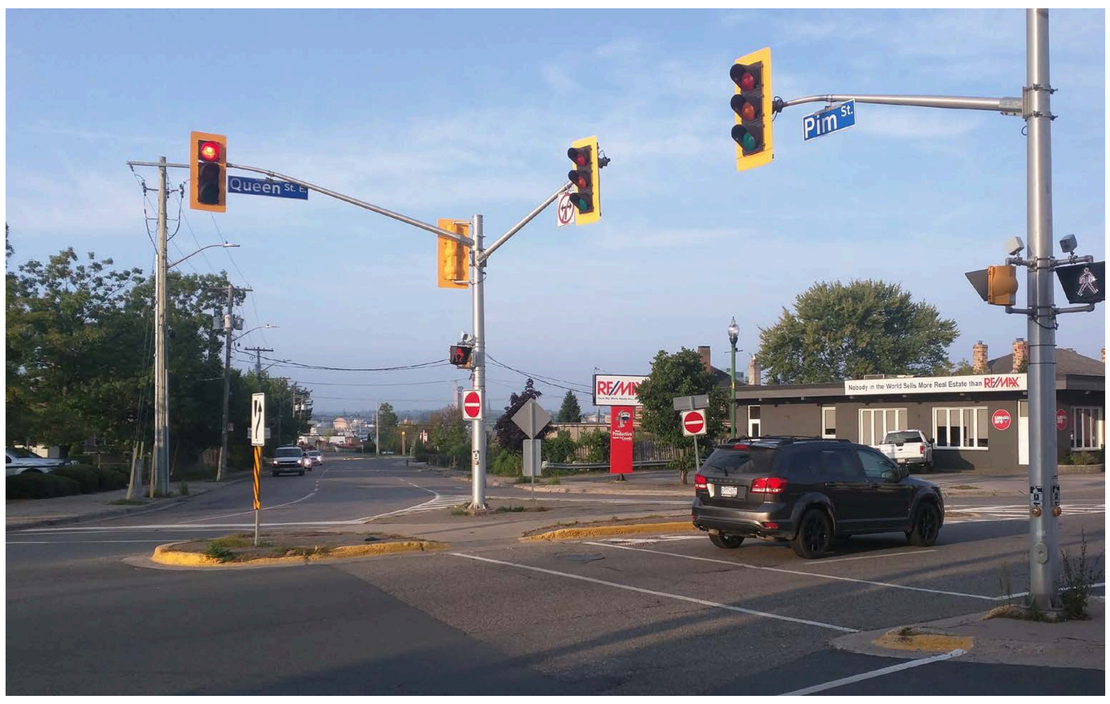
to the Public Information Centre for the

Downtown Traffic Study

IBI GROUP
City of Sault Ste. Marie
July 25, 2018

Purpose of Study

Determine if changes to one-way corridors can enhance downtown's character and spaces for pedestrians and cyclists.



Changes considered:

- Two-way conversion
- Lane reductions
- Additional infrastructure for pedestrians and cyclists

Study Objectives

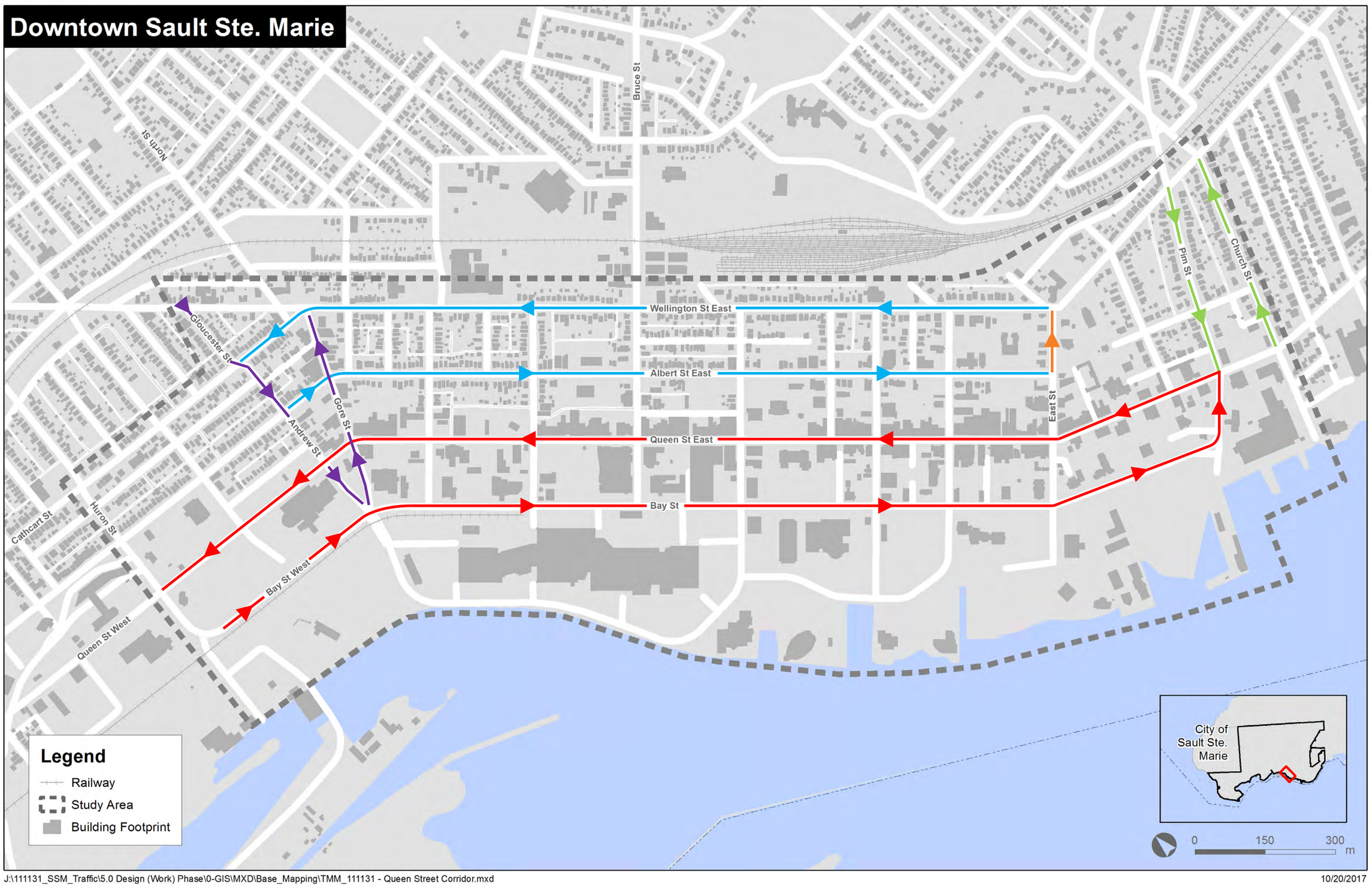
Primary Objectives:

- Determine if one-way traffic benefits still relevant
- Revitalize downtown
- Improve safety and comfort for pedestrians and cyclists

Study aims to answer:

- Impact of changes on:
  - Transportation
  - Socioeconomics
  - Natural environment
- Physical changes needed for conversion?
- Cost to implement conversion?
- Community opinions on changes?
- Conversion impacts in other cities?

Study Area

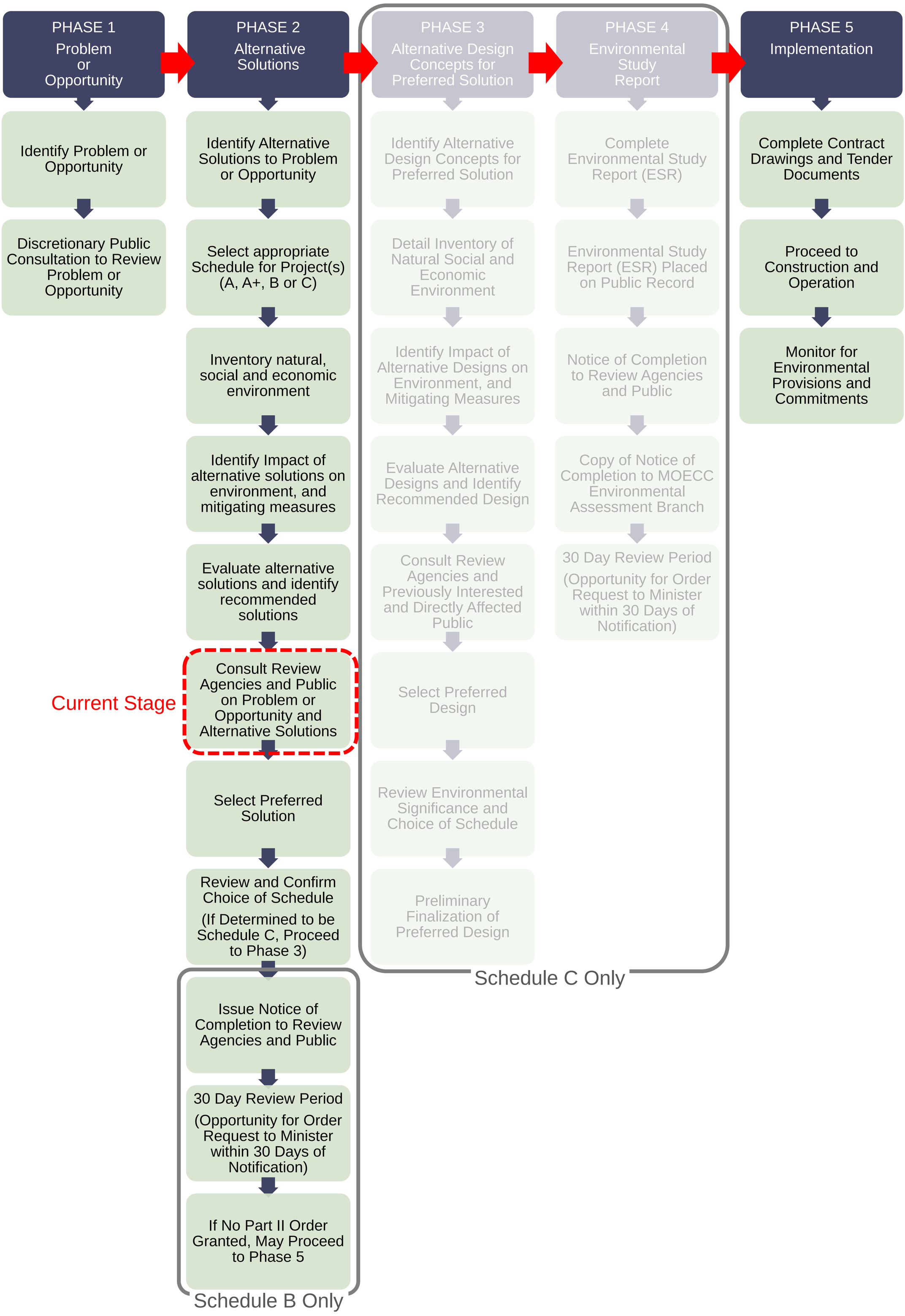


Downtown Sault Ste. Marie one-way streets are:

- Bay Street / Queen Street
- Albert Street / Wellington Street/Cathcart Street
- Pim Street with Church Street
- Andrew Street/Gloucester Street with Gore Street
- East Street (from Albert Street to Wellington Street)

MCEA Process

Steps for each of the five (5) phases:



Summary of Public Information Centre #1

Date: December 6th, 2017

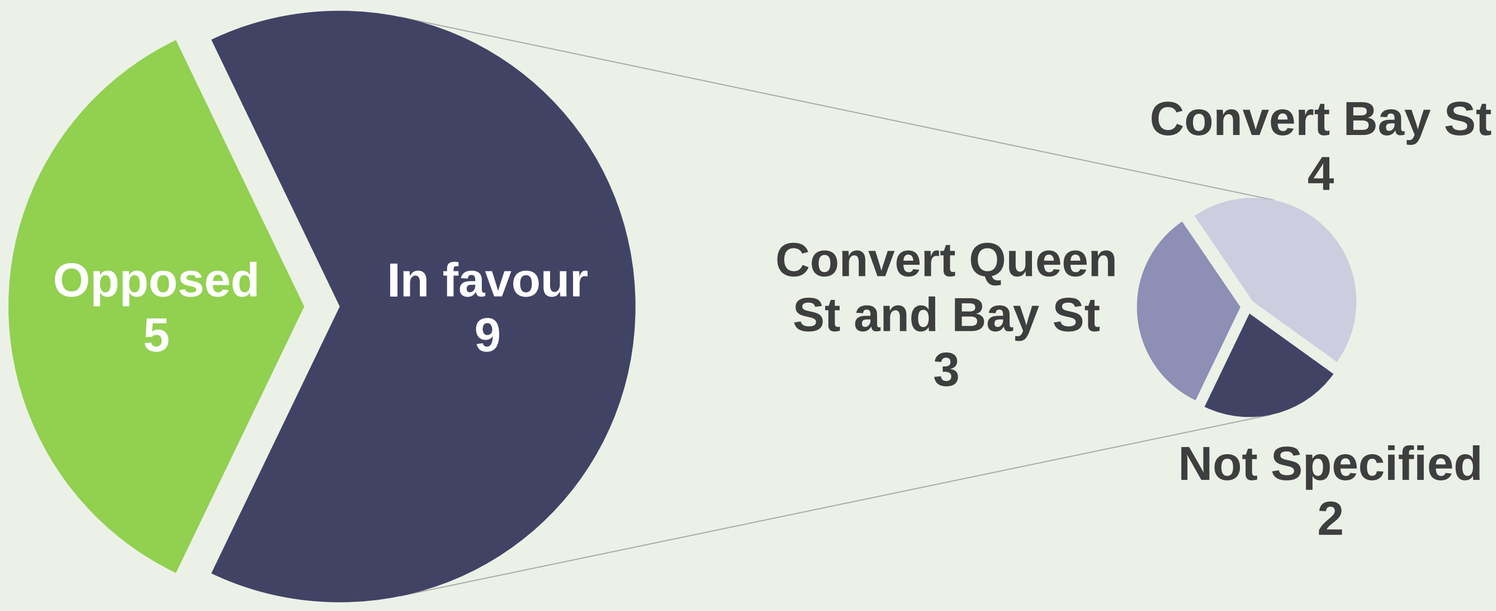
Location: Sault Ste. Marie Civic Centre

Total Attendees: 31

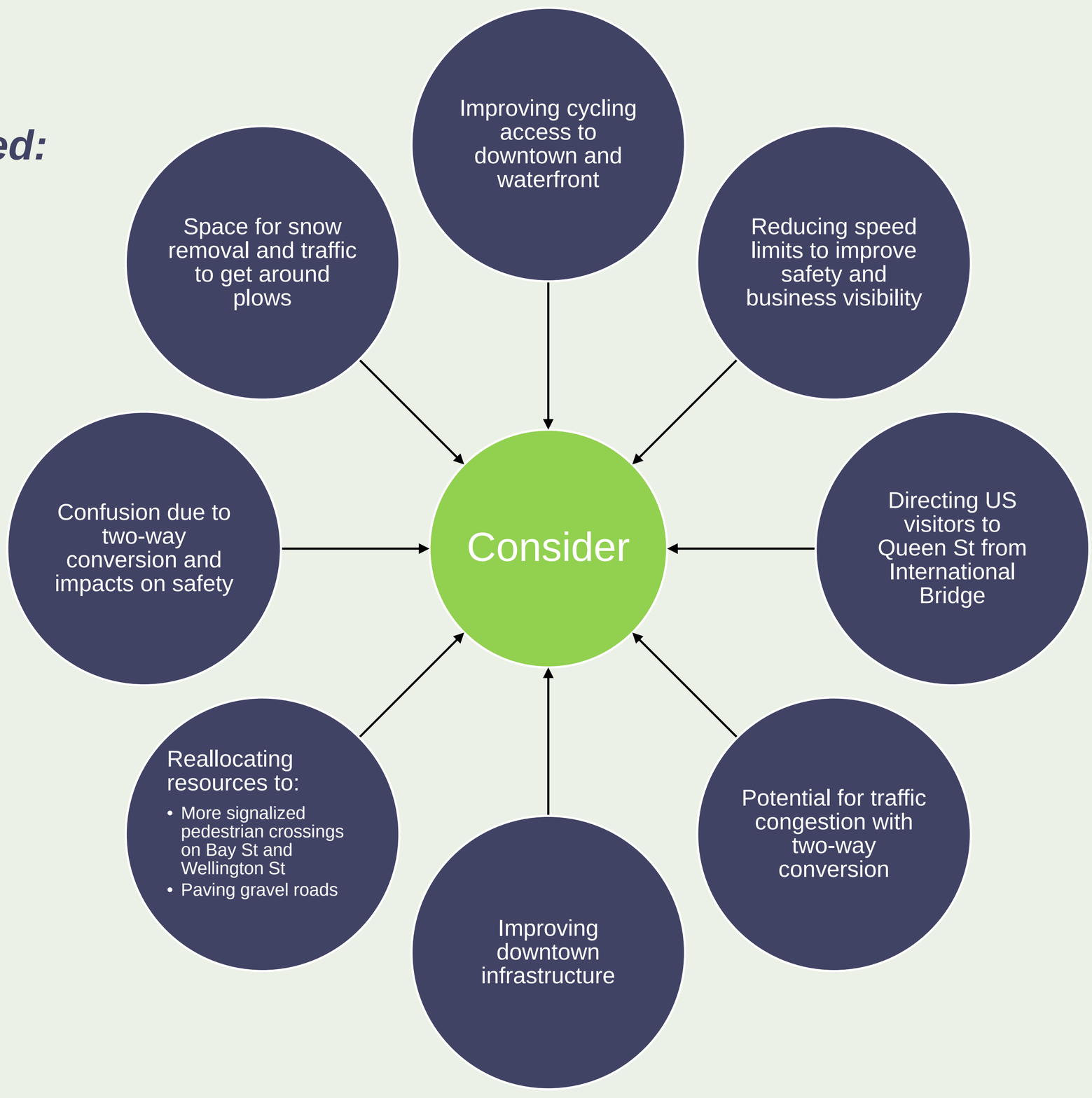
Total Comments Received: 14

Members of project team were available to discuss study, answer questions and receive comments

Attendees had varying opinions on two-way conversion, and where it should be completed:



There were several opinions on what should be considered:



Alternatives Considered

6 preliminary alternatives were refined to 3 alternatives

	Preliminary Alternative	Considerations	Proceed to Full Evaluation?
1	"Do Nothing" – Keep all roads as-is	• Modified to preferred alternative from Bay St EA – reduce Bay St to 3 lanes, one-way operation with Multi-Use Path (MUP) o Improved pedestrian experience o More than sufficient capacity for volume of vehicles o Should also consider reducing Bay St to 2 lanes, to offer improved pedestrian environment (**new Alternative 1A**)	✓
2	Convert all roads to two-way operation	• Preliminary Cost Estimates over $15M – too costly for City under single procurement	✗
3	Convert Bay St* and Queen St to two-way operation	• Most downtown businesses on Bay St and Queen St	✓
4	Convert Bay St* to two-way operation	• Leaves only one eastbound lane (on Bay St and Queen St combined) resulting in localized traffic congestion during afternoon peak hours	✗
5	Convert Queen St to two-way operation	• Leaves only one westbound lane (on Bay St and Queen St combined) resulting in localized traffic congestion during peak hours	✗
6	Active Transportation and Traffic Common Core Improvements	• Can be added to preferred alternative as part of detailed design	✗

3 Alternatives for Detailed Evaluation

Alternative 1

Base Scenario - Implement Bay Street EA (3 Lanes One-Way + MUP)

Alternative 1A

Modified Base Scenario - Implement Bay Street EA (2 Lanes One-Way + MUP)

