



TO: GENERAL COMMITTEE

SUBJECT: BRADFORD STREET CORRIDOR STUDY MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

WARD: 2 AND 8

PREPARED BY AND KEY CONTACT: B. GRATRIX, P. ENG, SENIOR PROJECT MANAGER – TRANSPORTATION PLANNING, EXT. 5117

SUBMITTED BY: M. BANFIELD, RPP, DIRECTOR OF DEVELOPMENT SERVICES

GENERAL MANAGER APPROVAL: B. ARANIYASUNDARAN, P. ENG., PMP, GENERAL MANAGER OF INFRASTRUCTURE AND GROWTH MANAGEMENT

CHIEF ADMINISTRATIVE OFFICER APPROVAL: M. PROWSE, CHIEF ADMINISTRATIVE OFFICER

RECOMMENDED MOTION

1. That the Bradford Street Corridor Study Municipal Class Environmental Assessment as outlined in Staff Report DEV025-23, be received.
2. That the recommended design solution identified in the Bradford Street Corridor Study Municipal Class Environmental Assessment (refer to Appendix “E” in Staff Report DEV025-23) be approved and adopted for corridor protection purposes and that staff in the Development Services Department acquire land conveyances, as identified in the recommended design solution through *Planning Act* approvals.
3. That staff employ access management practices, where appropriate, when assessing *Planning Act* approvals on the Bradford Street corridor.
4. That staff be directed to conclude the Bradford Street Corridor Study Municipal Class Environmental Assessment and in accordance with the requirements of the Municipal Class Environmental Assessment process, publish a Notice of Completion.
5. That as implementation is forecasted beyond 2031, prior to undertaking implementation, staff complete a future Municipal Class Environmental Assessment Addendum (or applicable processes in-effect at that time), to assess in-effect transportation and land use policies, and where warranted, complete refinements to the recommended design solution to mitigate impacts based on future in-situ corridor constraints.
6. That staff complete an in-service safety review for the Tiffin Street and Bradford Street intersection to assess opportunities for interim safety improvements.

PURPOSE & BACKGROUND

7. On May 13, 2019, Council approved motion 19-G-134 endorsing the Transportation Master Plan (TMP). The TMP is a long-range strategic plan that integrates multi-modal transportation infrastructure in a large study area, scheduled to be implemented over a set period based on an estimation of forecasted travel, the identification of needs in transportation capacity and services,

the assessment of alternate scenarios to meet these needs, and the selection of a recommended Transportation Network Plan according to an established set of evaluation criteria.

8. The TMP identified the following for Bradford Street:
- a) Maintain two lanes of traffic per direction with a provision for a median or two-way left turn lane;
 - b) Sidewalks on both sides;
 - c) Cycle track; and
 - d) Be planned as a future High Occupancy Vehicle (HOV) corridor with HOV lanes in the right most lane (lane 2 position).

Refer to Appendix "A" for City-wide maps illustrating the TMP recommendations.

9. Following the recommendations contained within the TMP, CIMA Canada Inc. has been retained to undertake the Bradford Street Corridor Study (study) as a Schedule 'C' Municipal Class Environmental Assessment. The purpose of the study was to assess long-range corridor protection needs to allow future implementation of a complete street solution that aligns with planned growth and planned land use. The study completed phases one through four of the Municipal Class Environmental Assessment (MCEA) planning and design process (refer to Appendix "B" for a figure illustrating the MCEA process in greater detail).
10. The 2023 Official Plan (OP) is presently protecting the corridor for 34m following TMP recommendations based on City standards; the study's purpose was to provide additional engineering analysis of the street alignment, assess corridor width requirements to accommodate physically separated cycling infrastructure / complete street elements and identify property protection needs at the intersections of Tiffin Street / Bradford Street and Tiffin Street / Lakeshore Drive to facilitate future operational improvements.
11. The problem statement for this study, which establishes overall objectives and guides subsequent phases, was established as:
- "Bradford Street is the primary 4-lane arterial road and a designated Intensification Corridor within the Urban Growth Centre. As the surrounding lands are being redeveloped and population densities increase, the City needs to ensure that adequate space (right-of-way) is being protected to accommodate the multi-modal transportation needs of the community. The current roadway has narrow sidewalks and lacks cycling facilities. No streetscape features are present. The existing road right-of-way will not accommodate the type of improvements required to support the planned community transformation. Planning for future needs "now" provides certainty to the City and developers and ensures that an appropriate right-of-way is identified and protected to accommodate cycling facilities, an improved pedestrian and streetscape environment, and allow for improvements to traffic operations at intersections and throughout the corridor – all of which will promote community activity and vibrancy."
12. The study was an integrative process fundamentally based on the City's strategic priorities, comprehensive City-wide plans, and policies such as the OP (approved by Council in 2022), TMP (approved by Council in 2019) and other previous planning and feasibility studies. It is the mechanism by which these plans and policies are further examined, refined, and then implemented on a corridor-specific basis.



13. Three Public Information Centres (PICs) were held to solicit input from directly impacted residents and the broader community. The ESR document (available in the Councillor's lounge and at www.barrie.ca/BradfordEA) includes complete records of all correspondence and input received during the study.
14. PIC No. 1 was held on January 27, 2022, to introduce the project, present a preliminary assessment of the alternative planning solutions, and preliminary roundabout concepts at the Tiffin Street intersections with Bradford Street and Lakeshore Drive.
15. PIC No. 2 was held on June 22, 2022, to present the recommended planning solution for the corridor and alternative design concepts for the Tiffin Street intersections.
16. PIC No. 3 was held on December 13, 2022, to present the preliminary preferred design solution for the corridor and the Tiffin Street intersections.

ANALYSIS

17. This study completed the first four phases of the MCEA process:
 - Phase 1 involves the identification of the problem or opportunity that is the subject of the study.
 - Phase 2 includes the development and evaluation of alternative planning solutions.
 - Phase 3 builds upon recommendations generated in Phase 2 to develop and evaluate alternative design solutions, which will generate a recommended design solution.
 - Phase 4 involves the preparation of the Environmental Study Report that documents the decision-making process and public input.

Bradford Street Corridor

18. The study considered a range of alternative planning solutions to address the problem statement. The alternative planning solutions evaluated include:

Alternative	Description
1	Do-Nothing - Maintain the existing corridor with no improvements.
2	Access Management - Improve traffic operations and reduce potential points of conflict among vehicles and cyclists/pedestrians by consolidating the number of accesses and promoting unified access and circulation systems for development.
3	Operational Improvements - Address traffic operation issues through improvements that may include intersection reconfiguration, additional turning lanes, two-way left-turn lane, traffic signal timing, transit priority.

4	Corridor Improvements Within Expanded Right-of-Way - Address multi-modal and traffic operational needs on Bradford Street through improvements within an expanded right-of-way.
5	Reduce Travel Lanes and Improve within Existing Right-of-Way - Eliminate two of the existing four travel lanes and address multi-modal and traffic operational needs on Bradford Street within the existing right-of-way.
6	Improve Other North-South Corridors - Consider improvements to parallel routes that support growth and multi-modal transportation connectivity within the Urban Growth Centre and between the Allandale Mobility Hub and downtown.

19. The evaluation of the alternative planning solutions considered the following environmental factors:

Environment	Description
Socio-Economic	<ul style="list-style-type: none"> • Community input and feedback • Impacts to properties and access (residential and commercial) • Community mobility / connectivity • Consistency with Provincial and City planning policies • Integration with planned land use transformation • Context-sensitive design and streetscape opportunities
Cultural	<ul style="list-style-type: none"> • Impacts to built cultural heritage • Protection of archaeological values • Indigenous interests and rights
Natural	<ul style="list-style-type: none"> • Potential impacts to terrestrial and aquatic species and habitats including Species at Risk • Potential changes to watercourses and protection of surface and groundwater • Climate change considerations: consistency with City's Plans and opportunities to improve resilience
Transportation and Technical	<ul style="list-style-type: none"> • Maintain or improve traffic operations and road safety • Improvement to active transportation network connectivity and facilities (pedestrians, cyclists) • Improvement to transit efficiency and amenities • Consideration of impacts to municipal services including the wastewater treatment plant

20. Comments received throughout the Class EA process, along with study team responses to the comments, are summarized in the ESR which is available in the Councillor's lounge and at <https://www.barrie.ca/BradfordEA>. Key themes from public responses include:

- Planning process related to number of lanes, traffic operations, and transportation infrastructure planning processes.
- Bradford Street right-of-way width related to transportation demand/capacity and overall widening width.
- Road cross-section and streetscape elements related to specific streetscape elements including stormwater runoff, outside travel lane alternative uses, travel lane width, utilities, and accessibility considerations.

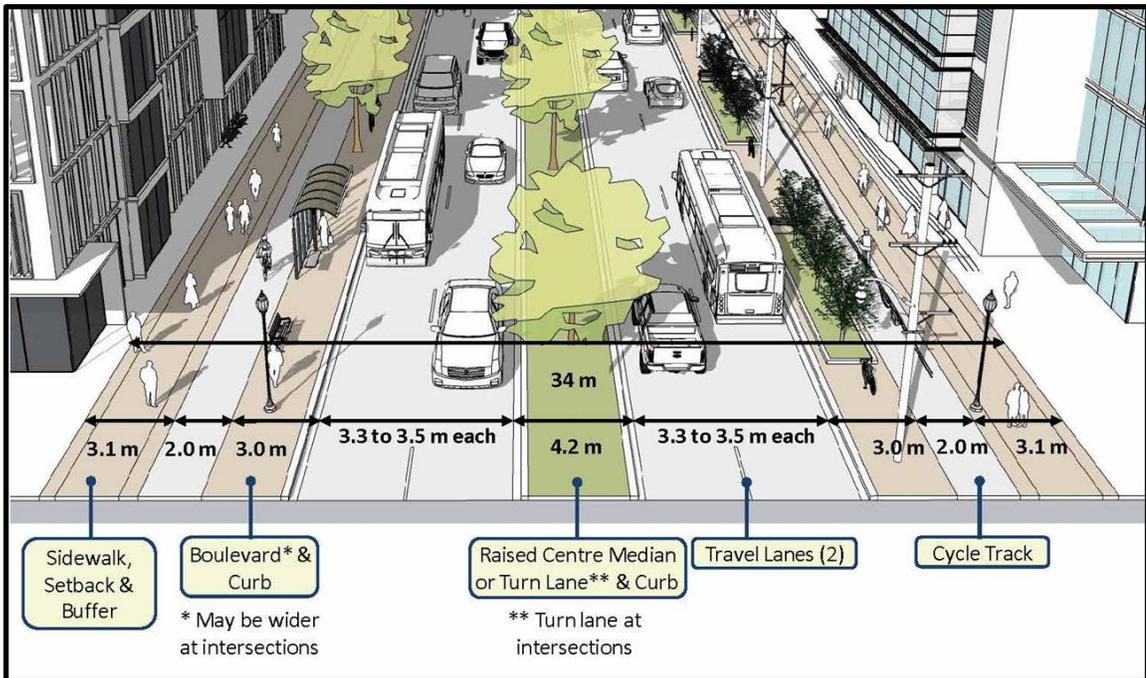
Appendix "C" includes a summary of public feedback themes and responses.

