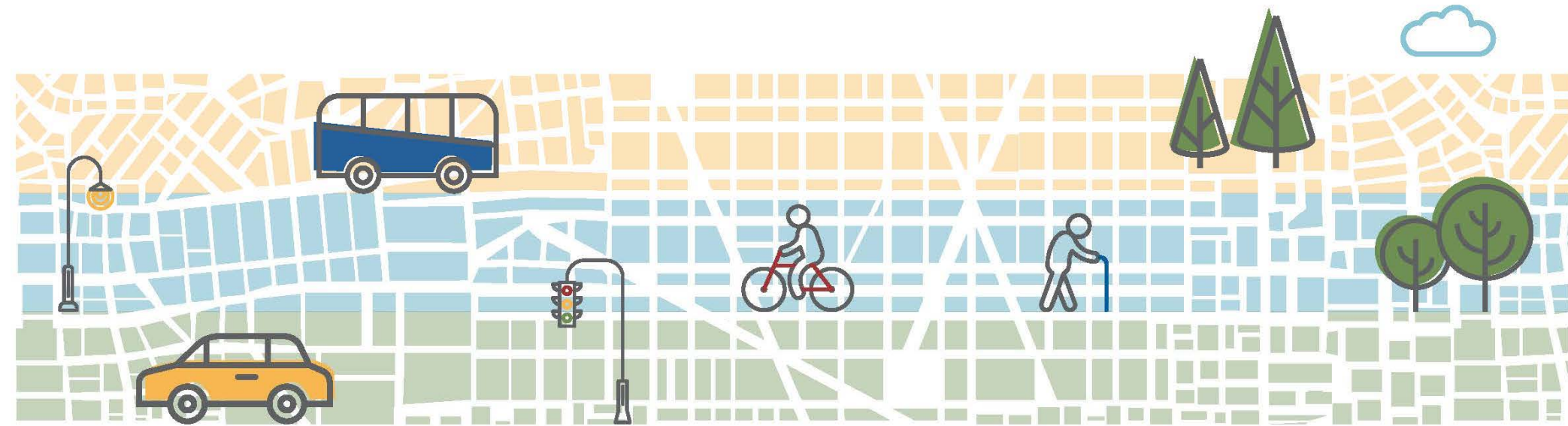




Prospect Street Protected Bikeways, Safety Improvements, Area Renewal, Watermain and Wastewater main

Public Information Centre #1

February 6, 2023

6:00pm-7:30pm

Meeting Disclaimer

- This is a public meeting.
- This meeting is being recorded.
- Any personal information you volunteer in the meeting will be collected for organizer use only.
- The recording of this meeting, along with any information considered at the meeting, will be publicly available.

Notice of Collection:

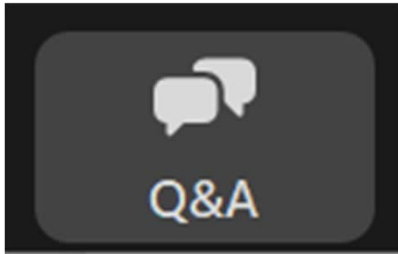
- Meeting participants may choose to provide personal information (including name, email address and questions asked via the question and answer feature) during the course of this public meeting. When personal information is volunteered, the City collects it under the authority of the *Municipal Act, 2001*. Once collected, personal information will not be shared publicly but will be available to meeting organizers for future communications and review. Questions asked may be contained in an appendix of a staff report, published on the City's website, in a video or audio recording of the meeting and/or in the transcript of the meeting. By continuing to participate in this meeting you:
 - acknowledge that any personal information you volunteer will be recorded; and,
 - consent to your personal information being disclosed to meeting organizers

Questions about the collection, use and disclosure of personal information should be directed to the City Clerk, City of Burlington, 426 Brant Street, P.O. Box 5013, Burlington, Ontario, L7R 3Z6, clerks@burlington.ca.

Agenda

- Introductions
 - Questions, Project Limits, Project Contacts,
- Planning Context
- Proposed Design
- Next Steps, Questions, and Comments

Questions



Tonight, we are using the Q &A function to ask questions. If you have a question for staff, please click on the Q &A button located at the bottom of your screen, and type in your question. Questions will be answered through out the presentation during designated Q &A times.

Questions

- The Panelists listed below will address questions live.
- Note: Another PIC will be conducted for residents to address specific impact questions & concerns. If you have specific questions concerning your property please send them to Katie.Haines@Burlington.ca and/or Robert.Stuart@burlington.ca.

Robert Stuart, Project Manager, City of Burlington

Katie Haines, Contract Administrator of Design and Construction, City of Burlington

Aaron Kuryluk, Senior Design Technician, City of Burlington

Janine Yaromich, Manager of Design and Construction

Vivek Nemani, Project Manager, Halton Region

Chandni Desai, Senior Project Adviser, Halton Region

Chris Mills, Manager, Capital Engineering & Construction, Halton Region

Kaylan Edgcumbe, Manager Integrated Mobility, City of Burlington

Danijel Ozimkovic, Transportation Planning Technologist, City of Burlington

Josip Kafadar, Supervisor, Traffic Operations

Chris King, Manager, Transportation Operations

Tony Zhuang, Supervisor, Transit Planning and Service Development

Florin Patau, Traffic Technologist

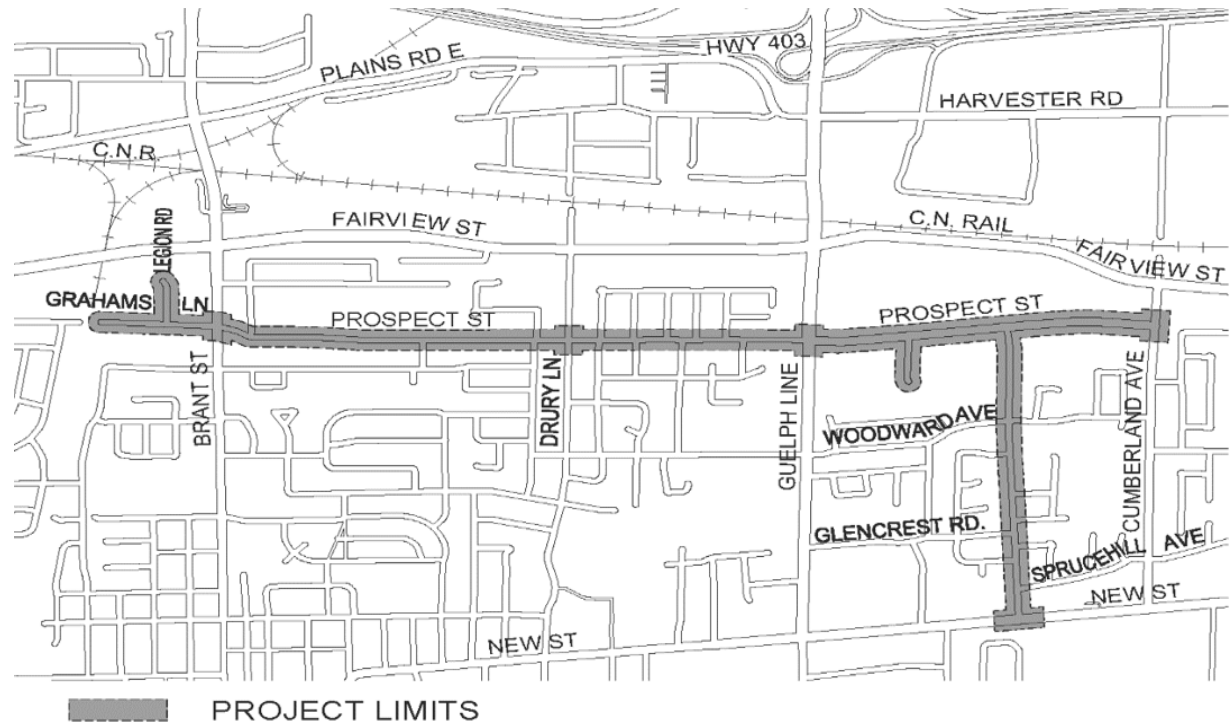
Kyle McLoughlin, Supervisor Forest Planning & Health

Councillor Lisa Kearns, Ward 2, City of Burlington

Councillor Shawna Stolte, Ward 4, City of Burlington

Project Limits

- **Prospect Street: Grahams Lane to Cumberland Ave**
 - Resurfacing the roadway - Curb and sidewalk replacement - Cycle tracks - Protected bike lanes
 - Protected Intersections - Reduction of lanes from Cumberland Ave to Guelph Line on Prospect Street - Waste watermain - Watermain – storm sewer - Street lights - Traffic Signals
- **Dynes Road: Prospect to New**
 - Road Resurfacing – Storm sewer Spot Repair
 - Spot Curb and sidewalk
 - Watermain
- **Regency Court**
 - Road Resurfacing
 - Curb and Sidewalk Spot Repair
 - Watermain
 - Storm sewer Spot Repair
- **Legion Road**
 - Road Resurfacing
 - Spot Curb and Sidewalk
 - Storm sewer Spot Repair



Project Contacts

City of Burlington

Rob Stuart, Project Manager
Engineering Services
City of Burlington
905-335-7600 Ext. 7519
Robert.stuart@burlington.ca

Katie Haines, Contract Administrator
Engineering Services
City of Burlington
905-335-7600 Ext. 7567
Katie.haines@burlington.ca

Halton Region

Vivek Nemani, Project Manager
Engineering & Construction,
Public Works
Halton Region
289-834-1043 | 1-866-442-5866
Vivek.Nemani@halton.ca

Additional Contacts

Councillor Lisa Kearns
905-335-7600 Ext. 7591
Lisa.Kearns@burlington.ca

Dania Thurman, Assistant to
Councillor Lisa Kearns, Ward 2
905-335-7600 Ext. 7368
danial.thurman@burlington.ca
Office: Ward2@Burlington.ca

Councillor Shawna Stolte
905-335-7600 Ext. 7531
Shawna.stolte@Burlington.ca

Annemarie Cumber, Assistant to
Councillor Shawna Stolte, Ward 4
905-825-6000 Ext. 7512
annemarie.cumber@burlington.ca
Office: Ward4@Burlington.ca

Project Timeline & Project Budget

Construction

Stage One Construction

(Prospect Street - Guelph Line to Cumberland,
Dynes Road - Prospect to Woodward Avenue)

July 2024 to December 2024

Stage Two Construction

(Grahams Lane - cul-de-sac to Brant Street,
Prospect Street - Brant Street to Guelph Line)

April 2025 to December 2025

Stage Three Construction

(Regency Court, Legion Road, Dynes Road –
Woodward to New Street)

April 2026 to September 2026

Note: Timelines are estimated, weather dependent, and restoration works may occur outside what is indicated.

