COMMITTEE OF THE WHOLE
OPERATIONS AGENDA

Tuesday, December 2, 2025
6:00 p.m.
Council Chambers, Brantford City Hall
58 Dalhousie Street, Brantford

This meeting will be held in a hybrid format (virtual and in-person). To view the livestream of the meeting, please visit the City of Brantford YouTube page. A request to delegate can be completed by visiting the City's webpage Speaking at a Council Meeting.

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Pages

1. **Invocation**

2. **Roll Call**

3. **Declarations of Conflicts of Interest**

4. **Separation of Items for Consideration and Consent Items for Discussion Purposes**

5. **Delegations/Presentations**

   5.1 **Delegations**

   5.2 **Presentations**

      5.2.1 **Mike Abraham, Manager of Infrastructure Planning & Jennifer Elliott, Director of Engineering Services**

      Re: Item 6.1.1 - 2025 Master Servicing Plan Amendment [Financial Impact - None], 2025-297

5.2.2 Mike Abraham, Manager of Infrastructure Planning & Jennifer Elliott, Director of Engineering Services

Re: Item 6.1.2 - 2025 Transportation Master Plan Update [Financial Impact - None], 2025-27

6. Items for Consideration/Consent

6.1 Items for Consideration

6.1.1 2025 Master Servicing Plan Amendment [Financial Impact - None], 2025-297 7

A. THAT Report 2025-297 titled, 2025 Master Servicing Plan Amendment, BE RECEIVED; and

B. THAT Council APPROVE the strategies identified in the 2025 Master Servicing Plan documents for Water and Wastewater Services as outlined in the Capital Programs attached as Appendices A and B; and

C. THAT the Master Servicing Plan Amendment BE REVIEWED in conjunction with the Transportation Master Plan Update; and

D. THAT Public Work's leadership BE DIRECTED to implement the recommendations from the 2025 Master Servicing Plan Amendment into the capital budget forecast; and

E. THAT a copy of the resolution for the Master Servicing Plan Amendment BE FORWARED to the County of Brant.

6.1.2 2025 Transportation Master Plan Update [Financial Impact - None], 2025-27 32

A. THAT Report 2025-27 titled, 2025 Transportation Master Plan Update, BE RECEVIED; and

B. THAT staff BE DIRECTED to issue the Notice of Master Plan and initiate the 30 day public review period; and

C. THAT Council APPROVE the recommendations identified in the 2025 Transportation Master Plan Update as documented in the Executive Summary attached in Appendix A and as issued for public review; and

D. THAT staff BE DIRECTED to implement the recommendations from the 2025 Transportation Master Plan Update into the City's Capital Forecast; and

E. THAT the Transportation Master Plan Update BE REVIEWED in conjunction with the Master Servicing Plan Amendment; and

F. THAT a copy of the resolution for the Transportation Master Plan Update BE FORWARDED to the County of Brant.

6.1.3 Brantford Airport Board Report #2025-11-17, 2025-596

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Restructuring Options to Municipal Boundaries – Brantford Municipal Airport

WHEREAS the City of Brantford (“the City”) and the County of Brant (“the County”) have historically collaborated to deliver essential services that benefit residents of both municipalities; and

WHEREAS in 2023 the City Council took a leadership role by re-establishing the Joint City-County Shared Services Committee (“Joint Services Committee”) to identify opportunities for efficiency, shared investment, and responsible inter-municipal service delivery; and

WHEREAS between October 2023 and April 2024, the Joint Services Committee met to advance discussions on several shared initiatives, including the future of the Brantford Municipal Airport; and

WHEREAS despite this progress, the County unilaterally chose to withdraw from the Joint Services Committee and subsequently ratified that decision without public debate or transparent discussion; and

WHEREAS the Brantford Municipal Airport (“the Airport”), a vital regional transportation hub, resides within the County’s geographic boundaries but is owned, maintained, and operated entirely by the City of Brantford; and

WHEREAS the Airport contributes significantly to the economic and social well-being of both municipalities by supporting general aviation, flight training, emergency medical transport, and business development, while also serving as a key driver in regional investment and job creation; and

WHEREAS the City and Airport Board have identified opportunities to expand and improve the Airport to enhance regional economic development, but such improvements require

infrastructure investment that currently falls to the City while associated property tax and development charge revenues are received by the County; and

WHEREAS the County's refusal to participate in even modest cost-sharing requests, such as the City's 2025 proposal to upgrade essential runway lighting, demonstrates a clear unwillingness to cooperate in sustaining this regional asset; and

WHEREAS the County's current position not to participate in cost-sharing for Airport improvements limits the City's ability to invest in necessary infrastructure and constrains the Airport's long-term viability; and

WHEREAS the City of Brantford cannot, in good conscience, continue to subsidize infrastructure and economic benefits that primarily serve both jurisdictions while the County declines to engage as a fair and responsible partner.

NOW THEREFORE BE IT RESOLVED THAT the Brantford Airport Board recommends that Brantford City Council submit a request under section 174 of the Municipal Act, 2001 to the Minister of Municipal Affairs and Housing to establish a commission to examine potential restructuring options that would situate the Brantford Municipal Airport within the City of Brantford's municipal boundaries, thereby enabling the City to fully manage, finance, and develop the Airport for the mutual benefit of both municipalities.

6.1.4 **Clarence Street Corridor Updates [Financial Impact - None], 2025-354** 61

THAT Report No. 2025-354 titled "Clarence Street Corridor Updates" BE RECEIVED.

6.1.5 **Update on Emergency Procurement to Address Nitrates in the Grand River [Financial Impact - None], 2025-587** 130

THAT Report No. 2025-587 titled "Update on Emergency Procurement to Address Nitrates in the Grand River" BE RECEIVED.

6.1.6 **Grand River Ice Jam Study Update [Financial Impact - None], 2025-87** 137

THAT Report 2025-87 titled "Grand River Ice Jam Study Update" BE RECEIVED.

6.2 Consent Items

6.2.1 Minutes

6.2.1.1 Committee of the Whole - Operations - November 4, 2025 143

6.2.1.2 Brantford Airport Board - September 22, 2025 151

7. Resolutions

8. Notices of Motion

8.1 Creation of an Elected Deputy Mayor position, 2025-613 - Councillor Carpenter 156

WHEREAS Section 217 of the Municipal Act, 2001 permits municipalities to change the composition of council, including creating new offices, provided that such changes are approved through by-law prior to January 1 of an election year; and

WHEREAS the City of Brantford currently does not have a Deputy Mayor position, and the establishment of an elected Deputy Mayor would enhance civic leadership, support Councils collective responsibilities, and strengthen the City's regional, provincial, and federal representation; and

WHEREAS several Ontario municipalities elect Deputy Mayors to provide clear continuity in representation, increased visibility at community and regional functions, and additional support to the Mayors office; and

WHEREAS implementing an elected Deputy Mayor position for the 2026 Municipal Election requires advance preparation, including legislative compliance, public notice, budget considerations, and administrative planning;

THEREFORE BE IT RESOLVED THAT:

A. The necessary by-law to establish a new Deputy Mayor position for the City of Brantford to be elected at large beginning with the 2026 Municipal Election BE PRESENTED for adoption to City Council on December 16, 2025

B. The duties of the Deputy Mayor be tailored to Brantford's governance structure and include:

   i. Representing the City at community events, regional forums, and public functions when the Mayor is unavailable;

   ii. Acting as the Mayors alternate at intergovernmental

meetings, stakeholder engagements, and emergency-related coordination when delegated;

iii. Supporting Councils strategic priorities, including participating in committees, task forces, and special assignments as directed by Council;

iv. Providing leadership continuity by serving as the primary elected representative to assume ceremonial or representational duties when the Mayors schedule or statutory responsibilities prevent attendance;

v. Performing any additional responsibilities assigned through the establishing by-law or by future Council direction, provided such duties do not conflict with the statutory roles of the Mayor under the Municipal Act, 2001 or the Strong Mayor powers; and

C. Staff BE DIRECTED to hold a town hall/consult the public/lets talk Brantford campaign in Q1 to assist in determining the duties etc.

D. Staff report back to Council no later than March 2026 with:
   i. Financial and administrative implications, including remuneration options;

   ii. A full implementation timeline ensuring readiness prior to the opening of the 2026 Nomination Period.

9. Adjournment

Alternative formats and communication supports available upon request. Please contact accessibility@brantford.ca or 519-759-4150 for assistance.

Date December 2, 2025 **Report No.** 2025-297

To Chair and Members
Committee of the Whole - Operations

From Selvi Kongara, M.S.(Eng.), P.Eng.
Commissioner of Public Works

1.0 Type of Report

Consent Item [ ]
Item For Consideration [X]

2.0 Topic 2025 Master Servicing Plan Amendment [Financial Impact - None]

3.0 Recommendation

A. THAT Report 2025-297 titled, 2025 Master Servicing Plan Amendment, BE RECEIVED; and

B. THAT Council APPROVE the strategies identified in the 2025 Master Servicing Plan documents for Water and Wastewater Services as outlined in the Capital Programs attached as Appendices A and B; and

C. THAT the Master Servicing Plan Amendment BE REVIEWED in conjunction with the Transportation Master Plan Update; and

D. THAT Public Work's leadership BE DIRECTED to implement the recommendations from the 2025 Master Servicing Plan Amendment into the capital budget forecast; and

E. THAT a copy of the resolution for the Master Servicing Plan Amendment BE FORWARED to the County of Brant.

4.0 Executive Summary

The 2025 Master Servicing Plan (MSP) Amendment updates the City's long-term servicing strategy to reflect current development trends, higher density assumptions, and provincial policy changes that have occurred since the approval of the 2020 MSP and 2021 MSP Amendment. The 2025 MSP Amendment will be made available for public review following Council's approval of this report.

The 2025 MSP Amendment build upon the City's previous servicing plans and incorporates updated network information, growth monitoring, and hydraulic modeling. It evaluates the impacts of revised population and employment density targets with both existing and urban areas and the Boundary Expansion Lands. The amendment outlines the proposed capital program and identifies cost implications associated with these changes to inform future updates to the City's Development Charges By-law.

The Province's policy direction encourages municipalities to plan for higher density growth within designated greenfield areas and intensification areas. In response, the MSP Amendment reviewed and updated the City's servicing capacity to support development that aligns with this new policy statement.

Three growth scenarios were assessed to evaluate the effects of varying population and employment projections on infrastructure requirements. A sensitivity analysis determined that the 'High Growth Scenario' provides the most resilient and adaptable servicing framework, ensuring infrastructure capacity is sufficient to meet future needs while minimizing under-sizing risks. As a result, the High Growth Scenario has been selected as the preferred planning alternative for the 2025 MSP Amendment.

Water Servicing - The 2025 MSP Amendment maintains the 2021 MSP water system framework but updates project phasing, system sizing, and cost estimates. It proposes upgrades to Holmedale High Lift Pump Station, Wayne Gretzky Pump Station and Tollgate Pump Station and the decommissioning of the Albion Street Pump Station. In addition, two new pump stations are required, one on Colborne Street West recently commissioned and the second one in the Strawberry Hill area. Furthermore, several existing watermains require upsizing to meet growth and fire flow needs, and new watermains will be built to service greenfield developments.

Wastewater Servicing - The 2025 MSP Amendment maintains the 2021 MSP wastewater strategy but requires varying refinements to accommodate future

growth. The Brantford Wastewater Treatment Plant requires an increase in rated capacity through process enhancements, including additional sludge thickening. Six of the City's nine wastewater pumping stations (WWPS) require upgrades, ranging from rehabilitation to expanded pumping and wet well capacity. To service the Boundary Expansion Lands, six new WWPS will be built in accordance with development needs. In addition, several existing sewers will be upsized to relieve bottlenecks, support downtown intensification, and enable greenfield development.

Next Steps – Following Council's approval of this report, staff will proceed to incorporate or adjust the identified capital projects within the City's 10-year capital forecast for Council's considerations as part of the annual estimates process. In addition, the identified capital projects and programs will be reviewed and considered in the preparation of the City's upcoming Development Charges Background Study.

5.0 Purpose and Overview

The purpose of this report is to provide Council with a summary of the 2025 Master Servicing Plan Amendment (MSP) for water and wastewater services. The amendment will be made available for public review following Council's approval of this report.

The report presents an overview of the preferred servicing strategy for the City of Brantford, addressing both the existing urban area and the Boundary Expansion Lands within the settlement boundary. It also outlines the proposed capital program and identifies potential cost implications based on observed development densities within the comprehensive block planning process.

6.0 Background

An MSP is a long-range planning document that identifies and outlines the municipal servicing infrastructure required to support future growth and development within the City. The MSP encompasses infrastructure systems such as water supply and distribution, wastewater collection and treatment, and stormwater management. It also establishes an implementation framework that categorizes projects based on short, medium, and long-term needs.

The City of Brantford completed a Master Servicing Plan (MSP) in 2020 (Report 2020-408) to identify long-term water and wastewater servicing strategies to accommodate growth to the year 2041. The plan utilized traffic zones to

estimate population and employment growth and applied general density targets for the Boundary Expansion Lands.

In 2021, the MSP was amended to extend the planning horizon to 2051 (PWIR2022-002). This update incorporated minimal additional growth beyond 2041 and refined servicing assumptions based on updated population and employment forecasts.

Since the 2020 and 2021 MSPs were approved, subsequent comprehensive block plans have identified higher densities than originally assumed in the 2020 MSP and the 2021 amended MSP. These higher densities have resulted in a need to assess servicing capacities to accommodate additional residents and employment.

The 2025 MSP Amendment builds upon these previous MSPs, subsequent monitoring and data collection, studies since 2021, hydraulic modelling calibrations based on system update, and additional evaluations. It considers the impacts of increased density and potential additional growth through the assessment of alternate density targets. The amendment also identifies the associated capital program and cost implications to inform updates to the City's Development Charges By-law.

6.1 Density Targets

Density targets play a critical role in shaping a City's Master Servicing Plan for water and wastewater infrastructure. These targets, expressed as the number of residents and jobs, form the basis for estimating long-term servicing needs. When density assumptions change, they directly influence infrastructure design, sizing, location, timing and overall cost.

Over the past five years, the Province of Ontario has introduced several significant policy changes that have influenced how municipalities plan for and set density targets. The former Growth Plan for the Greater Golden Horseshoe and the Provincial Planning Statement (PPS) have been consolidated into a new Provincial Planning Statement in 2024. This new framework encourages municipalities to achieve higher levels of intensification within existing bult-up areas and to plan more efficiently for growth within designated greenfield lands.

The MSP Amendment aimed to review and update the City's servicing needs and ability to support the development with an integral approach.

6.1.1 Growth Scenarios

Low Growth Scenario

According to the Planning Projection, the low growth scenario represents a conservative outlook, assuming moderate development growth. Under this scenario, the City is projected to growth to 279,998 residents and jobs, consisting of 188,175 residents and 91,823 jobs, representing a 99% increase from 2023 population, which is the baseline of existing conditions. The updated growth projection results in 13% increase with the low growth scenario in the 2051 projection compared to the 2020 MSP.

Growth would primarily occur through continued development of designed greenfield areas, with limited intensification within existing built-up neighborhoods. This scenario reflects a slower pace of population and employment expansion and assumes lower density development patterns.

Medium Growth Scenario

The medium growth scenario assumes a higher rate of growth. Under this scenario, the City's total population and employment are projected to increase to 307,650, consisting of 208,988 residents and 98,662 jobs, representing a 119% increase over existing conditions. The updated growth projection results in 24% increase with the medium growth scenario in the 2051 projection compared to the 2020 MSP.

This scenario anticipates higher levels of intensification in strategic areas identified through the comprehensive block planning process resulting in modestly higher density development within the Boundary Expansion Lands.

High Growth Scenario

The high growth scenario represents the highest growth density targets. Under this scenario, total population and employment growth are projected to reach 337,451, including 228,302 residents and 109,150 jobs, a 140% increase over existing conditions. The updated growth projection results in 36%

increase with the high growth scenario in the 2051 projection compared to the 2020 MSP.

Growth would be concentrated in key intensification areas, as well as in portion of the Boundary Expansion Lands that demonstrate strong development potential.

7.0 Corporate Policy Context

This project is in line with the following Council Priorities (2023-2026):

- Strategic Theme No.4 – Create a vision and strategy for managing development and affordable housing

8.0 Input From Other Sources

Input has been received through over fifteen workshops and draft document reviews involving internal staff from multiple departments, including Environmental Services, Engineering Services and the City's Planning Department and Finance Department. These collaborative sessions provided an opportunity for each department to review the proposed servicing strategies, identify department priorities, and ensure alignment with broader corporate objectives. Feedback from these discussions helped refine the service approach, confirm growth forecasts and evaluate infrastructure investment and development charges.

9.0 Analysis

9.1 Growth Scenario – Sensitivity Analysis

A sensitivity analysis was undertaken to evaluate how variations in population and employment growth would affect the City's water and wastewater infrastructure requirements. The analysis compared servicing needs and capacity utilization under the Low, Medium and High Growth Scenarios described in Section 6.1.1. This assessment tested the resilience of the servicing strategy to ensure that infrastructure could accommodate a range of future growth conditions. The results indicated that the High Growth Scenario provides the most robust and adaptable framework, allowing the City to meet projected demand while minimizing the risk of under-sizing key infrastructure components. As a result, the High Growth Scenario was selected as the preferred planning basis for the 2025 Master Servicing Plan Amendment, with the Low Growth Scenario

for comparison, in support of the City's capital budgeting and financial responsibility for project implementation. Capital estimates and financial responsibility are presented in Section 9.6.

9.2 Level of Service & Service Analysis

Level of service objectives are set such that they are robust, sustainable, and measurable, to provide direction for planning. Level of service objectives help to identify servicing issues that may impact growth and ongoing operation and maintenance of the existing systems.

Level of service review on the water systems consists of hydraulic model (InfoWater Model) update, the City's Engineering Design Criteria review, water use per capita rates and peaking factor, treatment capacity upgrade trigger, system pressure, fire flow, velocity and water age /quality evaluation, pumping and storage needs. It was confirmed no proposed changes to water criteria are needed.

Level of service review on the wastewater systems consists of hydraulic model (InfoWork Model) update, the City's Engineering Design Criteria review, wastewater flow per capita rates and extraneous flows, treatment capacity upgrade trigger, gravity sewer system capacity, pumping and hydraulic gradient line. It was confirmed no proposed changes to wastewater criteria are needed.

The MSP Amendment reviewed the previous and wastewater system services. Service analyses applied consideration for additional growth through evaluation of different density targets, incorporating updated information on baseline population in 2023.

Service analyses provided systemic overview of the water treatment, water distribution, wastewater collection and wastewater treatment systems. it reviewed the system performance, projected the 2051 service needs as the MSP horizon and identified system upgrade alternatives.

The MSP Amendment further compared and evaluated the water and wastewater system upgrade alternatives, based on growth projections, level of service objections and associated service needs.

9.3 Preferred Servicing Strategies

9.3.1 Water Servicing Strategy

The City's water system is divided into four pressure districts (PD1 through PD4), which are defined by elevated-based boundaries to maintain appropriate system pressures and service reliability. Elevated storage tanks are used within each district to help balance daily demand fluctuations and provide water during peak usage or emergency events. Pumping stations play a critical role in maintaining consistent pressure levels between districts, ensuring both water quality and adequate flow are sustained throughout the built-up area.

The preferred water servicing strategy continues to align with the approach established in the 2021 MSP. The 2025 amendment does not alter the overall servicing framework but introduces updates to the project phasing, system upsizing, and capital cost estimates.

In general, the preferred water servicing strategy consists of maintaining the existing pressure district (PD) delineation with a new elevated tank (ET) in PD2/3 and PD4 and upgrades to existing pumping stations (PS).

Water will be supplied to the North Expansion residential lands via PD2/3 through a primary trunk watermain connection at King George Road. Additional watermain connections to PD2/3 are recommended at Park Road N and Brantwood Park Road. The new PD2/3 ET has currently gone through detailed design to be 6 Megalitres (ML) and a twinned PD2/3 ET will be needed at a later date as growth continues within the City. This will allow for the existing King George ET to be decommissioned.

The North Expansion employment lands will be serviced via PD4 and supplied through a trunk extension at Oak Park Road. A new PD4 ET will be constructed to accommodate growth and allow for better operation of the pressure district.

East Expansion residential lands north of Lynden Road will be serviced by a direct connection to PD2/3 on Lynden Road. East Expansion employment lands, east of Garden Avenue, will be serviced by a direct connection to PD2/3 at Lynden Road and/or Sinclair Boulevard.

The Tutela Heights area was integrated into PD1 in late 2024 but still requires an upgrade loop to connections at Mount Pleasant Road and Conklin Road.

In addition, upgrades are required to the Holmedale Water Treatment Plant (WTP) to increase its rated capacity to between 119 Megalitres per Day (MLD) to 147 MLD within the next 20 years. This would be achieved through upgrades of various processes as well as the implementation of a Reverse Osmosis system.

9.3.2 Water Servicing Changes

The preferred alternative for the water pumping stations includes upgrades at three of the City's four existing pump stations, decommissioning of the fourth existing PS (Albion Booster PS) and the installation of two new booster PS, one on Colborne Street West recently commissioned and one in the Strawberry Hill area.

The preferred water servicing alternative has also identified a number of existing watermains which require upsizing to support growth and/or fire flow, and a number of new trunk watermains are required to support greenfield development. Local watermains within greenfield developments are dependent on the final built form of the development and are therefore not addressed as part of the MSP.