21. The following table summarizes the assessment of the alternative planning solutions:

Alternative Solution	Key Considerations	Addresses the Needs and Opportunities?
Alternative 1 – Do Nothing	<ul style="list-style-type: none"> • Not a reasonable alternative because multi-modal transportation needs would not be addressed. • Not consistent with Provincial and City planning policies. 	No
Alternative 2 – Bradford Street Access Management	<ul style="list-style-type: none"> • Implemented as part of an integrated land use planning approach that considers the interface of Bradford Street and adjacent development for all modes. • Improves safety for pedestrians and cyclists. • Better opportunity to enhance streetscape if the number of individual entrances is reduced. • May result in changes to access to some businesses. 	Yes
Alternative 3 – Operational Improvements	<ul style="list-style-type: none"> • Improves efficiency and safety of transportation network at key intersections. • Consistent with OP Transportation policies related to Multi-Modal Intersections and providing safety and accessibility for all users. Implements TMP recommendations. • Could result in substantial property impacts, including impacts to built heritage resources. Would involve further assessment and protection of archaeological resources. 	Yes

<p>Alternative 4 – Bradford Street Corridor Improvements within Expanded Right-of-Way</p>	<ul style="list-style-type: none"> • Protects enough right-of-way (ROW) to accommodate all elements of a complete street. • Provides the greatest flexibility for the City to respond to emerging technologies, changes in travel modes, and provision of additional amenities (e.g., transit priority measures, public EV charging stations, bike share, on-street parking, flexible street, and public realm space). • Accommodates new cycling facilities, significantly enhanced streetscape and pedestrian environment, space for transit amenities within an expanded right-of-way. • Consistent with existing plans and policies. Maintaining existing 4 lanes allows for distribution of vehicular traffic among downtown road network and implements TMP recommendations to attract traffic from Lakeshore Drive. • 34 m right-of-way already being conveyed through Official Plan policies through development applications. • Results in substantial property impacts along the corridor including impacts to built heritage resources - offset by City's planning policies around intensification and land use transformation. 	<p>Yes</p>
<p>Alternative 5 – Reduce Travel Lanes and Make Improvements within Existing Right-of-Way</p>	<ul style="list-style-type: none"> • Will not accommodate all desired complete street components which will lead to trade-offs in service levels. • Will not provide for efficient operations considering the role of Bradford Street in the network - automobiles, goods movement and transit vehicles all operating within one lane, in an area planned for a higher density mixed-use community. Limited opportunity for loading zones, bus lay-bys and other refuge areas considering the other demands for space in the boulevard. • Removing traffic capacity on Bradford Street will impact all other parts of the downtown road network, including Lakeshore Drive, Anne Street as well as local street infiltration. • Limits flexibility for planning to 2051 by 'removing space' that could be used for future opportunities such as rapid transit, on-street parking / flexible street design and other needs that may evolve over the next 30 years. 	<p>No</p>
<p>Alternative 6 – Improve Other Corridors</p>	<ul style="list-style-type: none"> • Does not address the multi-modal transportation needs within the Bradford Street Corridor. Does not support planned intensification on Bradford Street. Not consistent with the City's intent to have Bradford Street be the primary arterial linkage, alleviating pressure on Lakeshore Drive. 	<p>No</p>

22. As the purpose of the study is to establish long-range corridor protection needs, the recommended planning solution has been translated into a conceptual streetscape that was utilized to establish a corridor protection width. This process demonstrated that the current 34m right-of-way presently being protected for in the Official Plan is appropriate and sufficient to accommodate all corridor needs (refer to Appendix “D” for additional renderings).



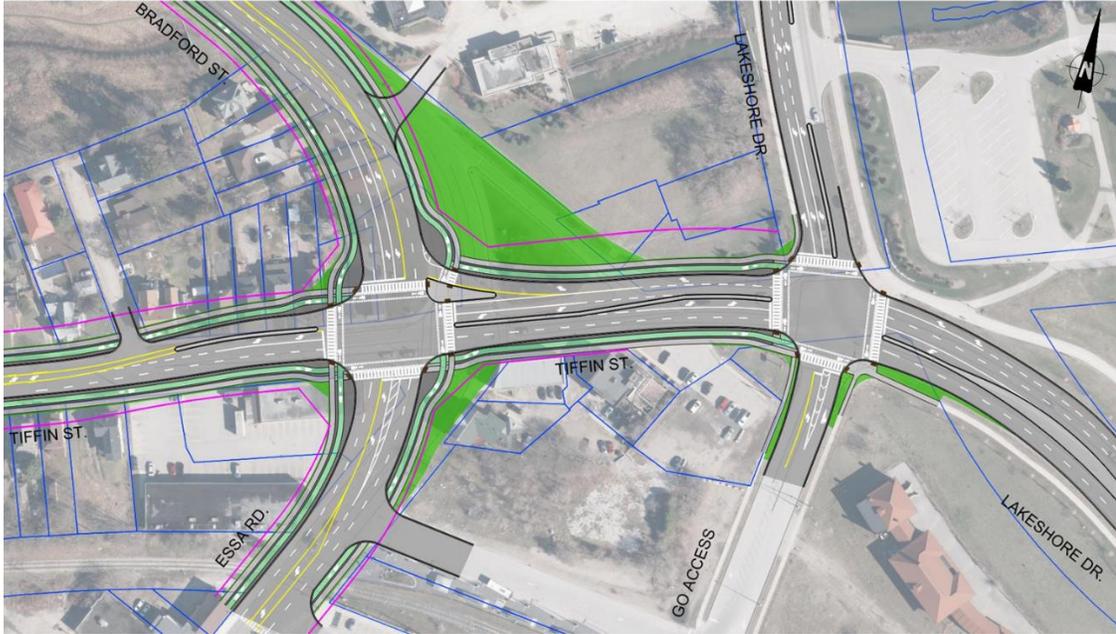
23. A subsequent recommended design solution was developed to establish corridor protection requirements (refer to Appendix “E” for corridor protection plans for the recommendation design solution).

Tiffin Street Intersections

24. Based on the recommended planning solution, an assessment was undertaken to identify property protection requirements to facilitate long-range intersection improvements at Tiffin Street and Bradford Street and Tiffin Street and Lakeshore Drive to address safety, operational and geometric deficiencies.

25. Two alternative design concepts were prepared to address the identified deficiencies:

Alternative 1 – Conventional Signalized Intersections



Alternative 2 – Roundabouts



26. The evaluation of the alternative Tiffin Street intersection design concepts considered similar environmental factors as the broader corridor evaluation outlined in item 14. The following table summarizes the assessment of the alternative design concepts:

	Alternative 1 Conventional Signalized Intersections	Alternative 2 Roundabouts
Benefits	<ul style="list-style-type: none"> • More familiar, easier to access and navigate by pedestrians and cyclists • More accessible to hearing and visually impaired • More “compact” footprint is more desirable from a human scale and movement perspective. • Better opportunity to incorporate transit priority measures • Lower construction cost and less complex design 	<ul style="list-style-type: none"> • More preferred from a traffic operations perspective – sufficient capacity at peak times, keeps traffic flowing at lower speeds • Less potential for severe collisions for all users • Shorter pedestrian/cyclist crossing distance minimizes exposure to moving traffic, only have to consider one direction of traffic at a time • Potential lower emissions loading due to slower speeds and less ‘stop and go’
Challenges	<ul style="list-style-type: none"> • Can expect traffic congestion during peak hours and potential for spill back • Typical of signalized intersections – traffic speeds will be higher and greater potential for severe collisions (high-speed and angle) • Pedestrians can be vulnerable to unprotected (higher speed) left-turn movements • Longer crossing distance exposes pedestrian to vehicles for more time compared to roundabouts 	<ul style="list-style-type: none"> • Some encroachment into Allandale property • May be unsettling to pedestrians and cyclists depending on age, mobility, visual impairment, or ability to judge gaps in traffic • Multiple threat crash possibility when driver in first lane yields but pedestrian is unable to detect whether driver in second lane yields • Out-of-way pedestrian and cyclist travel due to large footprint, location of crosswalks and the one-way nature of pedestrian/cycling crossings

27. The alternatives ranked very similarly with the roundabout alternative providing higher capacity and greatest safety improvement for the auto mode; however, a multi-lane roundabout can be challenging for pedestrians and cyclists to navigate and difficult for those with accessibility needs. In context of the location of these intersections within the City’s urban growth centre, adjacent to the City’s waterfront, planned mobility hub and GO station as well as existing and forecasted use by active transportation users, a conventional intersection design is the recommended design solution.

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28. The Tiffin Street and Bradford Street intersection experiences collision rates approximately four times greater than comparable nearby intersections based on a review of four years of collision data. The significant intersection skew and lack of turning lanes are seen as the leading contributing factors. To address this deficiency, the study identified a need to plan for a moderate realignment of the Bradford Street and Tiffin Street intersection to achieve the following:
- a) Improved sight distance for vehicles approaching and travelling through the intersection, to ensure safe operation for all users.
 - b) Sufficient distance between the intersections on Tiffin Street, to ensure efficient operation and reduce potential queue spillback.
 - c) Improved geometry to allow greater flexibility for potential changes in future road function and adjacent land use changes for future intensification.
 - d) Consistency with current design standards to create safer operating conditions for all users.

Refer to Appendix "F" for concept plans illustrating an alignment mirroring the current Bradford Street alignment and the recommended alignment shifted west.

Overall Recommended Design Solution

29. The study recommends:
- a) That the Bradford Street corridor be protected as illustrated in the corridor protection plans including identified conventional intersection improvements at Tiffin Street and Bradford Street (refer to Appendix "E").

Property Requirements

30. As the study's purpose is to establish corridor protection needs, there are no planned property acquisitions at this time.
31. The recommended design solution reflects existing corridor protection requirements identified in the City's OP with specific alignment adjustments where the corridor abuts the wastewater treatment plant and the intersection alignment shift at Tiffin Street and Bradford Street.
32. There are approximately three properties in proximity to the intersection of Tiffin Street and Bradford Street that do not have residual re-development potential. Those owners may request the City to purchase their property. In those instances, their requests would be processed following the City's Advance Property Purchase policy (motion 20-G-019).