Halton Budget: 25M

City Budget: 12M

Total Budget: 37M

Note: Elements of the project are eligible for funding from senior levels of government, and the city has currently applied to the Active Transportation Fund for this project.



Planning Context

Integrated Mobility Plan – Cycling Network



CITY OF BURLINGTON
BURLINGTON INTEGRATED MOBILITY PLAN

URBAN CYCLING SPINE NETWORK

- Intersection Improvements
- ↔ Barrier Crossings
- On-Road Spine Network
- Off-Road Spine Network
- Street Needing Future Design Review

Prospect Street is identified as a key route in the On-Road Spine Network and was flagged for a Corridor Review.

Protected Bikeways – Policy Rationale

The recommendation to construct a protected bikeway throughout the Prospect Street corridor is informed by guiding documents and policy objectives, including:

- **Official Plan (2020)** – *“to develop and maintain a continuous on-street and off-street bikeway and trail system across the city, connecting to adjacent municipalities, for general commuting and recreational purposes” and “to promote and support walking and cycling as viable and safe mobility options for commuting, recreation and other travel”*
- **Burlington Cycling Plan (2021)** – *“A cycling culture within the City of Burlington is encouraged and achieved through the implementation of cycling facilities that allow all people to feel confident, comfortable and safe using a bike as their preferred mode of transportation”*
- **Integrated Mobility Plan (2023)** – *“Create a complete and connected cycling network, including establishing dedicated rights-of-way, enhance the cyclist level of service, build a network that attracts new cyclists and broadens the community of cyclists, create connections to transit, and improve safety & promote cycling”*

Protected Bikeways – Mode Share Analysis

- Through the Integrated Mobility Plan, future mode-share targets were established that support the active transportation and transit targets set out in the 25-year Strategic Plan.
- The targets recognize the unique characteristics of each neighbourhood and consider existing and planned land use, existing travel characteristics and planned infrastructure.
- Prospect Street is designated as “**Downtown**” character – an area with the most diverse mix of land uses developed around walkable block patterns.

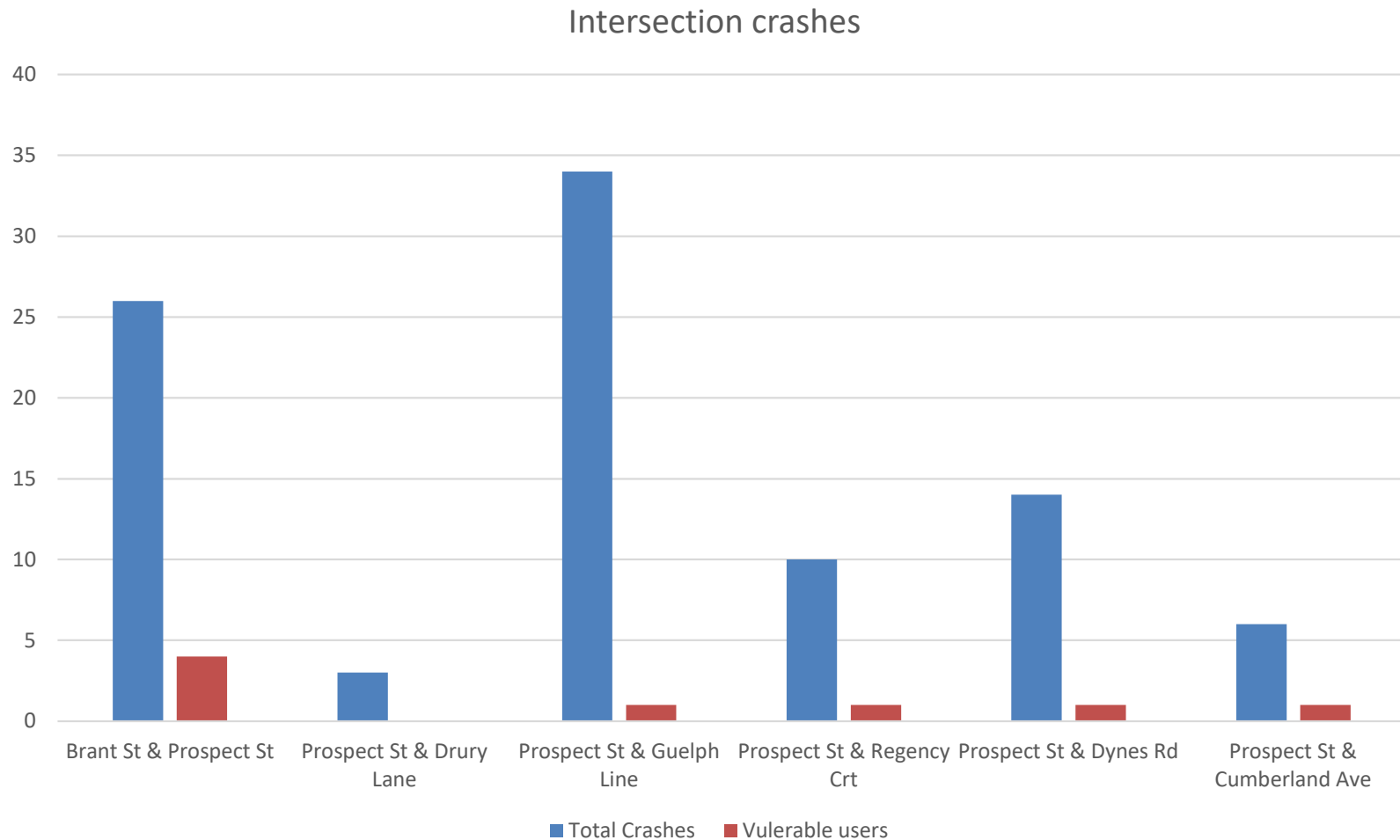
Character Type	Existing Mode Share				Proposed Target Mode Share				Shift from Auto
	Auto	Transit	Bicycle	Walk	Auto	Transit	Bicycle	Walk	
Downtown	90.1%	3.5%	2.2%	4.2%	50.0%	20.0%	11.0%	19.0%	-40.1%
Residential	91.2%	2.9%	0.4%	5.4%	72.0%	15.0%	5.0%	8.0%	-19.2%
Rural / Developing	97.9%	1.7%	0.4%	0.0%	96.0%	3.0%	1.0%	0.0%	-1.9%
Older Built-Up Area	88.1%	3.3%	2.6%	6.0%	70.0%	15.0%	5.0%	10.0%	-18.1%
Business Park	90.6%	2.8%	0.9%	5.7%	75.0%	13.0%	5.0%	7.0%	-15.6%
Overall	90.8%	3.0%	1.0%	5.2%	70.0%	14.8%	5.9%	9.4%	-20.9%
Global Target Mode Share					70.0%	15.0%	6.0%	9.0%	-20.8%

Existing Operational Conditions –Corridor Safety Management

Geometrics

- Graham Lane : 2 lanes cross-section, posted speed 50km/h, Annual Average Daily Traffic (AADT) 2,600 veh/day, no dedicated active transportation facility
- Prospect St- Brant St to Guelph Line: 2 lanes cross-section, posted speed 40km/h, AADT 5,300 veh/day, bike lane on one side, traffic calming measures installed
- Prospect St - Guelph Line to Cumberland Ave: 4 lanes cross-section, posted speed 50km/h, AADT 10,000 veh/day, no dedicated active transportation facility

Existing Operational Conditions – Corridor Safety Management



Existing Operational Conditions –Corridor Safety Management

5 yrs Collisions History – Road Segments

- 16 crashes – geolocated as per bellow maps

West of Guelph Line



East of Guelph Line



Corridor Mitigation Measures

- Safety improvements at intersections aimed to reduce the likelihood of a crash involving vulnerable road users(i.e increase visibility, reduced corner radii, reduced crossing distance, reduced number of conflict points)
- Introduce protected AT facilities aimed to improve safety and connectivity of vulnerable road users. (i.e. protected bike lanes and crossings); Special areas of interest have been identified near major pedestrians' generator like Tom Thomson Public School, Burlington Mall and Centennial Trail
- Introduce dedicated left turning lanes and TWTL aimed to facilitate safer turns and reduce the number of conflict points. Special area of interest have been identified for the 4 lanes cross-section between Guelph Line to Cumberland Avenue with a potential 47% crash reduction by the introduction of a two-way turning lane. The 3-lanes cross-section is also promoting safer speeds along the corridor.