Table 1: New Projects - Water System

New Asset	Description	Notes
W-M-031	Shellard Lane Watermain Upgrade	600 mm
W-ET-003	Pressure District 2/3 Elevated Tank	Upsized volume of twinned ET, dependent on growth scenario
W-TP-001	Water Treatment Plant Upgrades - 0-5 Years	Dependent on growth scenario
W-TP-002	Water Treatment Plant Upgrades - 5-10 Years	Dependent on growth scenario

W-TP-003	Water Treatment Plant Upgrades - 10-20 Years	Dependent on growth scenario

Table 2: Updated Projects - Water System

Updated Projects	Description of Change	Notes
W-M-018	Lynden Road Trunk Watermain Upgrades	Downsize from 400 mm to 300 mm
W-ET-001	Pressure District 2/3 Elevated Tank	Adjusted size to 6 ML as ET will be twinned
W-ET-002	Pressure District 4 Elevated Tank	Upsized volume, dependent on growth scenario

The full water capital program, including detailed project costs and project timing, is provided in Appendix 'A'.

9.3.3 Wastewater Servicing Strategy

The City's wastewater system consists of a Wastewater Treatment Plant (WWTP), a network of local and trunk sewers, Wastewater Pump Stations (WWPS) and other associated infrastructure. Where possible the system has been set up to use gravity to collect wastewater to reduce complexity and energy use. Wastewater from the higher elevation areas of the City is directed by gravity sewers to WWPS located at lower elevation areas. The area that drains wastewater to a WWPS form the WWPS's catchment area. The WWPS pumps the collected wastewater through a forcemain to an area of higher elevation so that it can continue its journey by gravity to either another WWPS or the WWTP.

The preferred wastewater servicing strategy includes pumping upgrades to the Empey Street WWPS, Fifth Avenue WWPS, and Greenwich Street WWPS.

Within the Greenwich Street WWPS catchment, flows at Grand River Avenue and within the lower portion of the Downtown area will be conveyed to the Icomm Drive sewer noting the sewer

bottleneck at the Greenwich Street WWPS will be upsized to address flow constraints.

Flow constraints within north Brantford, generally east of King George Road, will be addressed through the upsizing of the sewers along Memorial Drive and Ashgrove Avenue to Park Road N. The Henry Street flow split will be optimized to convey the majority of flows to the Empey Street WWPS catchment. Sewer and forcemain upgrades are needed upstream and downstream of the Empey Street WWPS to accommodate growth flows.

Wastewater servicing to the North Expansion lands will be through the installation of five new WWPS and forcemains to convey flow by gravity where needed. Flows east of King George Road will be conveyed to the Coulbeck Road trunk sewer, located at the eastern extremity of the existing wastewater system, flowing to the Empey Street WWPS catchment. Flows west of King George Road will be conveyed to the Oak Park Road trunk sewer, located at the western extremity of the existing wastewater system, flowing to the WWTP catchment.

The East Expansion lands will be serviced through the installation of a new WWPS and forcemain, located within the employment lands. Flows will be conveyed to the Lynden Road sewer via a forcemain, flowing to the Empey Street WWPS catchment.

Tutela Heights flows will be conveyed to the WWTP catchment through a connection from Mt. Pleasant Street and Gilkison Street to Delamere Street. Flows within the lower elevations in Tutela Heights will be serviced by a new WWPS and forcemain which will convey flows to Mt. Pleasant Road via Tutela Heights Road.

9.3.4 Wastewater Servicing Changes

Upgrades are required at the Brantford Wastewater Treatment Plant (WWTP) to allow for an increase in rated capacity to between 74 Megalitres per Day (MLD) to 88 MLD within the next 20 years. This would be achieved through upgrades of various processes including an additional sludge thickening.

The preferred servicing alternative identifies upgrades being required at six of the City’s nine WWPS along with the

construction of six new WWPS to service the Boundary Expansion Lands. Upgrades vary between rehabilitation to increase in pumping and wet well capacity.

The preferred wastewater servicing alternative has also identified a number of existing sewers which require upsizing to accommodate intensification within the City including the Downtown core, to eliminate existing bottlenecks worsened by growth, and to support greenfield development. Local sewers within greenfield developments are dependent on the final built form of the development and are therefore not addressed as part of the MSP.

In addition, a servicing study is recommended for existing lands serviced by septic along Summerhayes Crescent, a reconfiguration of the Henry Street flow split, and a number of Inflow and Infiltration (I/I) programs.

Table 3: New Project - Wastewater System

New Asset	Description	Notes
WW-SS-025	Sewer Upgrades for TZ801	Size dependent on growth scenario
WW-SS-026	Division St Sewer Upgrades	450 mm
WW-SS-027	Fifth Ave Sewer Upgrades	450 mm
WW-SS-028	Brantwood Park Rd Sewer Upgrades	300 mm
WW-SS-029	Memorial Dr Sewer Upgrades	375 mm
WW-SS-030	Clarence St Sewer Upgrades	450 mm
WW-SS-031	Grand River Ave Sewer Upgrades	525 mm
WW-SS-032	Morrell St Sewer Upgrades	375 mm

WW-SS-034	Greenwich St Sewer Upgrades (US of WWPS)	900 mm
WW-SS-035	Greenwich St Sewer Upgrades (DS of WWPS)	900 mm
WW-SS-039	Johnson WWPS Inlet Sewer Upgrades	375 mm
WW-SS-040	Tutela Heights Sewer Upstream of Tutela Heights WWPS	300 mm
WW-SS-043	Powerline East Block Upstream of the WWPS	450 mm
WW-SS-044	Mount Pleasant Road Sewer Upgrades	300 mm
WW-SS-045	Hardy Road Sewer Upgrades	300 mm
WW-SS-046	Powerline East Block downstream of the new East Block Pumping Station #2	375 mm
WW-SS-047	Savannah Oaks Drive Sewer to Resolve Oak Park Road Bottleneck	600 mm
WW-FM-007	New East Block Pumping Station #2 Forcemain	300 mm
WW-FM-008	Johnson WWPS Forcemain Upgrades	300 mm
WW-FM-009	Empey WWPS Forcemain Replacement	900 mm
WW-FM-010	Empey WWPS Forcemain Extension	900 mm
WW-PS-016	East Block Wastewater Pumping Station #2	17 L/s
WW-TP-001	Wastewater Treatment Plant Upgrades	Dependent on growth scenario

Table 4: Updated Projects - Wastewater System

Updated Projects	Description of Change	Notes

WW-FM-002	Northwest-2 WWPS Forcemain	Unchanged for low and medium growth, upsized for high growth scenario
WW-FM-003	North WWPS Forcemain	Unchanged for low and medium growth, upsized for high growth scenario
WW-FM-006	Tutela Heights WWPS Forcemain	Size dependent on growth scenario
WW-PS-001	Northwest-1 Wastewater Pumping Station	Size dependent on growth scenario
WW-PS-002	Northwest-2 Wastewater Pumping Station	Size dependent on growth scenario
WW-PS-003	North Wastewater Pumping Station	Size dependent on growth scenario
WW-PS-004	Northeast Wastewater Pumping Station	Size dependent on growth scenario
WW-PS-005	East Wastewater Pumping Station	Size dependent on growth scenario
WW-PS-006	Tutela Heights Wastewater Pumping Station	Size dependent on growth scenario
WW-PS-011	Greenwich Wastewater Pumping Station Rehabilitation and Improvements	Size dependent on growth scenario

The full wastewater capital program, including detailed project costs and project timing, is provided in Appendix ‘B’.

9.3.5 Stormwater

The stormwater component of the MSP was not included as part of this amendment because increase in population and employment primarily affect water demand and wastewater generation, rather than stormwater runoff. While higher density development can change land use patterns, the overall

stormwater strategy is guided by drainage area characteristics, topography, and major system flow paths, which remain largely unchanged by growth projections. The City's existing stormwater management framework continues to provide adequate directions for managing runoff quantity and quality, meaning no significant updates were required at this time and will be re-evaluated during the 2030 MSP Update.

9.4 Cost Approach

The MSP Amendment allows for appropriate scheduling and costing to be considered during evaluation process.

The capital cost estimates and the scheduling for all proposed projects were undertaken as part of the MSP amendment. Cost estimates were developed using a unit rate method, consistent with a Class 4 (infrastructure planning level) cost estimate. This approach provides a reliable order-of-magnitude assessment of infrastructure costs suitable for planning and comparative analysis among servicing alternatives.

Unit rates were derived using Statistics Canada Construction Price Indexes. To ensure consistency with the previous studies, the unit rates established in the 2020 MSP Update were used as the baseline for comparison. A 44% cost escalation factor was applied to these baseline rates to account for inflation and market fluctuations observed between 2020 and 2024.

In addition, construction tender information from 2021-2025 was provided to the MSP Amendment; analysis undertaken to validate unit rates. Generally, the trendline for tendered water projects exceeded the 2020 MSP & 2025 MSP unit rates. The trendline for tendered wastewater projects fell between the 2020 MSP & 2025 MSP unit rates.

Tender information from adjacent higher-tier municipalities was also applied in the estimated base cost of pump stations, to address the under-estimate capital cost for small pump stations observed and to supplement the cost database. This was to provide consistent results related to the unit rate transitions associated with the pump capacity. Given the general alignment of the tender data with the 2025 MSP unit rates, these unit rates were carried forward for the Class 4 cost estimates used in the capital program.

9.5 Development Charge Update

Each capital project has been categorized to support the Development Charge process. Table 1 provides a list of the six categories (A to F) that are used to classify the capital projects based on the proportion that supports development. The exact distribution of cost between the City and Developers for each of these categories will be determined as part of the City's Development Charges Background Study, which will be updated in October of 2026.

Table 5: Development Charges Categories

Development Charges (DC) Benefit to Existing Class	Description
A	Solely supporting new development area
B	Triggered by growth but also services existing users
C	Triggered by growth but also provides some operational improvement
D	Supports both growth and existing users equally
E	Primarily to address existing operational issues but also supports growth
F	Sole benefit to existing users

9.6 Updated Capital Program Costs

Under the High Growth scenario, the water capital program totals approximately $587 million, while the wastewater capital program totals approximately $508 million. These values reflect the scope of infrastructure needed to support long-term capacity, system resilience, and growth-related servicing requirements across both programs.

The updated capital program costs, shown in Table 6, shows that the difference between the Low Growth Scenario and High Growth Scenario is relatively modest, with total water and wastewater costs increasing by only 5.2% under the higher-growth conditions. This small variation reflects that most servicing needs for water and wastewater are directly related to

growth-related triggers, meaning nearly all additional costs are growth-driven and therefore largely eligible for recovery through Development Charges. As a result, while the High Growth scenario includes slightly higher capital requirements to accommodate expanded system demand, the incremental costs are minimal and are predominantly borne by new development rather than existing ratepayers.

Table 6: Capital Program Costs (Low Scenario vs. High Scenario)

Program Area	DC Benefit to Existing Class	Estimated Cost (2025$) Low Growth Scenario	Estimated Cost (2025$) High Growth Scenario (Preferred)	Low vs. High Growth Scenario Cost Difference (%)
Water (44 capital projects)	A	$322,000,000	$339,000,000	5.3
	B	$36,000,000	$36,000,000	0.0
	C	$175,000,000	$191,000,000	9.1
	D	$21,000,000	$21,000,000	0.0
Total Water		**$554,000,000**	**$587,000,000**	**6.0**
Wastewater (72 capital projects)	A	$197,000,000	$204,000,000	3.6
	B	$163,000,000	$177,000,000	8.6
	C	$26,000,000	$26,000,000	0.0
	D	$82,000,000	$82,000,000	0.0
	E	$19,000,000	$19,000,000	0.0
	F	$200,000	$200,000	0.0
Total Wastewater		**$487,200,000**	**$508,200,000**	**4.3**
Total of Water + Wastewater		**$1,041,200,000**	**$1,095,200,000**	**5.2**

A total of 116 water and wastewater capital projects have been identified through the 2025 MSP Amendment. These projects, along with their associated costs, are distributed across the planning horizon to 2051 and have been prioritized based on current information and input from Public Works and Planning Department staff. Table 7 outlines the estimated capital investment required over the short, medium and long-term to support future growth and ensure the continued delivery of reliable water and wastewater services to the community.

Table 7 - Water & Wastewater Capital Program by Time Interval

Program Area	Time Period	Capital Program (2025$)
Water (44 Capital Projects)	0-5 Years	$280,000,000
	5-10 Years	$78,000,000
	10-20 Years	$229,000,000
	Total Water	**$587,000,000**
Wastewater (72 Capital Projects)	0-5 Years	$171,200,000
	5-10 Years	$95,000,000
	10-20 Years	$200,000,000
	20+ Years	$42,000,000
	Total Wastewater	**$508,200,000**

9.7 Next Steps

Upon council approval of the recommendations in this report, the final phase of the MSP Addendum is to file the MSP Addendum Report with the Ministry of Environment, Conversation and Parks (MECP). The MSP Addendum report will be made available for stakeholders and public reviews, including all appendices on the City's website.

Upon its completion and approval, the MSP Addendum will provide guidelines for implementation of the program of improvements and policies that will support the City's expected growth to 2051. As noted in this report, there are several initiatives which require further study and design, as well as approved funding from City Council prior to their implementation. Moving forward these MSP identified capital projects, studies and investigations will be included or adjusted in the City's 10-year Capital Plan (starting with the 2027 plan) for Council's review and approval as part of the yearly estimates process.

10.0 Financial Implications

There are no direct financial implications receiving this report to Council. The financial implication of the identified projects will be considered during the development of the capital forecast for the estimates process. The identified projects will also be considered during the development of the City's Development Charges Background Study and the Water and Wastewater Rate Study in 2026.

11.0 Climate and Environmental Implications

At the MSP stage, climate and environmental considerations are assessed at a broad, system wide scale through a matrix-based evaluation of servicing alternatives. This approach allows the MSP to identify preferred servicing strategies that minimize potential environmental impacts, promote sustainable infrastructure solutions, and support the City's long-term climate resilience objectives.

As individual projects advance from the MSP into future environmental assessments, or design studies, more detailed evaluations of climate and environmental impacts will be completed. These subsequent studies will address project-specific factors such as climate emissions, energy efficiency, impacts to natural heritage systems, and adaptation to extreme weather events. Collectively, this approach ensures climate and environmental considerations are carried forward from the high-level planning stage into detailed project development, supporting responsible and sustainable infrastructure delivery.

12.0 Conclusion

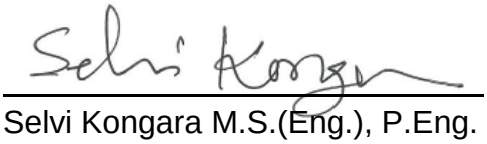
The MSP provides a comprehensive, long-range framework to guide the planning, coordination, and implementation of municipal water and wastewater infrastructure across the City. The MSP establishes a clear foundation for supporting growth, maintaining service levels, and prioritizing future capital investments.

The updated servicing strategies and project cost estimates identified through this MSP will inform future updates to the City's Development Charges Background Study to ensure that growth-related costs are appropriately recovered. As individual projects advance from planning stages, further technical studies will be required to confirm preferred alignments, servicing approaches, and refined costing.

The City's capital forecast will continue to evolve as project priorities, phasing, and timing are refined through subsequent planning and design stages. This approach helps ensure that infrastructure investments remain aligned with growth needs and reflect available funding capacity.

To maintain the relevance and accuracy of servicing strategies, the next update to the MSP is anticipated to commence in 2029, with completion targeted for 2030. This five-year update cycle aligns with the City's planning and financial

review processes, ensuring that the MSP remains consistent with current growth forecasts and infrastructure needs.



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Attachments (if applicable)

Appendix A – Water Capital Program

Appendix B – Wastewater Capital Program

Copy to:

County of Brant

In adopting this report, is a by-law or agreement required? If so, it should be referenced in the recommendation section.

By-law required	[ ] yes	[X] no
Agreement(s) or other documents to be signed by Mayor and/or City Clerk	[ ] yes	[X] no
Is the necessary by-law or agreement being sent concurrently to Council?	[ ] yes	[X] no