Alternative 3

Convert Bay St* and Queen St to two-way operation

*Includes Pim St south of Queen St

Evaluation Framework

The evaluation framework presented at PIC 1 was refined

Each alternative given a score from 1 (least preferred) to 5 (most preferred) for each criteria:

Criteria	Sub-criteria	Least Preferred	Most Preferred
Vehicular Transportation 	Traffic level-of-service	Major traffic congestion (one or more locations in network over capacity)	Free flowing traffic (all locations in network have sufficient capacity)
	Potential to reduce traffic speed	Increase in vehicle speeds	Two-way traffic with reduced speed limits and traffic calming measures throughout network
	Traffic circulation, ease-of-routing	One-way streets throughout network	Two-way streets throughout network
Active Transportation 	Pedestrian space	Reduced space for pedestrians on one or more streets	Increased pedestrian space throughout network
	Cycling facilities	Cycling facilities removed	Addition of cycling facilities to match City's Bicycle Network plan
	Accessibility for persons with disabilities	Accessible crossings removed	Upgrades to crossings throughout network
Socioeconomic 	Access to parking	Loss of on on-street parking throughout network	No parking added - more than sufficient amount available
	Access to transit	Delays to or loss of transit route(s)	Opportunity for two-way transit throughout network
	Business visibility	Reduced visibility	Improved visibility throughout network
	Construction impacts	Construction throughout network	Construction avoided
Natural 	Landscape and vegetation	Impact/removal of vegetation or landscaping throughout network	Improvements to landscaping throughout network
Cost 	Cost of construction	Cost > $10 million	Cost < $1 million
	Cost-benefit ratio	Lowest cost-benefit ratio	Highest cost-benefit ratio

Vehicular Transportation

Traffic Operations

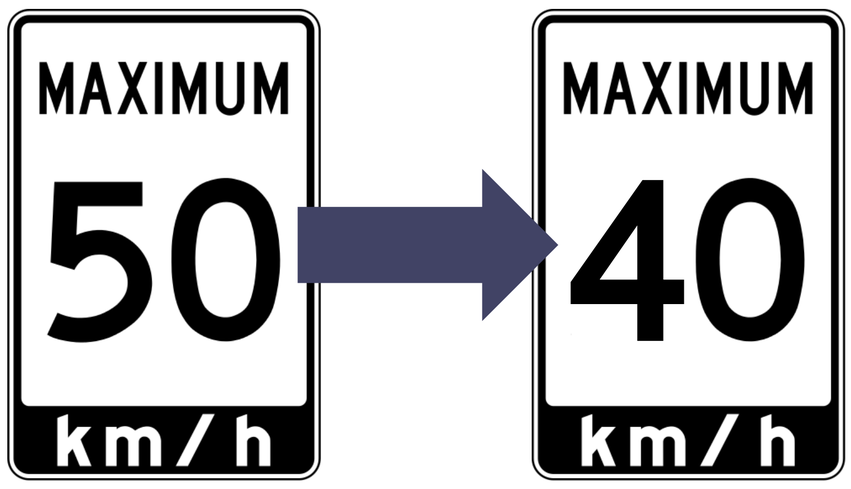
- All three alternatives have enough capacity to accommodate traffic demand
- Two-way operation (Alternative 3) has a minor increase in delay for eastbound trips due to loss in signal coordination, additional turning traffic
- Two-way operation (Alternative 3) may cause instances of difficulty moving around stopped or slow vehicles such as buses or delivery vehicles

All three alternatives work without traffic congestion

Potential to Reduce Traffic Speeds

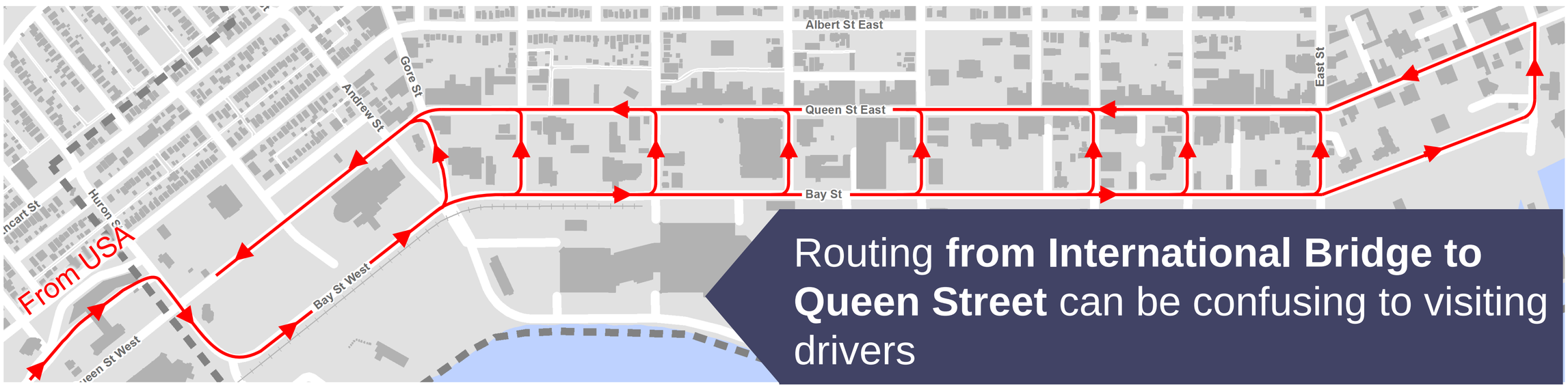
- Other municipalities have found that two-way operation can reduce traffic speeds
- Reduced speed limits, narrowed lanes, adjusted signal timing, and other measures can also be used to influence driver behaviour (All 3 Alternatives)

Reduced Speed Limits can influence driver behaviour



Ease of Routing

- Two-way operation (Alternative 3) offers greater ease of routing
- One-way operation (Alternatives 1 and 1A) does not provide visitors from US direct access to Queen St
    - Routing improvements can be made to one-way network (Alternative 1 and 1A) with better wayfinding signage



Routing **from International Bridge to Queen Street** can be confusing to visiting drivers

Active Transportation

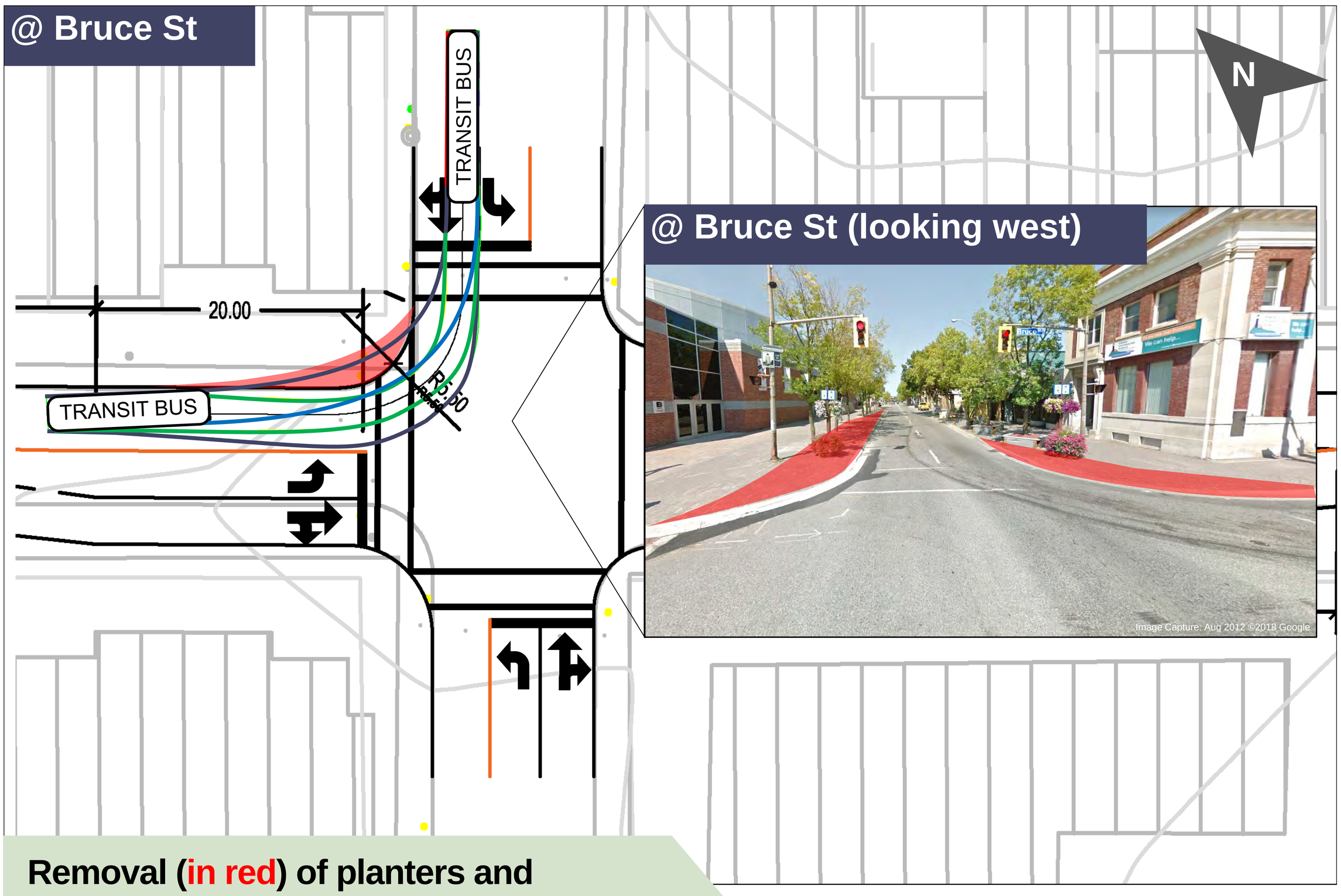
Pedestrian Space

- Two-way operation (Alternative 3) requires road widening / sidewalk reduction near major intersections for:
  - Left-turn lanes
  - Turning transit buses and delivery trucks

@ East St (looking west)

@ Brock St (looking west)

@ Bruce St



@ Bruce St (looking west)

Removal (in red) of planters and narrowing of sidewalks to accommodate two-way operation on Queen St

Active Transportation (con't)

Cycling Facilities

- Multi-use path introduced on Bay St for all 3 alternatives
- Two-way operation (Alternative 3) reduces vehicle speeds improving conditions for cyclists

Multi-use path on Bay St provides east-west connection for cyclists

Accessibility for Persons with Disabilities

- Each alternative offers opportunity to improve accessibility
- Alternatives 1 and 1A would re-construct Bay Street with accessible signals
- Alternative 3 would re-construct Bay Street and Queen Street
- Alternative 1A has shorter crossings at several locations along Bay Street

Accessibility Benefits	Alternative		
	1	1A	3
New signals with tactile plates / AODA	✓	✓	✓
Shorter crossing distances on Bay Street		✓	

Improved accessibility with separated crossings, tactile plates, signals with audible tone and tactile buttons

Socioeconomic

Street Parking and Loading

- Two-way operation (Alternative 3) requires loading zones
- Approx. 30 on-street parking spaces on Queen St may be lost to turning lanes and loading zones
    - Large amount of existing off-street parking
    - Some businesses may have access to rear-loading

Removal of On-street Parking
to accommodate turning lanes and loading zones (approx.)