Future Conditions – Land Use & Mobility

SCHEDULE B-2

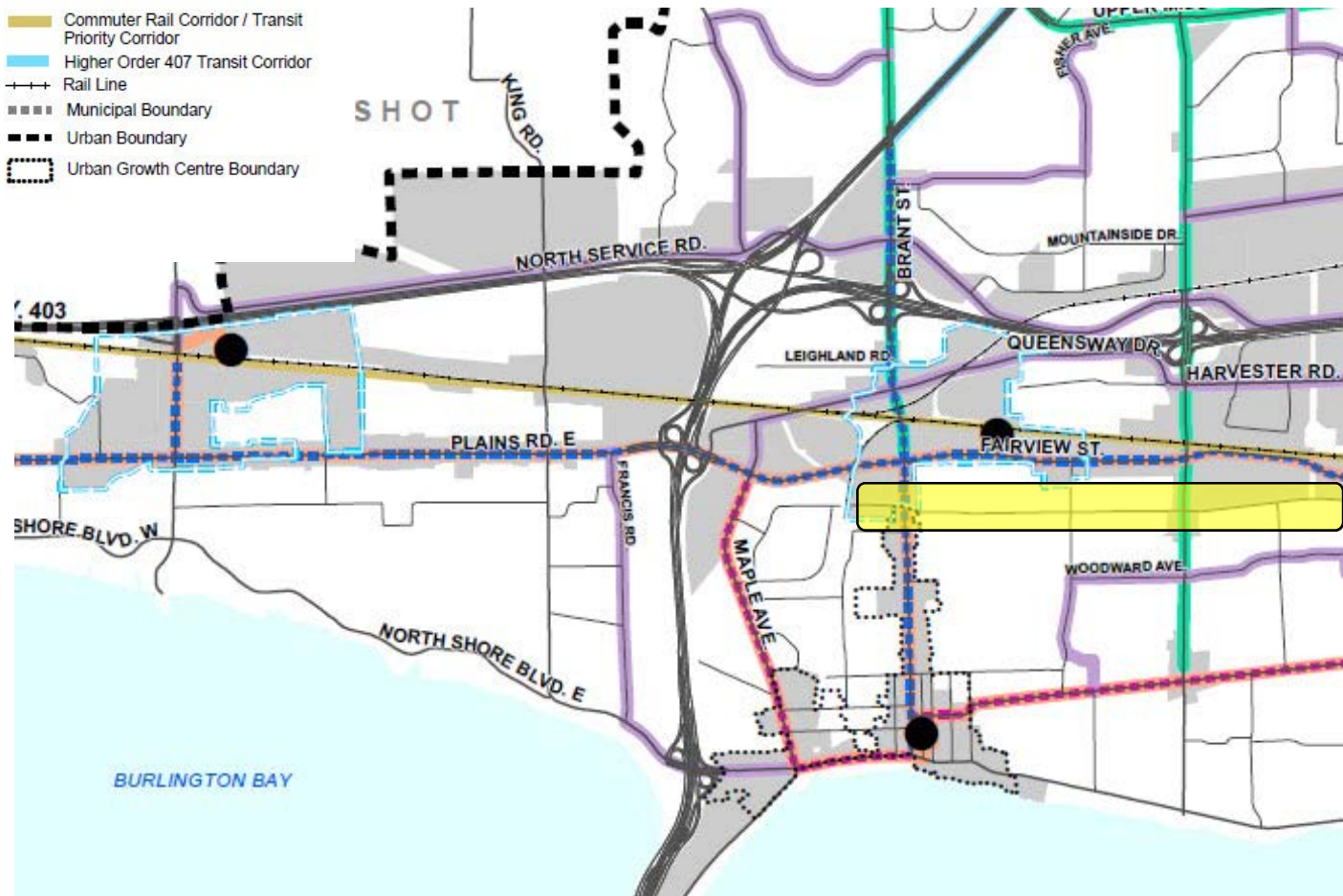
Growth Framework and Long Term Frequent Transit Corridors

City of Burlington

Legend

- Primary, Secondary and Employment, Growth Areas (See Schedule B-1)
- MTSA Special Planning Areas
- MTSA Primary Connector
- MTSA Secondary Connector
- Frequent Transit Corridor
- Candidate Frequent Transit Corridor
- Transit Support Corridor
- Major Transit Station
- Go Transit Carpool Lot

- Commuter Rail Corridor / Transit Priority Corridor
- Higher Order 407 Transit Corridor
- Rail Line
- Municipal Boundary
- Urban Boundary
- Urban Growth Centre Boundary



Design Approach – Cycling Facility Selection

As per the City of Burlington Cycling Plan (2021), Prospect Street is identified as:

- Part of the Minimum Grid Network;
- Facility Type - Protected Bikeway.

Minimum Grid Network - The minimum grid network consists of various cycling facilities within downtown Burlington. The routes included are in the areas with the highest demand in the downtown area. This network is proposed as a tool for quick implementation of a connected network. This provides the public an opportunity to ride and experience a connected low-stress cycling network.

Protected Bikeway – Can either be a protected on-road bike lane or a raised cycle track. The reason behind this is both facilities provide a physical separation between cyclists and vehicles.

Design Approach – Facility Selection

Map of the Minimum Grid Network

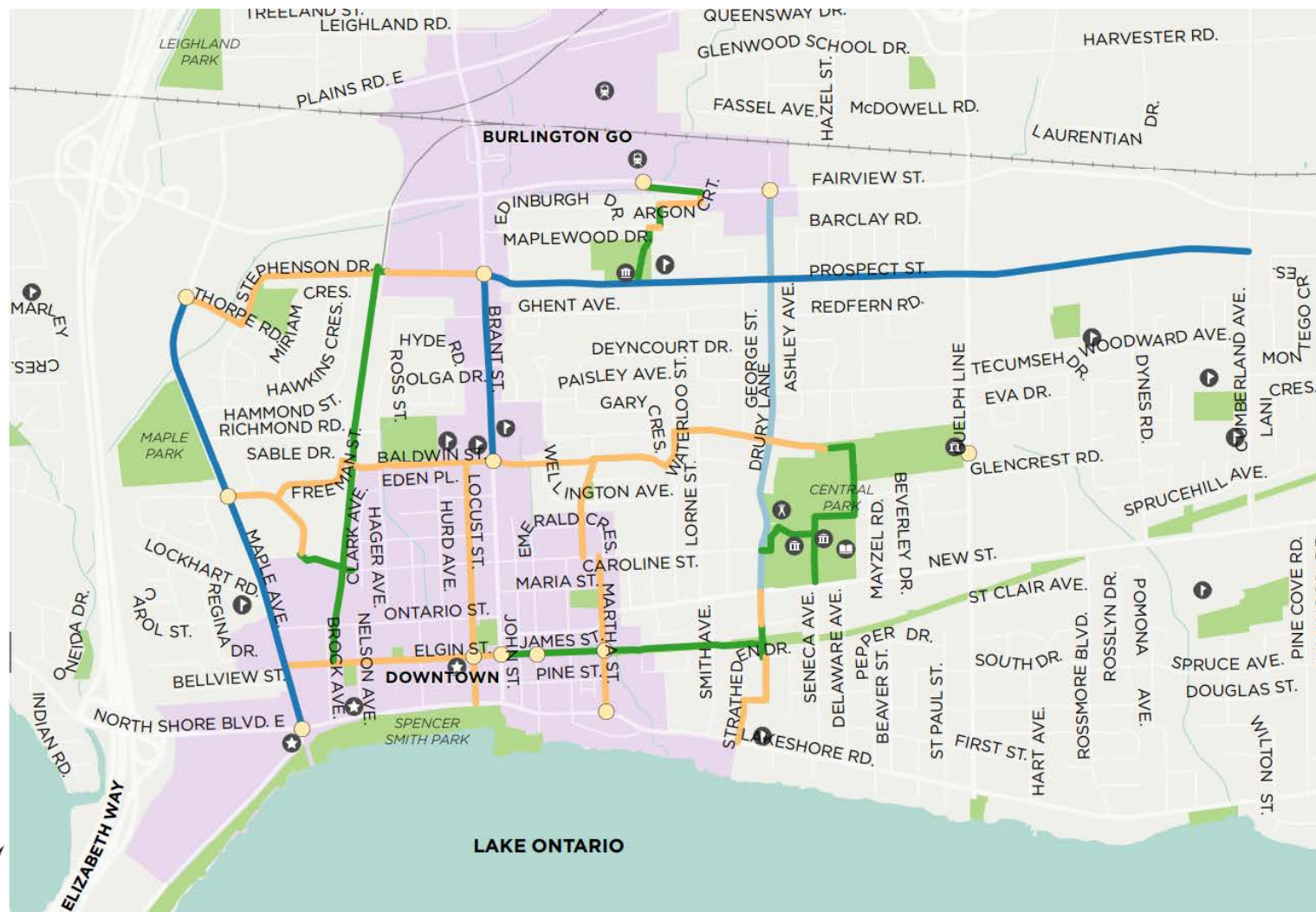
MAP 6
MINIMUM GRID
BURLINGTON CYCLING
MASTER PLAN

FACILITY TYPES

- Protected Bikeway
- Painted Bike Lane
- Local Street Bikeway
- Multi-Use Trail
- Intersection Improvement

**FEATURES AND
BOUNDARIES**

- GO Station
- Library
- Sports Facility
- Cultural Facility
- Community Centre
- School
- Park
- Railway
- Mobility Hub
- Waterbody
- Burlington