Appendix A

Water Service Capital Program

2025 Master Servicing Plan - Amendment

Water Capital Program - High Growth Scenario

Capita Program D	Name	Overview	Pressure D str ct	Pro ect Descr pt on	Required Studies	Study Scope	Ob ect ves	C ass EA Schedule	Pro ect Type	S ze/Capacity	Length (m)	C ass Est mate Type	Pro ect Complex ty	Accuracy Range	Area Condit on	Funding Source Respons bi ty	Tota Estimated Cost (2025$)	Timeline	DC Benefit to Existing Class
W-M-001	King George Road Watermain	Watermain upgrades on King George Road from Tollgate Pumping Station to the proposed East-West Collectors Road	Pressure District 2/3	Watermain upgrades on King George Road from Tollgate Pumping Station to the proposed East-West Collectors Road in the North Expansion Lands or the new Pressure District 2/3 Elevated Tank	-	-	-	A+	Watermain	750 mm	3,578	Class 4	High	50%	Suburban	DC Eligible	$ 25,564,000	0-5 Years	C
W-M-002	Oak Park Road Trunk Watermain	New trunk watermain from Oak Park Road to Powerline Road	Pressure District 4	New trunk watermain extending from Oak Park Road watermain limit to Powerline Road in Pressure District 4	Municipal Class Environmental Assessment (EA)	This Study will be a Schedule 'B' project in accordance with all requirements of the Municipal Class Environmental Assessment. This study will evaluate the preferred watermain alignment as either Oak Park Road or Paris Road (W-M-002 or W-M-006)as well as cover both Capital Program Project W-M-003 and be done in conjunction with the Oak Park Road Trunk Sewer alignment (Capital Program project WW-SS-001) with costs shared between water and wastewater.	Determine the best alignment and construction type (ie. Open cut or tunnel) for the trunk watermain crossing Highway 403 including a railway crossing and overhead powerlines along Powerline Road. Determine if alignment can be coordinated with local development.	B	Watermain	600 mm	1,090	Class 4	High	50%	Suburban	DC Eligible	$ 20,006,000	0-5 Years	A
W-M-003	Powerline Road Trunk Watermain	New trunk watermain from Powerline Road to East-West Collector Road	Pressure District 4	New trunk watermain in Pressure District 4 along Powerline Road from new Oak Park Road watermain to the proposed East-West Collector's Road	Municipal Class Environmental Assessment (EA)	This Study will be a Schedule 'B' project in accordance with all requirements of the Municipal Class Environmental Assessment. This study will evaluate the preferred watermain alignment as either Oak Park Road or Paris Road (W-M-002 or W-M-006)as well as cover both Capital Program Project W-M-003 and be done in conjunction with the Oak Park Road Trunk Sewer alignment (Capital Program project WW-SS-001) with costs shared between water and wastewater.	Determine the best alignment and construction type (ie. Open cut or tunnel) for the trunk watermain crossing Highway 403 including a railway crossing and overhead powerlines along Powerline Road. Determine if alignment can be coordinated with local development.	B	Watermain	600 mm	1,853	Class 4	Med	40%	Suburban	DC Eligible	$ 11,257,000	0-5 Years	A
W-M-004	North-South Collector Road Trunk Watermain	New trunk watermain from Powerline Road to East-West Collector Road	Pressure District 4	New trunk watermain in Pressure District 4 along proposed North-South Collector Road from Powerline Road to proposed East-West Collector Road	-	-	-	A	Watermain	600 mm	405	Class 4	Low	30%	Rural	DC Eligible	$ 1,602,000	10-20 Years	A
W-M-005	North-South Collector Road Local Watermain	New local watermain from East-West Collector Road to North Expansion Lands Boundary	Pressure District 4	New local watermain in Pressure District 4 along proposed North-South Collector Road from proposed East-West Collector Road to North expansion limit	-	-	-	A	Watermain	300 mm	426	Class 4	Low	30%	Rural	DC Eligible	$ 779,000	10-20 Years	A
W-M-006	Paris Road Trunk Watermain	New trunk watermain from Tollgate Road to North-South Collector Road at Powerline Road	Pressure District 4	New watermain in Pressure District 4 along Paris Road from Tollgate Road to proposed North-South Collector Road at Powerline Road	Municipal Class Environmental Assessment (EA)	This Study will be a Schedule 'B' project in accordance with all requirements of the Municipal Class Environmental Assessment. This study will evaluate the preferred watermain alignment as either Oak Park Road or Paris Road (W-M-002 or W-M-006)as well as cover both Capital Program Project W-M-003 and be done in conjunction with the Oak Park Road Trunk Sewer alignment (Capital Program project WW-SS-001) with costs shared between water and wastewater.	Determine the best alignment and construction type (ie. Open cut or tunnel) for the trunk watermain crossing Highway 403 including a railway crossing and overhead powerlines along Powerline Road. Determine if alignment can be coordinated with local development.	B	Watermain	600 mm	3,108	Class 4	High	50%	Suburban	DC Eligible	$ 15,834,000	5-10 Years	C
W-M-007	Powerline Road Distribution Watermain	New distribution watermain east of North-South Collector Road	Pressure District 4	New distribution watermain in Pressure District 4 along Powerline Road from proposed North-South Collector Road 400 m east of Golf Road	-	-	-	A+	Watermain	300 mm	1,028	Class 4	Med	40%	Rural	DC Eligible	$ 2,020,000	5-10 Years	A
W-M-008	Powerline Road Distribution Watermain	New distribution watermain east of North-South Collector Road	Pressure District 4	New distribution watermain in Pressure District 4 along Powerline Road 400 m east of Golf Road to Balmoral Drive Road extension	-	-	-	A+	Watermain	300 mm	823	Class 4	Med	40%	Rural	DC Eligible	$ 2,152,000	5-10 Years	A
W-M-009	Pressure District 4 East-West Collector Road Trunk Watermain	New trunk watermain along East-West Collector Road from North-South Collector Road to Pressure District 4 Boundary	Pressure District 4	New trunk watermain in Pressure District 4 along East-West Collector Road from North-South Collector Road to Pressure District 4 Boundary at Balmoral Drive Road extension	-	-	-	A	Watermain	400 mm	1,738	Class 4	Low	30%	Rural	DC Eligible	$ 4,892,000	10-20 Years	A
W-M-010	Pressure District 2/3 East-West Collector Road Trunk Watermain	New trunk watermain along East-West Collector Road in Pressure District 2/3 west of King George	Pressure District 2/3	New trunk watermain in Pressure District 2/3 along East-West Collector Road from Pressure District 4 trunk watermain to King George Road	-	-	-	A	Watermain	400 mm	1,554	Class 4	Low	30%	Rural	DC Eligible	$ 3,994,000	10-20 Years	A
W-M-011	Pressure District 2/3 East-West Collector Road Trunk Watermain	New trunk watermain along East-West Collector Road in Pressure District 2/3 east of King George	Pressure District 2/3	New trunk watermain in Pressure District 2/3 along East-West Collector Road from King George Road to Ivanhoe Road extension	-	-	-	A	Watermain	600 mm	1,233	Class 4	Low	30%	Rural	DC Eligible	$ 4,988,000	10-20 Years	A
W-M-012	Pressure District 2/3 East-West Collector Road Trunk Watermain	New trunk watermain along East-West Collector Road in Pressure District 2/3 east of King George Road	Pressure District 2/3	New trunk watermain in Pressure District 2/3 along East-West Collector Road from Ivanhoe Road extension to Park Road North	-	-	-	A	Watermain	600 mm	1,152	Class 4	Low	30%	Rural	DC Eligible	$ 4,720,000	10-20 Years	A
W-M-013	East-West Collector Road Trunk Watermain	New trunk watermain along East-West Collector Road in Pressure District 2/3 east of Park Road North	Pressure District 2/3	New trunk watermain in Pressure District 2/3 along East-West Collector Road fromPark Road North to Brantwood Road	-	-	-	A	Watermain	400 mm	653	Class 4	Low	30%	Rural	DC Eligible	$ 1,576,000	0-5 Years	A
W-M-014	Brantwood Park Road Trunk Watermain	New trunk watermain along Brantwood Road in Pressure District 2/3	Pressure District 2/3	New trunk watermain in Pressure District 2/3 along Brantwood Road from Powerline Road to East-West Collector Road	-	-	-	A	Watermain	400 mm	367	Class 4	Low	30%	Rural	DC Eligible	$ 959,000	0-5 Years	A
W-M-015	Park Road North Trunk Watermain	New trunk watermain from Powerline Road to East-West Collector Road	Pressure District 2/3	New trunk watermain in Pressure District 2/3 along Park Road North from Powerline Road to East-West Collector Road	-	-	-	A+	Watermain	600 mm	383	Class 4	Low	30%	Suburban	DC Eligible	$ 1,657,000	0-5 Years	A
W-M-016	Powerline Road Local Watermain	New local watermain from Brantwood Park Road to East-West Collector Road	Pressure District 2/3	New local watermain in Pressure District 2/3 along Powerline Road from Brantwood Park Road to East-West Collector Road eastern limit	-	-	-	A+	Watermain	300 mm	1,027	Class 4	Low	30%	Suburban	DC Eligible	$ 2,127,000	0-5 Years	A
W-M-017	East-West Collector Road Local Watermain	New local watermain from Powerline Road eastern limit to Brantwood Park Road	Pressure District 2/3	New local watermain in Pressure District 2/3 along East-West Collector Road from Powerline Road eastern limit to Brantwood Park Road	-	-	-	A	Watermain	300 mm	1,401	Class 4	Low	30%	Rural	DC Eligible	$ 2,499,000	0-5 Years	A
W-M-018	Lynden Road Trunk Watermain Upgrades	Watermain upgrades on Lynden Road fom Brantwood Park Road to eastern limit	Pressure District 2/3	Upgrade existing watermain on Lynden Road from Brantwood Park Road to Eastern limit for East Expansion Lands	-	-	-	A+	Watermain	300 mm	599	Class 4	Med	40%	Suburban	DC Eligible	$ 1,306,000	5-10 Years	C
W-M-019	Lynden Road Distribution Main Extension	New watermain extension from existing Lynden Road trunk watermain to East Expansion Lands limit	Pressure District 2/3	New local watermain in Pressure District 2/3 along Lynden Road from Lynden Road trunk watermain to East Expansion Lands limit	-	-	-	A+	Watermain	300 mm	925	Class 4	High	50%	Suburban	DC Eligible	$ 4,388,000	0-5 Years	A
W-M-020	East Expansion Lands Residential Loop	New distribution watermain loop in residential lands north of Lynden Road	Pressure District 2/3	New local watermain in East Expansion Lands along proposed Collector Road north of Lynden Road	-	-	-	A	Watermain	300 mm	1,280	Class 4	Low	30%	Rural	DC Eligible	$ 2,286,000	0-5 Years	A
W-M-021	East Expansion Lands Employment Loop	New distribution watermain along employment lands collector road and Sinclair Road	Pressure District 2/3	New local watermain in East Expansion Lands along employment lands collector Road from Lynden Road watermain extension to Sinclair Road connection including PRV for East Expansion Lands	-	-	-	A	Watermain	300 mm	1,608	Class 4	Low	30%	Rural	DC Eligible	$ 3,698,000	5-10 Years	A
W-M-022	Mount Pleasant Road Watermain Upgrades	Upsize existing watermain on Mount Pleasant Road from Beckett Drive to new collector road	Pressure District 1	Upsize existing 200 mm watermain on Mount Pleasant Road in Tutela Heights	-	-	-	A+	Watermain	300 mm	2,367	Class 4	Med	40%	Suburban	DC Eligible	$ 5,089,000	0-5 Years	D
W-M-023	Conklin Road Watermain Upgrades	Upsize existing watermain on Conklin Road	Pressure District 1	Upsize existing 200 mm watermain on Conklin Road from Blackburn Drive to Mount Pleasant Road	-	-	-	A+	Watermain	300 mm	653	Class 4	Low	30%	Suburban	DC Eligible	$ 1,295,000	0-5 Years	D
W-M-024	Tutela Heights Road Upgrades	Upsize existing watermain on Tutela Heights	Pressure District 1	Upsize existing 200 mm watermain on Tutela Heights from Mount Pleasant Road to Davern Road	-	-	-	A+	Watermain	300 mm	1,180	Class 4	Med	40%	Suburban	DC Eligible	$ 2,544,000	5-10 Years	B
W-M-025	Tutela Heights Collector Road Distribution Watermain	New distribution watermain along Tutela Heights Collector Road	Pressure District 1	New distribution watermain along Collector Road from Mount Pleasant Road to Phelps Road in Tutela Heights	-	-	-	A	Watermain	300 mm	1,883	Class 4	Low	30%	Rural	DC Eligible	$ 3,447,000	10-20 Years	A
W-M-026	Davern Road Distribution Watermain	New distribution watermain along Davern Road	Pressure District 1	New distribution watermain along Davern Road from Mount Pleasant Road southern limit to collector road	-	-	-	A+	Watermain	300 mm	836	Class 4	Low	30%	Suburban	DC Eligible	$ 1,650,000	10-20 Years	A
W-M-027	Upsize Fairview Drive/Lynden Road Trunk Watermain	Watermain upgrades on Fairview Drive/Lynden Road from King George Road to Brantwood Park Road	Pressure District 2/3	Watermain upgrades on Fairview Drive/Lynden Road from King George Road to Brantwood Park Road to support growth in Pressure District 2/3	-	-	-	A+	Watermain	600 mm	4,168	Class 4	Med	40%	Suburban	DC Eligible	$ 16,946,000	5-10 Years	C
W-M-028	Downtown Trunk Watermain	Upsize existing watermains in downtown to create trunk loop	Pressure District 1	Upsize existing watermain along Pearl Street from St. James Street to West Street	-	-	-	A+	Watermain	400 mm	860	Class 4	Med	40%	Urban	DC Eligible	$ 2,628,000	5-10 Years	C
W-M-029	Garden Avenue Watermain Upgrade	Upsize existing watermains along Garden Avenue to create loop	Pressure District 2/3	Upsize existing watermain along Garden Avenue from Lynden Road to Sinclair Boulevard to create loop within Presure District 2/3	-	-	-	A+	Watermain	300 mm	719	Class 4	Med	40%	Urban	City	$ 1,700,000	5-10 Years	B
W-M-030	Fire Flow Watermain Upgrades	Replace watermains including upsizing and looping to strengthen local trunk network for fire flows.	All Pressure Districts	Fire Flow program to include replacing watermains less than or equal to 100 mm, replacing CI watermains, replacing AC/DI watermains (installed before 1990), and upsizing and looping to strengthen local trunk network. Watermains will be replaced with PVC.	-	-	-	A+	Watermain	300 mm	-	Class 4	Med	40%	Urban	City	$ 14,545,000	0-5 Years	D
W-M-031	Shellard Lane Watermain Upgrade	Upsize existing watermain on Shellard Lane	Pressure District 1	Upsize existing 400 mm watermain on Shellard Lane from Spalding Drive to Diana Ave	-	-	-	A+	Watermain	600 mm	750	Class 4	Low	30%	Suburban	DC Eligible	$ 8,733,000	0-5 Years	C
W-ET-001	Pressure District 2/3 Elevated Tank	New Elevated Tank along King George Road in North Expansion Lands (Twinned)	Pressure District 2/3	New Elevated Tank in Pressure District 2/3. Sized to service Pressure District 2/3 and Pressure District 1 storage deficit including North Expansions Lands until 2051 and Pressure District 2/3 and Trigger Lands post 2051 with additional storage needed in Pressure District 1 post 2051. Allows King George Elevated Tank to be decomissioned. Twinned to W-ET-003.	Municipal Class Environmental Assessment (EA)	The study will be a Schedule 'B' project in accordance with all requirements of the Municipal Class Environmental Assessment	Determine the requirements for a new water tower, including preferred locations.	B	Storage	6.0 ML	-	Class 4	Med	40%	Rural	DC Eligible	$ 29,627,000	0-5 Years	C
W-ET-002 - High	Pressure District 4 Elevated Tank	New Elevated Tank North of Highway 403 in North Expansion Lands	Pressure District 4	New Elevated Tank in Pressure District 4 to service Pressure District 4 storage deficit including North Expansions Lands and Trigger Lands.	Municipal Class Environmental Assessment (EA)	The study will be a Schedule 'B' project in accordance with all requirements of the Municipal Class Environmental Assessment	Determine the requirements for a new water tower, including preferred location	B	Storage	9.0 ML	-	Class 4	Med	40%	Rural	DC Eligible	$ 37,098,000	10-20 Years	C
W-ET-003 - High	Pressure District 2/3 Elevated Tank	New Elevated Tank along King George Road in North Expansion Lands (Twinned)	Pressure District 1	New Elevated Tank in Pressure District 2/3. Sized to service Pressure District 2/3 and Pressure District 1 storage deficit including North Expansions Lands until 2051 and Pressure District 2/3 and Trigger Lands post 2051 with additional storage needed in Pressure District 1 post 2051. Twinned to W-ET-001.	Municipal Class Environmental Assessment (EA)	This study will used the Schedule B Class EA from W-ET-001	Determine the requirements for a new water tower, including preferred location	A	Storage	11.0 ML	-	Class 4	Low	30%	Suburban	DC Eligible	$ 27,025,000	10-20 Years	C
W-D-001	Decommissioning of King George ET	Decommissioning of King George ET to be replaced by new Pressure District 2/3 ET	Pressure District 2/3	Decommsioning of King George ET to be replaced by new Pressure District 2/3 ET	-	-	-	A+	Storage		-	Class 4	Med	40%	Suburban	City	$ 1,337,000	5-10 Years	C
W-D-002	Decommissioning of Albion Booster Pumping Station	Decommsioning of Albion Booster PS	Pressure District 1	Decommsioning of the Albion Booster PS following the comissioning of the new Pressure Distric 2/3 ET	-	-	-	A+	Pumping		-	Class 4	Med	40%	Suburban	City	$ 668,000	10-20 Years	C
W-P-001-High	Holmedale WTP High Lift Pump Upgrades	Install additional pump to supply elevated tank and reservoirs from reservoirs	Pressure District 1	Install additional pump to supply elevated tank and reservoirs in Pressure District 1.	-	-	-	A+	Pumping		-	Class 4	Med	40%	Rural	DC Eligible	$ 3,779,000	0-5 Years	C
W-P-002	Wayne Gretzky Pump Upgrades	Pumping capacity upgrades at Wayne Gretzky PS.	Pressure District 2/3	Install 3 new pumps at Wayne Gretzky Pump Station to improve operational capacity and suport new Pressure District HGL. Install new PRV to allow Pressure District 2/3 to backfeed Pressure District 1.	-	-	-	A+	Pumping		-	Class 4	Med	40%	Rural	DC Eligible	$ 9,355,000	5-10 Years	C
W-P-003	Tollgate Pump Upgrades	Pumping capacity upgrades at Tollgate PS	Pressure District 2/3	Install 3 new pumps at Tollgate Pump Station to improve operational capacity and support new Pressure District HGL. Install new PRV to allow Pressure District 2/3 to backfeed Pressure District 1.	-	-	-	A+	Pumping		-	Class 4	Med	40%	Rural	DC Eligible	$ 10,691,000	5-10 Years	C
W-P-004	Colborne Street West Booster Pumping Station	New Booster Pumping Station to service development off of Colborne Street West at municipal boundary.	Pressure District 1	Install new Booster Pumping station to be serviced off of Pressure District 1 to service existing properties on Colborne Street and development extending west to the municipal boundary. Pumping station includes single jockey pump and a fire pump.	Municipal Class Environmental Assessment (EA)	The study will be a Schedule 'B' project in accordance with all requirements of the Municipal Class Environmental Assessment.	Determine the best construction methodology for the newpumping station including location of buildings.	A	Pumping	128 L/s	-	Class 4	Med	40%	Rural	Developer	$ 18,181,000	Completed 2025	B
W-P-005	Strawberry Hill Booster Pumping Station	New Booster Pumping Station to service development off of Colborne Street West at municipal boundary.	Pressure District 1	Install new Booster Pumping station to be serviced off of Pressure District 1 to service new sub-pressure district to extend from Shellard Lane to Mount Pleasant Street. BPS required to service future development. Sized to provide MDD with fire flow provided via check valves.	Municipal Class Environmental Assessment (EA)	The study will be a Schedule 'B' project in accordance with all requirements of the Municipal Class Environmental Assessment.	Determine the best construction methodology for the newpumping station including location of buildings.	B	Pumping	10 L/s	-	Class 4	Med	40%	Suburban	Developer	$ 13,744,000	10-20 Years	B
W-TP-001	Water Treatment Plant Upgrades - 0-5 Years	Implementation of Reverse Osmosis System	Pressure District 1	Implementation of Reverse Osmosis System	-	-	-	A+	Treatment		-	Class 4	Med	40%	Suburban	DC Eligible	$ 126,507,000	0-5 Years	A
W-TP-002 - High	Water Treatment Plant Upgrades - 5-10 Years	Increase intake canal capacity and optimize existing Actiflo process	Pressure District 1	Increase intake canal capacity and optimize existing Actiflo process	-	-	-	A+	Treatment		-	Class 4	Med	40%	Rural	DC Eligible	$ 7,480,000	5-10 Years	A
W-TP-003 - High	Water Treatment Plant Upgrades - 5-20 Years	Upgrades to low lift, Actiflo, filtration, RO, disinfection and residuals management to provide capacity for growth to 2051	Pressure District 1	Upgrades to low lift, Actiflo, filtration, RO, disinfection and residuals management to provide capacity for growth to 2051	-	-	-	A+	Treatment		-	Class 4	Med	40%	Rural	DC Eligible	$ 124,610,000	5-20 Years	A
TOTAL																	**$ 586,983,000**		