Transit

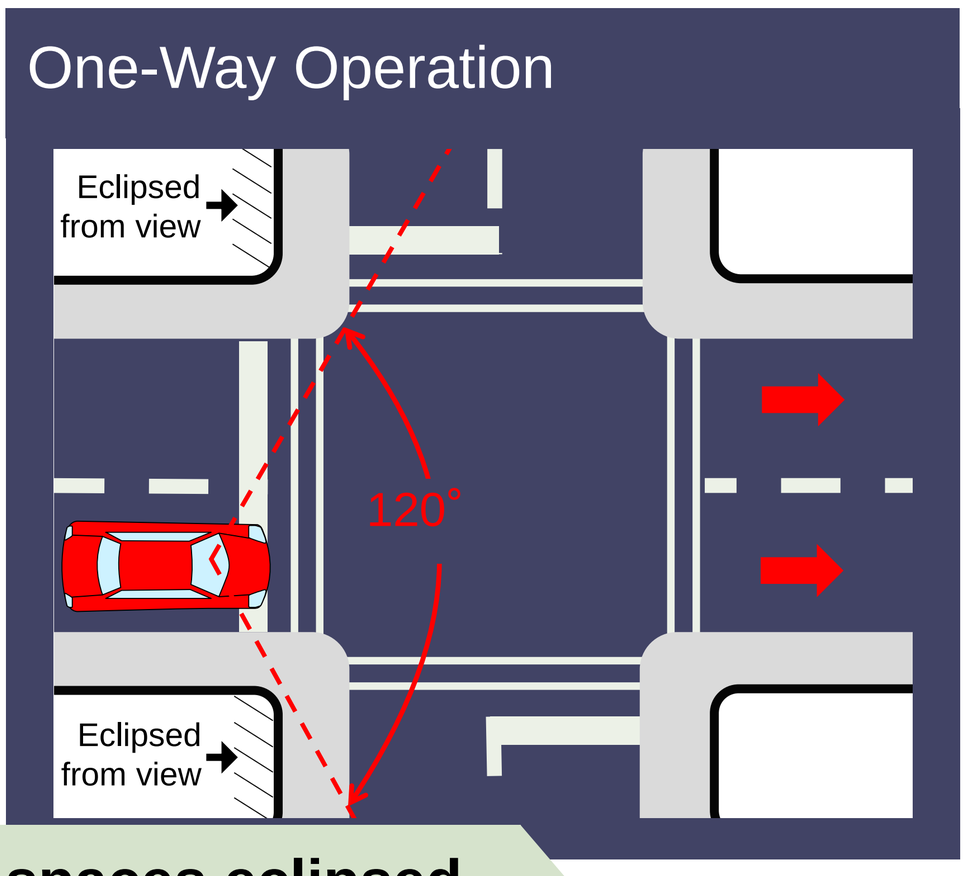
- Two-way traffic (Alternative 3) offers opportunity for bi-directional transit
    - Riders arrive and depart from same street
    - Easier to navigate
    - Reduces travel time

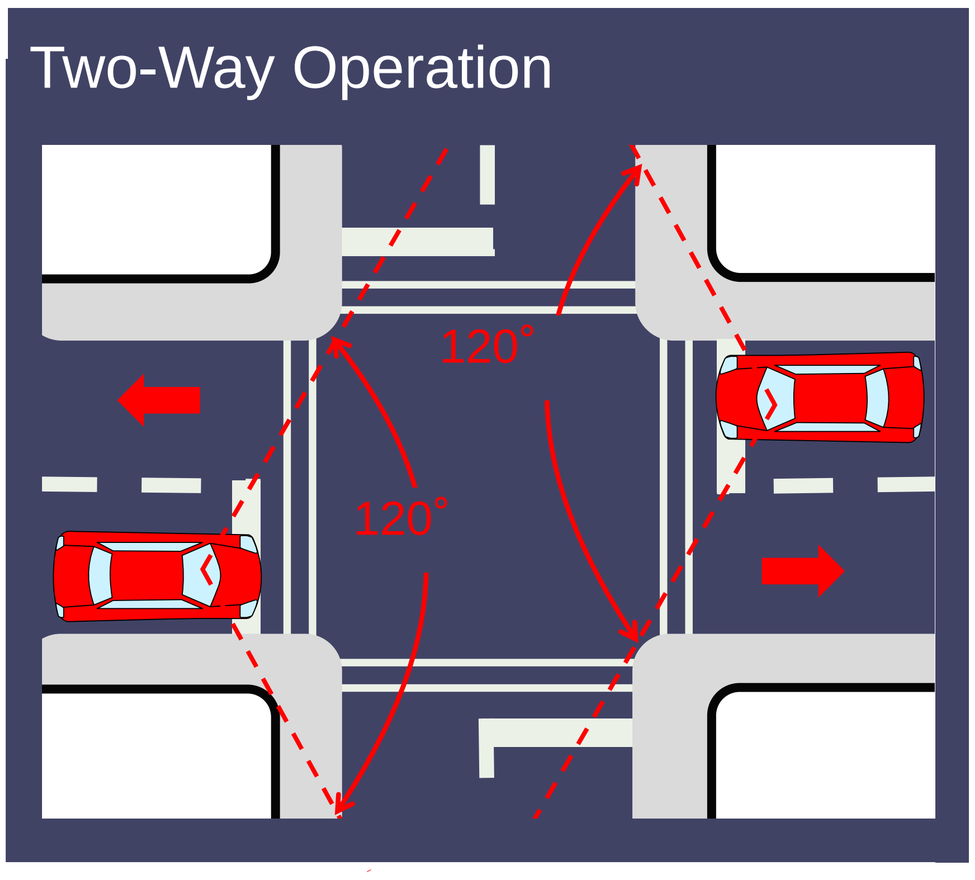
Bi-directional transit routes
easier for riders to navigate and reduces walking distance

Socioeconomic (con't)

Business Visibility

- Two-way operation (Alternative 3)
  - Better visibility of businesses on corners/side streets
- All 3 alternatives include multi-use path on Bay St
  - Minor benefit to business exposure from pedestrians and cyclists