Design Approach – Facility Selection

Photos of Protected Bikeway (Plains Road, Burlington)



Design Approach – Facility Selection

Photos of Protected Bikeway (Plains Road, Burlington)



Questions

Proposed Design

Proposed Design

Location	City Works
Prospect Street and Grahams Lane (Grahams Lane to Guelph Line)	• Protected on road bike lanes • Protected intersection at Brant Street • Asphalt resurfacing, curb/gutter, bus pads, and sidewalk replacement as required • Installation of watermain • Installation of wastewater main.
Prospect Street (Guelph Line to Cumberland Ave)	• Protected intersection at Guelph Line • Cycle tracks on both sides of Prospect Street • Replacement of sidewalk on north side of Prospect Street • Reduction of lanes from 4 lanes cross section to 2 lanes with a center turn lane (3 lane cross section) • Installation of watermain • Raised crosswalks at Dynes and Regency intersections

Proposed Design

Location	City Works
Dynes Road (Prospect Street to New Street)	• Road resurfacing • Spot sidewalk repairs where required • Curb and gutter replacement, full length of Dynes Road • Installation of watermain up to Woodward Avenue
Regency Court	• Road resurfacing • Spot sidewalk and curb repairs • Installation of watermain, with a connection to be completed on Tecumseh Drive
Legion Road	• Road resurfacing • Continuation of sidewalk from end to cul-de-sac • Spot curb replacement

SECTION VIEW

BRANT STREET TO GUELPH LINE

BIKE

WIDE PROTECTED BIKE LANE
CONTINUOUSLY ON BOTH SIDES

WALK

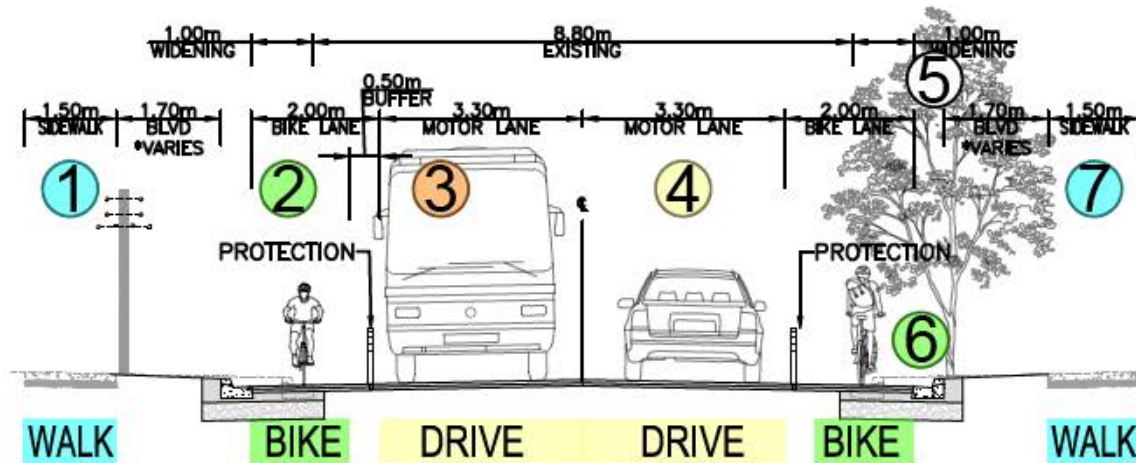
SPOT REPAIR WHERE REQUIRED
WITH WIDENED SIDEWALK
ALONG SCHOOL FRONT

BUS

ALL INLINE STOPS REDUCED
CONFLICT AREAS WITH CYCLISTS

DRIVE

2 LANE ROADWAY TO REMAIN



① WIDENING ALONG TOM THOMSON SCHOOL
ACCOMMODATING PICKUP & DROP OFF TIMES.

② ON ROAD PROTECTED BIKE LANES WITH ENOUGH
SPACE FOR YOUNGER OR LESS CONFIDENT
CYCLIST AND ROOM FOR PASSING.

③ SHARED CYCLE STOP FOR BUS STOPS
BETWEEN DRURY AND GUELPH LINE.

④ MOTOR LANES TO REMAIN.

⑤ IMPACTS TO TREES ALONG THE CORRIDOR.
SIGNIFICANT CONSIDERATION WILL BE MADE TO
REDUCE REMOVALS WITH CONSULTATIONS WITH
OUR FORESTRY DEPARTMENT, AND REQUIREMENT
OF ARBORIST ONSITE FOR CONSTRUCTION IN
VULNERABLE AREAS.

⑥ IMPROVEMENT TO INTERSECTION AT DRURY TO
MAINTAIN THE BIKE LANE THROUGHOUT THE
INTERSECTION.

⑦ REPLACEMENT OF SIDEWALK RAMPS TO UPDATE TO
NEW ACCESSIBILITY STANDARDS.

BIKE

PROTECTED INTERSECTION FOR
ALL 4 LEGS OF INTERSECTION

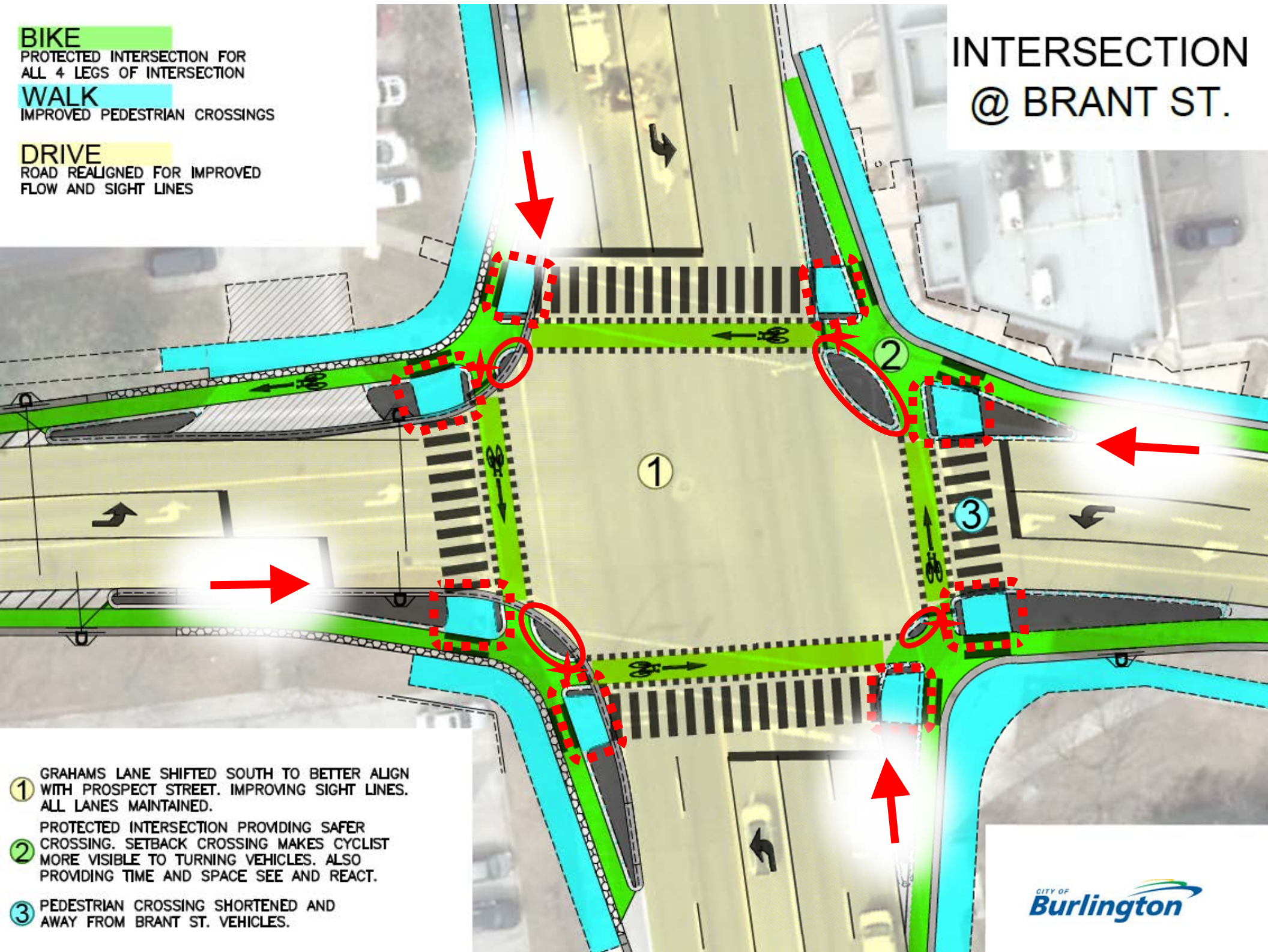
WALK

IMPROVED PEDESTRIAN CROSSINGS

DRIVE

ROAD REALIGNED FOR IMPROVED
FLOW AND SIGHT LINES

INTERSECTION @ BRANT ST.