Appendix B

Wastewater Service Capital Program

2025 Master Servicing Plan - Amendment

Wastewater Capital Program - High Growth Scenario

Capita Program ID	Name	Overview	San tary Catchment	Pro ect Descr pt on	Required Studies	Study Scope	Study Ob ect ves	C ass EA Schedule	Pro ect Type	S ze/Capacity	Length (m)	C ass Est mate Type	Pro ect Complexity	Accuracy Range	Area Cond t on	Funding Source/ Responsibility	Total Est mated Cost (2020$)	Timeline	DC Benefit to Exist ng C ass
WW-SS-001	Oak Park Road Trunk Sewer	New trunk sewer extending from North-South Collector's Road to Oak Park Road along Powerline Road	WWTP	New trunk sewer extending from North-South Collector's Road to Oak Park Road to service North Expansion lands west of King George Road. Sewer sized to accommodate full buildout.	Municipal Class Environmental Assessment (EA)	The study will be a Schedule 'B' project in accordance with all requirements of the Municipal Class Environmental Assessment. This study will be done in conjunction with the Oak Park watermain alignment (Capital Program project W-M-001 and W-M-002) with costs shared between water and wastewater.	Determine the best alignment and construction type (ie. Open cut or tunnel) for the trunk sewer crossing Highway 403 including a railway crossing and overhead powerlines along Powerline Road. Determine if alignment can be coordinated with local development.	B	Sewer 5m	825 mm	3,120	Class 4	High	50%	Suburban	DC Eligible	$ 35,601,000	0-5 Years	A
WW-SS-002	North-South Collector's Road Trunk Sewer	New trunk sewer extending along North-South Collector's Road from East-West Collector's Road to Powerline Road	WWTP	New trunk sewer extending along North-South Collector's Road from East-West Collector's Road to Powerline Road to service North Expansion lands west of King George Road. Sewer sized to accommodate full buildout.	-	-	-	A	Sewer 5m	825 mm	402	Class 4	Low	30%	Rural	DC Eligible	$ 1,532,000	0-5 Years	A
WW-SS-003	North-South Collector's Road Trunk Sewer	New trunk sewer from northern East-West Collector's Road to North-South Collector's Road	WWTP	New trunk sewer extending along north-south collector's road from northern east-west collector's road to north-south collector's road to service lands north of east-west collector's road. Sewer sized to accommodate full buildout.	-	-	-	A	Sewer 5m	525 mm	427	Class 4	Low	30%	Rural	DC Eligible	$ 869,000	10-20 Years	A
WW-SS-004	East-West Collector's Road Trunk Sewer (West of King George Road)	New trunk sewer along East-West Collector's Road from King George Road to Balmoral Drive road extension	Northwest-2 WWPS	New trunk sewer extending along east-west collector's road east of Northwest-2 WWPS and west of King George Road. Sewer sized to accommodatefull buildout.	-	-	-	A	Sewer 5m	525 mm	1,010	Class 4	Low	30%	Rural	DC Eligible	$ 2,054,000	10-20 Years	A
WW-SS-005	East-West Collector's Road Trunk Sewer (West of King George Road)	New trunk sewer along East-West Collector's Road from Balmoral Drive road extension to Northwest-2 WWPS	Northwest-2 WWPS	New trunk sewer extending along east-west collector's road east of Northwest-2 WWPS and west of King George Road. Sewer sized to accommodate full buildout.	-	-	-	A	Sewer 5m	600 mm	402	Class 4	Low	30%	Rural	DC Eligible	$ 1,041,000	5-10 Years	A
WW-SS-006	East-West Collector's Road Trunk Sewer (East of King George Road)	New trunk sewer along East-West Collector's Road east of King George Road and west of of North WWPS.	North WWPS	New trunk sewer extending along east-west collector's road east of King George Road. Sewer sized to accommodate full buildout.	-	-	-	A	Sewer 5m	300 mm	135	Class 4	Low	30%	Rural	DC Eligible	$ 219,000	10-20 Years	A
WW-SS-007	East-West Collector's Road Trunk Sewer (East of King George Road)	New trunk sewer along East-West Collector's Road east of King George Road and west of of North WWPS.	North WWPS	New trunk sewer extending along east-west collector's road east of King George Road and west of North WWPS. Sewer sized to accommodate full buildout.	-	-	-	A	Sewer 5m	300 mm	444	Class 4	Low	30%	Rural	DC Eligible	$ 720,000	10-20 Years	A
WW-SS-008	East-West Collector's Road Trunk Sewer (East of King George Road)	New trunk sewer along East-West Collector's Road east of King George Road and west of North WWPS.	North WWPS	New trunk sewer extending along east-west collector's road east of King George Road extending to North SPS. Sewer sized to accommodate full buildout.	-	-	-	A	Sewer 5m	525 mm	761	Class 4	Low	30%	Rural	DC Eligible	$ 1,547,000	10-20 Years	A
WW-SS-009	East-West Collector's Road Trunk Sewer (East of North WWPS)	New trunk sewer along East-West Collector's Road east of North WWPS	Empey Street WWPS	New trunk sewer extending from North WWPS forcemain to west of Park Road North. Sewer sized to accommodate full buildout.	-	-	-	A	Sewer 5m	525 mm	530	Class 4	Low	30%	Rural	DC Eligible	$ 1,556,000	5-10 Years	A
WW-SS-010	East-West Collector's Road Trunk Sewer (East of North WWPS)	New trunk sewer along East-West Collector's Road east of North WWPS	Empey Street WWPS	New trunk sewer extending from west of Park Road North to east of Wayne Gretzky Parkway. Sewer sized to accommodate full buildout.	-	-	-	A+	Sewer 5m	600 mm	908	Class 4	Low	30%	Rural	DC Eligible	$ 2,352,000	5-10 Years	A
WW-SS-011 (High)	East-West Collector's Road Trunk Sewer (East of North WWPS)	New trunk sewer along East-West Collector's Road east of North WWPS	Empey Street WWPS	New trunk sewer extending from east of Wayne Gretzky Parkway to Coulbeck Road trunk sewer. Sewer sized to accommodate full buildout.	-	-	-	A	Sewer 5m	825 mm	1,002	Class 4	Low	30%	Rural	DC Eligible	$ 5,511,000	0-5 Years	A
WW-SS-012	East Expansion Lands Trunk Sewer	New trunk watermain along East-West Collector Road in Pressure District 2/3 east of King George Road	East WWPS	New trunk sewer from Lynden Road to East WWPS along East collector's road	-	-	-	A	Sewer 5m	525 mm	2,020	Class 4	Low	30%	Rural	DC Eligible	$ 6,309,000	5-10 Years	A
WW-SS-013	Lynden Road Trunk Sewer Upgrades	Upgrades along Lynden Road to Brantwood Park Road trunk sewer	Empey Street WWPS	Upsize existing 250 mm sewer along Lynden Road from East SPS forcemain to Brantwood Park Road	-	-	-	A+	Sewer 5m	525 mm	269	Class 4	Med	40%	Suburban	DC Eligible	$ 661,000	0-5 Years	A
WW-SS-014	Mount Pleasant Road Trunk Sewer Upgrades	Upgrades to trunk sewer along Mount Pleasant Road	WWTP	Upgrade existing sewer along Mount Pleasant Road from Gilkison Street to the trunk sewer connection at Delamere Street.	-	-	-	A+	Sewer 5m	825 mm	835	Class 4	Med	40%	Suburban	DC Eligible	$ 3,840,000	0-5 Years	B
WW-SS-015	Mount Pleasant Road Trunk Sewer	New trunk sewer along Mount Pleasant Road	WWTP	New trunk sewers along Mount Pleasant Road from Tutela Heights Road to existing trunk sewer on Mount Pleasant Road.	-	-	-	A+	Sewer 5m	825 mm	610	Class 4	Med	40%	Suburban	DC Eligible	$ 2,806,000	0-5 Years	A
WW-SS-016	Tutela Heights Road Trunk Sewer	New trunk sewer along Tutela Heights Road	WWTP	New trunk sewers along Tutela Heights Road from Tutela Heights WWPS forcemain to Mount Pleasant Road	-	-	-	A+	Sewer 5m	750 mm	1,535	Class 4	Med	40%	Rural	DC Eligible	$ 5,962,000	5-10 Years	A
WW-SS-017	Bodine Road Easement Sewer Upgrades	Upsize existing sewer from Roy Boulevard to Henry Street crossing under Highway 403	Empey Street WWPS	Upsize existing 975 mm sewer 270 m east of Bodine Road from Roy Boulevard to Henry Street crossing under Highway 403 to address future capacity issues. Sewer sized to accommodate full buildout. Project cost includes ongoing flow monitoring in existing trunk sewer to ensure I&I doesn't trigger project earlier than anticipated	-	-	-	A+	Sewer 5m	1350 mm	1,622	Class 4	High	50%	Suburban	DC Eligible	$ 33,076,000	20+ Years	B
WW-SS-018	North Ashgrove Avenue Sewer Upgrades	Upgrade existing sewers on Ashgrove Avenue	Empey Street WWPS	Upgrade existing 375-500 mm sewers on Memorial Drive from Kensington Drive to Ashgrove Avenue and on Ashgrove Avenue from Memorial Drive to the Homestead Place to address capacity issues in North Brantford.	-	-	-	A+	Sewer 5m	600 mm	1,563	Class 4	Low	30%	Suburban	City	$ 4,455,000	0-5 Years	C
WW-SS-019	Summerhayes Crescent Servicing Study	Study to determine feasibility of connecting Summerhayes Crescent to existing or proposed sewer system in North Brantford.	-	Feasibility study to assess the connection of the exising septic service lands to the existing King George sewer or pumping the services to WW-SS-006 and North WWPS. Feasibility study to determine sewer upsizing needs.	Feasibility Study.	The study will be a feasibility study to determine if the existing Summerhayes subdivision can be connected to the City's wastewater system.	Determine the best servicing strategy for the Summerhayes subdivision including maintaining existing septic systems, connecting to existing King George Road sewer including any potential sewer upsizing or pumping flows to proposed North WWPS in North Expansion Lands.	B	Sewer 5m	0 mm	-	Class 4	Low	30%	Rural	City	$ 150,000	0-5 Years	E
WW-SS-020	Henry Street Flow Split Reconfiguration	Reconfigure flow split at Henry Street and Wayne Gretzky Streeet	Empey Street WWPS	Reconfigure sewer flow split to redirect flows to Empey WWPS to relieve downstream sewer capacity constraints	-	-	-	A+	Sewer 10m	825 mm	50	Class 4	High	50%	Urban	DC Eligible	$ 726,000	0-5 Years	D
WW-SS-021	Grand River Avenue Sewer Upgrades	Upsize existing sewers from Jubilee Avenue to Icomm Drive	Greenwich Street WWPS	Optimize Grand River Avenue and Jubilee Avenue flow split by diverting more flows to Grand River Avenue. Upsize existing 300 mm sanitary sewers along Grand River Avenue to accommodate increased flows.	-	-	-	A+	Sewer 5m	525 mm	1,291	Class 4	High	50%	Suburban	City	$ 5,148,000	5-10 Years	E
WW-SS-022	Oakhill Sewer Upgrades	Upsize existing sewers from Jennings Road to Colborne Street West	WWTP	Existing sewer downsizes from 1050 mm to 675/750 mm. Upsize sewer to accommodate growth flows from the North Expansion Lands as well as address any potential operational issues due to the smaller sewer diameter.	-	-	-	A+	Sewer 5m	1050 mm	1,116	Class 4	Med	40%	Suburban	DC Eligible	$ 7,180,000	10-20 Years	B
WW-SS-023	Downtown Sewers	Sewer upgrades or various diameters to service Downtown Brantford intensification core.	WWTP	Sewer upgrades or various diameters to service Downtown Brantford intensification core.	-	-	-	A+	Sewer 5m	525 mm	40,000	Class 4	Med	40%	Suburban	Developer/City	$ 8,865,000	0-20 Years	C
WW-SS-024	Mohawk Street Sewer Upgrades	Upsize existing sewer on Mohawk Street from Mohawk Street siphon (south of Forest Road) to WWTP entrance	Empey Street WWPS	Upsize existing 1200 mm sewer on Mohawk Street from Mohawk Street siphon (south of Forest Road) to WWTP entrance to address future capacity issues. Sewer sized to accommodate full buildout. Project cost includes ongoing flow monitoring in existing trunk sewer to ensure I&I doesn't trigger project earlier than anticipated.	-	-	-	A+	Sewer 5m	1350 mm	915	Class 4	High	50%	Suburban	DC Eligible	$ 8,612,000	20+ Years	B
WW-SS-025 (High)	Sewer Upgrades for TZ801	Upsize existing sewer from South of Sinclair Blvd and then West towards Bodine Road Easement Trunk Sewer	WWTP	Upsize existing sewer from South of Sinclair Blvd and then West towards Bodine Road Easement Trunk Sewer from 300mm to 375mm. Slope of the existing pipe is getting less steep in the DS, causing restrictions. New pipe with interpolated consistent slope at 0.16%.	-	-	-	A+	Sewer 5m	450 mm	604	Class 3	Low	20%	Suburban	DC Eligible	$ 1,253,000	0-5 Years	B
WW-SS-026	Division St Sewer Upgrades	Upsize existing sewer on Division St between Dorothy St and Tenth Ave. Existing pipe acting as a bottleneck with a small diameter.	WWTP	Upsize existing sewer on Division St between Dorothy St and Tenth Ave from 300mm to 450mm. Existing pipe acting as a bottleneck with a small diameter.	-	-	-	A+	Sewer 5m	450 mm	80	Class 3	Med	25%	Urban	City	$ 200,000	0-5 Years	F
WW-SS-027	Fifth Ave Sewer Upgrades	Upsize existing sewer size along Fifth Ave from Fifth Ave SPS till Whitehead St	WWTP	Upsize existing sewer size along Fifth Ave from Fifth Ave SPS till Whitehead St from 300mm to 450mm.	-	-	-	A+	Sewer 5m	450 mm	477	Class 3	Low	20%	Suburban	DC Eligible	$ 990,000	0-5 Years	B
WW-SS-028	Brantwood Park Rd Sewer Upgrades	Upsize existing sewer size along Brantwood Park Rd.	WWTP	Upsize existing sewer size along Brantwood Park Rd from 250mm to 300mm to prevent bottleneck.	-	-	-	A+	Sewer 5m	300 mm	76	Class 4	High	50%	Urban	DC Eligible	$ 1,217,000	10-20 Years	D
WW-SS-029	Memorial Dr Sewer Upgrades	Upsize existing sewer size along Memorial Drive	WWTP	Upsize existing sewer size along Memorial Drive from 300mm to 375mm to prevent bottleneck.	-	-	-	A+	Sewer 5m	375 mm	80	Class 3	High	30%	Urban	DC Eligible	$ 1,648,000	10-20 Years	D
WW-SS-030	Clarence St Sewer Upgrades	Upsize existing sewer size along Clarence St	WWTP	Upsize existing sewer size along Clarence St	-	-	-	A+	Sewer 5m	450 mm	606	Class 4	High	50%	Suburban	DC Eligible	$ 12,090,000	10-20 Years	D
WW-SS-031	Grand River Ave Sewer Upgrades	Upsize existing sewer size along Grand River Avenue from Morrell Street till St Paul Avenue	WWTP	Upsize existing sewer size along Grand River Avenue from Morrell Street till St Paul Avenue from 400mm to 525mm. New pipe with interpolated consistent slope at 0.165%	-	-	-	A+	Sewer 5m	525 mm	497	Class 4	High	50%	Urban	DC Eligible	$ 9,821,000	5-10 Years	B
WW-SS-032	Morrell St Sewer Upgrades	Upsize existing sewer size along Morrell St from Webster St till Grand River Ave	WWTP	Upsize existing sewer size along Morrell St from Webster St till Grand River Ave from 300mm to 375mm	-	-	-	A+	Sewer 5m	375 mm	216	Class 4	High	50%	Urban	DC Eligible	$ 3,580,000	5-10 Years	B
WW-SS-034	Greenwich St Sewer Upgrades (US of WWPS)	Upsize existing sewer size along Greenwich St	WWTP	Upsize existing sewer size along Greenwich St from 750mm to 900mm	-	-	-	A+	Sewer 5m	900 mm	77	Class 4	High	50%	Urban	DC Eligible	$ 668,000	0-5 Years	B
WW-SS-035	Greenwich St Sewer Upgrades (DS of WWPS)	Upsize existing sewer size along Greenwich St	WWTP	Upsize existing sewer size along Greenwich St from 750mm to 900mm	-	-	-	B	Sewer 5m	900 mm	99	Class 4	High	50%	Urban	DC Eligible	$ 817,000	0-5 Years	B
WW-SS-039	Johnson WWPS Inlet Sewer Upgrades	Johnson WWPS Inlet Sewer Upgrades	WWTP	Johnson WWPS Inlet Sewer Upgrades from 250mm to 375mm. Existing slope, or keep monitoring and I&I reduction program, or keep monitoring and I&I reduction program	-	-	-	B	Sewer 5m	375 mm	24	Class 4	Med	40%	Suburban	DC Eligible	$ 855,000	5-10 Years	D
WW-SS-040	Tutela Heights Sewer Upstream of Tutela Heights WWPS	Tutela Heights Sewer Upgrades	Tutela Heights WWPS	Tutela Heights Sewer Upgrades	-	-	-	B	Sewer 5m	300 mm	1,374	Class 4	Med	40%	Rural	DC Eligible	$ 4,792,000	0-5 Years	A
WW-SS-043*	Powerline East Block Upstream of the WWPS	Construction of a 450mm sewer in Powerline East Development Area	Powerline East Development Sewer	Construction of a 450mm sewer in Powerline East Development Area	-	-	-	A	Sewer 5m	450 mm	205	Class 4	Low	30%	Rural	DC Eligible	$ 387,000	5-10 Years	A
WW-SS-044	Mount Pleasant Road Sewer Upgrades	Construction of a 300mm sewer on Mount Pleasant Road.	Greenwich Street WWPS	Construction of a 300mm sewer on Mount Pleasant Road	-	-	-	A+	Sewer 5m	300 mm	171	Class 4	Med	40%	Suburban	DC Eligible	$ 703,000	10-20 Years	A
WW-SS-045	Hardy Road Sewer Upgrades	Construction of a 300mm sewer on Hardy Road.	Somerset Road WWPS	Construction of a 300mm sewer on Hardy Road.	-	-	-	A	Sewer 5m	300 mm	198	Class 4	Med	40%	Suburban	DC Eligible	$ 1,123,000	10-20 Years	D
WW-SS-046*	Powerline East Block downstream of the new East Block Pumping Station #2	Construction of a 375mm sewer north of Powerline Road.	North East Expansion Lands	Construction of a 375mm sewer north of Powerline Road.	-	-	-	A	Sewer 5m	375 mm	287	Class 4	Low	30%	Rural	DC Eligible	$ 1,894,000	0-5 Years	A
WW-SS-047	Savannah Oaks Drive Sewer to Resolve Oak Park Road Bottleneck	Construction of a 375mm sewer north of Powerline Road.	WWTP	Construction of a 600 mm sewer on Savannah Oaks Drive	-	-	-	A	Sewer 5m	600 mm	50	Class 4	Low	30%	Suburban	DC Eligible	$ 142,000	5-10 Years	B
WW-FM-001	Northwest-1 WWPS Forcemain	New forcemain for Northwest-1 WWPS	WWTP	New forcemain extending from Northwest-1 WWPS to north-south collector road trunk sewer. Forcemain sized to accommodate North Expansion Lands flows with space to allow for potential twinning for full buildout flows.	Municipal Class Environmental Assessment (EA)	The study will be a Schedule 'B' project in accordance with all requirements of the Municipal Class Environmental Assessment. This study will be done in conjunction with the Northwest-1 WWPS (Costs included in Capital Program project WW-PS-001).	Determine the best construction methodology for the new wastewater pumping station including location of buildings. Determine forcemain alignment and if it can be coordinated with local development.	B	Forcemain	250 mm	859	Class 4	Low	30%	Rural	DC Eligible	$ 1,384,000	10-20 Years	A
WW-FM-002 (High)	Northwest-2 WWPS Forcemain	New Northwest-2 WWPS forcemain	WWTP	New forcemain extending from Northwest-2 WWPS to north-south collector road trunk sewer. Forcemain sized to accommodate existing flows and full buildout flows.	Municipal Class Environmental Assessment (EA)	The study will be a Schedule 'B' project in accordance with all requirements of the Municipal Class Environmental Assessment. This study will be done in conjunction with the Northwest-2 WWPS (Costs included in Capital Program project WW-PS-002).	Determine the best construction methodology for the new wastewater pumping station including location of buildings. Determine forcemain alignment and if it can be coordinated with local development.	B	Forcemain	500 mm	1,432	Class 4	Med	40%	Suburban	DC Eligible	$ 5,461,000	5-10 Years	A
WW-FM-003 (High)	North WWPS Forcemain	New North WWPS forcemain	Empey Street WWPS	New forcemain from North WWPS to east-west collector road trunk sewer. Forcemain sized to accommodate existing flows and trigger land flows.	Municipal Class Environmental Assessment (EA)	The study will be a Schedule 'B' project in accordance with all requirements of the Municipal Class Environmental Assessment. This study will be done in conjunction with the North WWPS (Costs included in Capital Program project WW-PS-003).	Determine the best construction methodology for the new wastewater pumping station including location of buildings. Determine forcemain alignment and if it can be coordinated with local development.	B	Forcemain	350 mm	1,508	Class 4	Low	30%	Rural	DC Eligible	$ 3,129,000	10-20 Years	A
WW-FM-004	Northeast WWPS Forcemain	New Northeast WWPS forcemain.	Empey Street WWPS	New forcemain from Northeast WWPS to Coulbeck Road trunk sewer. Forcemain sized to accommodate existing flows and full buildout.	Municipal Class Environmental Assessment (EA)	The study will be a Schedule 'B' project in accordance with all requirements of the Municipal Class Environmental Assessment. This study will be done in conjunction with the Northeast WWPS (Costs included in Capital Program project WW-PS-004).	Determine the best construction methodology for the new wastewater pumping station including location of buildings. Determine forcemain alignment and if it can be coordinated with local development.	B	Forcemain	300 mm	525	Class 4	Low	30%	Rural	DC Eligible	$ 1,022,000	0-5 Years	A
WW-FM-005	East WWPS Forcemain	New East WWPS forcemain	Greenwich WWPS	New forcemain extending from East WWPS to Lynden Road trunk sewer	Municipal Class Environmental Assessment (EA)	The study will be a Schedule 'B' project in accordance with all requirements of the Municipal Class Environmental Assessment. This study will be done in conjunction with the East WWPS (Costs included in Capital Program project WW-PS-005).	Determine the best construction methodology for the new wastewater pumping station including location of buildings. Determine forcemain alignment and if it can be coordinated with local development.	B	Forcemain	350 mm	2,328	Class 4	Med	40%	Suburban	DC Eligible	$ 5,932,000	5-10 Years	A
WW-FM-006 (High)	Tutela Heights WWPS Forcemain	New Tutela Heights WWPS forcemain.	WWTP	New forcemain extending from Tutela Heights WWPS to Tutela Heights Road trunk sewer	Municipal Class Environmental Assessment (EA)	The study will be a Schedule 'B' project in accordance with all requirements of the Municipal Class Environmental Assessment. This study will be done in conjunction with the Tutela Heights WWPS (Costs included in Capital Program project WW-PS-006).	Determine the best construction methodology for the new wastewater pumping station including location of buildings. Determine forcemain alignment and if it can be coordinated with local development.	B	Forcemain	350 mm	467	Class 4	Low	30%	Suburban	DC Eligible	$ 1,025,000	10-20 Years	A

* To confirm through Development Charge Study by Planning and Financial Deparments, if the benefiting land owner(s) fully fund the project cost.

GEI Consultants Canada

City of Brantford
Water, Wastewater, and Stormwater Master Servicing Plan Update
Wastewater Capital Program