Implementation

33. The implementation of the recommended design solution is dependent on the pace of redevelopment occurring on the Bradford Street corridor. Based on growth plan targets and the current pace of development, staff are forecasting implementation in the late 2030s to early 2040s.

34. As implementation is forecasted beyond 10 years, the MCEA requires an EA addendum (or applicable process in-effect at that time) to be completed to re-assess the study recommendations against in-situ constraints as well as in-effect transportation and land-use policies prior to implementation. The EA addendum will allow further refinement of specific corridor / streetscape elements and provides the opportunity to adjust the recommended design solution for any financial constraints that may exist at the time of implementation.

ENVIRONMENTAL AND CLIMATE CHANGE IMPACT MATTERS

35. The following environmental and/or climate change impact matters have been considered in the development of the recommendation:
- a) The recommended design solution aligns with City climate change objectives by providing a complete street design that supports active transportation and transit use. The recommended design solution will provide improved connectivity to the Allandale Mobility Hub and the Allandale Waterfront GO Station for active transportation users. Additionally, the recommended design solution supports future implementation of a high-occupancy vehicle lanes as identified in the City's TMP.

ALTERNATIVES

36. The following alternatives are available for consideration by General Committee:

Alternative #1 General Committee could alter the proposed recommendation by directing staff to remove travel lanes.

This alternative is not recommended as the need to maintain 2-lanes per direction has been established through the City's Transportation Master Plan, reconfirmed through this study, and would result in mobility impacts, including anticipated negative impacts to emergency services and transit, which are unquantifiable at this time.

Alternative #2 General Committee could alter the proposed recommendation by directing staff to narrow the right-of-way.

This alternative is not recommended as the majority of the widening (80%) is being allocated to create a complete street with high quality pedestrian and cycling facilities.

Alternative #3 General Committee could alter the proposed recommendation by directing staff to accelerate implementation.

This alternative is not recommended as redevelopment has not advanced sufficiently to justify implementation of the recommended design solution as presented.

FINANCIAL

37. There are no near-term financial implications for the Corporation resulting from the recommended design solution as implementation is forecasted beyond the current 10-year capital budget.
38. A funding request will be made as part of the 2024 Business Plan to undertake the in-service road safety review for the Tiffin Street and Bradford Street intersection.

LINKAGE TO 2022-2026 STRATEGIC PLAN

39. The recommendation(s) included in this Staff Report support the following goals identified in the 2022-2026 Strategic Plan:
- Thriving Community
 - Infrastructure Investments
40. The recommended design solution allows the City to proactively protect and plan for the future implementation of a multi-modal complete street design on the Bradford Street corridor; that aligns with the transformative intensification planned for this area and supports equity and community wellness by facilitating future implementation of high-quality pedestrian, cycling, and transit supportive infrastructure.

Attachments: Appendix "A" – Transportation Master Plan – 2041 Network Recommendations

Appendix "B" - Municipal Class Environmental Assessment Planning and Design Process

Appendix "C" - Key Themes Generated From Public Comments and Responses

Appendix "D" – Conceptual Streetscape Renderings

Appendix "E" - Corridor Protection Plans

Appendix "F" - Tiffin Street and Bradford Street – Approximating Existing Alignment

APPENDIX "A"

Transportation Master Plan – 2041 Network Recommendations



Existing Facilities	Proposed Facilities	Trail Systems	Points of Interest
Waterfront Multi-use Trail	In-Boulevard Pathway	Province-Wide Cycling Network	Royal Victoria Hospital
In-Boulevard Pathway	Cycle Track	The Great Trail	Municipal Facility
Buffered Bike Lane	Buffered Bike Lane	Transportation Features	Community Centre
Bike Lane	Bike Lane	GO Station	Elementary School
Paved Shoulder	Paved Shoulder	Barrie Bus Terminal	High School
Signed Bike Route	Urban Shoulder	Other Features	Private School
Off-road Trail	Signed Bike Route	Secondary Plan Area	College
	Off-road Trail	Park / Open Space	
		Connection to Surrounding Municipality	

Figure ES-2
Cycling and Multi-Use Trail Network
City of Barrie Transportation Master Plan



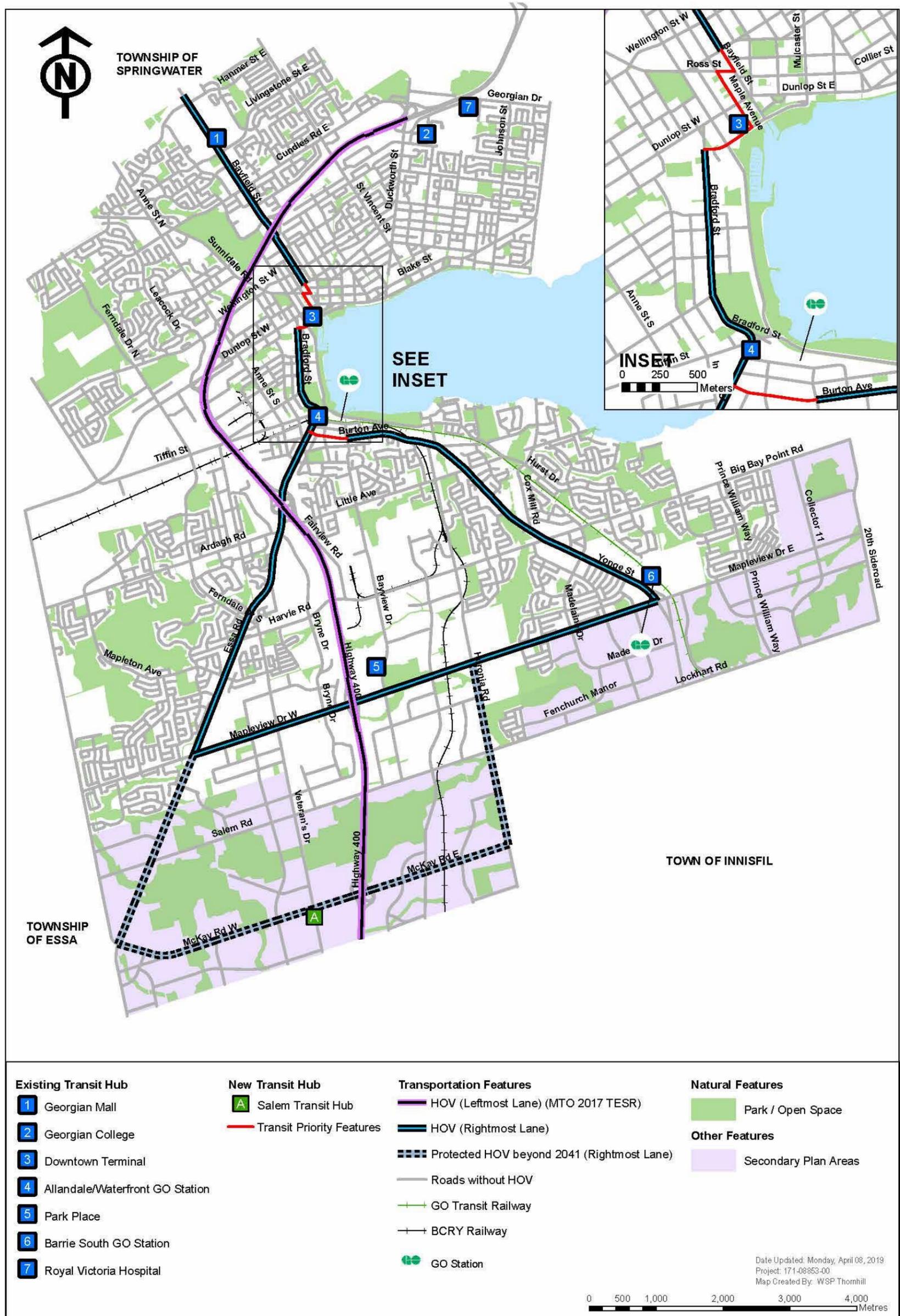


Figure ES-6
Proposed HOV Lanes and Transit Priority Features
City of Barrie Transportation Master Plan





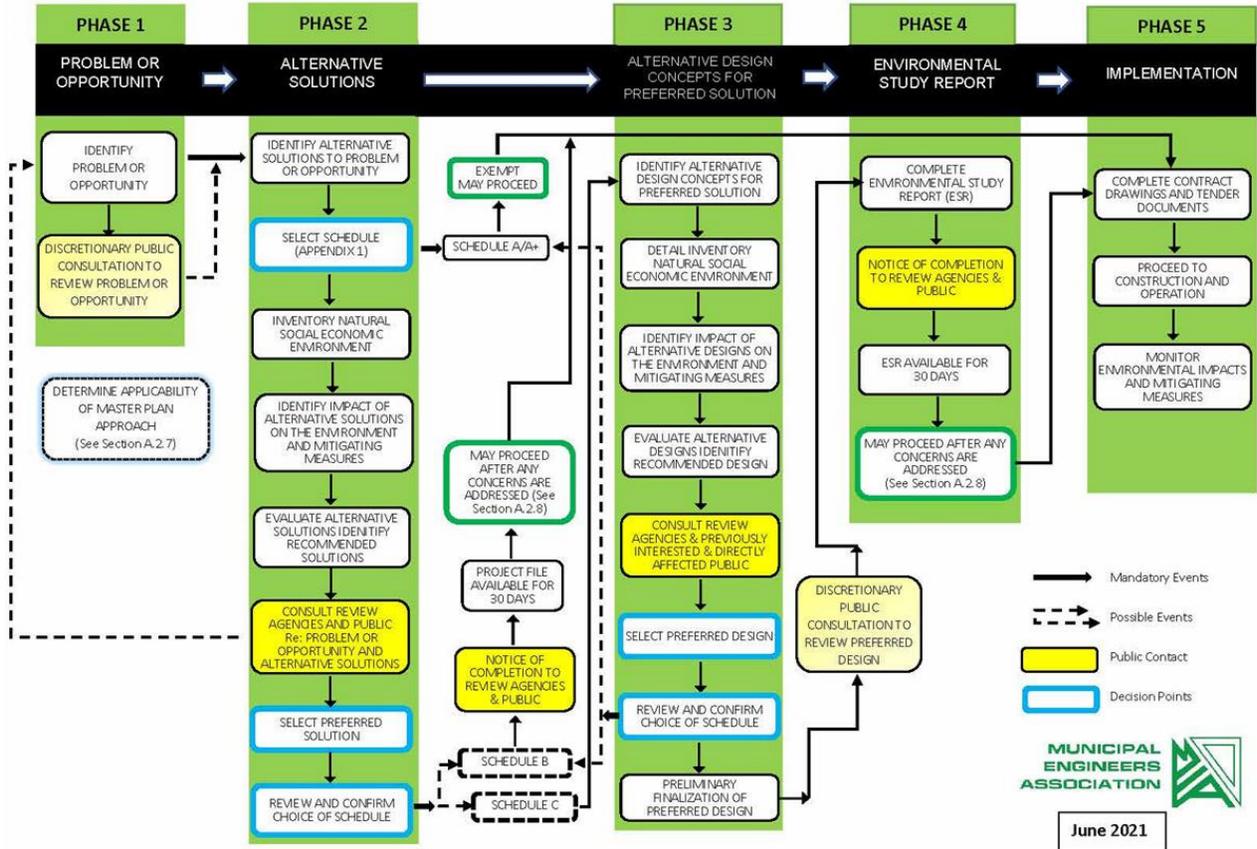
Figure ES-4
Total Number of Vehicle Lanes, Proposed Preferred Network – 2041
City of Barrie Transportation Master Plan