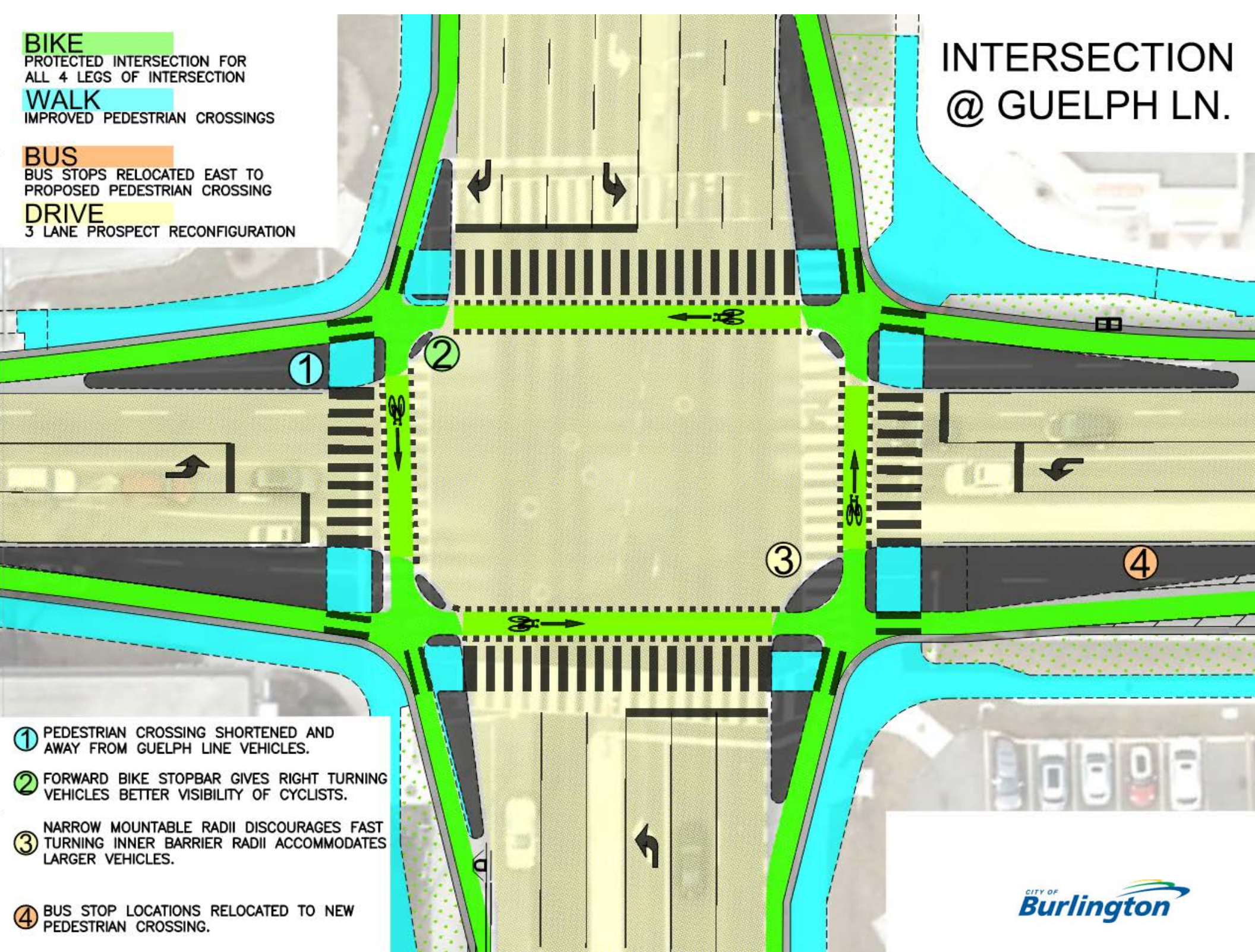


- 1 GRAHAMS LANE SHIFTED SOUTH TO BETTER ALIGN WITH PROSPECT STREET. IMPROVING SIGHT LINES. ALL LANES MAINTAINED.
- 2 PROTECTED INTERSECTION PROVIDING SAFER CROSSING. SETBACK CROSSING MAKES CYCLIST MORE VISIBLE TO TURNING VEHICLES. ALSO PROVIDING TIME AND SPACE SEE AND REACT.
- 3 PEDESTRIAN CROSSING SHORTENED AND AWAY FROM BRANT ST. VEHICLES.

BIKE
PROTECTED INTERSECTION FOR
ALL 4 LEGS OF INTERSECTION
WALK
IMPROVED PEDESTRIAN CROSSINGS

BUS
BUS STOPS RELOCATED EAST TO
PROPOSED PEDESTRIAN CROSSING
DRIVE
3 LANE PROSPECT RECONFIGURATION

INTERSECTION @ GUELPH LN.



- ① PEDESTRIAN CROSSING SHORTENED AND AWAY FROM GUELPH LINE VEHICLES.
- ② FORWARD BIKE STOPBAR GIVES RIGHT TURNING VEHICLES BETTER VISIBILITY OF CYCLISTS.
- ③ NARROW MOUNTABLE RADII DISCOURAGES FAST TURNING INNER BARRIER RADII ACCOMMODATES LARGER VEHICLES.
- ④ BUS STOP LOCATIONS RELOCATED TO NEW PEDESTRIAN CROSSING.

SECTION VIEW

GUELPH LINE TO CUMBERLAND AVENUE

BIKE

WIDE ASPHALT CYCLE TRACK AWAY FROM MOTOR VEHICLES

WALK

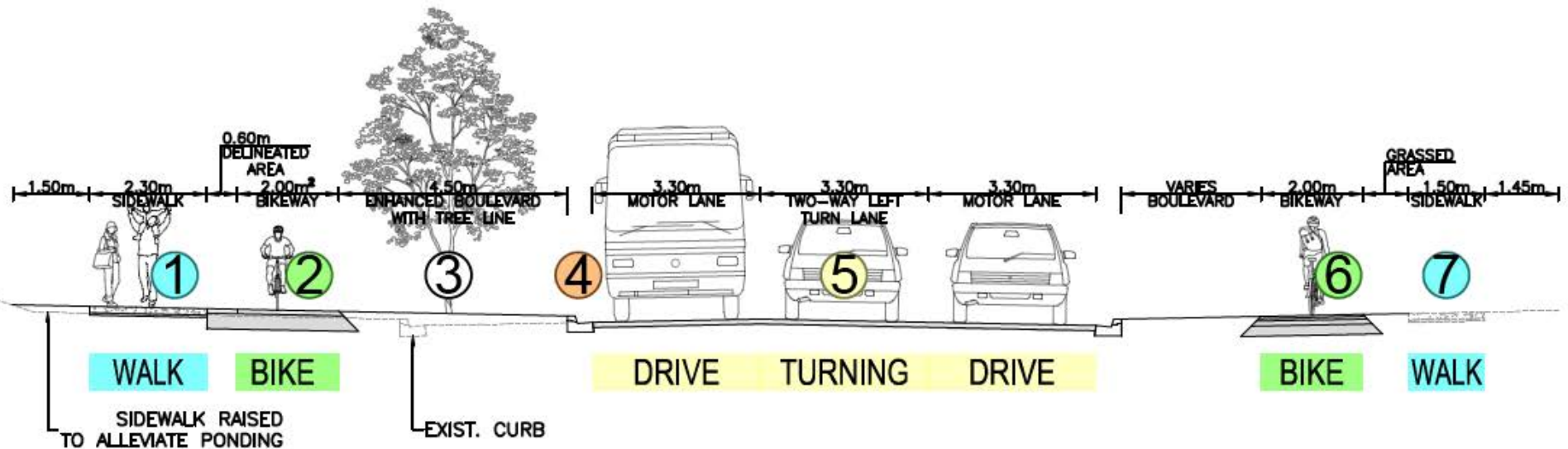
WIDE SIDEWALK ALONG SHOPPING CENTRE ON NORTH SIDE

BUS

2 STOPS RELOCATED TO HIGHER FREQUENCY CROSSINGS

DRIVE

3 LANES ROADWAY RECONFIGURATION



- ① NORTH SIDEWALK RAISED AND SHIFTED TO ALLEVIATE PONDING AND FOR TREE ALONG THE PARKING LOT
- ② WIDE CYCLETRACK PROVIDES ALL AGES AND ABILITIES WITH A COMFORTABLE CONTINUOUS PATHWAY. WITH MINIMAL ENTRANCES THIS LOCATION IS OPTIMALLY SUITED TO CYCLETRACKS.
- ③ WIDE BOULEVARD PROVIDES OPTIMAL SPACE FOR TREE PLANTINGS EVENTUALLY MATURING INTO A LONG ROW OF LARGE CANOPY TREES.

- ④ SIDE BOARDING ISLANDS FROM GUELPH LINE TO CUMBERLAND. CREATING A TRANSIT ACCESSIBLE TO ALL PEDESTRIANS AND CYCLISTS.
- ⑤ RECONFIGURATION BASED ON TRAFFIC MODELING TO OPTIMIZE TRAFFIC FLOWS AND REDUCE ACCIDENTS FROM TURNING VEHICLES.

- ⑥ WIDE 2.0m OFF ROAD CYCLETRACK ADJACENT TO SIDEWALK. MIDBLOCK SIDEWALK LOCATION TO REMAIN, WITH SPOT REPAIR WHERE REQUIRED & ENHANCED AT THE INTERSECTIONS.
- ⑦ NECESSARY SPACE PROVIDED FOR FUTURE WIDENING OF SIDEWALK.