CITY OF BRANTFORD

WW-FM-007*	New East Block Pumping Station #2 Forcemain	Construction of a 300mm forcemain for the new East Block Pumping Station #2	Greenwich	Construction of a 300mm forcemain for the new East Block Pumping Station #2	Municipal Class Environmental Assessment (EA)	The study will be a Schedule 'B' project in accordance with all requirements of the Municipal Class Environmental Assessment. This study will be done in conjunction with the Northeast WWPS (Costs included in Capital Program project WW-PS-016).	Determine the best construction methodology for the new wastewater pumping station including location of buildings. Determine forcemain alignment and if it can be coordinated with local development.	B	Forcemain	300 mm	603	Class 4	Med	40%	Rural	DC Eligible	$ 1,273,000	10-20 Years	A
WW-FM-008	Johnson WWPS Forcemain Upgrades	Upsize forcemain for Johnson WWPS	WWTP	Upsize forcemain for Johnson WWPS from 200mm to 300mm	-	-	-	A+	Forcemain	300 mm	489	Class 4	Med	40%	Suburban	DC Eligible	$ 1,908,000	5-10 Years	B
WW-FM-009	Empey WWPS Forcemain Replacement	Increase length of forcemain for Empey WWPS to mitigate capacity and depth of cover constraints.	Empey WWPS	Increase length of forcemain for Empey WWPS to mitigate capacity and depth of cover constraints.	-	-	-	A+	Forcemain	900 mm	285	Class 4	High	50%	Urban	DC Eligible	$ 7,860,000	5-10 Years	B
WW-FM-010	Empey WWPS Forcemain Extension	Increase length of forcemain for Empey WWPS to mitigate capacity and depth of cover constraints.	Empey WWPS	Increase length of forcemain for Empey WWPS to mitigate capacity and depth of cover constraints.	-	-	-	A+	Forcemain	900 mm	248	Class 4	High	50%	Urban	DC Eligible	$ 7,610,000	10-20 Years	B
WW-PS-001 (High)	Northwest-1 Wastewater Pumping Station	New WWPS located northeast of Golf Road.	WWTP	New WWPS located northeast of Golf Road. Flows will be pumped to the trunk sewer along north-south collector road, draining to Oak Park Road. Pumping Station sized for North Expansion Lands while securing site capacity to allow for upgrades for full buildout flows post 2051.	Municipal Class Environmental Assessment (EA)	The study will be a Schedule 'B' project in accordance with all requirements of the Municipal Class Environmental Assessment. This study will be done in conjunction with the Northwest-1 WWPS forcemain alignment (Capital Program project WW-FM-001) .	Determine the best construction methodology for the new wastewater pumping station including location of buildings. Determine forcemain alignment and if it can be coordinated with local development.	B	Pumping	30 L/s	-	Class 4	Med	40%	Rural	DC Eligible	$ 12,448,000	10-20 Years	A
WW-PS-002 (High)	Northwest-2 Wastewater Pumping Station	New WWPS located east of Golf Road.	WWTP	New SPS located east of Golf Road on east-west collector's road. Flows will be pumped to the trunk sewer along the north-south collector road, draining to Oak Park Road. Pumping Station sized for North Expansion Lands while securing site capacity to allow for upgrades for full buildout flows post 2051.	Municipal Class Environmental Assessment (EA)	The study will be a Schedule 'B' project in accordance with all requirements of the Municipal Class Environmental Assessment. This study will be done in conjunction with the Northwest-12WWPS forcemain alignment (Capital Program project WW-FM-002).	Determine the best construction methodology for the new wastewater pumping station including location of buildings. Determine forcemain alignment and if it can be coordinated with local development.	B	Pumping	190 L/s	-	Class 4	Med	40%	Rural	DC Eligible	$ 20,950,000	5-10 Years	A
WW-PS-003 (High)	North Wastewater Pumping Station	New WWPS located along the East-West Collector's Road	Empey Street WWPS	New WWPS located along the east-west collector's road between King George Road and Park Road, south of Jones Creek. Pumping Station sized for North Expansion Lands while securing site capacity to allow for upgrades for full buildout flows post 2051.	Municipal Class Environmental Assessment (EA)	The study will be a Schedule 'B' project in accordance with all requirements of the Municipal Class Environmental Assessment. This study will be done in conjunction with the North WWPS forcemain alignment (Capital Program project WW-FM-003).	Determine the best construction methodology for the new wastewater pumping station including location of buildings. Determine forcemain alignment and if it can be coordinated with local development.	B	Pumping	97 L/s	-	Class 4	Med	40%	Rural	DC Eligible	$ 15,728,000	10-20 Years	A
WW-PS-004 (High)	Northeast Wastewater Pumping Station	New WWPS located along Powerline Road, east of Coulbeck Road.	Empey Street WWPS	New WWPS located along Powerline Road, east of Coulbeck Road. Flows will be pumped to Coulbeck Road trunk sewer.	Municipal Class Environmental Assessment (EA)	The study will be a Schedule 'B' project in accordance with all requirements of the Municipal Class Environmental Assessment. This study will be done in conjunction with the NortheastWWPS forcemain alignment (Capital Program project WW-FM-004).	Determine the best construction methodology for the new wastewater pumping station including location of buildings. Determine forcemain alignment and if it can be coordinated with local development.	B	Pumping	75 L/s	-	Class 4	Med	40%	Rural	DC Eligible	$ 14,494,000	0-5 Years	A
WW-PS-005 (High)	East Wastewater Pumping Station	New WWPS located in southeast East Expansion Lands	Empey Street WWPS	New WWPS located in southeast East Expansion Lands along collector road. Flows will be pumped to trunk sewer on Lynden Road	Municipal Class Environmental Assessment (EA)	The study will be a Schedule 'B' project in accordance with all requirements of the Municipal Class Environmental Assessment. This study will be done in conjunction with the East WWPS forcemain alignment (Capital Program project WW-FM-005).	Determine the best construction methodology for the new wastewater pumping station including location of buildings. Determine forcemain alignment and if it can be coordinated with local development.	B	Pumping	105 L/s	-	Class 4	Med	40%	Rural	DC Eligible	$ 16,178,000	5-10 Years	A
WW-PS-006 (High)	Tutela Heights Wastewater Pumping Station	New WWPS located in Tutela Heights	WWTP	New WWPS located in south Tutela Heights along collector road. Flows to be pumped to trunk sewer on Tutela Heights Road, extending to Mount Pleasant Road trunk sewer.	Municipal Class Environmental Assessment (EA)	The study will be a Schedule 'B' project in accordance with all requirements of the Municipal Class Environmental Assessment. This study will be done in conjunction with the Tutela Heights WWPS forcemain alignment (Capital Program project WW-FM-006).	Determine the best construction methodology for the new wastewater pumping station including location of buildings. Determine forcemain alignment and if it can be coordinated with local development.	B	Pumping	80 L/s	-	Class 4	High	50%	Rural	DC Eligible	$ 16,922,000	10-20 Years	A
WW-PS-007	Empey Street WWPS Storage Upgrades	Increase existing Empey Street WWPS storage	WWTP	Twinned Wet Well (Duplicate of existing 0.5 ML of storage), 2 ML Storage Chamber, includes 4 new pumps and a new control building.	Municipal Class Environmental Assessment (EA)	The study will be a Schedule 'B' project in accordance with all requirements of the Municipal Class Environmental Assessment.	Determine the best construction methodology for the wastewater pumping station expansion and upgrades including wet well construction.	B	Pumping	1000 L/s	-	Class 4	Med	40%	Rural	DC Eligible	$ 9,568,000	0-5 Years	D
WW-PS-008	Empey Street WWPS Rehabilitation and Improvements	Address operational concerns related to station capacity to reachieve 1600 L/s.	WWTP	Renewal to meet current flow needs including maintenance and repair, rehabilitation, renewal to meet current flow needs.	Feasibility Study.	The study will be a feasibility study to determine the rehab required at Empey WWPS.	Determine the best rehabilitation strategy for the Empey WWPS to address known existing issues, facility age, condition and performance.	A	Pumping	1600 L/s	-	Class 4	Med	40%	Rural	City	$ 7,800,000	0-5 Years	E
WW-PS-009	Fifth Avenue Wastewater Pumping Station Upgrades	Upgrade capacity to accommodate existing and future flows.	WWTP	Station upgrades at existing WWPS including upgrading capacity to 130 L/s, and a new forcemain (twinned).	-	-	-	B	Pumping	72 L/s	-	Class 4	Med	40%	Suburban	City	$ 3,512,000	Completion 2021	D
WW-PS-010	Fifth Avenue WWPS Storage Upgrades	Upgrade wet well capacity to accommodate existing and future flows.	WWTP	Add 1 hour of storage to accommodate peak flows, 468 m3 of storage, to address existing and future peak weather flow storage deficit.	-	-	-	A	Pumping	468 L/s	-	Class 4	Med	40%	Suburban	City	$ 3,114,000	0-5 Years	E
WW-PS-011 - High	Greenwich Wastewater Pumping Station Rehabilitation and Improvements	Address operational concerns related to station capacity to 578 L/s.	WWTP	Renewal to meet current flow needs including maintenance and repair, rehabilitation and replacing existing pumps with new pumps and non-clog impellers to reduce plugging. Pumps to be selected to match current firm capacity to preservice the existing station capacity.	-	-	-	A	Pumping	141 L/s	-	Class 4	Med	40%	Suburban	City	$ 1,296,000	10-20 Years	E
WW-PS-012	St. Andrews WWPS Storage Upgrades	Upgrade wet well capacity to accommodate existing and future flows.	WWTP	Add an additional 20 m3 of storage to address existing and future peak weather flow storage deficit.	Municipal Class Environmental Assessment (EA)	The study will be a Schedule 'B' project in accordance with all requirements of the Municipal Class Environmental Assessment.	Determine the best construction methodology for the wastewater pumping station expansion and upgrades including wet well construction.	A	Pumping	20 m3	-	Class 4	Low	30%	Suburban	City	$ 393,000	0-5 Years	E
WW-PS-013	Johnson WWPS Storage Upgrades	Upgrade wet well capacity to accommodate existing and future flows.	WWTP	Add an additional 115 m3 of storage to address existing and future peak weather flow storage deficit.	Municipal Class Environmental Assessment (EA)	The study will be a Schedule 'B' project in accordance with all requirements of the Municipal Class Environmental Assessment.	Determine the best construction methodology for the wastewater pumping station expansion and upgrades including wet well construction.	B	Pumping	115 m3	-	Class 4	Low	30%	Suburban	City	$ 847,000	0-5 Years	E
WW-PS-014	Johnson WWPS Rehabilitation	Upgrade capacity to accommodate existing and future flows.	WWTP	Rehabilitation, maintenance and repair to address operational concerns related to WWPS.	Feasibility Study.	The study will be a feasibility study to determine the rehab required at the Johnson WWPS	Determine the best rehabilitation strategy for the Johnson WWPS to address known existing issues, facility age, condition and performance.	A	Pumping	70 m3	-	Class 4	Low	30%	Suburban	City	$ 576,000	0-5 Years	E
WW-PS-015	Woodlawn WWPS Rehabilitation	Upgrade capacity to accommodate existing and future flows.	WWTP	Rehabilitation, maintenance and repair to address operational concerns related to WWPS.	Feasibility Study.	The study will be a feasibility study to determine the rehab required at the Woodlawn WWPS	Determine the best rehabilitation strategy for the Woodlawn WWPS to address known existing issues, facility age, condition and performance.	A	Pumping	-	-	Class 4	Low	30%	Suburban	City	$ 400,000	0-5 Years	C
WW-PS-016* (High)	East Block Wastewater Pumping Station #2	New WWPS located north of Powerline Road.	North East Expansion Lands	New WWPS located north of Powerline Road.	Municipal Class Environmental Assessment (EA)	The study will be a Schedule 'B' project in accordance with all requirements of the Municipal Class Environmental Assessment. This study will be done in conjunction with the Powerline East Block Pumping Station #2 forcemain alignment (Capital Program project WW-FM-007).	Determine the best construction methodology for the new wastewater pumping station including location of buildings. Determine forcemain alignment and if it can be coordinated with local development.	B	Pumping	17 L/s	-	Class 4	Med	40%	Rural	City	$ 11,687,000	10-20 Years	A
WW-II-001	Flow Monitoring	City wide flow monitoring program.	WWTP	City wide flow monitoring program to address existing issues and provide guidance for wet weather flow management practices.	-	-	-	-	Wet Weather Reduction	-	-	Class 4	Low	30%	Suburban	City	$ 12,129,000	0-5 Years	C
WW-II-002	City Wide I&I Program	Wet weather management program to address growth and existing issues.	WWTP	City wide I&I reduction program based on flow monitoring results to address existing issues.	-	-	-	-	Wet Weather Reduction	-	-	Class 4	Med	40%	Rural	City	$ 38,502,000	0-5 Years	D
WW-II-003	Greenwich WWPS I&I Reduction	I&I program to manage peak flows in Greenwich WWPS catchment	Greenwich WWPS	Greenwich WWPS catchment subject to high I&I in catchment. Initiate I&I program to manage peak flows to free up capacity at existing WWPS.	-	-	-	-	Wet Weather Reduction	-	-	Class 4	Med	40%	Rural	City	$ 8,019,000	0-5 Years	D
WW-II-004	Johnson WWPS I&I Reduction	I&I program to manage peak flows in John WWPS catchment	Johnson WWPS	Johnson WWPS catchment subject to very high I&I in catchment. Initiate I&I program to manage peak flows to free up capacity at existing WWPS.	-	-	-	-	Wet Weather Reduction	-	-	Class 4	Med	40%	Rural	City	$ 8,019,000	0-5 Years	D
WW-TP-001 - High	Wastewater Treatment Plant Upgrades	Increase plant capacity with addition of sludge thickening	WWTP	Increase plant capacity with addition of sludge thickening	-	-	-	A+	Treatment	-	-	Class 4	Med	40%	Rural	DC Eligible	$ 89,430,000	0-20 Years	B
TOTAL																	**$ 511,588,000**		

* To confirm through Development Charge Study by Planning and Financial Deparments, if the benefitting land owner(s) fully fund the project cost.

Alternative formats and communication supports available upon request. Please contact accessibility@brantford.ca or 519-759-4150 for assistance.

Date December 2, 2025 **Report No.** 2025-27

To Chair and Members
Committee of the Whole - Operations

From Selvi Kongara, M.S.(Eng.), P.Eng.
Commissioner of Public Works

1.0 Type of Report

Consent Item [ ]
Item For Consideration [X]

2.0 Topic 2025 Transportation Master Plan Update [Financial Impact - None]

3.0 Recommendation

A. THAT Report 2025-27 titled, 2025 Transportation Master Plan Update, BE RECEVIED; and

B. THAT staff BE DIRECTED to issue the Notice of Master Plan and initiate the 30 day public review period; and

C. THAT Council APPROVE the recommendations identified in the 2025 Transportation Master Plan Update as documented in the Executive Summary attached in Appendix A and as issued for public review; and

D. THAT staff BE DIRECTED to implement the recommendations from the 2025 Transportation Master Plan Update into the City's Capital Forecast; and

E. THAT the Transportation Master Plan Update BE REVIEWED in conjunction with the Master Servicing Plan Amendment; and

F. THAT a copy of the resolution for the Transportation Master Plan Update BE FORWARDED to the County of Brant.

4.0 Executive Summary

The 2025 Transportation Master Plan (TMP) Update reflects current development trends, higher density assumptions, and provincial policy changes that have occurred since the approval of the 2020 TMP and 2021 TMP Amendment.

The 2025 TMP Update builds upon the City's previous master plan and incorporates updated network information, growth monitoring and both the 2023 Active Transportation Master Plan and the 2024 Transit Plan. The TMP evaluates the impacts of revised population and employment density targets with both existing urban areas and Boundary Expansion Lands. The update presents the proposed transportation capital program and identifies individual project costs associated with these changes in population and employment to inform updates to the City's Development Charges By-law.

The Province's planning policy direction encourages municipalities to plan for higher density growth within designated greenfield areas and intensification areas. In response, the TMP Update reviewed and updated the City's strategy to support development that aligns with this new planning policy.

Three (3) growth scenarios were evaluated to understand how varying population and employment projections would influence future transportation network needs. A sensitivity analysis indicated that the 'High Growth Scenario' offers the most robust and adaptable framework for long-term mobility planning and ensures roadway capacity can adequately accommodate projected demand while reducing the risk of under-sizing key infrastructure. For this, the high-growth scenario has been selected as the preferred planning alternative for the 2025 TMP Update.

The 2025 TMP Update retains many of the capital projects identified in the 2021 TMP amendment, with select updates to project limits and capacity requirements. All cost estimates have been revised using recent capital project amounts and updated unit rates. The 2025 TMP Update proposes a range of improvements across the City's road network, including roadway widenings on minor and major arterial corridors, new road extensions, intersection upgrades, and transportation system management improvement measures to enhance the performance of several existing transportation corridors.

Following Council's approval of this report, staff will proceed to incorporate or adjust the identified capital projects within the City's 10-year capital forecast for Council's consideration as part of the annual estimates process. In addition, the identified projects and program will be reviewed and considered in the preparation of the City's upcoming Development Charges Background Study.

5.0 Purpose and Overview

The purpose of this report is to provide Council with a summary of recommendations from the 2025 Transportation Master Plan (TMP) Update that will be placed on public review pending the approval of this report. This includes a summary of stakeholder engagement and identifies the preferred multimodal improvement plans within the existing urban boundary and the Boundary Expansion Lands.

6.0 Background

The TMP Update is a long-range planning document that outlines the City's transportation infrastructure requirements. It encompasses all modes of transportation, including roads, transit, and active transportation, and provides a framework for implementation over short, medium and long term. The 2025 TMP Update fulfills the requirements of the Approach #1 Master Planning Process, as outlined in the Municipal Class Environmental Assessment (MCEA), as amended in 2024. It establishes a foundation for advancing future project-specific environmental assessments and design work identified within the plan. The TMP addresses a wide range of transportation challenges and opportunities across the City, with recommendations developed to improve connectivity, mobility and the overall efficiency of the transportation network.

The City of Brantford completed a TMP Update in 2020 (Report 2020-427[1]) in coordination with the City's Official Plan (OP) review, which incorporated the City's 2017 Boundary Adjustment Lands in accordance with approved growth targets. The TMP was then amended in 2021 to extend the planning horizon to 2051, incorporating minimal additional growth beyond 2041 and refined servicing assumption based on updated population and employment forecasts.

Subsequent comprehensive block plans identified higher densities than originally assumed in the 2020 TMP and the 2021 amended TMP. These higher

[1] https://pub-brantford.escribemeetings.com/filestream.ashx?DocumentId=6104

densities have resulted in a need to assess network capacity to accommodate additional residents and employment.

The 2025 TMP Update builds upon these previous TMPs, subsequent studies since 2021 and evaluations. It considers the impacts of increased density and potential additional growth through the assessment of alternate density targets. The update also identifies the associated capital program and cost implications to inform updates to the City's Development Charges By-law.

6.1 Density Targets

Density targets play a critical role in shaping a City's TMP Update for transportation infrastructure. These targets, expressed as the number of residents and jobs, form the basis for estimating long-term service needs by influencing travel demand, traffic volumes, and transit needs. When density assumptions change, they directly influence infrastructure options, capacity, location, timing and overall cost.

Over the past five years, the Province of Ontario has introduced several significant policy changes that have influenced how municipalities plan for and set density targets. The former Growth Plan for the Greater Golden Horseshoe and the Provincial Policy Statement (PPS) have been consolidated into a new Provincial Planning Statement in 2024. This new framework encourages municipalities to achieve higher levels of intensification within existing built-up areas and to plan more efficiently for growth within designated greenfield lands.

6.1.1 Growth Scenarios

Low (Base) Growth Scenario

The low growth scenario represents a conservative outlook, assuming moderate development growth in line with the previous 2021 TMP projections. Under this scenario, the City is projected to grow to 242,287 residents and jobs, consisting of 162,133 residents and 80,154 jobs. This scenario reflects a slower pace of population and employment expansion and assumes lower density development patterns.

Medium (Hybrid) Growth Scenario

The medium (hybrid) growth scenario assumes a blend of low, medium and high population growth rates across various areas of the City. Under this scenario, the City's total population and employment are projected to increase to 309,267, consisting of 207,673 residents and 101,594 jobs. This scenario anticipates higher levels of intensification in strategic areas identified throughout the City.

High Growth Scenario

The high growth scenario represents the highest growth density targets applied to all areas of the City. Under this scenario, total population and employment growth are projected to reach 337,244, including 228,094 residents and 109,150 jobs. Growth would be concentrated in key intensification areas, as well as in portions of the Boundary Expansion Lands that demonstrate strong development potential.

7.0 Corporate Policy Context

This project is in line with the following Council Priorities (2023-2026):

- Strategic Theme No.3 – Move people more effectively
- Strategic Theme No.4 – Create a vision and strategy for managing development and affordable housing
- Strategic Theme No.10 – Build a greener Brantford

8.0 Input From Other Sources

Input has been received through stakeholder and public consultation, including workshops with internal staff from multiple departments, including Operational Services, Engineering Services and the City's Planning Department and Finance Department. These collaborative sessions provided an opportunity for stakeholders to review the master planning process, the population growth scenarios, the projected 2051 network performance, and the identified focus areas. Feedback from these discussions helped refine the service approach, confirm growth forecasts and evaluate infrastructure investment and development charges.

9.0 Analysis

9.1 Study Approach

The approach used in the 2025 TMP Update followed the Approach #1 Master Planning Process, completing Phases 1 and 2 of the MCEA.

Phase 1: Development of Study Foundation – Identify and describe the problem and opportunity; confirm vision and principles for the TMP; identifies impacts of growth; network capacity needs; service standards; and determine integrated strategies including existing programs and policies for all travel modes that supports the community.

Foundation Policy Documents:

City of Brantford - 2024 Official Plan

City of Brantford - 2020 TMP & 2021 TMP Amendment

City of Brantford - 2023 Active Transportation Master Plan (ATMP)

City of Brantford - 2024 Transit Plan

County of Brant – 2023 Official Plan

County of Brant – 2022 TMP

Phase 2: Integrated Transportation Strategy – Identify and evaluate alternative solutions based on network performance; identify system gaps/focus areas; model strategies; review and assess relationship between regional and local needs; develop practical approach and costing impact.

9.2 Public Consultation

Public consultation plays a vital role in developing a multi-modal Transportation Master Plan that effectively addresses the City's future growth. Throughout the master planning process, engagement has been carried out in accordance with the Municipal Class Environmental Assessment requirements. Consultation has included participation from First Nations, agencies, key stakeholders, and the general public through Public Information Centers and targeted workshops.

The specific stakeholder and public consultation meetings undertaken as part of the TMP Update are summarized below:

- Notice of Study Commencement, first issued May 8, 2025
- City Staff Stakeholder Meeting, May 15, 2025
- Six Nations of the Grand River Stakeholder Meeting, May 22, 2025
- Mississaugas of the Credit First Nation, meeting request declined
- County of Brant Stakeholder Meeting, June 2, 2025
- Notice of Public Information Centre, first issued June 12, 2025
- MTO Stakeholder Meeting, June 19, 2025
- Public Information Centre, June 26, 2025

9.3 Growth Scenario – Sensitivity Analysis

A sensitivity analysis was undertaken to evaluate how variations in population and employment growth would affect the City's transportation infrastructure requirements. The analysis compared servicing needs and capacity utilization under the Low, Medium (Hybrid) and High Growth Scenarios described in Section 6.1.1. This assessment tested the resilience of the service strategy to ensure that the City's transportation network could accommodate a range of future growth conditions. The results indicated that the High Growth Scenario provides the most robust and adaptable framework, allowing the City to meet projected demand while minimizing the risk of under-sizing key transportation components. As a result, the High Growth Scenario was selected as the preferred planning basis for the 2025 Transportation Master Plan Update.

9.4 Review of Key Transportation Issues in 2051

Population and employment forecasts for the City's high-growth scenario, developed by the Planning Department and Development Engineering, were incorporated into the City's transportation model to identify future constraints on the transportation network. Other updates include mode shares from the City's 2023 ATMP and 2024 Transit Plan. A complete summary of updates to the City's transportation model is presented in Appendix A.

In the absence of any road network enhancements, active transportation investments, transit expansion, or policy-based interventions, the following corridors are expected to experience failure conditions by 2051 as travel demand surpasses their capacity. Figure 1 identifies the city corridors approaching, at or above capacity in 2051 with the existing transportation network.