APPENDIX "B"

Municipal Class Environmental Assessment Planning and Design Process

MUNICIPAL CLASS EA PLANNING AND DESIGN PROCESS NOTE: This flow chart is to be read in conjunction with Part A of the Municipal Class EA



APPENDIX “C”

Key Themes Generated From Public Comments and Responses

Comments / Questions	Project Team Response / How the Feedback Was Considered
Theme 1 – Planning Process	
<p>Why hasn't the option to reduce Bradford Street to 2-lanes been considered previously?</p>	<p>The City's downtown transportation network was subject to a comprehensive Municipal Class EA in the early 2000's called the Waterfront/Downtown Transportation Improvements Class EA and Class EA Addendum, approved by Council in 2002 and 2004 respectively.</p> <p>This planning study was the driver of several significant road reconstruction and realignment projects in the downtown area, undertaken to accommodate planned growth, create a waterfront park and an accompanying parkway (Lakeshore Drive). The primary outcomes of this effort included the creation of Simcoe Street and Bradford Street as designated corridors designed to attract vehicular traffic from Dunlop Street and Lakeshore Drive to facilitate those streets becoming the City's primary destinations and supporting pedestrian friendly environments.</p> <p>In the context of this study and the Transportation Master Plans completed since then, Bradford Street has been identified as being an important north-south arterial road in the waterfront / downtown network. The effort to reduce traffic volumes on Lakeshore Drive means that Bradford Street has continued to be planned as 4-lanes. A reduction to 2-lanes would have been deemed to be inconsistent with network planning objectives, result in shifting travel patterns and more pressure on other north-south roads. These legacy recommendations form part of the holistic network planning that are foundational and still relevant.</p> <p>In the context of the 2019 TMP, Bradford Street is identified for possible HOV which would not be feasible on a 2-lane roadway.</p> <p>While the Bradford Street MCEA study is flexible and provides an opportunity to reaffirm transportation needs and opportunities, this is a corridor-specific study, it is not a tool that can be used to redefine and assess the impacts of changing the waterfront/downtown transportation network. This would be more appropriately done through the upcoming Transportation Master Plan Update.</p>
<p>Maintaining 4-lanes on Bradford Street is an outdated approach to planning. Why is the City not recommending a reduction to 2-lanes?</p>	<p>The purpose of the Bradford Street MCEA study is to identify and protect enough right-of-way (ROW) to accommodate all of the required and desired elements for the future street including separated cycling facilities, accessible sidewalks, streetscape/urban design, public and private infrastructure, street and pedestrian scale lighting, transit stops including shelters at some locations, bike racks, street furniture (benches) and other amenities that work together to create a vibrant streetscape. The streetscape will be integrated with redevelopment along Bradford Street and the creation of a complete community within the Urban Growth Centre.</p>

	<p>Bradford Street is not intended to be a downtown ‘main street’ like Dunlop Street. It is intended to provide for multi-modal travel, with a priority on pedestrian, cyclist, and transit use, while still providing for vehicular traffic movement.</p> <p>However, we recognize that in planning for the next 30 years user needs will change as will technology. The City also anticipates there will be a greater shift to transit and active uses (beyond that which is forecast in the 2019 TMP).</p> <p>So, while the 2019 TMP recommends maintaining 4-lanes on Bradford Street to 2041, this Class EA study plans to 2051 and our approach recognizes the importance of protecting a right-of-way that provides flexibility for the City to respond to emerging technologies, changes in travel modes, provision of transit priority measures and allocation of space to new amenities such as EV charging stations, bike share, and possibly on-street parking. It is possible that Bradford Street may not always have four travel lanes but there will be other important uses that will require an allocation of space.</p> <p>Regardless of right-of-way width, and the number of lanes, the look and feel of future Bradford Street will be distinctly urban and will reflect its context and the planned development structure - through roadway and streetscape design decisions, the City can create a distinctly context-sensitive and vibrant urban environment.</p>
<p>Is the Bradford Street MCEA biased towards a 34 m right-of-way due to the Official Plan and Transportation Master Plan recommendations?</p>	<p>This question is best discussed in a way that highlights municipal infrastructure planning hierarchy. As documented in Chapter 2 of this Environmental Study Report:</p> <ul style="list-style-type: none"> • The Bradford Street MCEA study is an integrative process fundamentally based on the City’s strategic priorities, the Council-approved Official Plan (OP) and Transportation Master Plan (TMP), and other previous planning and feasibility studies, including the Waterfront/Downtown Transportation Improvements Class EA (2004). • The Schedule C Class EA process is a mechanism by which the high-level plans and policies identified in the OP and TMP are further examined/refined and then implemented on a corridor-specific basis, and therefore it serves that the initial scoping of a Class EA study is typically guided by the recommendations of the OP and TMP. This is not a ‘bias’ in the process, but rather a systematic and structured progression from a comprehensive city-wide network master planning exercise to corridor-specific planning and design for all municipal infrastructure. All of these planning processes are guided by specific legislative requirements, including consultation.

	<ul style="list-style-type: none"> The Bradford Street MCEA study builds on the foundation of previous council-approved plans and polices through more corridor-specific investigations and by seeking input through the engagement of Committees of Council, City Advisory Committees, City staff across all departments, external regulatory agencies, utilities, stakeholders, Indigenous communities and the public in order to confirm or refine previous recommendations and then develop a tailored and context-sensitive solution for Bradford Street. <p>The transparency of the MCEA decision-making process, the multiple points of public/agency engagement and the number of city and external groups involved to scrutinize the process, the abundance of checks and balances all ensure a defensible project outcome that is rooted in the City's strategic priorities and vision. Ultimately it is the decision of Council to accept or set aside the decisions and recommended design that are the outcome of the MCEA process.</p>
<p>Why does traffic modelling dictate the protection of the 34 m right-of-way in the Transportation Master Plan and Official Plan?</p>	<p>The City's Transportation Master Plan (TMP) is a strategic planning framework that provides direction for future transportation-related studies, projects, initiatives, and decisions. The TMP is a multi-modal plan addressing all modes including walking, cycling, transit, automobiles, and goods movement. An inventory of all transportation infrastructure currently serving the City of Barrie was undertaken which included examining cycling infrastructure, sidewalks, paths, trails, the fixed-route network, bus terminals, train stations, Barrie Specialized Transit Service, current road network (City, County and MTO) and railway crossings. Current deficiencies were identified, which included areas of current traffic congestion and missing links in the active transportation network.</p> <p>Typical of most TMPs, a City-wide travel demand model was used to examine travel patterns on a broad level to understand network function and identify gaps and needs. While the City's travel demand model only generates and simulates the auto travel, demand levels were adjusted based on the defined/approved modal share targets to reflect the modal shifts to transit and active transportation.</p> <p>The improvements were identified based on a systematic analysis of road deficiencies for horizon year 2041. The network analyses followed the methodology of Phases 1 and 2 of the Municipal Class EA process and examined various network alternatives and was subject to extensive public consultation.</p> <p>The travel demand model confirmed that the existing 4-lanes on Bradford Street will accommodate growth to 2041. However, beyond the travel demand model, the following recommendations were also made for Bradford Street:</p>

	<ul style="list-style-type: none"> • Considering the current and future forecasted roadway traffic volumes and the initiatives of reducing transit travel times to promote transit usage and achieve the identified future transit modal share target, HOV corridors are proposed along Bradford Street (and Bayfield, Essa Road, Burton Avenue, Yonge Street, Mapleview Drive. The proposed HOV corridors will provide connections between transit hubs. As well, transit priority measures are proposed to connect and complement the HOV networks. • The Tiffin Street intersections operate poorly and will continue to worsen in future. Intersection improvements are needed. • With the desire to attract vehicles away from Lakeshore Drive; Bradford Street must offer a good level of service. • Recommendation to protect space for a two-way left-turn lane or median, to provide flexibility in meeting future needs. • Cycle track to encourage use by all ages and abilities. • Need to enhance mobility and accessibility and provide sense of livability and safety in the streetscape. Cycling facilities and improved streetscape are required to support this. <p>The expanded right-of-way being considered on Bradford Street is necessary to accommodate all of the recommended, required, and desired future needs.</p>
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Theme 2 - Bradford Street Right-of-Way Width