BIKE

PROTECTED INTERSECTION FOR
ALL 4 LEGS OF INTERSECTION

WALK

PEDESTRIAN PRIORITIZED WITH RAISED
CROSSWALK FOR A CONTINUOUS TRAVEL PATH

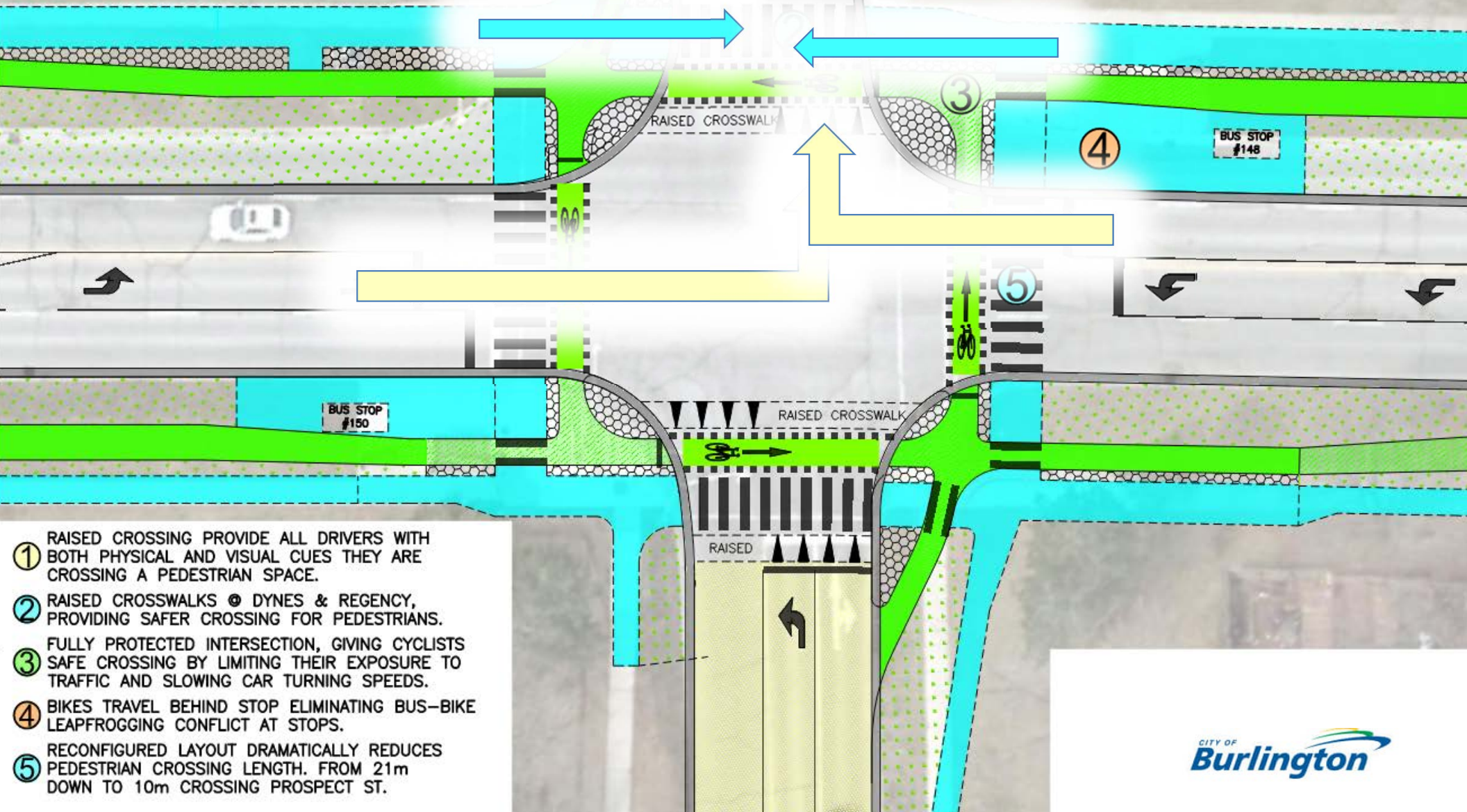
BUS

ACCESSIBLE BUS PAD AND SHELTER

DRIVE

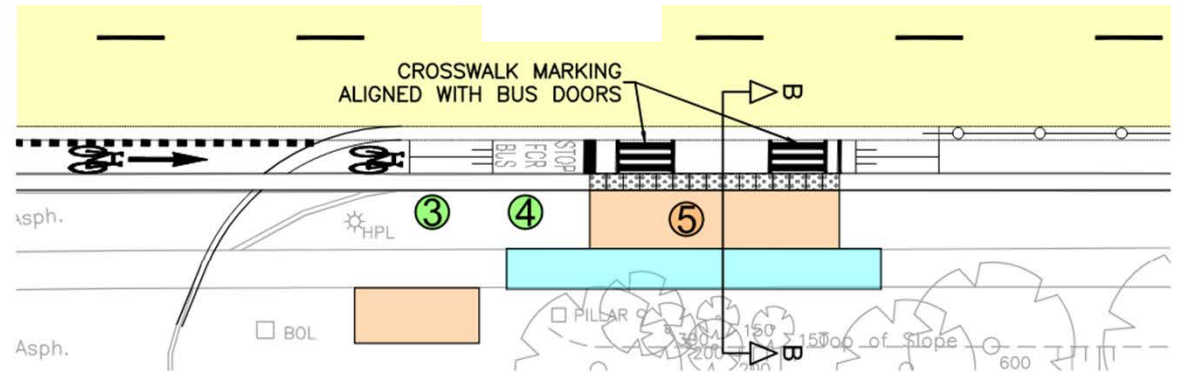
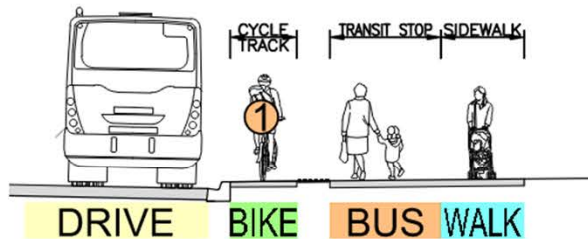
3 LANES FOR ALL INTERSECTION LEGS

INTERSECTION @ DYNES RD.



- 1 RAISED CROSSING PROVIDE ALL DRIVERS WITH BOTH PHYSICAL AND VISUAL CUES THEY ARE CROSSING A PEDESTRIAN SPACE.
- 2 RAISED CROSSWALKS @ DYNES & REGENCY, PROVIDING SAFER CROSSING FOR PEDESTRIANS.
- 3 FULLY PROTECTED INTERSECTION, GIVING CYCLISTS SAFE CROSSING BY LIMITING THEIR EXPOSURE TO TRAFFIC AND SLOWING CAR TURNING SPEEDS.
- 4 BIKES TRAVEL BEHIND STOP ELIMINATING BUS-BIKE LEAPFROGGING CONFLICT AT STOPS.
- 5 RECONFIGURED LAYOUT DRAMATICALLY REDUCES PEDESTRIAN CROSSING LENGTH. FROM 21m DOWN TO 10m CROSSING PROSPECT ST.

Shared Cycle Track Stop



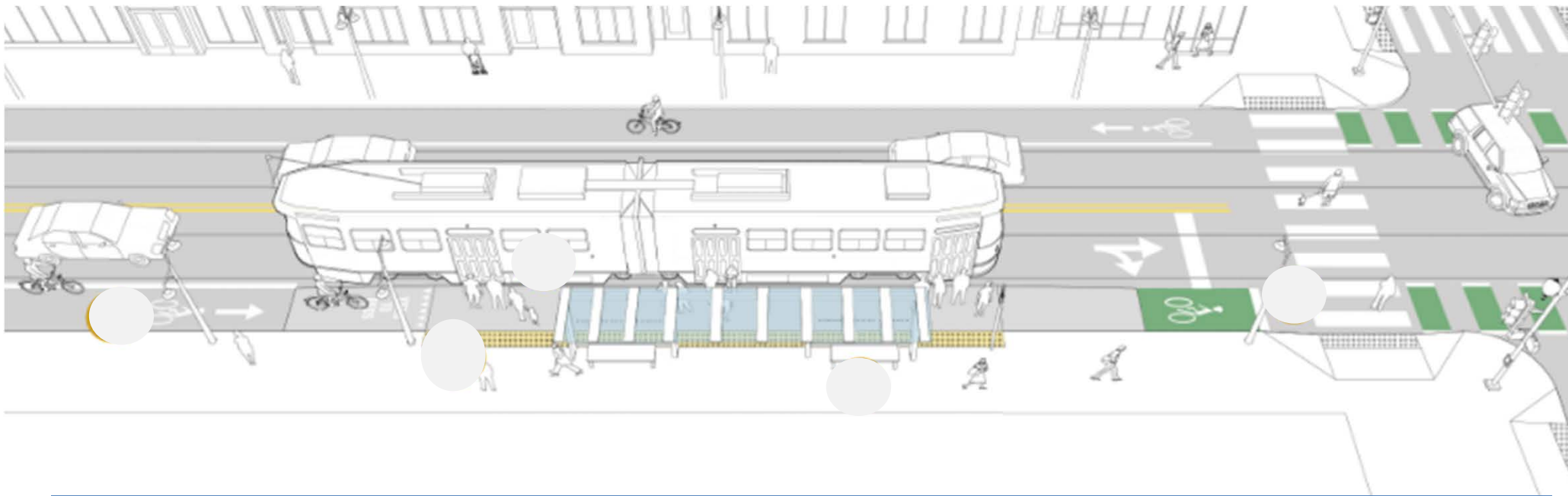
① CYCLE TRACK AT TRANSIT STOP FUNCTIONS AS THE BOARDING AND ALIGHTING AREA.

③ CYCLISTS YIELD TO BOARDING AND ALIGHTING TRANSIT USERS.

④ TRACK SLOPE COMBINED WITH MARKINGS AND SIGNAGE ALERT CYCLISTS TO POTENTIAL CONFLICTS AND ENSURE COMPLIANCE.