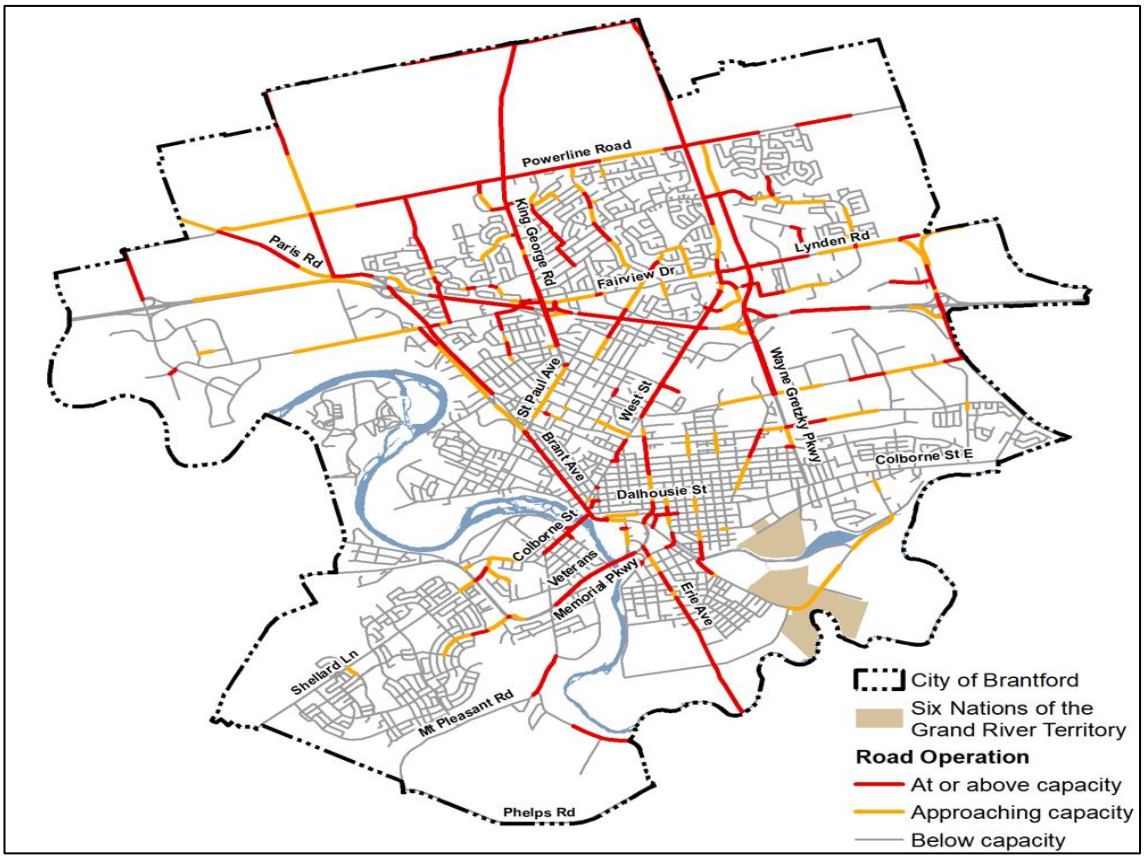

Figure 1 - Existing Transportation Network 2051

9.5 Focus Area Opportunities

Based on the 2051 constraints identified in the city transportation network, the following Focus Areas and issues were identified based on network performance. A general summary of each Focus Area is presented below.

1. North Expansion Lands

    - North-South Arterial Capacity - Golf Road, Highway 24, New East Arterial

2. Wayne Gretzky Corridor

- North-South Arterial Capacity - WGP, Park Road North, New East Arterial

3. Highway 403 Access

   - Operational Improvements - Paris Road, King George Road, WGP

4. Mid-Town

   - East-West Connections – Henry Street, Charing Cross Street

5. West Arterial

   - North-South Arterial Capacity and Connections
   - Previous Strategic Review, recommended re-initiation of MCEA

6. Downtown Access

   - Network Capacity, Connections and Operational Improvements
   - River Crossing: Lorne Bridge, VMP Bridge
   - North-South: West Street, Clarence Street
   - East-West: Colborne Street (east of Clarance Street)

7. Tutela Heights

   - North-South Capacity and Connections - Mt Pleasant Street
   - East-West Connections - Conklin Road Extension, Phelps Road

9.6 Evaluation of Service Strategies

A comprehensive list of factors were used to identify all potential benefits and impacts of service strategies for each Focus Area. Primary factors used for each evaluation include:

- Transportation Benefits
- Natural Environmental Impacts
- Cultural Environmental Impacts
- Socio-Economic Impacts
- Cost Assessment

Within each of these factor groups are sub-criteria, described as sub-factors, which define the measure and the relative differences of magnitude of impact or benefit. The evaluation criteria were selected to align with the project vision and goals.

Each Alternative for the various Focus Areas was evaluated using the criteria noted above, resulting in a prioritized ranking of options. While the evaluation aligns with the EA process, it represents a high-level review rather than a detailed EA supported by field investigations.

For each sub-factor within the broader factor group, the evaluation considered:

- The objective of the criterion
- How the alternative addresses the identified issue
- The alternative's performance rating
- The score assigned
- The rationale supporting that score, including any measurable indicators.

Alternatives achieving the highest overall score were identified as the preferred options for addressing issues within each Focus Area.

9.7 Preferred Service Strategy

To address the transportation deficiencies resulting from anticipated growth, the recommended strategic approach consists of the following actions:

- Travel Demand Management (TDM) – Manage travel demand, travel behavior to reduce reliance on single-occupancy vehicles by encouraging multi-mode travel.
- Transportation System Management (TSM) – Manage the transportation infrastructure to optimize efficiency and safety for all travel modes. This would include sidewalk improvements, parking restrictions, and operational improvements.

- Infrastructure Enhancements – Increase the supply of transportation infrastructure, by expanding existing infrastructure and the addition of new facilities.

The anticipated impacts of these strategies have been updated to reflect the revised growth forecasts and planned network capacity improvements to 2051. In implementing these strategies, minimizing environmental impacts remains a key consideration.

9.7.1 Road Infrastructure

To alleviate congestion identified above in Section 9.4, road infrastructure improvements are presented in Table 1.

Table 1 - Recommended Transportation Projects

ID	Service Strategy	Street	Limits (To/From)	Improvement	Project Status
1	Widening	Veterans Memorial Parkway	Mount Pleasant Street to Erie Avenue	2 lanes to 4 lanes	EA Initiation Pending
2	Widening	Oak Park Road	Powerline Road to Hwy 403 & Fen Ridge Court to Hardy Road	2 lanes to 4 lanes	EA In-Progress
3	Widening	Colborne Street West	County Road 7 (Pleasant Ridge Road/Forced Road) to D'Aubigny Road	3 lanes to 4 lanes	EA Initiation Pending
4	Widening	Paris Road	West municipal boundary to Golf Road	2 lanes to 4 lanes	EA In-Progress
5	Widening	Powerline Road	Oak Park Road to King George Road	2 lanes to 4 lanes	EA In-Progress
6	Widening	Wayne Gretzky Parkway	Lynden Road to Henry Street	4 lanes to 6 lanes	
7	Widening	Powerline Road	King George Road to east municipal boundary	2 lanes to 4 lanes	EA In-Progress

8	Widening	Golf Road	Paris Road to Governors Road East	2 lanes to 4 lanes	EA In-Progress
9	Intersection Improvements	Mohawk Street / Greenwich Street / Murray Street Intersection	Mohawk Street / Greenwich Street / Murray Street	Intersection realignments and improvements	
10	New Road	Wayne Gretzky Parkway Extension	Powerline Road to Park Road North	4 lane major arterial	EA In-Progress
11	New Road	West Arterial Road Extension	Hardy Road to Colborne Street West	4 lane major arterial	EA Initiation Pending
12	New Road	Charing Cross Extension	West Street to Henry Street	4 lane minor arterial	
13	New Road	Conklin Road Extension	Mount Pleasant Road to Phelps Road	2 lane collector	
14	New Road	New East-West Collector Road	Powerline Road (east of Oak Park Road) to King George Road	2 lanes	
15	New Road	New East-West Collector Road	King George Road to east municipal boundary	2 lanes	
16	TSM	King George Road	Powerline Road to Fairview Drive	Operational improvements, intersection improvements, access management, etc.	
17	TSM	Golf Road	Paris Road to Governors Road East	Operational improvements, intersection improvements, reconstruction, Active transportation facilities, etc.	EA In-Progress

18	TSM	Highway 403 Interchange Modifications	Oak Park Road, Paris Road, King George Road/Fairview Drive, Wayne Gretzky Parkway Interchanges	Operational improvements, intersection improvements, access management, etc.	
19	TSM	Phelps Road	Mount Pleasant Road to east municipal boundary	Operational improvements, intersection improvements, access management, etc.	
20	TSM	Mount Pleasant Street/Road	Phelps Road to Veterans Memorial Parkway	Operational improvements, intersection improvements, access management, etc.	
21	TSM	Clarance Street	West Street to Erie Avenue	Operational improvements, intersection improvements, access management, etc.	
22	TSM	Colborne Street	Clarance Street to Wayne Gretzky Parkway	Operational improvements, intersection improvements, access management, etc.	
23	Interchange Upgrades	Hwy 403 / Oak Park Road Interchange	Hwy 403 at Oak Park Road	Upgrade to ultimate configuration	

9.7.2 Recommended Studies

The following studies listed in Table 2 are the recommended studies to be undertaken to identify TSM and access improvements.

Table 2 - Recommended Studies

Study Type	Street	Limits (To/From)
TSM Study	King George Road	Powerline Road to Fairview Drive
Highway Access Plan	Highway 403 Interchange Modifications	Oak Park Rd, Paris Rd, King George Rd, Wayne Gretzky Pkw Interchanges
TSM Study	Phelps Road	Mount Pleasant Road to east municipal boundary
TSM Study	Mount Pleasant Street/Road	Phelps Road to Veterans Memorial Parkway
TSM Study	Clarance Street	West Street to Erie Avenue
TSM Study	Colborne Street	Clarance Street to Wayne Gretzky Parkway

9.8 Cost Approach

The capital cost estimates and the scheduling for all proposed projects were undertaken as part of the TMP Update. Cost estimates were developed using a unit rate method, consistent with a Class 4 (infrastructure planning level) cost estimate. This approach provides a reliable order-of-magnitude assessment of infrastructure costs suitable for planning and comparative analysis among servicing alternatives.

Unit rates were derived using Engineering Services' bid database for transportation and road projects from 2023-2025. Updated unit rates were developed for roads, sidewalks, multi-use paths, boulevard restoration, bike lanes, curbs, and utilities. Staff are confident that these new updated unit rates account for inflation and market fluctuation observed between 2020 and 2024.

In addition, updated costs from recent Environmental Assessments (EA) were applied to projects originally identified in earlier studies such as the Wayne Gretzky Parkway Extension, Powerline Road from Oak Park Road to Paris Road (via the Northwest EA), and Oak Park Road from Hardy Road to Powerline Road (via the Northwest EA).

9.8.1 Recommended Infrastructure Cost & Phasing

The total capital cost to provide this infrastructure is estimated at $638 Million as summarized in Table 3; refer to the Executive Summary for more details in Appendix A. Table 3 also classifies new roads/road widening projects that would be expected to be funded by growth, the City or both. The total value does not include regular maintenance of the additional road network.

Table 3 - Recommended Program Cost & Phasing

ID	Project	Program	Growth Type*	2025 Cost
Short Term [2025 – 2031]				**$96,489,784**
1	Veterans Memorial Parkway Widening	21 TMP	Development & City	$39,406,851
2	Oak Park Road Widening	21 TMP	Development & City	$19,718,493
3	Colborne Street West Widening	21 TMP	Development & City	$8,017,365
10	Wayne Gretzky Parkway Extension	21 TMP	Development	$19,906,030
16	Study - King George Road TSM	New	Development & City	$150,000
16	TSM King George Road	New	Development & City	$9,141,045
18	Study - Highway 403 Access Plan	New	City	$150,000
Medium Term [2031-2036]				**$280,619,755.56**
11	West Arterial Road Extension	21 TMP	Development	$119,086,734
4	Paris Road Widening	21 TMP	Development & City	$25,746,285
5	Powerline Road Widening	21 TMP	Development & City	$70,356,197
12	Charing Cross Extension	21 TMP	Development	$29,387,190
17	TSM Golf Road	21 TMP	Development & City	$26,742,600
9	Mohawk Street / Greenwich Street / Murray Street Intersection	21 TMP	Development	$4,982,250
18	Highway 403 Access Improvements	New	City	$3,718,500
19	Study – Phelps Road TSM	New	Development & City	$150,000
20	Study – Mt. Pleasant Street/Road TSM	New	Development & City	$150,000
21	Study - Clarence Street TSM	New	Development & City	$150,000
22	Study – Colbourne Street East TSM	New	Development & City	$150,000
Long Term [2036-2051]				**$261,216,090**
6	Wayne Gretzky Parkway Widening	21 TMP	Development & City	$43,876,560
7	Powerline Road Widening	21 TMP	Development & City	$39,579,210
13	Conklin Road Extension	21 TMP	Development & City	$28,278,210
14	New East/West Collector Road	21 TMP	Development	$27,135,000
15	New East/West Collector Road	21 TMP	Development	$29,662,500
23	Hwy 403 / Oak Park Road Interchange	21 TMP	Development	$22,500,000
8	Golf Road Widening	New	Development & City	$14,037,000

19	TSM Phelps Road	New	Development & City	$11,846,040
20	TSM Mt. Pleasant Street/Road	New	Development & City	$16,933,890
21	TSM Clarence Street	Rev Limits	City	$14,552,760
22	TSM Colborne Street	New	City	$12,814,920
		TOTAL:		**$638,325,629**

* To be reviewed during 2025/2026 Development Charge Background Study

9.9 Next Steps

Upon council approval of the recommendations in this report, final notice will be circulated to all stakeholders, including external agencies, First Nations, County of Brant and to individuals identified on the projects stakeholder list. A copy of the notice and the final TMP document will be posted on the project website.

The final phase of the EA process for the TMP is a public review period of the project report. The TMP report, including all appendices, will be placed on public record for a 30-day period. The report will be made available for public review on the City's website and in hard copy at Brantford City Hall, and the Brantford Public Library on St. Paul Avenue. This public review period will ensure that any person or group with an interest in the study has the opportunity to be involved and to provide input for the final report.

To conclude, the TMP recommendations identified will be included or adjusted in the City's 10-year Capital Forecast (starting with the 2027 plan) for Council's review and approval as part of the yearly estimates process.

10.0 Financial Implications

There are no direct financial implications receiving this report to Council. The financial implication of the identified projects will be considered during the development of the capital forecast for the estimates process. The identified projects will also be considered during the development of the City's Development Charges Background Study in 2026.

11.0 Climate and Environmental Implications

The Ministry of the Environment, Conservation and Parks (MECP) finalized a 'guide,' Consideration of Climate Change in Environmental Assessment in Ontario (November 21, 2017), which, together with their code of practices, sets

out the MECP's expectations for considering climate change in the preparation, execution, and documentation of environmental assessment studies and processes. The guide defines "climate consideration" in a project as incorporating methods to reduce greenhouse gas emissions, develop a resilient design, and preserve local ecological integrity amidst changing climates.

The TMP aligns with the City's broader climate action and sustainability goals by promoting a transportation network that reduces climate emissions, supports low-carbon mobility options, and encourages a shift towards active and public transportation. Environmental considerations have been integrated at each stage of the planning process, including the evaluation of alternatives and the assessment of potential impacts to natural heritage features, air and water quality, and overall ecosystem health.

Through these measures, the TMP seeks to balance mobility needs and environmental responsibility, supporting the transition to a more sustainable, equitable, and climate ready transportation system for the future.

12.0 Conclusion

The TMP provides a comprehensive, long-range framework to guide the planning, coordination, and implementation of transportation related infrastructure across the City. The TMP establishes a clear foundation for supporting growth, maintaining service levels, and prioritizing future capital investments.

The updated service strategy and project cost estimates identified through this TMP will inform future updates to the City's Development Charges Background Study to ensure that growth-related costs are appropriately recovered. As individual projects advance from planning stages, further technical studies will be required to confirm preferred alignments, servicing approaches, and refined costing.

The City's capital forecast will continue to evolve as project priorities, phasing, and timing are refined through subsequent planning and design stages. This approach helps ensure that infrastructure investments remain aligned with growth needs and reflect available funding capacity.

To maintain the relevance and accuracy of the preferred service strategy, the next update to the TMP is anticipated to commence in 2029, with completion targeted for 2030. This five-year update cycle aligns with the City's planning

and financial review processes, ensuring that the TMP remains consistent with current growth forecasts and infrastructure needs.

Selvi Kongara M.S.(Eng.), P.Eng.
Commissioner of Public Works

Prepared By:

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Senior Project Manager, Engineering Services

Attachments (if applicable)

Appendix A – TMP 2025 Update Executive Summary

Copy to:

County of Brant

In adopting this report, is a by-law or agreement required? If so, it should be referenced in the recommendation section.

By-law required	[ ] yes	[X] no
Agreement(s) or other documents to be signed by Mayor and/or City Clerk	[ ] yes	[X] no
Is the necessary by-law or agreement being sent concurrently to Council?	[ ] yes	[X] no

Appendix A

Transportation Master Plan (TMP) 2025 Update

Executive Summary

Transportation Master Plan (TMP) 2025 Update – Executive Summary

Introduction

The 2025 TMP update sets out Brantford's long-term transportation vision to 2051, balancing growth, sustainability, and mobility. It integrates transit expansion, active transportation, road network upgrades, and goods movement strategies, while addressing congestion and capacity challenges.

The purpose of the TMP is as follows:

- Updates the 2021 TMP to reflect new land use and transit policies.
- Integrates municipal transportation planning with environmental assessment processes.
- Serves as the long-range transportation planning document, for the next 20–25 years.
- Provides the strategy for future studies and project implementation.

As an update to the 2021 TMP, this plan is effectively an assessment of the robustness of the 2051 recommended plan from the 2021 analysis, in consideration of the observed changes in land use density proposals over the last 5 years.

The following provides a summary of the steps taken to develop the updated Transportation Master Plan.

Approach

The Brantford Transportation Master Plan (TMP) Update adheres to the Approach #1 Master Planning Process outlined in the Municipal Class Environmental Assessment (EA) process, specifically addressing Phases 1 and 2. This structured approach ensures that transportation planning is both environmentally responsible and aligned with community needs. Phase 1 involves identifying and clearly defining the transportation problems and opportunities facing the city, while Phase 2 focuses on developing and evaluating a range of alternative solutions to address those challenges.

A phased approach is used to ensure comprehensive and effective planning. It begins with identifying the core transportation problems and opportunities facing the community, which sets the foundation for all subsequent work. Problems and issues were identified for discrete areas within the City, defined as Focus Areas.

Once these issues are clearly defined for each Focus Area, a range of alternative solutions were assessed and evaluated for their appropriateness and effectiveness in addressing the identified challenges. The evaluation identifies the most suitable and sustainable option for each Focus Area.

The recommended solution sets are used to define an implementation for short-, mid- and long-term projects. The implementation plan identifies the preferred strategies and infrastructure improvements necessary to achieve the TMP's long-term vision.

The assessment and evaluation outcomes will be documented in the Transportation Master Plan Report. The report will document the findings, support decision-making, and meet municipal regulatory requirements.

Land Use

The 2025 update to the Brantford Transportation Master Plan (TMP) serves as a critical reassessment of the long-term infrastructure strategy in light of evolving land use density trends. The original 2021 TMP was based on a low-density growth scenario, projecting a city-wide population of approximately 162,000 by 2051. However, recent development applications and planning initiatives indicate a shift toward higher-density aspirations that exceed the assumptions made in the 2021 plan. In response, the 2025 TMP introduces additional medium- and high-density land use scenarios to evaluate how increased population and employment concentrations may impact transportation needs. This updated analysis ensures that infrastructure recommendations remain aligned with Brantford's emerging urban form and growth potential.

Table 1 below provides an overview of the 2051 population and employment forecasts for the potential density scenarios.

Table 1 – Long Term Population and Employment Forecasts – Low / High / Hybrid (Medium) Density

2051 Scenario	Population	Employment
Base (Low)	162,133	80,154
High	228,094	109,150
Hybrid (Medium)	207,673	101,594

Following discussions with the Planning Department, it was agreed to carry the 2051 High and 2051 Hybrid (targeted high and medium potentials for varying areas of the City) into the transportation assessment.

Transportation Network and Service

The 2021 TMP recommended short-, medium-, and long-term infrastructure plans. These recommended plans were based on a robust assessment of City-wide needs in consideration of specific modes share targets, including increase active mode and transit mode targets.

The approach to the assessment was to identify transportation services gaps in the recommended plan resulting from increase travel demands associated with the increased land use densities.

The 2025 TMP update therefore relies on the following inputs as assessed by preceding studies:

- 2021 Transportation Master Plan – As identified in **Table 2**.
- 2022 Six Nation of the Grand Transportation Study
    - Local Service – on-demand, Monday to Saturday, using 1-2 vehicles – Lynden Park Mall, Brantford Transit Terminal, Via Station
    - Inter Community Service – alternates between Brantford and Hamilton, operating 2-4 days a week, connect to local service

- 2023 Active Transportation Master Plan (City of Brantford)
    - Integrated pedestrian and cycling network
    - 111 locations identified for improvements
- Long-term: transition to fixed-route service as growth occurs; new routes to Paris, St. George, Burford.
- 2024 Moving Forward: Transit Plan (City of Brantford)
    - Short-term (5 years): fixed-route modifications, on-demand transit via Brantford Lift vehicles.
    - Long-term: transition to fixed-route service as growth occurs; new routes to Paris, St. George, Burford.