<p>Why do we think there will be more cars in 10 years+ when we are working toward more walkable communities and different modes of transportation - why do we keep building more roads for cars when we are promoting a shift in transportation modes and there will be less vehicles?</p>	<p>This project is not about 'building more roads' and does not plan for any additional travel lanes.</p> <p>The purpose of the Bradford Street MCEA study is to identify and protect enough right-of-way (ROW) to accommodate all of the required and desired elements for the future complete street including separated cycling facilities, accessible sidewalks, streetscape/urban design, public and private utilities, street and pedestrian scale lighting, transit stops including shelters at some locations, bike racks, street furniture (benches) and other amenities that work together to create a vibrant streetscape. The streetscape will be integrated with redevelopment along Bradford Street and the creation of a complete community within the Urban Growth Centre.</p> <p>Bradford Street is not intended to be a downtown 'main street' (like Dunlop Street). It is intended to provide for multi-modal travel, with a priority on pedestrian, cyclist, and transit use, while still providing for vehicular traffic movement. The 2019 Transportation Master Plan recommended future HOV lanes on Bradford Street and this was discussed in the PIC 3 presentation.</p>
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	<p>The Project Team also recognizes that in planning for the next 30 years, user needs will change as will technology. The City anticipates there will be a greater shift to transit and active uses, beyond that which is already forecast in the 2019 Transportation Master Plan (TMP). So, while the 2019 TMP recommends maintaining 4-lanes on Bradford Street to 2041, this Class EA study plans to 2051 and our approach recognizes the importance of protecting a right-of-way that gives the City flexibility to respond to emerging technologies, changes in travel modes, provision transit priority measures and allocation of space to new amenities such as EV charging stations, bike share, and possibly on-street parking.</p>
<p>Why are we considering expanding our ROW in a city core road, when other cities like Guelph, Toronto, Vancouver, Montreal are reducing their rights-of-way?</p>	<p>An expanded right-of-way (ROW) is being considered for Bradford Street for the purposes of creating a complete street to integrate with the complete community that will be developed within the Urban Growth Center / Intensification Corridor. The additional space will accommodate improved sidewalks, new cycling facilities, boulevard space for new transit stop infrastructure, streetscape/landscape design and public realm space to complement the planned community redevelopment. Traffic operational improvements are also being considered (intersection improvements, turn lanes), that will contribute to the need for additional right-of-way.</p> <p>While Bradford Street is located within the Urban Growth Centre of the City and shares a high-density land use designation similar to the City's downtown – the City's Official Plan and Official Plan update contextualize Bradford Street as a distinct area.</p> <p>Without doing a 'deep dive' into each example cited, the Project Team suggests caution when considering peer cities on the basis on 'right-of-way widening' because these generalizations may overlook the very context-specific considerations for Bradford Street including:</p> <ul style="list-style-type: none"> • While Bradford Street is within the Urban Growth Centre, it is not considered a downtown main street in the way Dunlop Street is, for example. • Bradford Street is not being widened to accommodate additional travel lanes. • Land use along much of Bradford Street is proposed for redevelopment and intensification. The reference to downtown streets in peer cities raises the question about whether these are existing built-up downtown streets where building form will remain static. • Bradford Street is a primary multi-modal link between the Regional Mobility Hub (including GO) and the downtown. • Arterial road function on Bradford Street is desired to attract vehicular traffic from Lakeshore Drive (to protect its intended to function as a scenic parkway). • The City's Transportation Master Plan (TMP) identifies Bradford Street for potential HOV lanes. <p>The upcoming TMP Update will examine the potential for higher-order transit on Bradford Street and a number of other arterial roads in Barrie.</p>

<p>PIC 1 included a figure depicting free flow conditions on Bradford in 2051 PM Peak with the existing 18m cross section. Why are we expanding the ROW protection on Bradford from 18m to 34m for 2051?</p>	<p>This question appears to reflect a misinterpretation of the transportation planning context and traffic analysis presented as part of the PIC 1 package. The Project Team offers the following explanation for clarity:</p> <ul style="list-style-type: none"> • The PIC 1 package explains that the City’s Transportation Master Plan considered overall travel demand to 2041 and confirmed that the 4-lane road capacity is adequate for future growth i.e., no road widening or addition of new travel lanes. We are moving forward on this basis and no new travel lanes are proposed. This project is not about adding traffic capacity / travel lanes. • As discussed in Chapter 2.2, traffic analysis was undertaken in Phase 1 of the study that focused specifically on traffic operations at intersections. The term ‘free flow’ used on the PIC slide is simply referencing the function of the intersections. We consider intersection operations carefully during EA studies because these sites represent the key potential conflict zones among all users (vehicle, pedestrians, and cyclists) and a break down in intersection operations can have a ripple effect in other parts of the network and to other users e.g., backing traffic up through the corridor, increased traffic infiltration on local roads, frustrated drivers that results in unsafe behaviours. <p>The PIC 1 package as a whole explains the TMP has acknowledged that 4-lanes is adequate to 2041, that intersections operations were considered to 2051, and that the rationale for considering an expanded right-of-way is associated with operational improvements and active transportation, transit, and streetscape improvements. This is summarized in Section 2.3 of this Environmental Study Report.</p>
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Theme 3 – Road Cross-Section & Streetscape Elements

<p>Has space for Automatic Public Toilets (APTs) or public restroom areas been considered in the right of way layout?</p>	<p>As noted in the presentation, the Project Team recognizes the importance of protecting a right-of-way that gives the City flexibility to respond to emerging technologies, changes in travel modes, provision transit priority measures and allocation of space to new amenities. While APTs have not specifically been discussed as an amenity at this time, the intent is to have right-of-way and most importantly boulevard space available for future amenities.</p>
<p>Will permeable surfaces be considered for sidewalks, cycle tracks, to reduce run off wastewater?</p>	<p>Permeable surfaces are part of a suite of design practices termed ‘Low Impact Development (LID)’ that are increasingly being used to deal with urban stormwater runoff. Other practices include rain gardens, bioswales, infiltration trenches, and rainwater harvesting.</p> <p>The City will consider how LID practices can be incorporated into the project in a future detailed design phase. Permeable surfaces may be viable approach to certain parts of the boulevard space. Where permeable surfaces are not practical / viable, the City could consider diverting stormwater from the sidewalk and cycle track into rain gardens (planting beds) within the boulevard.</p> <p>LID practices are recommended in this Environmental Study Report and commitment made for future design consideration.</p>

<p>Is street parking being recommended?</p>	<p>There is no current recommendation for on-street parking. The design plan reflects 4-lanes on Bradford Street with the outside lane being available for HOV in the future.</p> <p>However, the Project Team recognizes the need for flexibility in addressing future needs to 2051 and in the PIC 3 presentation, it was noted that the City may make decisions in the future on how to reallocate space within the right-of-way, as needs and priorities change. Provision of on-street parking (either part-time or full-time) and/or EV charging stations was an example of this. This is also highlighted in Chapter 4 of the Environmental Study Report.</p>
<p>What is the current width of the travel lanes? Are 3.0 m lanes being considered for the future design as a more "urban" width that could provide greater traffic calming, safety, and pedestrian access? Thanks so much for the presentation!</p>	<p>The width of the existing travel lanes is approximately 3.5m. The proposed travel lanes widths on Bradford Street are based on City of Barrie design standard BSD-309, which noted lanes width at 3.5m. For the inner lane, we have reduced it to 3.3 m for lesser "paved area". The proposed typical cross section as presented as part of the current Bradford MCEA Study does not preclude 3.0 m inside lanes in the future should the City decide to modify dimensions of the cross-sectional elements to better complement adjacent land uses at that time. We anticipate that outside lanes will remain slightly wider to better accommodate transit vehicles. Lane widths will be confirmed in future design stages.</p>
<p>It would be helpful to make one of the car lanes a dedicated transit lane, is that an option?</p>	<p>The 2019 Transportation Master Plan already recommends that the outside lane could be reserved for a HOV lane, offering enhanced transit service efficiency, and prioritizing sustainable modes of transportation. The intent is to implement this plan in future. The Transportation Master Plan will be updated starting in 2023 and transit will be a primary focus of the plan.</p>
<p>Stephan's Park could be a great welcome sign for the Downtown Barrie BIA.</p>	<p>This has been incorporated into Section 6.11 Streetscape, of the Environmental Study Report for future consideration by the City and BIA.</p>
<p>Theme 4 - Pedestrian Crossings</p>	
<p>A traffic light is needed to safely cross Bradford Street at Brock. Presently to use the north bound bus stop you must walk 400m south or 500m north to safely cross.</p>	<p>The City is considering installation of a pedestrian crossing as part of a future culvert replacement project for the Dyments Creek culvert located approximately 135m north of Brock Street. That said, the Environmental Study Report speaks to the need for and importance of convenient and safe pedestrian crossings at mid-block locations for the future design consideration. This is reflected in Chapter 6 and in Chapter 8, including Exhibit 8-1.</p>

Theme 5 – Traffic Operations	
<p>Please discuss relationship between Bradford and Lakeshore streets in terms of traffic and transportation network.</p>	<p>Over the past 20 years of transportation network planning, Bradford Street has been identified to function as the primary north-south arterial road, intended to offer a higher level of service than Lakeshore Drive and attract trips from Lakeshore Drive.</p> <p>The original planning work stemmed from a comprehensive Municipal Class EA in the early 2000's - the Waterfront/Downtown Transportation Improvements Class EA, which was approved by Council in 2004. This planning study was the driver of several significant road reconstruction and realignment projects in the downtown area, undertaken to accommodate planned growth, create a waterfront park and an accompanying parkway (Lakeshore Drive). The primary outcomes of this effort included the creation of Simcoe Street and Bradford Street as designated corridors designed to attract vehicular traffic from Dunlop Street (the City's main street) and Lakeshore Drive (the City's preeminent parkway) to facilitate those streets becoming the City's primary destinations and supporting pedestrian friendly environments.</p>
<p>The speed limit on Lakeshore can be reduced to motivate your vision!</p>	<p>The City of Barrie Traffic Operations Branch is looking into this as a separate initiative. This is not part of the Bradford Street Class EA study.</p>
<p>Will there be specific elements to make Lakeshore a slower, more scenic route?</p>	<p>The City of Barrie Traffic Operations Branch is looking into reducing the speed limit on Lakeshore Drive as part of a separate initiative. This is not part of the Bradford Street Class EA study.</p>
Theme 6 - Accessibility	
<p>Can you look at different curbs that would allow for better accessibility for people in wheelchairs, with strollers etc.? The medians on Lakeshore are problematic.</p>	<p>Thank you for raising this important aspect of accessibility. This recommendation will be carried forward into the Environmental Study Report to inform the future design of Bradford Street.</p>
<p>Brick roads/sidewalks are a concern for those who use mobility devices or use mobility assistive devices.</p>	<p>Similar to the comment above, thank you for raising this important aspect of accessibility. This recommendation will be carried forward into the Environmental Study Report (Section 6.2 and Exhibit 8-1) to inform future design of Bradford Street.</p>