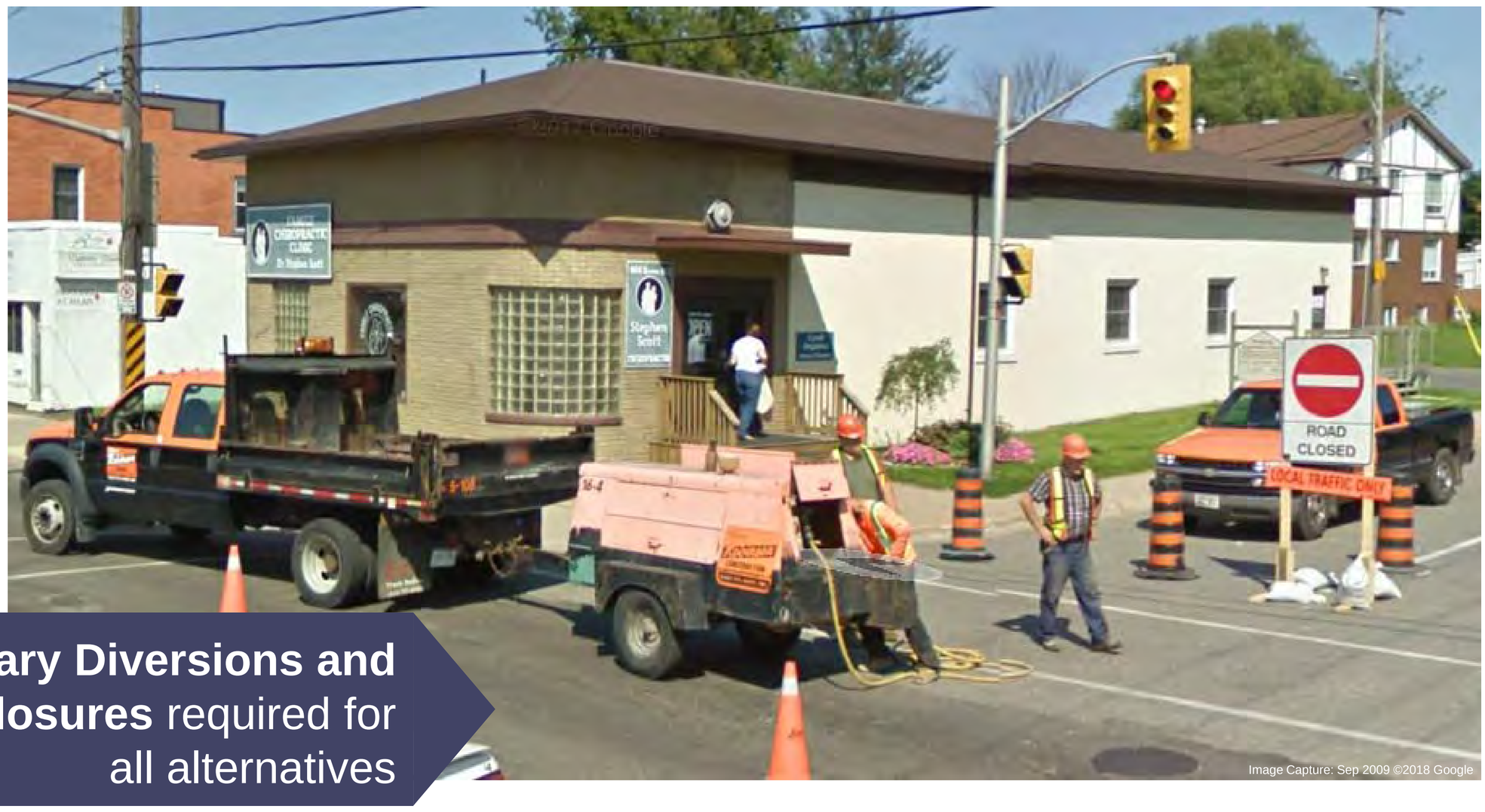




Retail spaces eclipsed from driver's view with one-way operation

Construction

- Temporary impacts to drivers and businesses
  - Diversions
  - Potential short-term road closures
- Alternative 1 and 1A impacts limited to Bay St
- Alternative 3 impacts on Bay St and Queen St



Temporary Diversions and Road Closures required for all alternatives

Natural Environment

Landscape and Vegetation

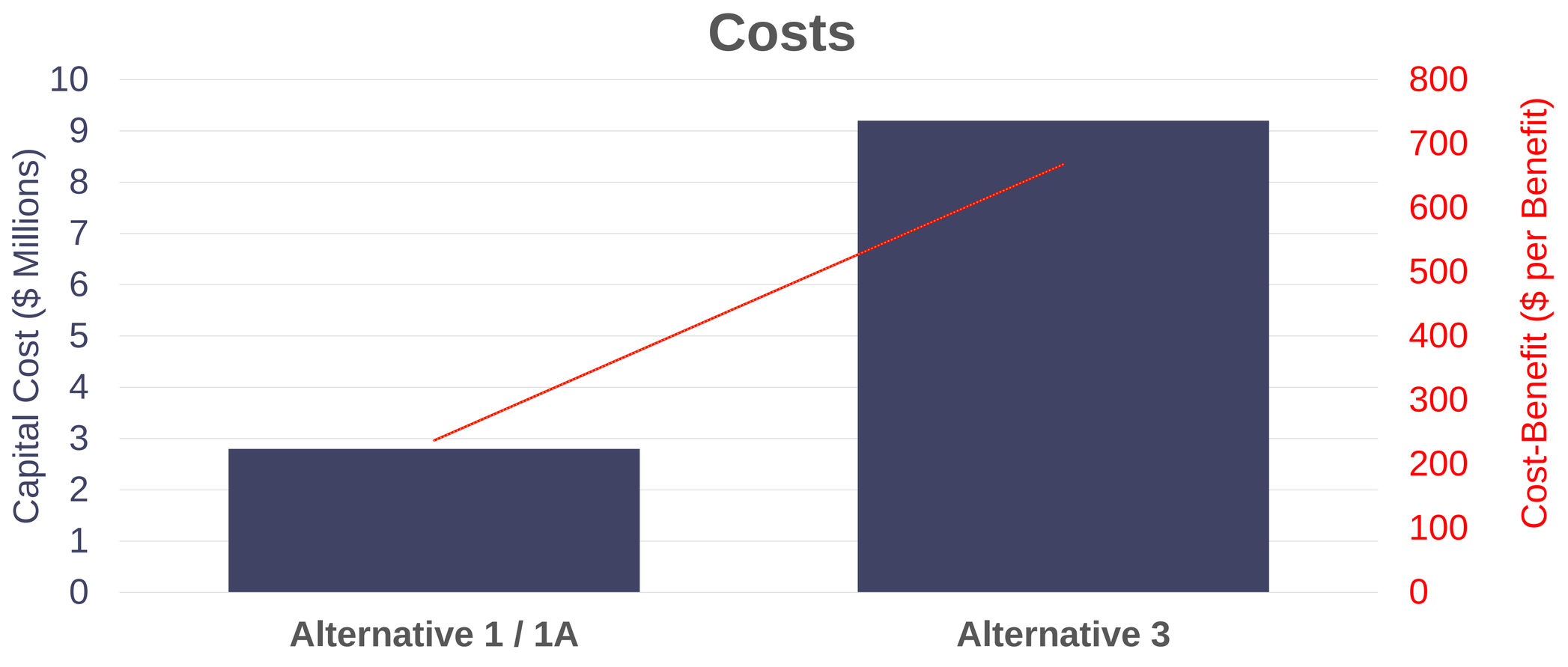
- Study area highly developed with limited natural vegetation
- Alternative 1
  - New landscaping on one side of Bay St
- Alternative 1A
  - New landscaping on both sides of Bay St
- Alternative 3
  - New landscaping on one side of Bay St
  - Removal of some existing landscaping near major intersections on Queen St
  - New landscaping on Queen St to mitigate these impacts, but with less space

All alternatives will offer an opportunity for **Landscaped Boulevards**

Cost

Capital Cost and Cost-Benefit

- Two-way conversion of 2 streets (Alternative 3) requires > 3x capital investment of maintaining one-way operation with reduced lanes on Bay St (Alternative 1 / 1A)



Evaluation of Alternatives

Alternative 1A is the Preliminary Preferred Alternative

Simplified form of evaluation of 3 alternatives considered

- ✓ indicates best performing alternative for each sub-criteria
- Each alternative offers similar balance of advantages and disadvantages
- Cost and cost-benefit ratio provide an advantage to Alternative 1 and 1A

Criteria	Sub-criteria	Alternative 1	Alternative 1A	Alternative 3
Vehicular Transportation	Traffic level-of-service	✓	✓	✓
	Potential to reduce traffic speed		✓	✓
	Traffic circulation, ease-of-routing			✓
Active Transportation	Pedestrian space	✓	✓	
	Cycling facilities	✓	✓	✓
	Accessibility for persons with disabilities		✓	
Socioeconomic	Access to parking	✓	✓	
	Access to transit			✓
	Business visibility			✓
	Construction impacts	✓	✓	
Natural	Landscape and vegetation		✓	
Cost	Cost of construction	✓	✓	
	Cost-benefit ratio	✓	✓	
OVERALL			✓	