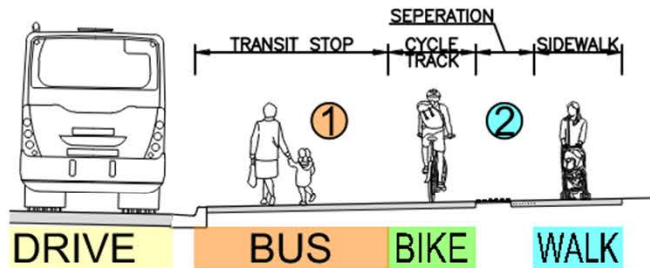
⑤ WHERE SPACE DOESN'T PERMIT SIDE BOARDING ISLAND STOP, THE CONSTRAINED STOP USES THE SPACE PROVIDED BY THE BIKEWAY AS THE BOARDING AND ALIGHTING AREA.

PEDESTRIANS WAIT OUTSIDE OF BIKEWAY, ONLY CROSSING WHEN BUS DOORS OPEN FOR BOARDING AND ALIGHTING.

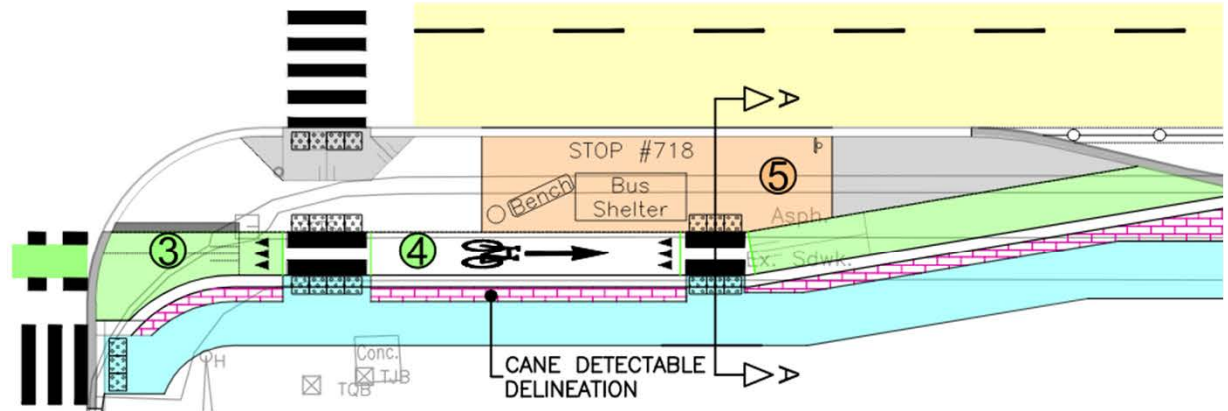


Side Boarding Island Stop

SECTION VIEW A-A



PLAN VIEW



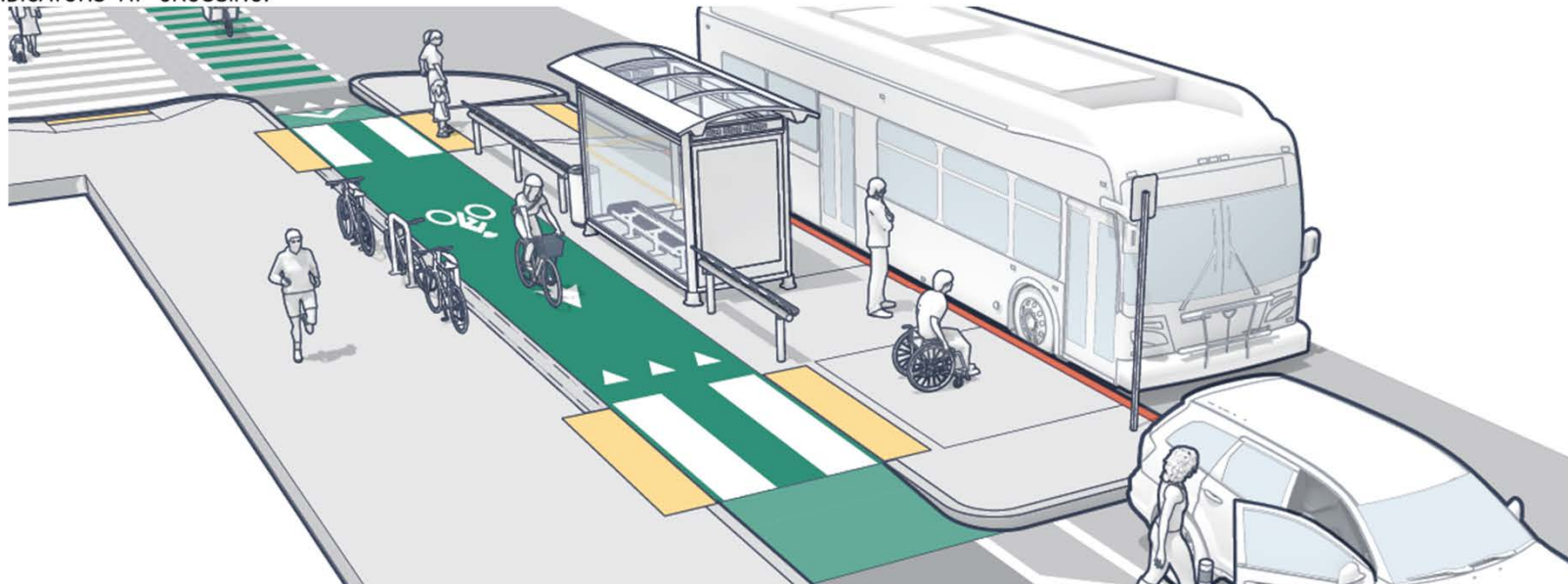
① TRANSIT SHELTERS WHERE ENOUGH SPACE PERMITS ONE.

② CANE DETECTABLE DELINEATION SEPARATING BIKEWAY AND SIDEWALK, & TACTILE WARNING SURFACE INDICATORS AT CROSSING.

③ BIKEWAY RAMPS UP TO SIDEWALK HEIGHT YIELDS TO CROSSING PEDESTRIANS.

④ GREEN PAINT TO HIGHLIGHT PRESENCE OF BIKEWAY TO PEDESTRIANS.

⑤ PROPOSED CONFIGURATION CREATES A TRANSIT STOP ACCESSIBLE TO CYCLIST AND PEDESTRIANS. POSITIONED AFTER THE INTERSECTION REDUCING STOP TIMES FOR BUSES AND MINIMIZED PEDESTRIAN TRAVEL.



Transit Infrastructure

- 10 bus stops in the area will be upgraded
- Accessibility features include:
 - Minimum 2.0m landing pad depth
 - Maximum slope : 2%
 - Accessible turning radius as per AODA
- All existing bus shelters will be replaced or re-installed after construction



Tree Impacts

Design Considerations

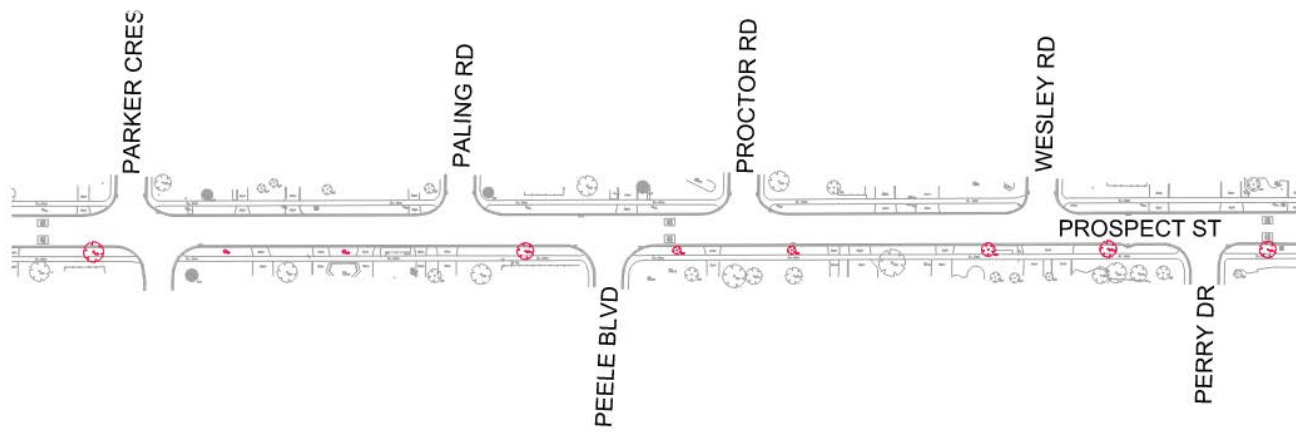
- Considerations of design layout has and will be made to minimize tree impacts. Tree removals are expected along the corridor.
- Adjustments can be made along the sidewalk to allow for existing trees to grow.