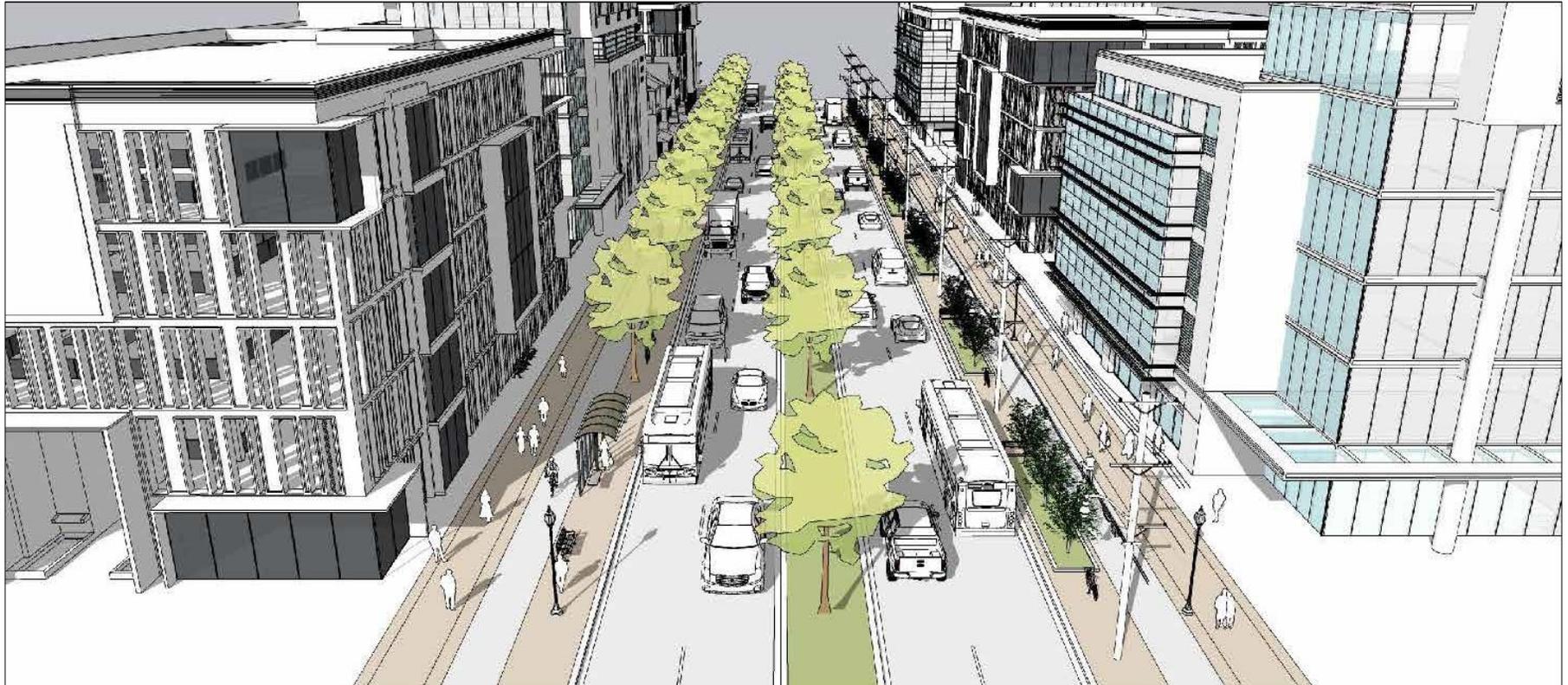
Theme 7 - Preliminary Preferred Design Concept Plan	
<p>How this will affect the quality of life of residents living on Sanford Street. Building over 3 stories will create shadow effect on single family homes.</p>	<p>This MCEA study contemplates changes to Bradford Street that are needed to support the already-planned intensification and redevelopment. The MCEA study itself does not plan for land use changes. The land use planning decisions are developed as part of the City's Official Plan process which identifies growth principles, policies and areas that are required to meet the population and employment forecasts established and mandated by the Province. Please refer to the Official Plan here https://www.barrie.ca/government-news/adopted-strategies-plans/official-plan.</p> <p>Further decisions about building height and massing will be reviewed as part of the upcoming Zoning By-law review. More information about this process can be found here https://www.barrie.ca/government/policies-laws/laws-listing/zoning-law</p> <p>Your feedback will be shared with the City Planning Department.</p>
<p>Would Barrie consider NOT having as many turn options through the boulevard, and instead have a U Turn light at each intersection for those needing to access the opposite direction.</p>	<p>As discussed in the PIC 3 presentation, one of the key recommendations of this study is to 'manage access' to reduce / limit / consolidate individual entrances along the corridor. This is an important part of making the corridor safe and attractive for pedestrians, cyclists, and mobility device users because it reduces the number of individual points of potential conflict with vehicles. It also protects more space for streetscaping which contributes to the overall attractiveness of the corridor and community. U Turns at traffic signals are a way to provide access to right-in / right-out access points; however, facilitating that movement requires additional right-of-way space. As an alternative, staff will be encouraging the consolidation of driveways on Bradford Street through <i>Planning Act</i> approvals where possible.</p>
<p>How is this design aligning with the City's goal of Vision Zero?</p>	<p>There are several different ways that this design plan contributes to and aligns with the City's goal of Vision Zero. The plan creates a safe space for vulnerable road users – pedestrians, mobility device users and cyclists by planning for:</p> <ul style="list-style-type: none"> • Wider sidewalks set well back from road. • Separated cycle track for all ages and abilities set back from road. • Access management – reduce / limit / consolidate individual entrances along the corridor to reduce the number of individual points of potential conflict with vehicles. • Realignment of Bradford Street at Tiffin Street to reduce the intersection skew allowing for better sightlines. • Commitment to look at reduced curb radii to slow vehicle speeds.



<p>As a downtown resident & employee I LOVE this corridor plan and want to feel hopeful. How likely are we to see any of this in the next few years? if so, what is more likely to be addressed first?</p>	<p>The timing of Bradford Street improvements will be largely driven by the pace of redevelopment and community growth. While Bradford Street is not currently identified in the 10-year capital budget, the budget is reviewed by staff and Council annually, with adjustments made based on new priorities. There may be opportunities to implement parts of this plan in the shorter term – City staff will monitor needs and opportunities over the next several years.</p>
<p>Theme 8 – Utilities</p>	
<p>Please bury the power lines!</p>	<p>The Project Team has met with Alectra to discuss the project and explore, on a preliminary basis, the feasibility, challenges, and costs of burying the power lines. In addition to high cost, some technical challenges have been identified with burying higher voltage lines. However, the City will continue to look at the potential of burying utilities as the project move ahead in future.</p>
<p>Theme 9 – Environmental Assessment (EA) Process</p>	
<p>What does the "shelf life" mean in the next steps of the Class EA Study is 10 years?</p>	<p>If more than 10-years has elapsed after the EA is completed and no part of the plan has been implemented, there is a need to confirm if the recommended plan is still valid / appropriate or if it needs to be refined and updated based on changes to the socio-economic, cultural, and natural environments, technical needs, and planning / policy framework.</p>

APPENDIX "D"