Table 2 – 2051 Recommended Infrastructure Plan (2021 TMP)

Project	Description
Short Term [2021 – 2025]	
Veterans Memorial Parkway Widening	4 lanes – Mount Pleasant Street to Erie Avenue
Oak Park Road Widening	4 lanes – Powerline Road to Hwy 403 & Fen Ridge Court/Savannah Oaks Drive to Hardy Road
Colborne Street West Widening	4 lanes – CR7 to D'Aubigny Road
Wayne Gretzky Parkway Extension	4 lanes - Powerline Road to Park Road North
Medium Term [2026-2031]	
Oak Park Road Extension	4 Lanes – Hardy Road to Colborne Street
Paris Road Widening	4 lanes – City Limits to Golf Road
Powerline Road Widening	4 lanes – Oak Park Road to King George Road
Charing Cross Extension	4 Lanes – West Street to Henry Street
Golf Road TSM	Paris Road to Proposed Development Limit
Long Term [2032-2051]	
Wayne Gretzky Parkway Widening	6 Lane – Lynden Road to Henry Street
Powerline Road Widening	4 lanes – King George Road to East City Boundary
Conklin Road Extension	2 lanes - Mt. Pleasant Road to Phelps Road
New East/West Road	2 lanes – Powerline Road east of Oak Park Road to King George Road
New East/West Road	2 lanes – King George Road to East City Boundary
Clarence Street TSM	Colborne Street to West Street

Transportation Assessment

Methodology

The performance of the transportation system was assessed using the City's strategic travel demand forecasting model. This model accounts for land-use (at a traffic zone level of detail, as provided by the Municipal Comprehensive review process) trip generation, trip distribution, and mode split in assigning travel demands to the transportation network. The assigned vehicle volumes are then compared to the capacity of the infrastructure at a corridor and roadway link level (i.e. volume to capacity assessment). This analysis tool also allows for the detailed evaluation of the origins and destinations for trips using specific infrastructure.

Travel demands were then used to identify the impacts of the alternative strategies on the corridor performance and assist in the identification of the impact of alternatives considered to address the identified roadway constraint.

It is important to understand that that infrastructure and service provisions in one corridor can have impacts, positive and negative, in other corridors. Problems identified and solutions assessed during the transportation analysis are mindful of this interdependency between corridors.

The assessment was undertaken at two levels:

Strategic – A high level technical review will be undertaken to assess:

- The need for system connectivity
- The travel markets (origin-destination flows) being served by different parts of the network
- The effect of broader capacity improvements on system wide performance
- The need for:
  - New links
  - Additional lanes
  - Realignments
- Identify and Assessment of Long List Alternatives
- Identify Short List of potential solutions to address the problem statement.

Operational – a refinement of the strategic corridor analysis for the short list alternatives to:

- Identify the localized improvements to maximize the efficiency of specific corridor improvements:
  - Intersection geometry
  - Traffic control – signal, roundabout
- Identify policy changes to maximize the efficiency of specific corridor improvements routes (e.g., on-street parking) and/or encourage traffic to use alternative
- Undertake implementation analysis for Technically Preferred Alternative(s) only

Updates to Model

The 2021 TMP was updated to reflect specific changes since the 2021 TMP assessment. The following updates were made:

- Model Calibration
  - The model base year was updated from a 2019 condition (Pre COVID) to a 2023 (Post COVID) condition.
- Land Use Forecasts
  - The trip generation was updated to reflect Base year and 2051 year land use forecasts
- Mode Share
  - 2023 ATMP recommendations were used to confirm future active mode shares
  - 2024 Transit Plan service updates and extensions were used to re-assess the future mode splits in 2051
- Network Improvements
  - Changes or improvements the network since 2021 were included in the base and future year model scenarios.

Scenarios

The following scenarios were assess using the updated model:

- Existing (2023) – Existing Network
- Future High Land Use – Existing Network
- Future 2051 High Land Use – Future Base Year Network
- Future 2051 Hybrid Land Use – Future Base Year Network

Focus Area Opportunities

Problems and opportunities were identified across the City network, using screenline analysis and link level capacity constraints for both the High and Hybrid scenarios. The assessment showed that the travel demands at a network level were very similar between the two scenarios, and that the identified problem areas were identical.

The following Focus Area and issues were identified based on the assessed network performance constraints:

1. **North Expansion Lands**
    - North-South Arterial Capacity - Golf Road, Highway 24, New East Arterial
2. **Wayne Gretzky Corridor**
    - North-South Arterial Capacity - WGP, Park Road North, New East Arterial
3. **Highway 403 Access**
    - Operational Improvements - Paris Road, King George Road, WGP
4. **Mid-Town**
    - East-West Connections – Henry Street, Charing Cross Street
5. **West Arterial**
    - North-South Arterial Capacity and Connections
    - Previous Strategic Review, recommended re-initiation of MCEA
6. **Downtown Access**
    - Network Capacity, Connections and Operational Improvements
    - River Crossing: Lorne Bridge, VMP Bridge
    - North-South: West Street, Clarence Street
    - East-West: Colborne Street (east of Clarance Street)
7. **Tutela Heights**
    - North-South Capacity and Connections - Mt Pleasant Street
    - East-West Connections - Conklin Road Extension, Phelps Road

Evaluation of Alternatives

Evaluation Criteria

A comprehensive long list of sub-factors was established for each of the main factor categories to allow for the identification of all potential benefits and impacts. The relative measured effect of each criterion is also subsequently defined to ensure that the significance of each criterion (factor group or sub-factor) is recognized in the evaluation process.

Sub-factors are measurable criteria under a factor group. For example, under the category/factor group “Transportation”, sub-factors relate to measurable transportation differences among

alternatives. Using the Transportation factor group as an example, sub-factors may relate to safety or traffic operations measures to allow for the identification of all benefits and impacts.

Seven categories or factors were selected which were used for each evaluation. Within each of these factor groups are sub-criteria, described as sub-factors, which define the measure and the relative differences of magnitude of impact or benefit. The factor groups include:

- Transportation
- Natural Environment
- Cultural Environment
- Socio-Economic Environment
- Cost

Within each of these factor groups are sub-criteria, described as sub-factors, which define the measure and the relative differences of magnitude of impact or benefit. The evaluation criteria were selected to align with the project vision and goals.

Evaluation

Each of the alternatives for each Focus Area was evaluated using the above noted criteria, with the outcome of the evaluation identifying a prioritized ranking.

Although following the EA process, the evaluation is not a detailed Environmental Assessment with specific infield studies. It is a high-level assessment of the alternatives to establish and order of magnitude impact or benefit (Where are impacts? What is the significance?).

For each Sub Criteria within each Criteria Group the following is assessed, identifying: the objective of the criteria; a description of how the issue is being addressed; the measure of the alternative's ability (Very Good/Fair/Poor); the specific score being assigned to the alternative; and a rationale for that score (i.e., measurable statistic by which the score is justified). The alternatives that achieve the highest score are identified as the preferred alternative for addressing the Focus Area problems.

In some cases. The implementation of the preferred alternative may leave specific localized issue unresolved, in which case more than one preferred alternative may be recommended.

Recommended Implementation Plan

Based on the problems and opportunities identified, and the evaluation of a long list of solutions within each Focus Area, an implementation plan has been identified. **Table 3** provides an overview of the recommended implementation plan.

Table 3 – Recommended Implementation Plan

Project	Description	Program	2025 Cost
Short Term [2025 – 2031]			**$ 96,489,783.94**
Veterans Memorial Parkway Widening	2-4 lanes – Mount Pleasant Street to Erie Avenue – **EA Initiation Pending**	2021 TMP	$ 39,406,851.00
Oak Park Road Widening	2-4 lanes – Powerline Road to Hwy 403 & Fen Ridge Court/Savannah Oaks Drive to Hardy Road – **EA Underway**	2021 TMP	$ 19,718,493.00
Colborne Street West Widening	3-4 lanes – County Road 7 to D'Aubigny Road – **EA Initiation Pending**	2021 TMP	$ 8,017,365.00
Wayne Gretzky Parkway Extension	4 lanes - Powerline Road to Park Road North – **EA Underway**	2021 TMP	$ 19,906,030.16
Study - King George Road TSM	4/5 lanes Operational Improvements – Powerline Road to Fairview Drive	New	$ 150,000.00
TSM King George Road	4/5 lanes Operational Improvements - Powerline Road to Fairview Drive	New	$ 9,141,044.78
Study - Highway 403 Access Plan	Interchange Operations - Complete Hwy 403 IC Operations Review	New	$ 150,000.00
Medium Term [2031-2036]			**$ 280,619,755.56**
West Arterial Road Extension	4 Lanes – Hardy Road to Colborne Street West – **EA Initiation Pending**	2021 TMP	$ 119,086,734.06
Paris Road Widening	2-4 lanes – City Limits to Golf Road – **EA Underway**	2021 TMP	$ 25,746,285.00
Powerline Road Widening	2- 4 lanes, urbanization – Oak Park Road to King George Road – **EA Underway**	2021 TMP	$ 70,356,196.50
Charing Cross Extension	4 Lanes – West Street to Henry Street (Rail Overpass)	2021 TMP	$ 29,387,190.00
TSM Golf Road	Operational Improvements - Paris Road to Governors Road East – **EA Underway**	2021 TMP	$ 26,742,600.00
Mohawk Street / Greenwich Street / Murray Street Intersection	Intersection realignment and improvements	2021 TMP	$ 4,982,250.00
Highway 403 Access Improvements	Paris Road, King George Road/Fairview Drive, Wayne Gretzky Parkway Interchanges	New	$ 3,718,500.00
Study – Phelps Road TSM	Review Operations – Mount Pleasant Road to City Boundary	New	$ 150,000.00
Study - Mount Pleasant Street/Road TSM	Review Operations – Phelps Road to Veterans Memorial Parkway	New	$ 150,000.00
Study - Clarence Street TSM	Review Operations – West Street to Erie Avenue	New	$ 150,000.00
Study – Colbourne Street East TSM	Review Operations – Clarence Street to Wayne Gretzky Parkway	New	$ 150,000.00
Long Term [2036-2051]			**$ 261,216,090.00**
Wayne Gretzky Parkway Widening	4-6 Lane – Lynden Road to Henry Street	2021 TMP	$ 43,876,560.00
Powerline Road Widening	2-4 lanes, urbanization – King George Road to East City Boundary – **EA Underway**	2021 TMP	$ 39,579,210.00
Conklin Road Extension	2 lanes - Mount Pleasant Road to Phelps Road	2021 TMP	$ 28,278,210.00
New East/West Collector Road	2 lanes – Powerline Road east of Oak Park Road to King George Road	2021 TMP	$ 27,135,000.00
New East/West Collector Road	2 lanes – King George Road to East City Boundary	2021 TMP	$ 29,662,500.00
Highway 403 / Oak Park Road Interchange	Upgrade to ultimate configuration	2021 TMP	$ 22,500,000.00
Golf Road Widening	2-4 Lanes - Paris Road to Governor's Road East	New	$ 14,037,000.00
TSM Phelps Road	Operational Improvements - Mount Pleasant Road to City Boundary	New	$ 11,846,040.00
TSM Mount Pleasant Street/Road	Operational Improvements – Pleasant Crescent to CR 18	New	$ 16,933,890.00
TSM Clarence Street	4-lanes – Operational Improvements – West Street to Erie Avenue	Revised Limits	$ 14,552,760.00
TSM Colborne Street	4/5-lanes - Operational Improvements – Clarence Street to Wayne Gretzky Parkway	New	$ 12,814,920.00
		TOTAL:	**$ 638,325,629.50**

Board / Advisory Committee / Task Force Report

Alternative formats and communication supports available upon request. Please contact accessibility@brantford.ca or 519-759-4150 for assistance.

Date December 2, 2025

To Chair and Members
Committee of the Whole - Operations

From Chair and Members
Brantford Airport Board

1.0 Type of Report

Consent Item [ ]
Item For Consideration [X]

2.0 Topic Brantford Airport Board Report #2025-11-17

3.0 Recommendation

Restructuring Options to Municipal Boundaries – Brantford Municipal Airport

WHEREAS the City of Brantford (“the City”) and the County of Brant (“the County”) have historically collaborated to deliver essential services that benefit residents of both municipalities; and

WHEREAS in 2023 the City Council took a leadership role by re-establishing the Joint City-County Shared Services Committee (“Joint Services Committee”) to identify opportunities for efficiency, shared investment, and responsible inter-municipal service delivery; and

WHEREAS between October 2023 and April 2024, the Joint Services Committee met to advance discussions on several shared initiatives, including the future of the Brantford Municipal Airport; and

WHEREAS despite this progress, the County unilaterally chose to withdraw from the Joint Services Committee and subsequently ratified that decision without public debate or transparent discussion; and

WHEREAS the Brantford Municipal Airport (“the Airport”), a vital regional transportation hub, resides within the County’s geographic boundaries but is owned, maintained, and operated entirely by the City of Brantford; and

WHEREAS the Airport contributes significantly to the economic and social well-being of both municipalities by supporting general aviation, flight training, emergency medical transport, and business development, while also serving as a key driver in regional investment and job creation; and

WHEREAS the City and Airport Board have identified opportunities to expand and improve the Airport to enhance regional economic development, but such improvements require infrastructure investment that currently falls to the City while associated property tax and development charge revenues are received by the County; and

WHEREAS the County’s refusal to participate in even modest cost-sharing requests, such as the City’s 2025 proposal to upgrade essential runway lighting, demonstrates a clear unwillingness to cooperate in sustaining this regional asset; and

WHEREAS the County’s current position not to participate in cost-sharing for Airport improvements limits the City’s ability to invest in necessary infrastructure and constrains the Airport’s long-term viability; and

WHEREAS the City of Brantford cannot, in good conscience, continue to subsidize infrastructure and economic benefits that primarily serve both jurisdictions while the County declines to engage as a fair and responsible partner.

NOW THEREFORE BE IT RESOLVED THAT the Brantford Airport Board recommends that Brantford City Council submit a request under section 174 of the Municipal Act, 2001 to the Minister of Municipal Affairs and Housing to establish a commission to examine potential restructuring options that would situate the Brantford Municipal Airport within the City of Brantford's municipal boundaries, thereby enabling the City to fully manage, finance, and develop the Airport for the mutual benefit of both municipalities.

4.0 Background

At the Brantford Airport Board meeting held on Monday November 17, 2025, the board carried the above recommendation for Councils Consideration.

5.0 Conclusion

For Council consideration.

Mark Littell, Chair
Brantford Airport Board

Attachments (if applicable)

Alternative formats and communication supports available upon request. Please contact accessibility@brantford.ca or 519-759-4150 for assistance.

Date December 2, 2025 **Report No.** 2025-354

To Chair and Members
Committee of the Whole - Operations

From Selvi Kongara, M.S.(Eng.), P.Eng.
Commissioner of Public Works

1.0 Type of Report

Consent Item	[ ]
Item For Consideration	[X]

2.0 Topic Clarence Street Corridor Updates [Financial Impact - None]

3.0 Recommendation

A. THAT Report No. 2025-354 titled “Clarence Street Corridor Updates” BE RECEIVED.

4.0 Executive Summary

Clarence Street is a four-lane arterial roadway in the City of Brantford. The corridor is constrained on the east side by the privately owned railway spur and on the west side by a major hydro pole line and neighbouring properties. Following a 2024 Council Report, staff began to undertake a Feasibility Study to add an additional lane of traffic on Clarence Street between Dalhousie Street and Colborne Street.

The City engaged Ainley & Associates Ltd. to complete the Feasibility Study. Preliminary Functional Design was compiled that took into consideration various constraints that were noted in the 2024 Council Report.

Recognizing financial constraints, fiscal responsibility to the taxpayers of Brantford and future recommended roadways, Staff do not recommend proceeding with this project

5.0 Purpose and Overview

The purpose of this report is to update Council on the outcome of the Clarence Street Corridor Feasibility Study.

6.0 Background

At the Committee of the Whole – Operations meeting in April 2024, staff presented Report 2024-57[1] to Council that detailed the short-term transportation initiatives aiming to improve traffic level of service. Within that report, staff noted potential improvements to Clarence Street between Darling Street and Icomm Drive. Proposed changes included:

- Reconfigure the westbound lanes on Dalhousie St. at Clarence St. to provide two (2) left turn lanes, one (1) through lane and one (1) right turn lane; and
- Widening Clarence St. to provide a dedicated left turn lane to eastbound Colborne St. and two (2) southbound through lanes.

The proposed changes also detailed the following constraints:

- Active Independent Rail Line Immediately Adjacent to Roadway;
- Traffic Signal and Streetlight Infrastructure Relocations;
- Major Hydro Infrastructure Relocations;
- Adjacent Property Impacts; and
- Ground Investigations of Former Petroleum Station.

[1] https://brantford.escribemeetings.com/COWO_Apr09_2024/eSCRIBE%20Documents/eSCRIBE%20Attachments/PWOPS_Traffic%20Level%20of%20Service%20-%202024-57.pdf

Council directed $200,000 to be funded from the Roads and Related Reserve (RF0537) and for staff to hire a consultant to complete detailed design and cost estimate. The utilize synergies with the City's Downtown Revitalization project and efficiencies of data and time, the Feasibility Study assessing the proposed changes was conducted by the Downtown Revitalization Consultant, Ainley & Associates Ltd. (Ainley).

7.0 Corporate Policy Context

The recommendation within the Report focuses on fiscal responsibility and is in line with the following Council Priorities (2023-2026):

- **Strategic Theme No.3** – Move people more effectively

8.0 Input From Other Sources

Input for this report has been provided by various City of Brantford departments, including Finance and Operational Services. Additional input for the Feasibility Study was received by Ainley & Associates Ltd.

9.0 Analysis

Upon approval of Report 2024-57 by Council in April 2024, Ainley commenced the Feasibility Study of Clarence Street (Appendix 1) and began reviewing data. The project limits, as shown in Figure 1 below, extend from Darling Street at the north end to Greenwich Street/Icomm Drive at the south end, covering approximately 440m. Along the corridor, Clarence Street intersects with Darling Street, Dalhousie Street, Colborne Street, and Greenwich Street/Icomm Drive.

Figure 1 – Study Limits

To ensure consistency with surrounding projects, Ainley was provided the 2023 Clarence Street Rail Realignment Feasibility Study completed by Stantec Consulting Ltd. that was presented and received by Council in December 2023 with Report 2023-682[2].

Ainley prepared a preliminary functional design that accommodated the proposed changes to the corridor. Constraints were noted with respect to large trucks turning radii resulting in other vehicles yielding while navigating through the intersections.

2 https://brantford.escribemeetings.com/COWO_Dec05_2023/eSCRIBE%20Documents/eSCRIBE%20Attachments/PW-ENG%20Clarence%20Street%20Rail%20Line%20Update%20-%202023-682.pdf

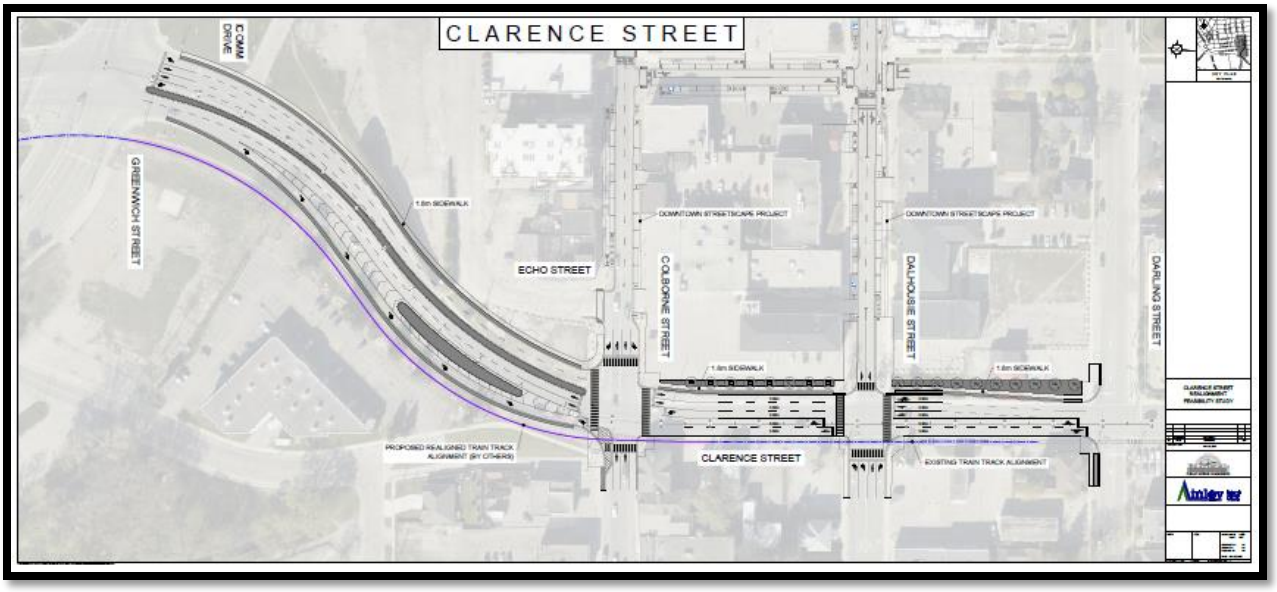


Figure 1: Preliminary Functional Design

Noted as a constraint in Report 2024-57, major Hydro infrastructure exists along the western edge of the existing right or way (ROW) with relocations requiring major redesign and the resulting costs being fully born by the Municipality. As part of the study, a Level B Subsurface Utility Engineering (SUE) investigation was conducted, revealing the presence of existing utilities, including Rogers, Bell, Hydro, Enbridge Gas, and NetOptiks. These utility companies were consulted during the feasibility study phase, and it was determined that some utilities will be affected by the proposed works. High-level cost estimates for the required utility relocations are $2.6 million.