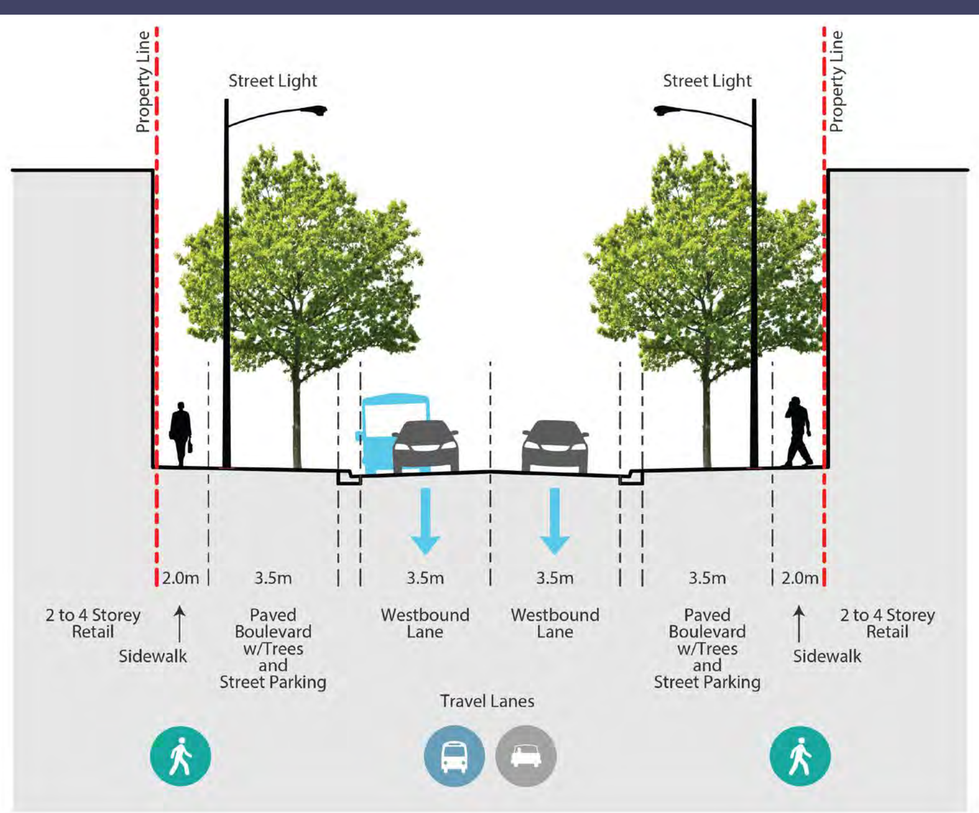
Preliminary Preferred Alternative

Alternative 1A

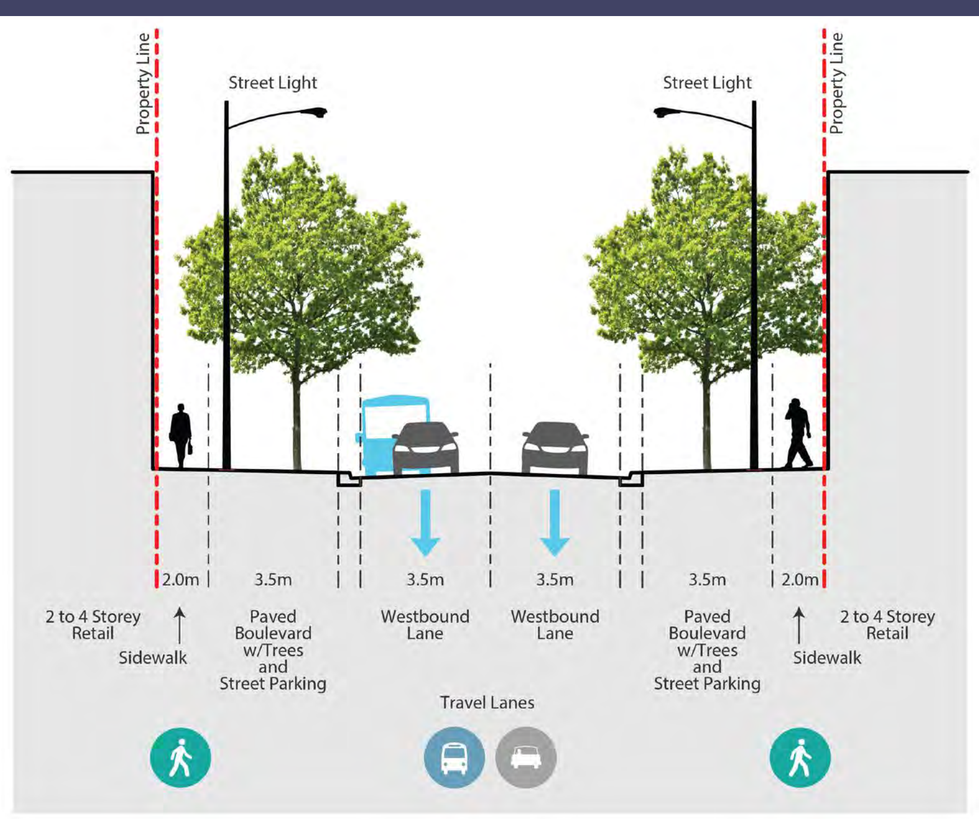
Concept Plan – Cross Sections

Queen Street East (@ Brock Street)

Existing Conditions

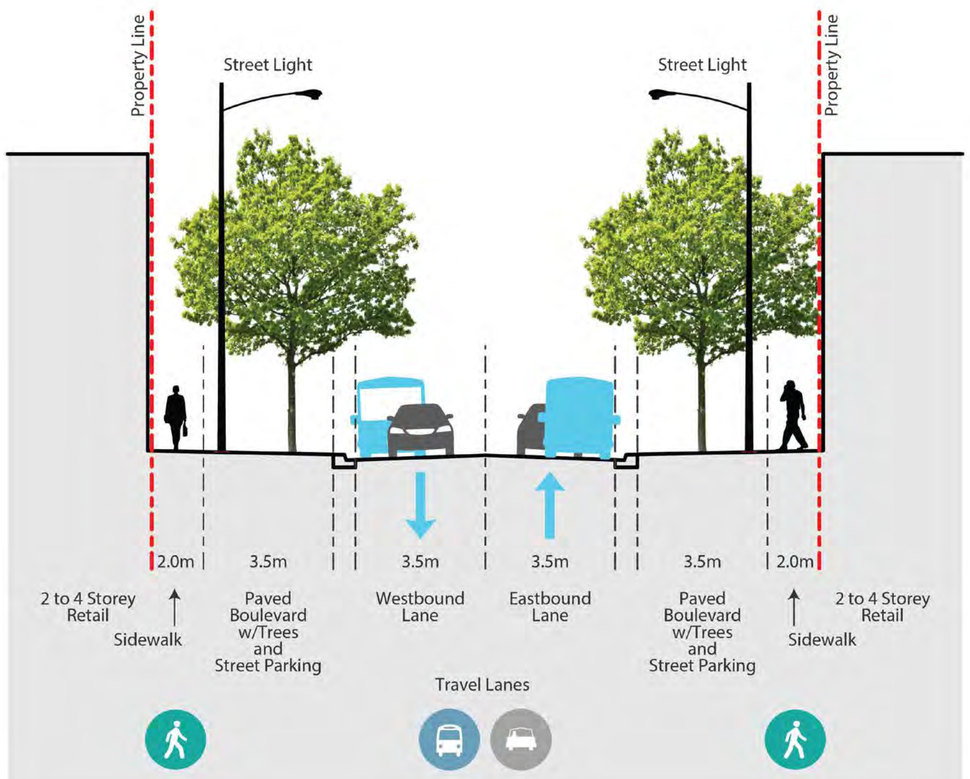


Alternative 1



No Change from Existing Conditions

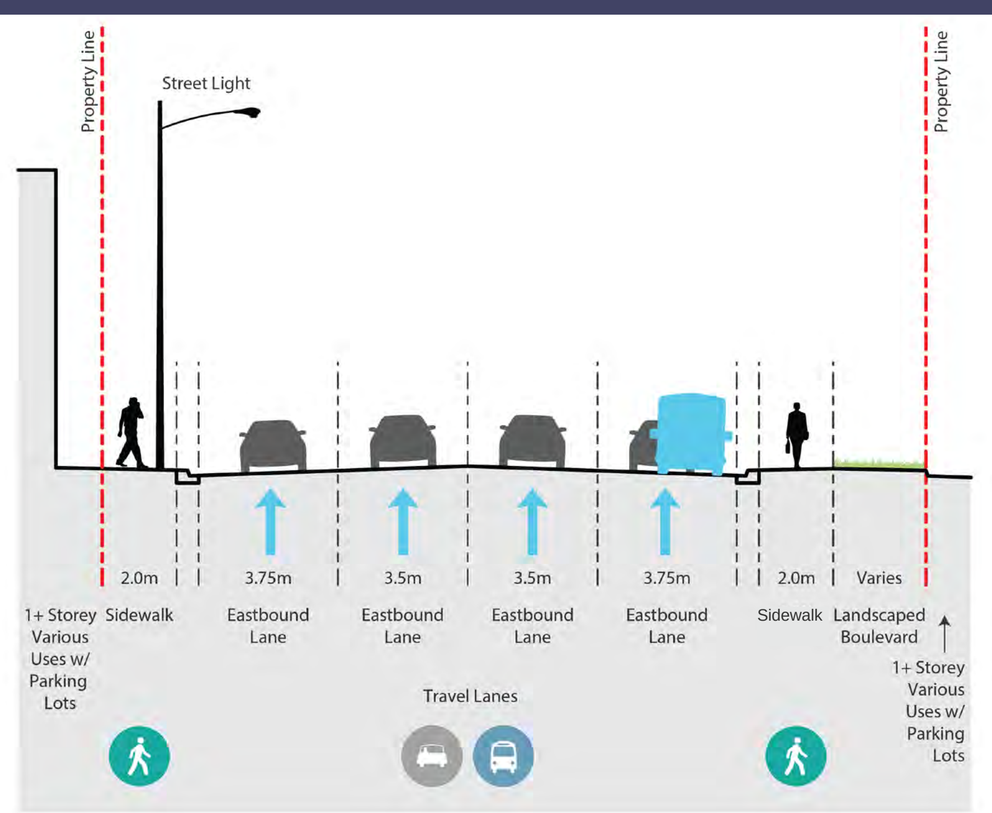
Alternative 3



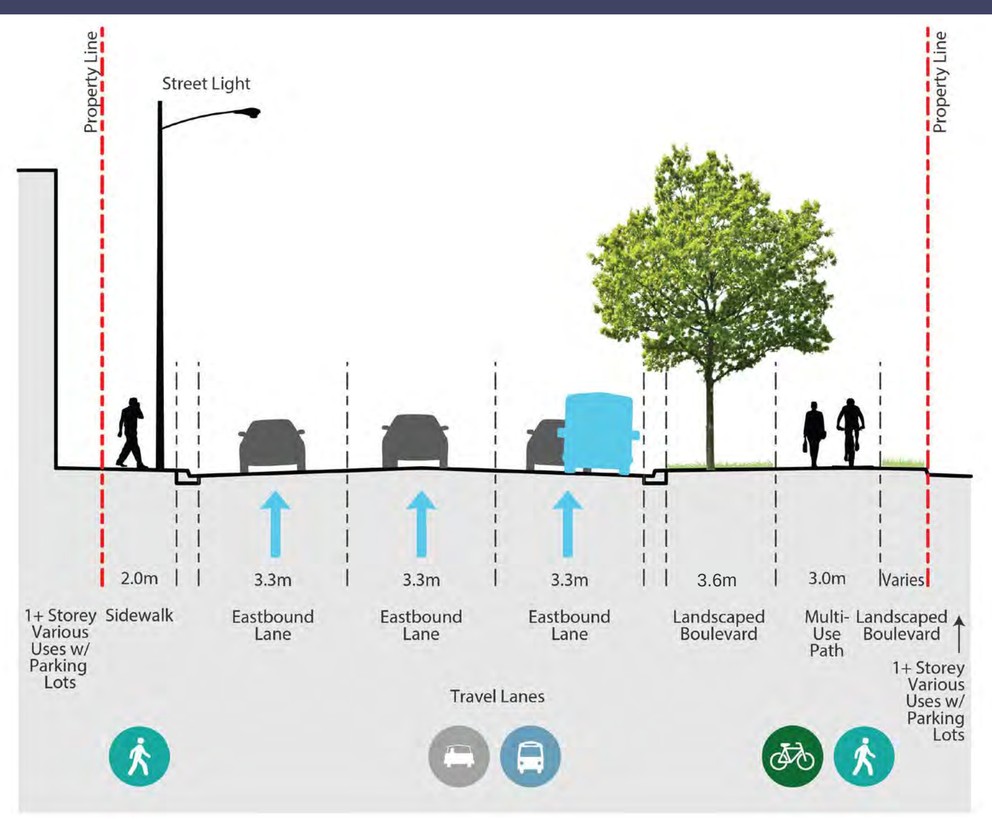
Convert to Two-way Operation, with 2 Lanes