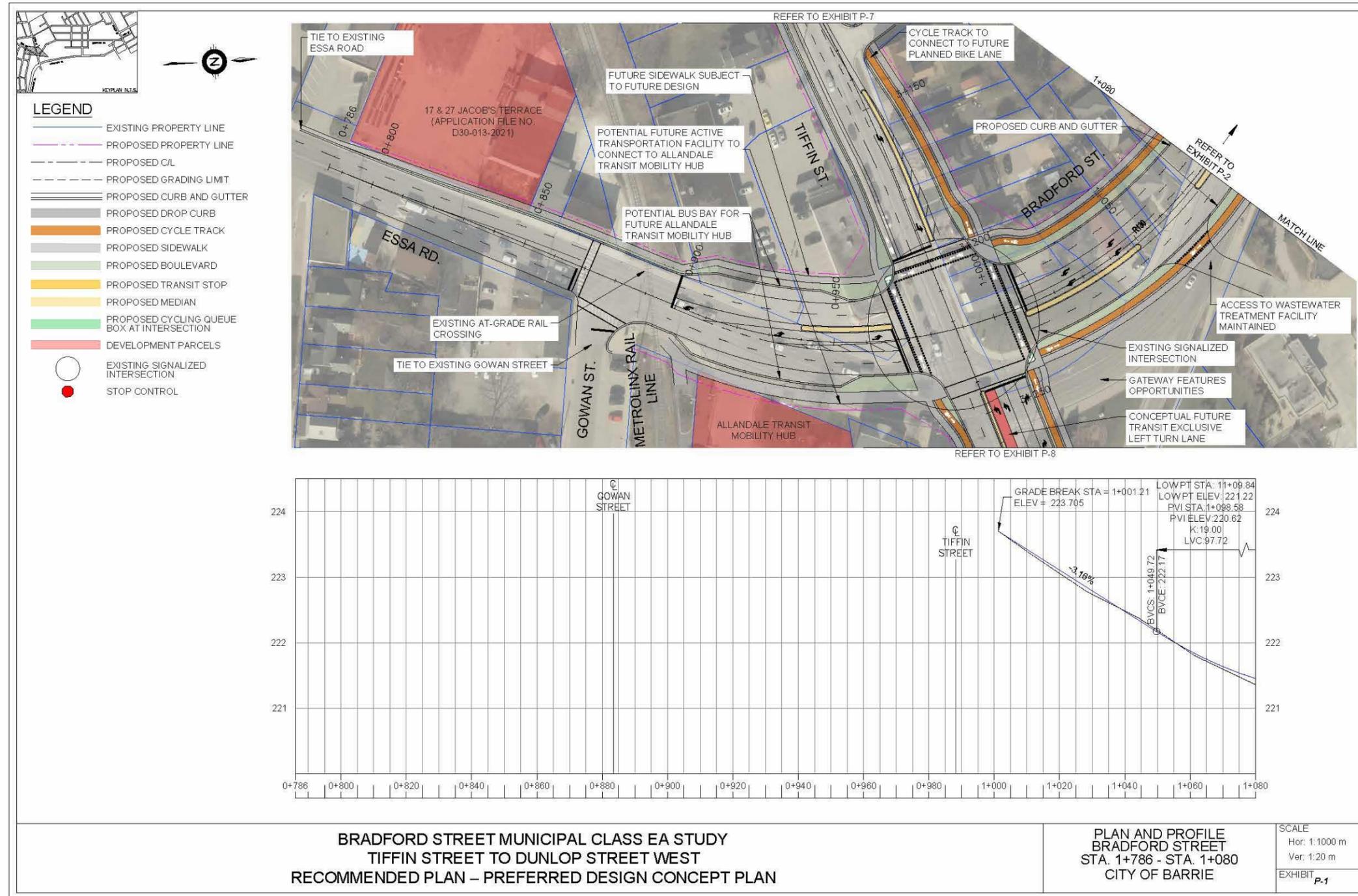
Conceptual Streetscape Renderings

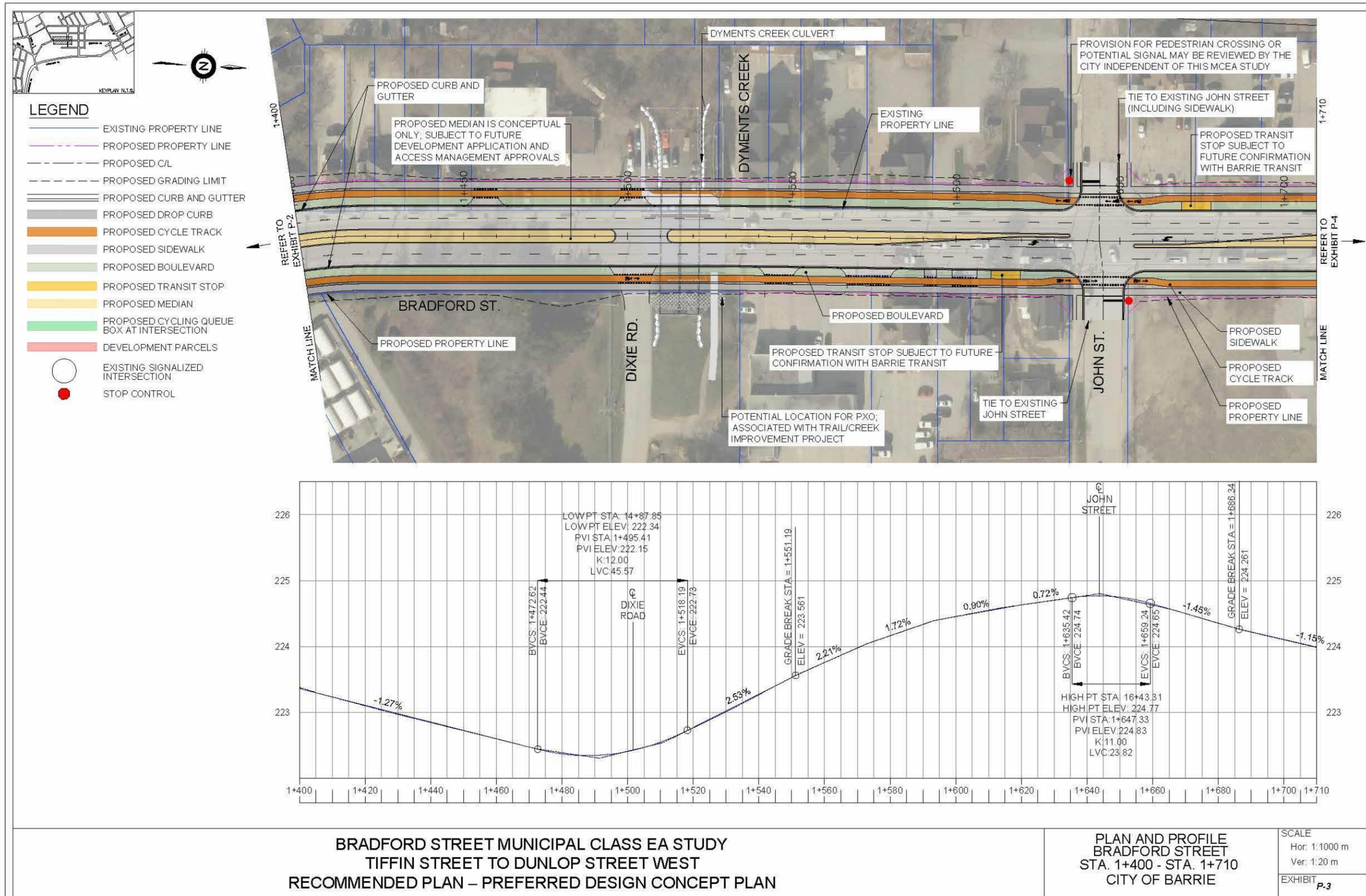


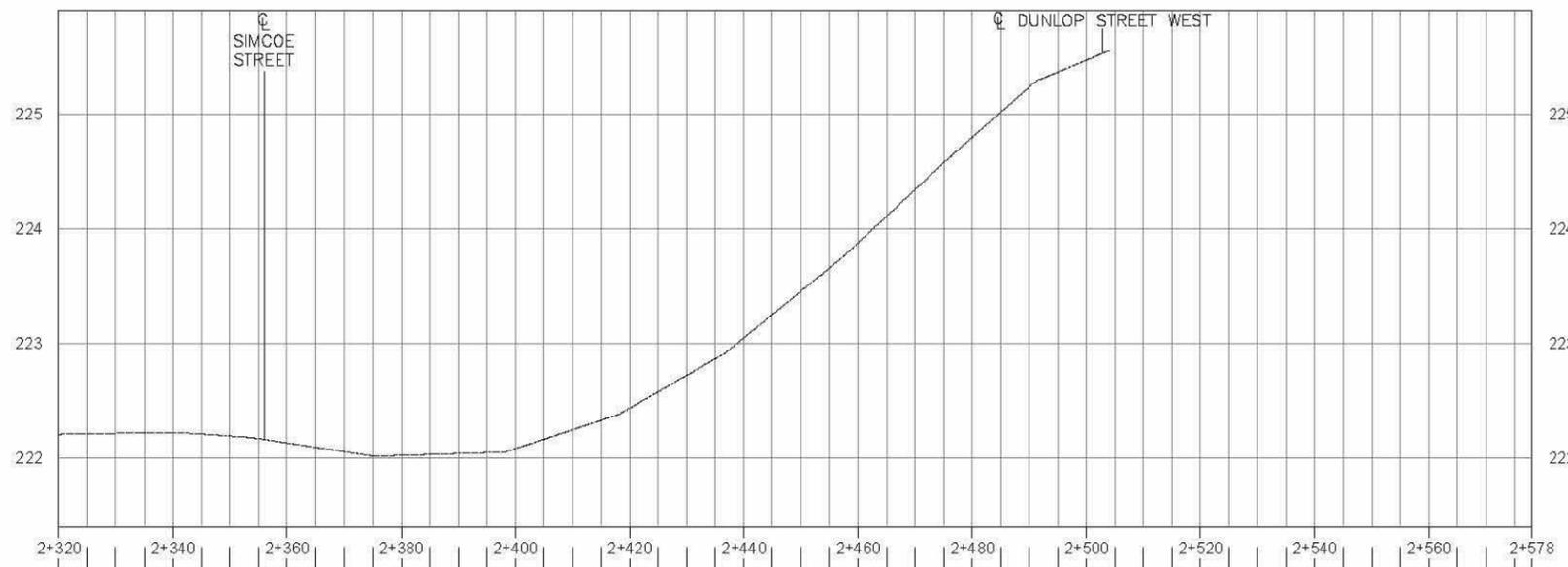
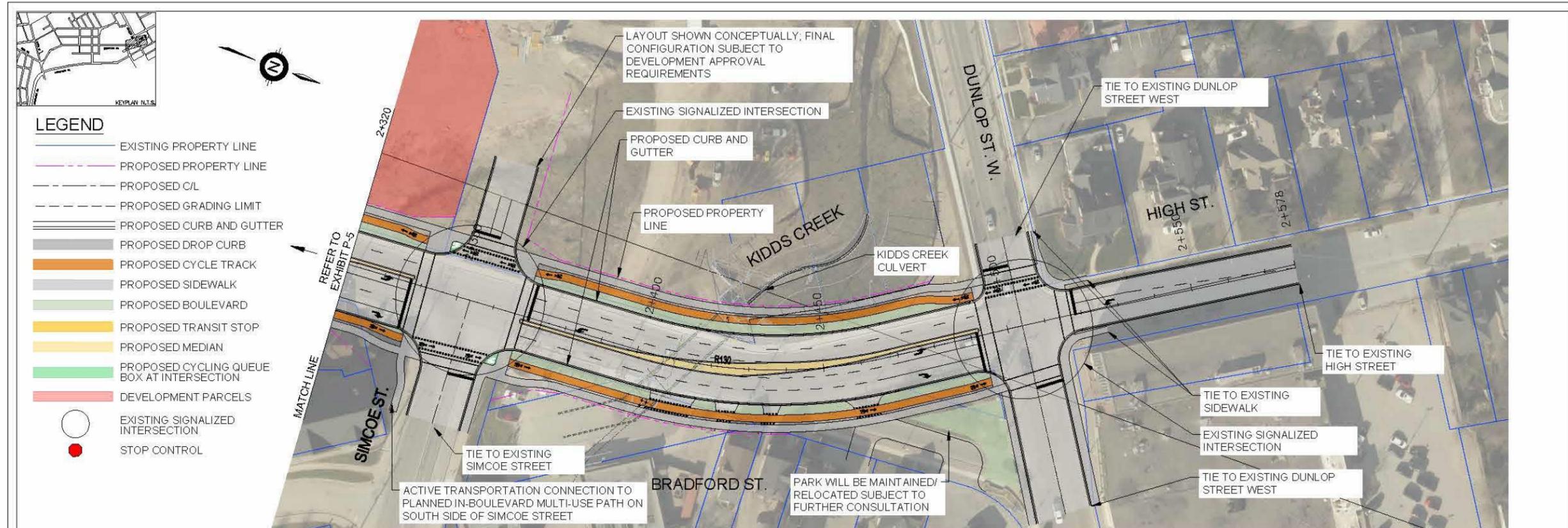