Replacement

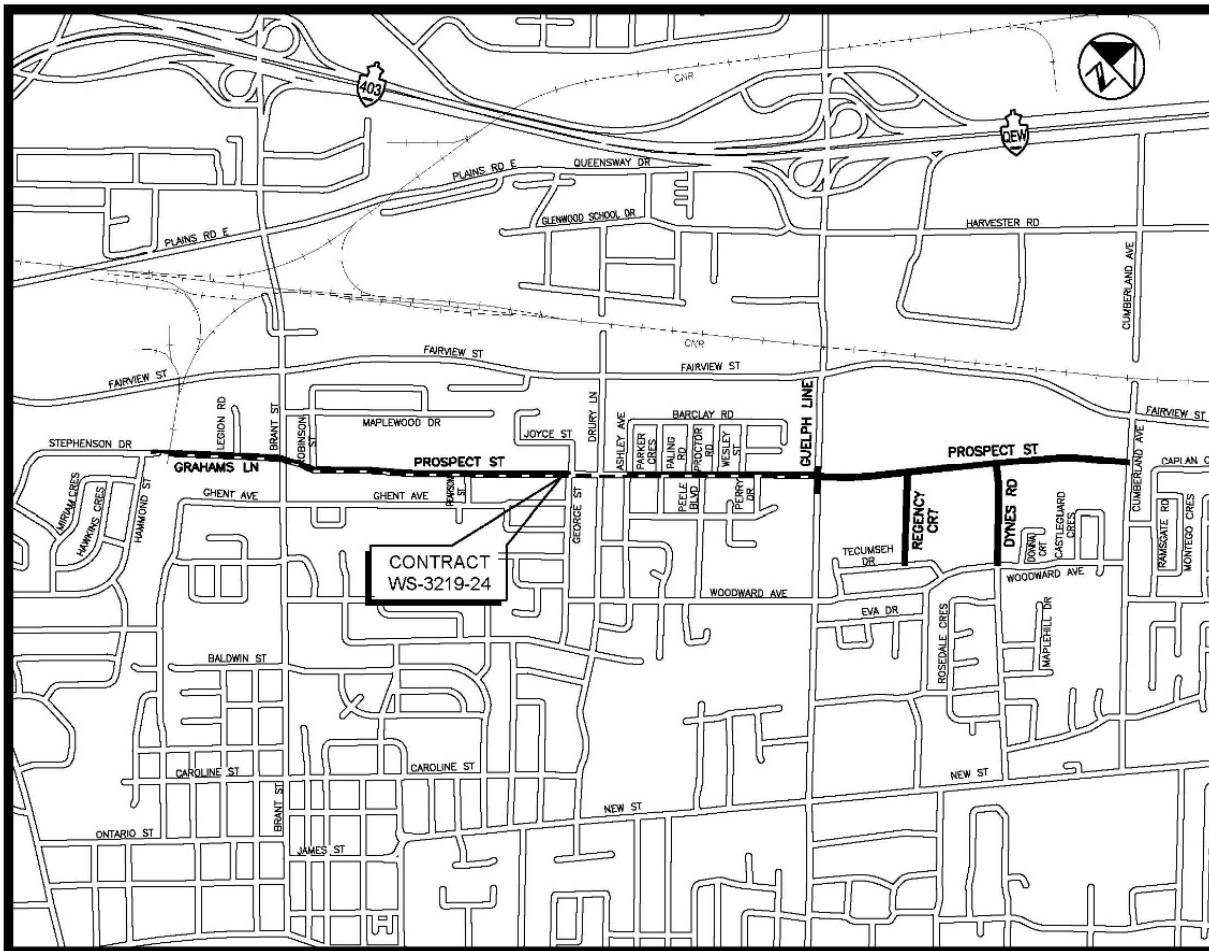
- 2:1 replacement of any tree requiring removal.
- Norway Maples impacted will be replaced to increase resilience & biodiversity.

Minimizing root damage due to construction:

- Requiring on site Arborist in vulnerable areas.
- Minimizing use of heavy equipment inside the critical root zone of trees.



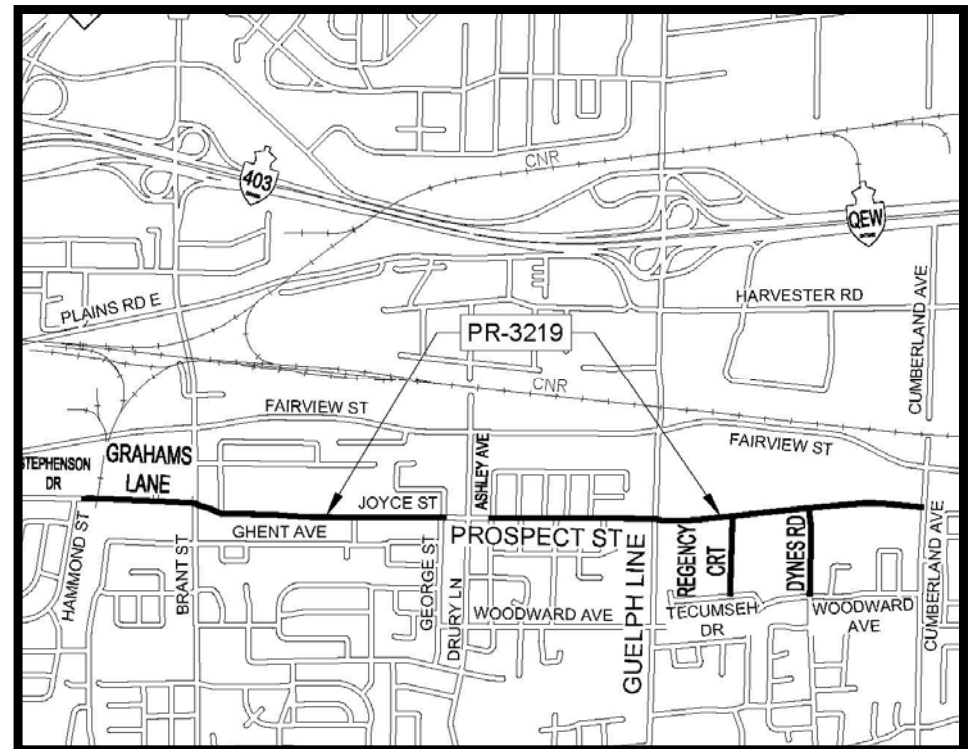
Halton Region Watermain and Wastewater main Replacement



These improvements are necessary to maintain the Region's water and wastewater infrastructure in a state of good repair

Watermain Replacement

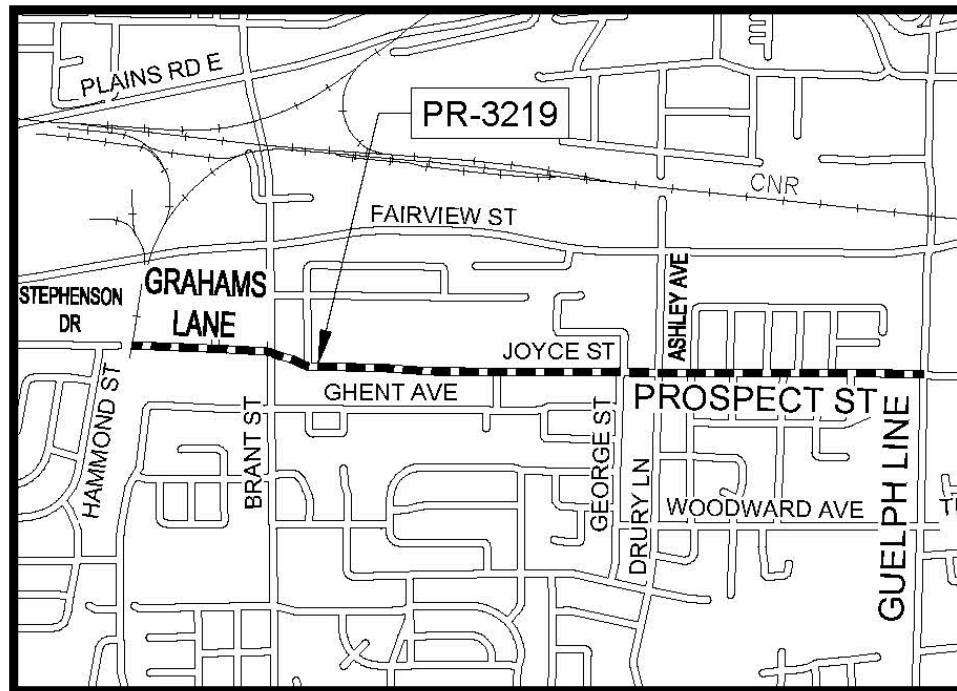
- Watermain replacement on Prospect Street (from Cumberland Avenue to Ashley Avenue, and from Joyce Street to Brant Street)
- Watermain replacement on Grahams Lane (from Brant Street to East of Hammond Street)
- Watermain replacement on Regency Court (from Prospect Street to Tecumseh Drive)
- Watermain replacement on Dynes Road (from Prospect Street to Woodward Avenue)
- Water services to properties connected to the above watermain sections will be replaced up to property line (curb stop)



Watermain Replacement

Wastewater main Replacement

- Wastewater main replacement on Prospect Street (from Guelph Line to Brant Street)
- Wastewater main replacement on Grahams Lane (from Brant Street to East of Hammond Street)



Wastewater main Replacement

- Laterals of properties connected to the above wastewater main sections will be replaced (wherever possible) or rehabilitated (lining) up to property line
- Service interruptions during transfer of existing water service and laterals is expected to be minor (between 1-4 hours). Advance notice will be provided to the residents before any planned service interruptions



Next Steps, Questions, Comments

Next Steps: Take the Survey

Visit Get Involved Burlington to take the survey!

www.getinvolvedburlington.ca/prospect



Public Engagement

Visit Get Involved
Burlington

Take the Survey



Next Steps

Detailed design work by the City of Burlington Engineering Services team will continue.

Another PIC will be scheduled to take place to present final design and construction impacts to residents and business owners.

Stay updated on the project by subscribing
www.burlington.ca/prospectrenewal

Questions

End of PIC