Bay Street (@ Dennis Street)

Existing Conditions

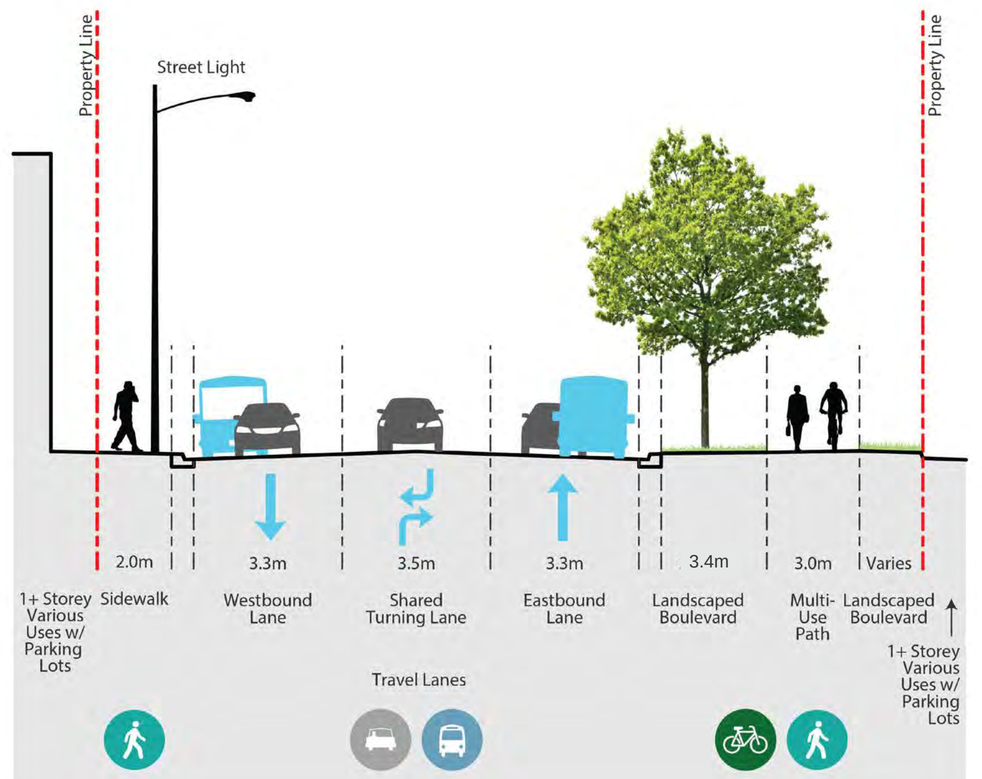


Alternative 1



Reduced to 3 Lanes One-Way + MUP

Alternative 3



Convert to Two-way Operation, with 2 Lanes

Convert to Two-way Operation, with 3 Lanes + MUP

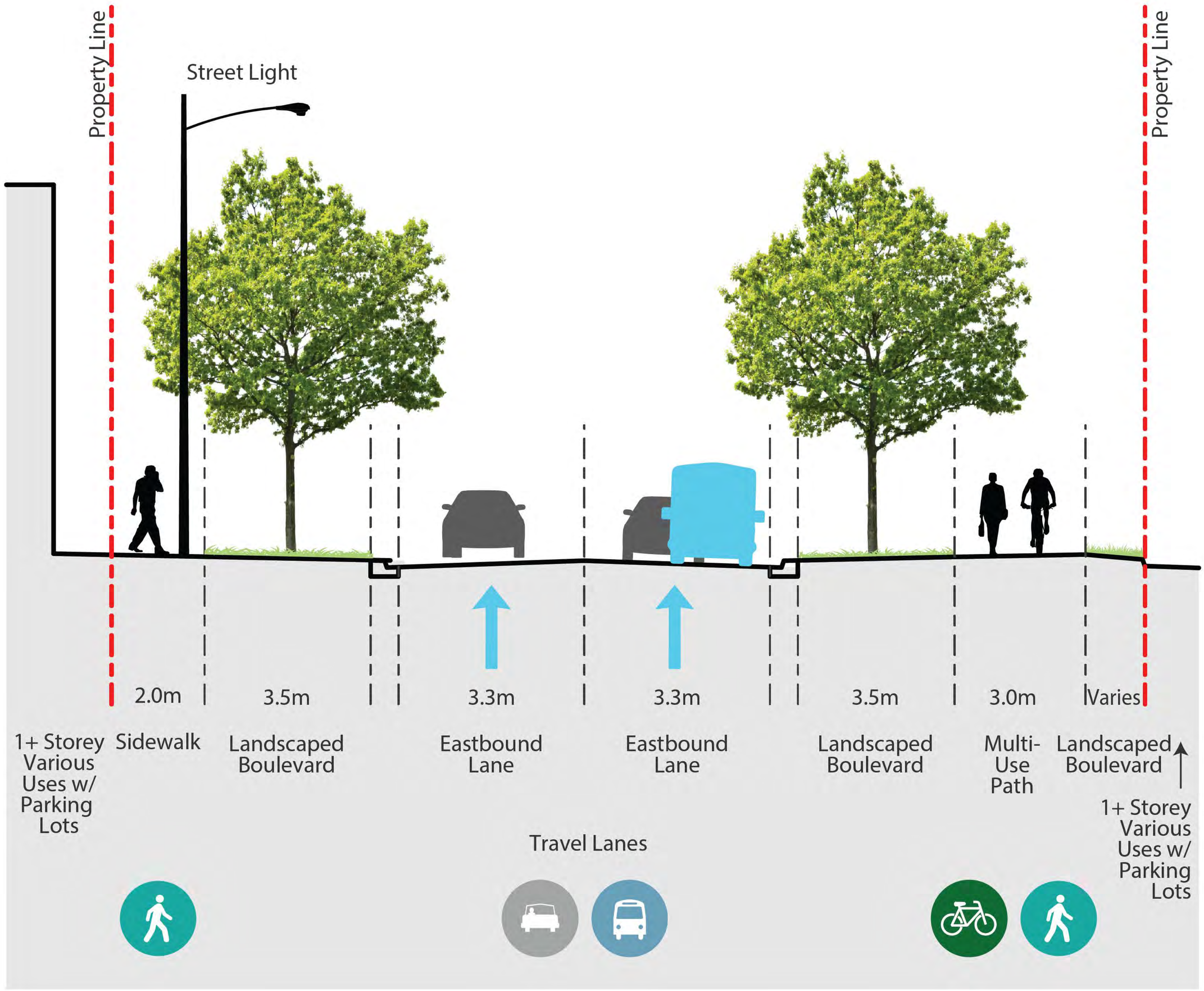
Notes: Views facing east
Not to scale
Dimensions vary and are approximate

Preliminary Preferred Alternative

Alternative 1A is the Preliminary Preferred Alternative

Alternative 1A:

- Maintains sufficient capacity for eastbound traffic
- Offers landscaped boulevards on both sides of Bay St
- Offers narrower crossings than Alternative 1
- Offers other benefits similar to Alternative 1



Reduced to 2 Lanes One-Way + MUP

Notes: Facing east
Not to scale
Dimensions vary and are approximate

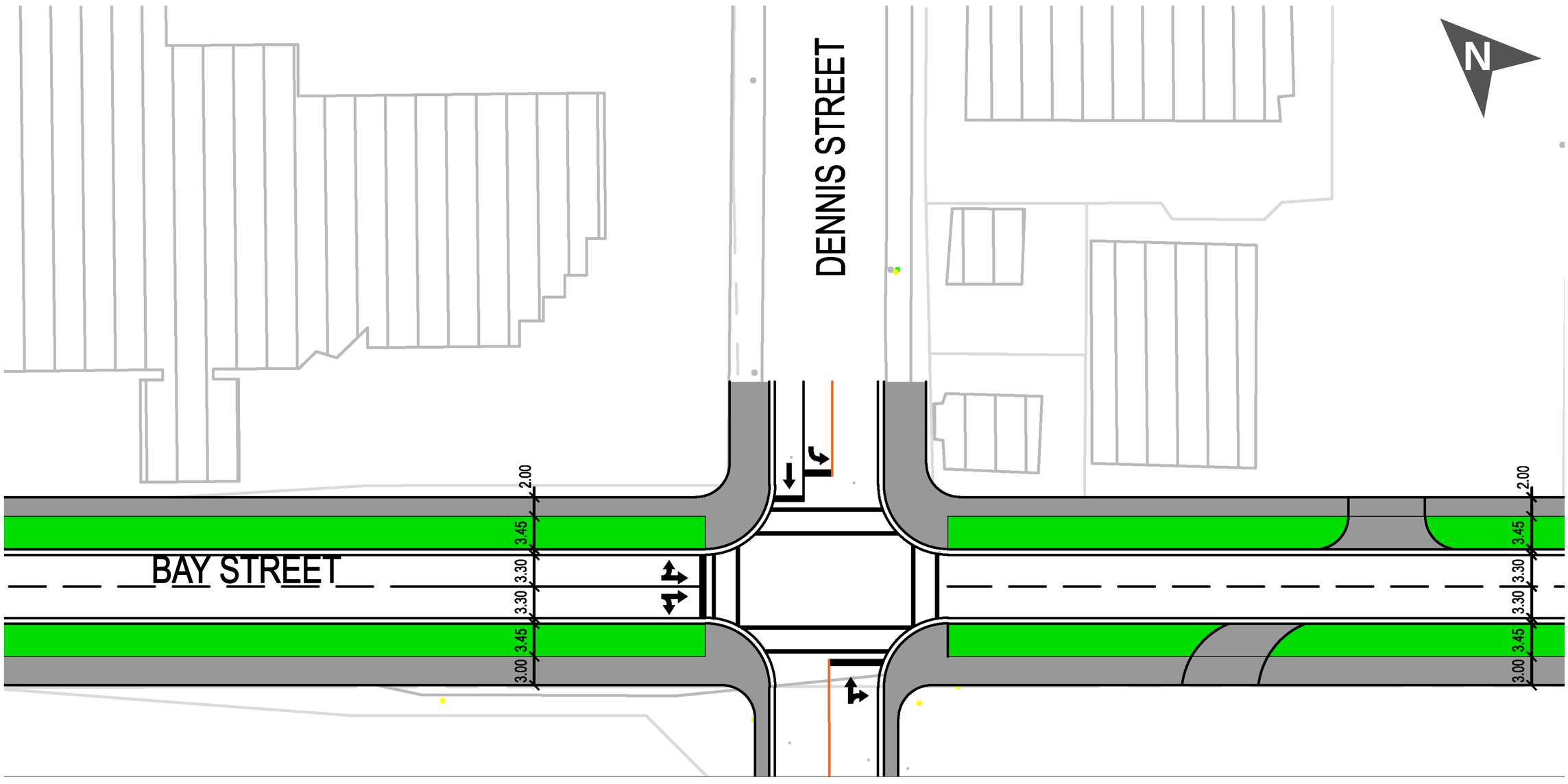
Concept Plan – Plan View

Alternative 1: 3 lane one-way operation on Bay St

- Conceptual plan for Bay St @ Dennis St Shown below:

Alternative 1A: 2 lane one-way operation on Bay St

- Conceptual plan for Bay St @ Dennis St shown below:

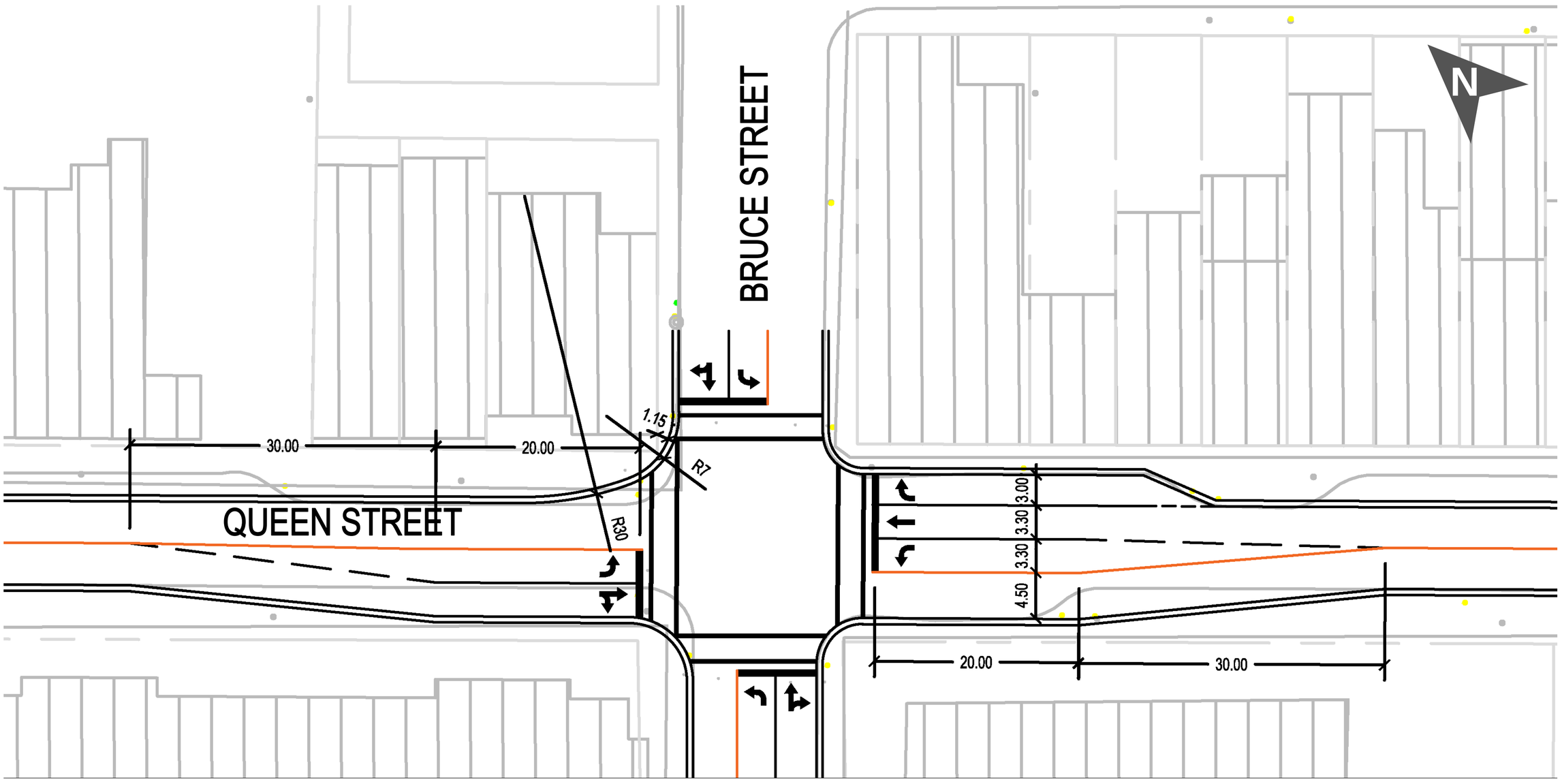


Note: Not to scale, dimensions vary and are approximate

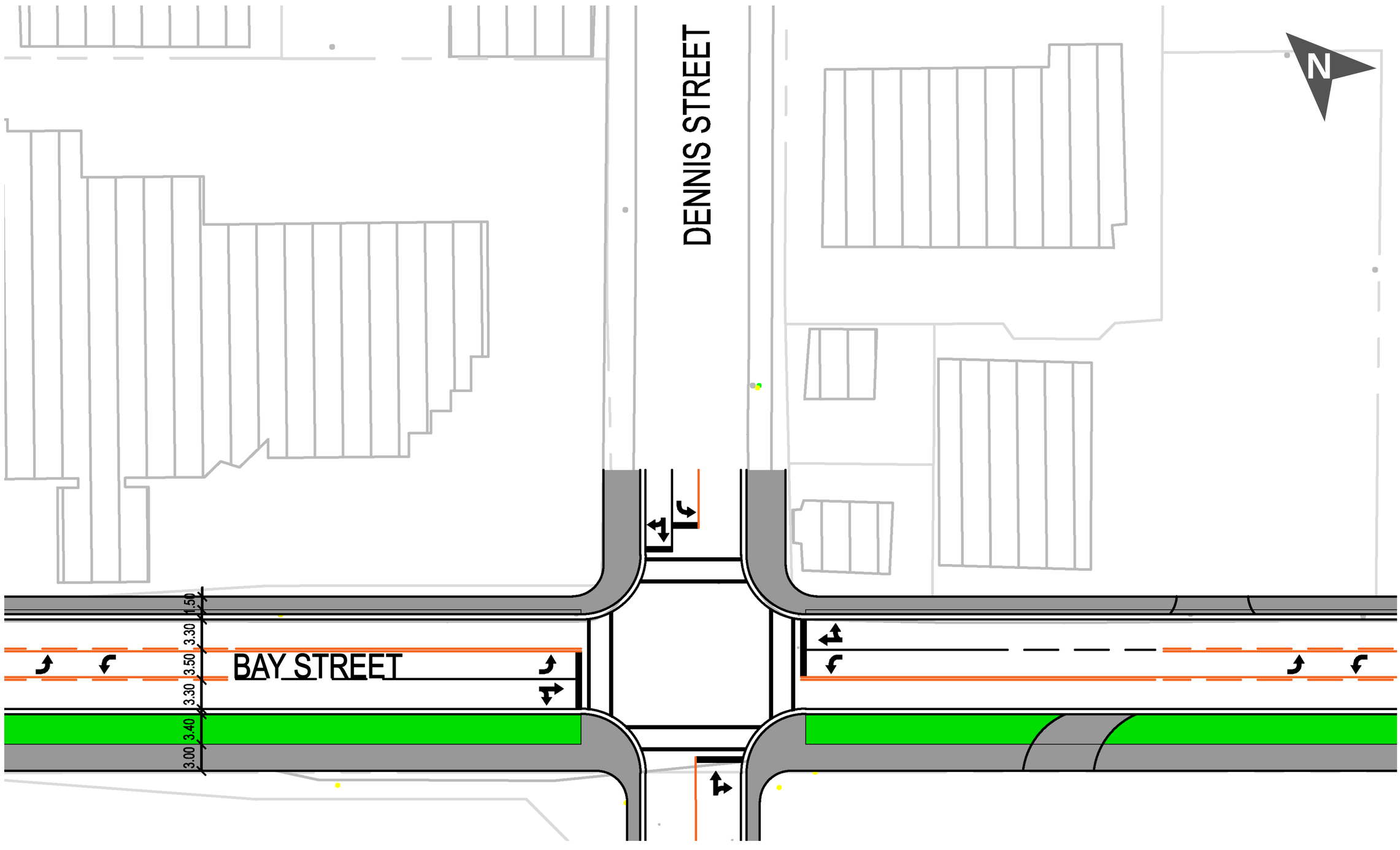
Concept Plan – Plan View

Alternative 3: Two-way operation on Bay St and Queen St

- Conceptual plan for Queen St @ Bruce Shown below:



- Conceptual plan for Bay St @ Dennis Street shown below



Note: Not to scale, dimensions vary and are approximate

Questions and Comments

We would like you're your thoughts on the study!

Please submit questions and comments at **reception table today** **or** by **mail / e-mail** **to**:

Carl Rumiel
Design and Construction Engineer
Public Works and Engineering Services

City of Sault Ste. Marie
99 Foster Drive
Sault Ste. Marie, ON P6A 5X6
705-759-5379
c.rumiel@cityssm.on.ca

Scott Johnston
Associate | Manager
Transportation Engineering and Planning

IBI Group
100 - 175 Galaxy Blvd
Toronto ON M9W 0C9
416-798-5503
sjohnston@IBIGroup.com

Comments must be received **no later than August 10, 2018**

Thank You

for Your Interest and Input!