APPENDIX "E"
Corridor Protection Plans



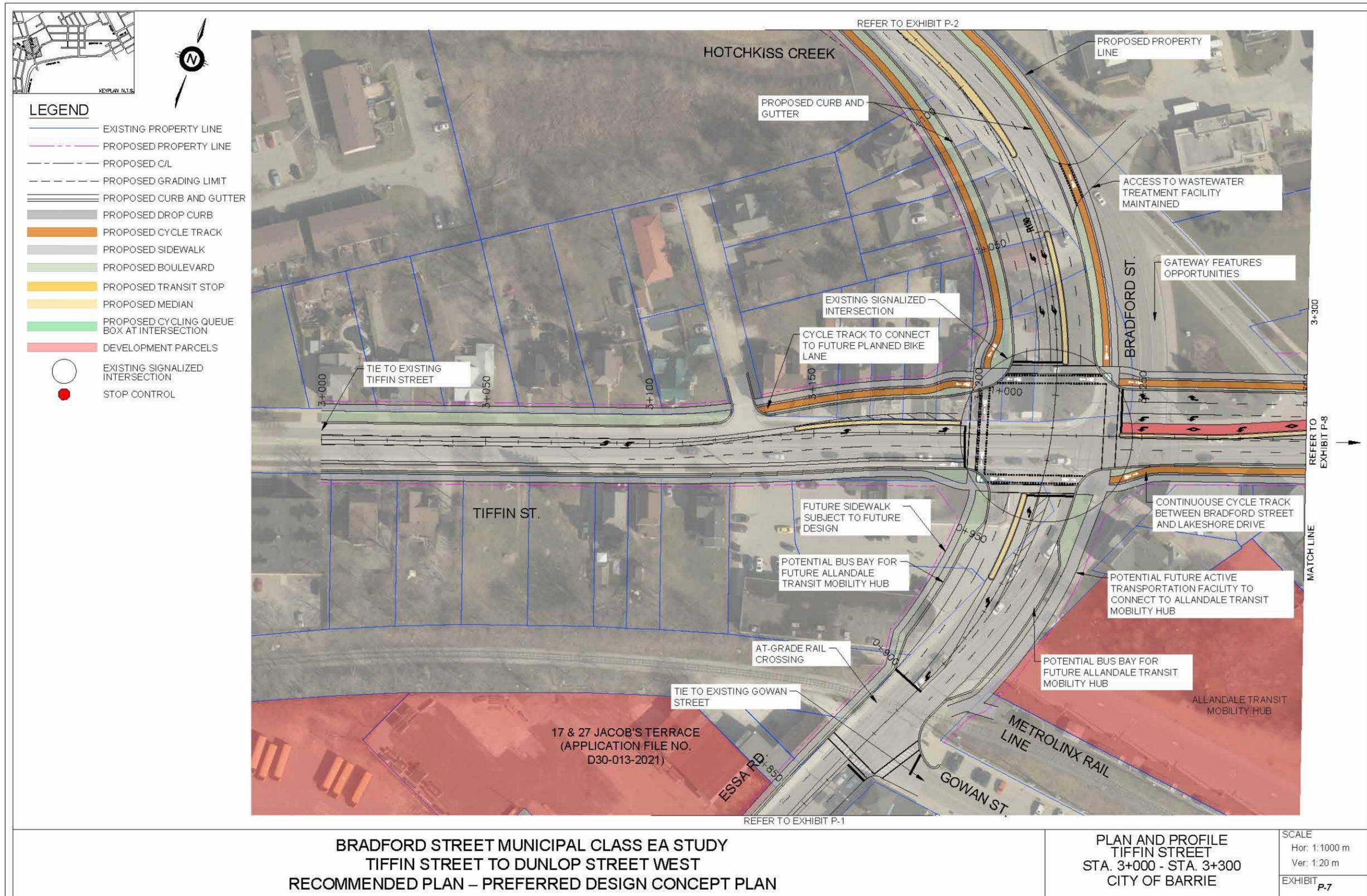


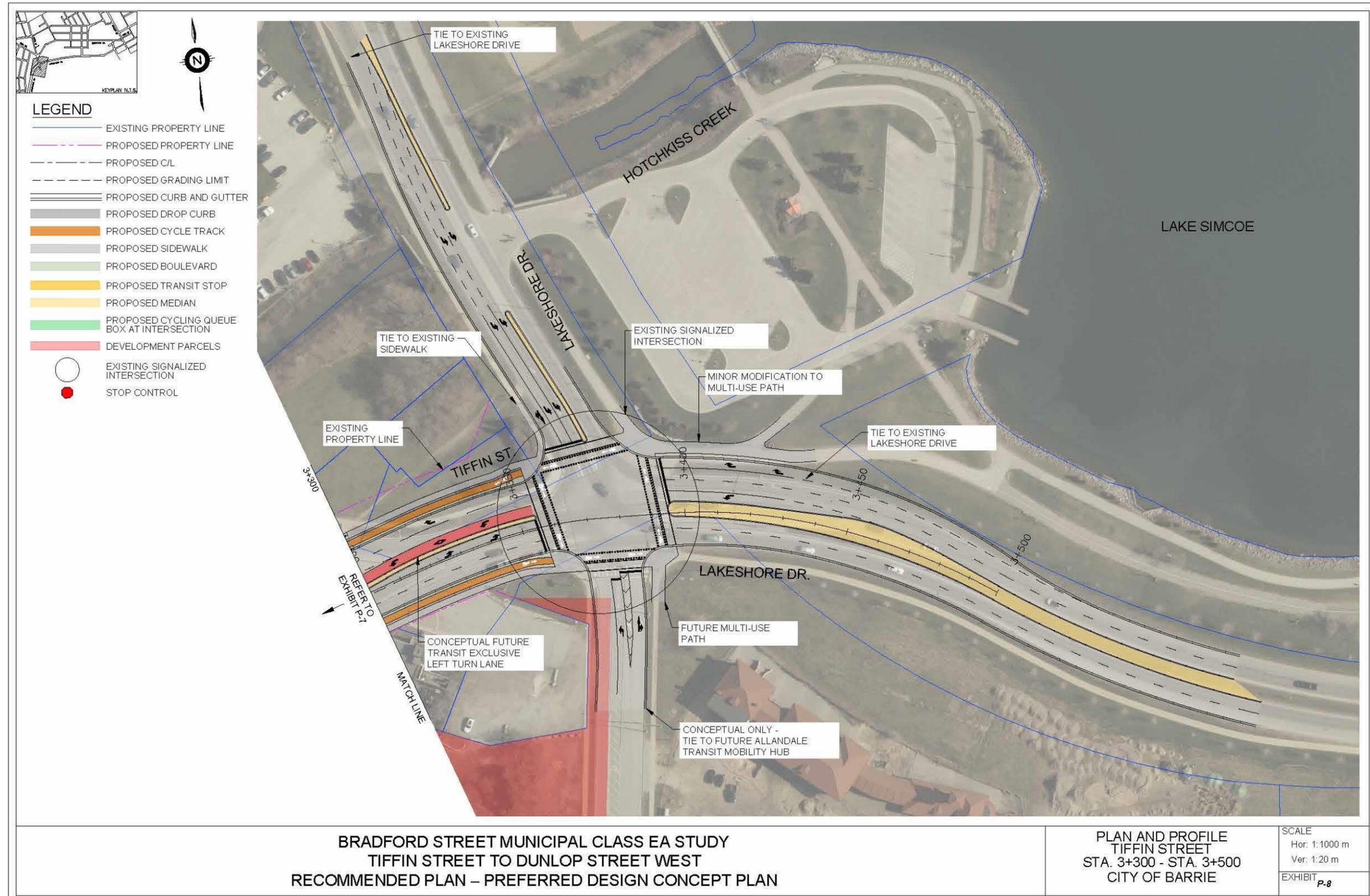


**BRADFORD STREET MUNICIPAL CLASS EA STUDY
TIFFIN STREET TO DUNLOP STREET WEST
RECOMMENDED PLAN – PREFERRED DESIGN CONCEPT PLAN**

**PLAN AND PROFILE
BRADFORD STREET
STA. 2+320 - STA. 2+578
CITY OF BARRIE**

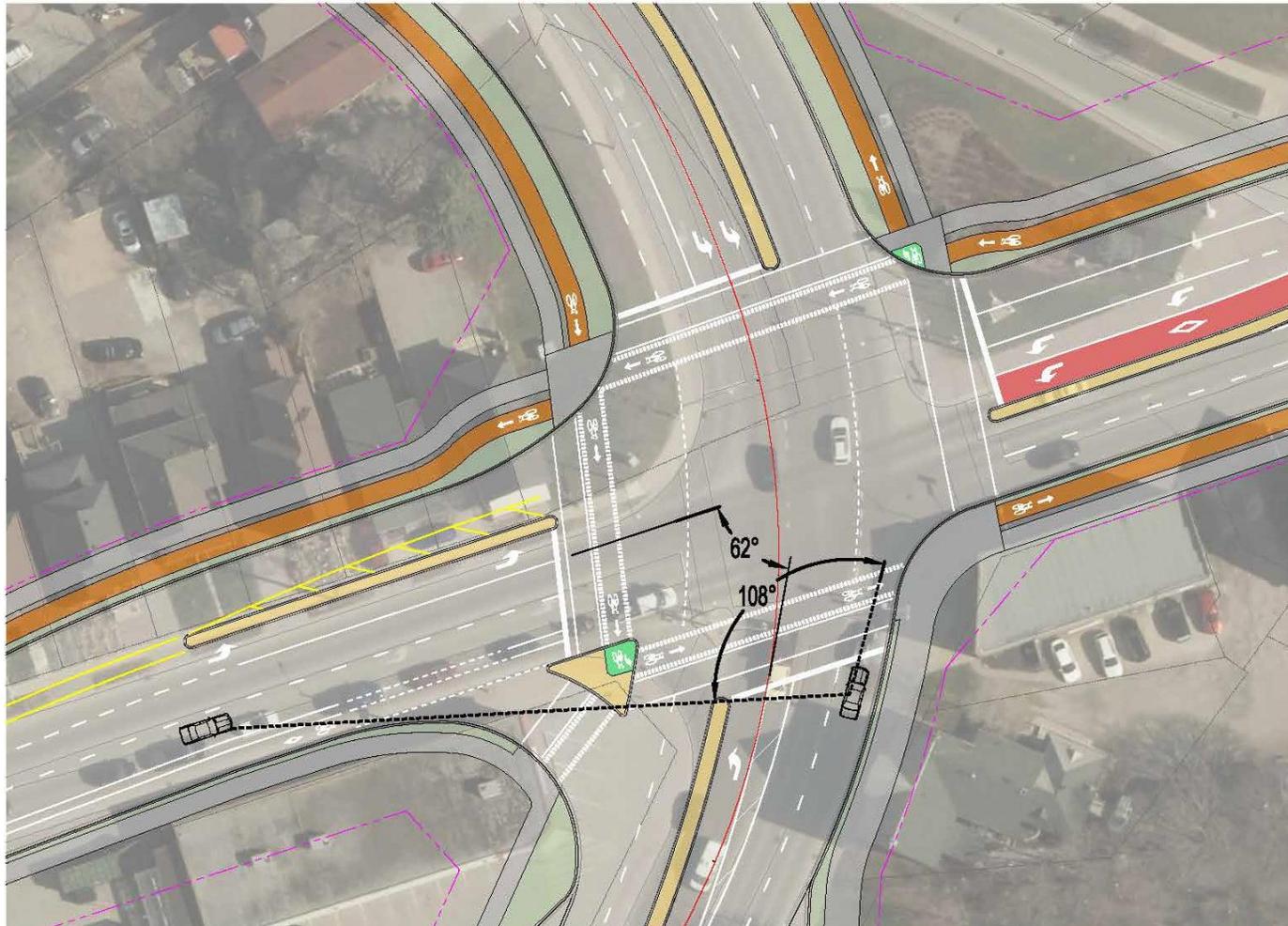
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EXHIBIT **P-6**





APPENDIX "F"

Tiffin Street and Bradford Street – Approximating Existing Alignment



Tiffin Street and Bradford Street – Alignment Shift