Also noted as a constraint in Report 2024-57, were the adjacent properties. The existing ROW is insufficient to accommodate an expanded roadway, and additional property would be required. As part of the feasibility study, Ainley Group identified properties required for acquisition by the City to accommodate the proposed changes at the intersections and along the corridor. A total of nine (9) areas have been identified for property acquisition. Properties were assessed with only frontage takings, but staff caution that these portions identified could likely cause properties and businesses to become deficient from a site perspective and cause larger financial impacts. A preliminary high-level cost estimate for property acquisition included was $1.5 million, however this would increase substantially.

As the Feasibility Study was a preliminary review, no Geotechnical Investigations occurred. As you can see from the Preliminary Functional Design, the Clarence Street South roadway shifts to the west to accommodate the

proposed lane expansions. The property at 281 Colborne Street was a former petroleum station. No site remediation costs have been included in the Feasibility Study cost estimate and presents a high risk causing larger financial impacts.

The high-level cost estimate for engineering field work, detailed design, and contract administration and inspection services is $15.3 million for essentially one block (100m) of one additional single lane of traffic. Staff advise that this value would likely increase upon further review during detailed design related to the various constraints detailed above.

Future improvements of the Clarence Street Corridor include Travel Demand Management (TDM) opportunities that include managing travel demand and travel behavior to reduce reliance on single-occupancy vehicles by encouraging multi-mode travel. The new Transportation Master Plan (TMP) identifies the Clarence Street Corridor for Transportation System Management (TSM). TSM includes managing the transportation infrastructure to optimize efficiency and safety for all travel modes. This could include sidewalk improvements, parking restrictions, and operational improvements. Additionally, future recommended roadways and river crossings will assist in reduction of traffic volumes being required to enter the Downtown Core to access the north, east and northwest areas of the City.

Recognizing financial constraints, fiscal responsibility to the taxpayers of Brantford and future recommended roadways, Staff do not recommend proceeding with this project.

10.0 Financial Implications

The high-level cost estimate provided from Ainley within the Feasibility Study is $15.3 million. This cost would likely increase during detailed design.

If this proposed work was undertaken, it would primarily be funded from the City's various Water, Wastewater and Road Reserve accounts, which are significantly low as indicated in the most recent Quarterly Reserve and Reserve Fund Forecast Update report (2025-358) This report outlined that the City's non-obligatory reserves on a per capita basis are significantly lower than our KPMG comparator group. The City's Asset Management Plan also identifies the imperative need to increase funding transfers over time to reserves such as the Roads and Related Reserve to ensure the City is able to maintain its non-growth capital program.

As outlined in the City's Year 3 Budget Confirmation report to the Estimates Committee, several projects that were scheduled for 2026 have been deferred due to financial constraints. In order to proceed with this project, which is essentially one block (100m) of one additional single lane of traffic, based on current construction rates, approximately 2.2km of scheduled full road reconstruction capital projects would be cancelled to accommodate the funding required. This equates to 4-5 capital projects, and this action would extremely compromise the City's State of Good Repair.

Recognizing financial constraints, fiscal responsibility to the taxpayers of Brantford and future recommended roadways, Staff do not recommend proceeding with this project.

11.0 Climate and Environmental Implications

There are no direct climate and environmental implications as a result of receiving this report. However, it should be noted that if future roadway projects experience delays, congestion throughout the City will continue to increase. As congestion increases, so do GHG emissions.

12.0 Conclusion

Clarence Street is a four-lane arterial roadway in the City of Brantford. The corridor is constrained on the east side by the privately owned railway spur and on the west side by a major hydro pole line and neighbouring properties.

Following a 2024 Council Report, staff began to undertake a Feasibility Study to add an additional lane of traffic on Clarence Street between Dalhousie Street and Colborne Street. Ainley & Associates Ltd. completed a Feasibility Study, and due to the major impacts to surrounding properties and major infrastructure within the existing corridor, the high-level cost estimate for engineering field work, detailed design, and contract administration and inspection services is $15.3 million for essentially one block (100m) of one additional single lane of traffic.

Recognizing financial constraints, fiscal responsibility to the taxpayers of Brantford and future recommended roadways, Staff do not recommend proceeding with this project.

Selvi Kongara, M.S.(Eng.), P.Eng.
Commissioner of Public Works

Prepared By:

Jennifer Elliott, LET, C.E.T., Dipl.M.M.
Director of Engineering Services

Attachments (if applicable)

Appendix 1 – Clarence Corridor Feasibility Study, Ainley (2025)

Copy to:

In adopting this report, is a by-law or agreement required? If so, it should be referenced in the recommendation section.

By-law required	[ ] yes	[X] no
Agreement(s) or other documents to be signed by Mayor and/or City Clerk	[ ] yes	[X] no
Is the necessary by-law or agreement being sent concurrently to Council?	[ ] yes	[X] no

Brantford Downtown Streetscaping

Clarence Street Feasibility Study

Prepared For:

City of Brantford

September 2025

CREATING QUALITY SOLUTIONS TOGETHER

Ainley GROUP

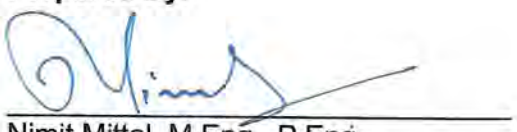
BRANTFORD DOWNTOWN STREETSCAPING
CLARENCE STREET FEASIBILITY STUDY

PROJECT NO. 123035

Prepared For:

CITY OF BRANTFORD

Prepared By:



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1 Introduction

Ainley Group has been retained by the City of Brantford to undertake a feasibility study of Clarence Street. The project limits, as shown in **Figure 1** below, extend from Darling Street at the north end to Greenwich Street/Icomm Drive at the south end, covering approximately 440 meters. Along the corridor, Clarence Street intersects with Darling Street, Dalhousie Street, Colborne Street, and Greenwich Street/Icomm Drive.

The purpose of this study is to determine a feasible solution for incorporating the following improvements along the Clarence Street corridor:

- Reconfigure the westbound lanes on Dalhousie Street at Clarence Street intersection to provide two (2) left turn lanes, one (1) through lane and one (1) right turn lane;
- Widen Clarence Street to provide a dedicated southbound to eastbound left turn lane and two (2) southbound through-lanes along Clarence Street; and,
- Improve the intersection geometry for the northbound right turn lane at Clarence Street and Colborne Street intersection.

Figure 1: Project Limits

2 Existing Condition

As per the City of Brantford “2020 Brantford Transportation Master Plan Update,” the existing Clarence Street from Greenwich Street/Icomm Drive to Darling Street is a Minor Arterial with a posted speed of 50 km/h. There are two northbound lanes and two southbound lanes with auxiliary lanes (left and right turn lanes) along the corridor. At the Clarence Street and Colborne Street intersection, there is no dedicated southbound to eastbound left turn lane. The northbound right turn lane at this intersection shares the space with an existing train track owned by Ingenia Polymers. There are railway crossings on the east side of the Clarence Street corridor. The existing train tracks run parallel in close proximity along the Clarence Street corridor's northbound lanes, separated by a raised curb. The existing utilities are present along

the corridor. There is an existing sidewalk on the west side of Clarence Street, and the clear width of the existing sidewalk is less than 1.5 meters due to existing hydro poles.

3 Background Studies

The City of Brantford has retained Stantec to undertake a feasibility study of realigning the Clarence Street and Colborne Street intersection rail line. The rail line runs north-south along the eastern edge of Clarence Street. It enters the intersection of Colborne Street and continues within the paved portion of the roadway until approximately 80 m south of Colborne Street. The purpose of this study was to determine the feasible alternatives to separate the rail line and the travelled portion of the roadway. The study included review of appropriate track standards, specifications, impacts on the property, health and safety guidelines for railway crossings with respect to design and existing constraints, and the development of alternatives. Refer to **Appendix A** for the report summarizing the findings and the recommendations.

As part of Ainley Group feasibility study, it was assumed that the realignment of the existing train track at the intersection of Clarence Street and Colborne Street is required to determine the feasible solution to make the above-noted improvements in Section 1.0 along the Clarence Street corridor.

4 Proposed Improvements

The following improvements are proposed as part of this feasibility study.

4.1 Proposed Changes along Clarence Street

As per the council report (Report No: 2024-57) dated April 9, 2024, under Section 9.2.2, it was recommended by the City staff to make the following changes to improve the overall Level of Service (LOS) along the Clarence Street corridor:

- Reconfigure the westbound lanes on Dalhousie Street at Clarence Street intersection to provide two (2) left turn lanes, one (1) through lane and one (1) right turn lane; and,
- Widen Clarence Street to provide a dedicated southbound to eastbound left turn lane and two (2) southbound through lanes along Clarence Street.

Ainley Group, in conjunction with the City staff, has prepared a preliminary functional design to accommodate the required improvements along Clarence Street corridor. Refer to **Appendix B** for the preliminary preferred design layout.

The existing Clarence Street corridor is widened on the west side to include a total of five (5) 3.3m lanes: Two (2) lanes in the northbound direction, two (2) lanes in the southbound direction, and one (1) lane as a dedicated southbound to eastbound left turn lane at the Clarence Street and Colborne Street intersection. A 1.8m clear sidewalk width, including a buffer zone for snow storage and future landscape area, is provided on the west side of Clarence Street along the project corridor.

The northbound right turn lane design at the Clarence Street and Colborne Street intersection is improved to provide a median that will separate the through traffic from the right turn traffic movements. The northbound to eastbound right turn movement is also improved to turn more perpendicularly at this location. This will provide an opportunity for vehicles to turn slowly and safely.

4.2 Proposed Changes at Clarence Street and Dalhousie Street intersection

As per the City staff recommendation, the intersection is redesigned to include two (2) westbound to southbound left turn lanes, one (1) westbound through lane and one (1) westbound to northbound right turn lane. The intersection corner radii have been reduced to allow vehicles to turn more slowly and safely. The reduced radii will also reduce the pedestrian crossing distance at the crosswalk locations. It is assumed that larger vehicles such as WB 19/20 will use the full width of the available roadway pavement to make the turn, and other vehicles will yield to the larger vehicles navigating through this intersection. The regular passenger vehicle (P) and the MSU are used as design/common vehicles for this intersection. Refer to **Appendix C** for Autoturn findings.

4.3 Proposed Changes at Clarence Street and Colborne Street intersection

As per the City staff recommendation, the intersection is redesigned to improve the northbound to eastbound right turn lane. The intersection now includes a dedicated southbound to eastbound left turn lane. The intersection corner radii have been reduced to allow vehicles to turn more slowly and safely. The reduced radii will also reduce the pedestrian crossing distance at the crosswalk locations. The northbound to eastbound right turn lane will be frequently used by trucks. The southeast corner is designed to include the inner and the outer radii. The inner radii will be used by most common vehicles, such as passenger vehicles, while the outer radii will be used by all large vehicles. The southeast corner is designed for larger vehicles, such as WB 19/20, to exit the downtown core area. Refer to **Appendix D** for Autoturn findings.

4.4 Existing Utilities

As part of the study, a Level B Subsurface Utility Engineering (SUE) investigation was conducted, revealing the presence of existing utilities, including Rogers, Bell, Hydro, Enbridge Gas, and NetOptiks. These utility companies were consulted during the feasibility study phase, and it was determined that some utilities will be affected by the proposed works. High-level cost estimates for the utility relocation are provided in Section 5. It was agreed with the utility companies that a detailed utility conflict analysis will be required during the detailed design phase to assess the extent of the relocation work, which will help determine the actual costs for the utilities. For details on the existing private utilities identified in the Level B SUE investigation, please refer to **Appendix E**.

4.5 Existing Municipal Utilities (Storm, Sanitary & Water)

The findings of the Level B SUE investigation also revealed the presence of existing municipal utilities, including storm sewer, sanitary sewer, and watermain, along the corridor. Some of these utilities will be upgraded as part of the Downtown Streetscape project. Based on consultations with City staff, it was assumed that the existing utilities are very old and will require replacement on a like-for-like basis. Additionally, it was noted that a separate study will be required during the detailed design phase to determine the appropriate pipe sizes for the sanitary sewer, storm sewer and watermain. This study will ensure that the existing municipal utilities are upgraded to the necessary size to support future development and densification along the Clarence Street corridor and its surrounding areas. An initial assessment was completed by GEI and the recommendations from the GEI report shall be reviewed and implemented during the detailed design phase. For further details on the existing municipal utilities identified during the Level B SUE investigation, please refer to **Appendix E**. The initial assessment report from GEI is included in the **Appendix H**.

4.6 Impacts to Existing Train Track

As per the feasibility report completed by Stantec, it is assumed that the existing train tracks will be realigned. Refer to **Appendix B** for the preliminary preferred design layout that shows the limits of the existing train track that is to remain, and the re-aligned section along the Clarence Street corridor.

4.7 Impacts to Existing Properties

As part of the feasibility study, Ainley Group identified properties required for acquisition by the City to accommodate the proposed changes at the intersections and along the corridor. A total of nine (9) areas have been identified for property acquisition. For the property take limits, please refer to **Appendix F**. The total estimated property take is approximately 3,150 m^2.

5 High Level Cost Estimate

As part of this feasibility study, in collaboration with City staff, Ainley Group has estimated a high-level cost for the project, as presented in Table 1 below. This estimate includes costs for utility relocation (based on consultations with utility partners), upgrades to existing municipal utilities, road widening, and property acquisition. Additionally, an estimated cost for engineering field work and investigation, detailed design, and contract administration and inspection services are included. For preliminary design information, please refer to **Appendix G**.

Table 1: High Level Cost Estimate

1	Roadworks	$2,070,273
2	Storm Sewer	$458,725
3	Sanitary Sewer	$518,875
4	Watermain	$614,850
5	Traffic Signals	$1,250,000
6	Streetlights	$420,000
7	Landscape/Streetscape	$200,000
8	Utility Relocation (Bell, Rogers & GBE)	$2,540,000
9	Rail re-alignment	$700,000
10	Property Take	$1,500,000
11	Engineering investigation & Detailed Design (10%)	$877,272
12	CA & Inspection (7%)	$614,091
	Contingency (30%)	$3,529,226
	Total (Excluding HST)	**$15,293,312**

6 Conclusion

This feasibility study presents an overview of the key findings and a high-level cost estimate to guide City staff in determining the next steps. Based on our preliminary analysis, we estimate that, should the project proceed, the detailed design phase will take approximately one (1) year to complete. Property acquisition is projected to take 18 to 24 months, while utility relocation and road reconstruction, including road widening, is anticipated to span two (2) to three (3) years.

Appendix A

Rail Realignment Feasibility Study

Stantec

Rail Realignment Feasibility Study

Clarence Street and Colborne Street
Rail Realignment Feasibility Study

October 31, 2023

Prepared for:

City of Brantford

Prepared by:

Stantec Consulting Ltd

Revision	Description	Author	Quality Check	Independent Review
0	Draft Report	Sonia Rahman	Stefan Linder	Steve Donald
0	Final Report	Sonia Rahman	Stefan Linder	Steve Donald

This document entitled Rail Realignment Feasibility Study was prepared by Stantec Consulting Ltd. (“Stantec”) for the account of City of Brantford (the “Client”). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec’s professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

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Approved by  _____
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Steve Donald

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1.0 INTRODUCTION

Stantec has been retained by the City of Brantford to undertake a feasibility study of realigning the Clarence Street and Colborne Street intersection rail line. The rail line runs north-south along the eastern edge of Clarence St. and Clarence St. South. The rail line enters the intersection of Colborne St. and continues within the paved portion of the roadway until approximately 80 m south of Colborne St. Stantec was retained to determine feasible alternatives to separate the rail line and the travelled portion of the roadway. The consulting services includes a review of appropriate track standards, specifications, impacts on the neighbouring property, review of health and safety guidelines for railway crossings with respect to design constraints and develop two alternate rail realignment options. The scope further includes developing a feasibility report summarizing the findings and recommendations.

2.0 STUDY AREA

A rail line known as Burford spur track is owned and operated by 2427811 Ontario Inc. (Ingenia Polymers Corp) and runs directly adjacent to the travelling lanes of Clarence St. Clarence St. is a four (4) lane collector arterial roadway located in the City of Brantford. The rail line is on the eastern edge of the right-of-way of Clarence St. and crosses through the Colborne St. intersection and continues within the travelling lanes for approximately 80m. The study area is depicted in Figure 1.

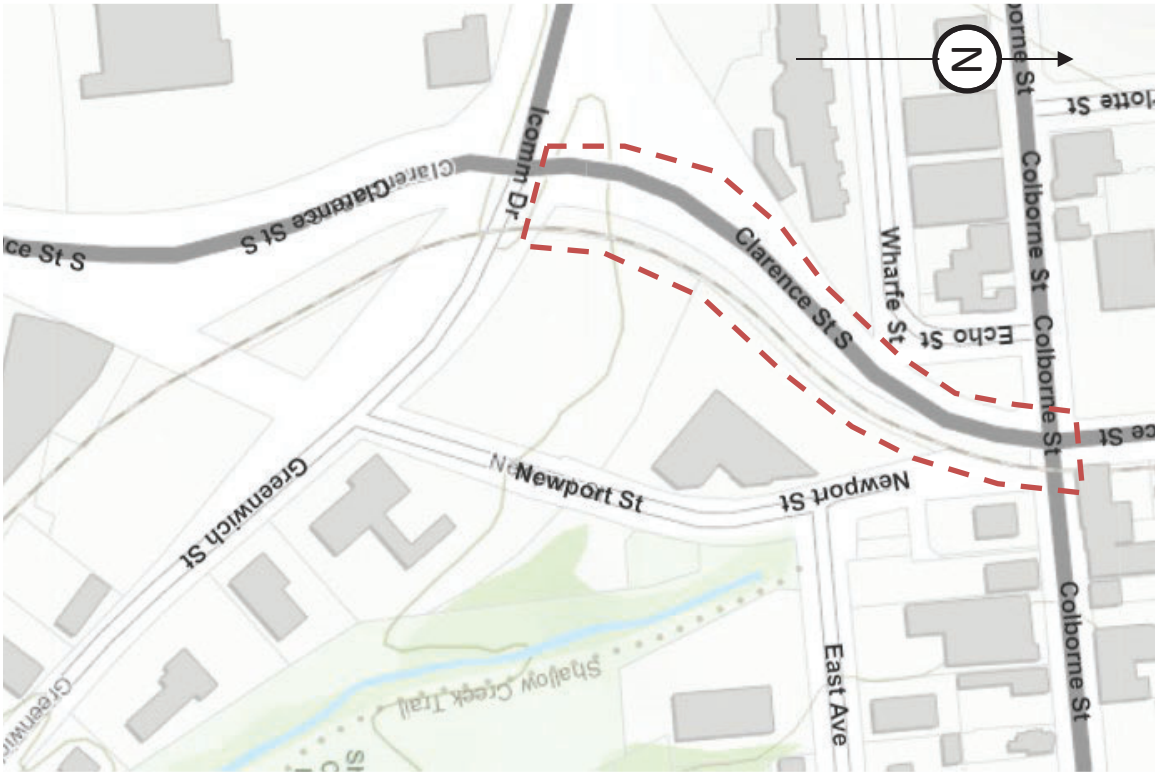


Figure 1 Study Area

Stantec scope of work is to evaluate the track realignment in the area of the Clarence St./Colborne St. intersection and 250 m in the southerly direction to accommodate potential realignment with any necessary modification of the pedestrian sidewalk along Clarence St. up to Colborne St. No alternation/design of the existing roadway is included into the scope of work. Furthermore, amendment to the City's current Master Transportation Plan will not be proposed. This report provides an overview of the existing conditions and constraints upon reviewing with respect to the standards and reports as presented in Section 3; proposes alternative realignment options and a preferred realignment option.

3.0 REVIEWED STANDARDS AND REPORTS

- Transport Canada's Grade Crossing Standards, Jan 2019, (GCS)
- Transport Canada's Grade Crossing Regulations, SOR/2014-275, Mar 2019 (GCR)
- Transport Canada's Standards Respecting Railway Clearances, May 14, 1992 (TC E-05)
- City of Brantford-2020 Brantford Transportation Master Plan Update-2051 Addendum, Sep 2021
- Railway Grade Crossings Safety Review by CIMA Canada Inc., July 2019

4.0 EXISTING CONDITION

The study rail line is the former CN Burford Spur connected to CN Dundas Subdivision at mile point MP22.2, the study area is approximate at MP0.94; As indicated in the sections above, the rail line is currently owned and operated by 2427811 Ontario Inc. (Ingenia Polymers Corp) and runs north-south along the eastern edge of Clarence St and Clarence St. The study area encompasses the immediate Clarence St./Colborne St. intersection and 250 m in the southerly direction, as depicted in Figure 1.

Existing Configuration:

- Number of Tracks: 1
- Daily Train Movements: 1
- Railway Design Speed: 10 mph (Maximum speed of 10mph, entering public crossings at grade until crossing fully occupied is 5 mph)
- Crossing Angle~60^0
- Flangeway ~70 mm-100 mm [Source: Rail safety report by CIMA+]
- Existing Warning System: Traffic Signal
- Anti Whistling Zone: No

Section 11 of the GCS stipulates the minimum setback for a public grade crossing from an intersection as 30 m where the railway design speed is more than 15 mph. This clause doesn't apply since the railway design speed is less than 15 mph.

It appears that the clearance between the building (298-306 Colborne St.) located immediately north of the Clarence St. and Colborne St. intersection and the edge of existing railway (nearest rail gauge) is approximately 2.5 m [source: City of Brantford (arcgis.com)], which meets the clearance requirements of 6' (1.82 m) allowed by Transport Canada's Standards Respecting Railway Clearances, TC E-05.

The Railway Authority has indicated that no special operating procedure is followed other than the procedure listed in CN timetable. As per CN timetable, stop signs on both sides of crossing. Crew member to operate toggle switch located in box on pole at either side of crossing. White lights, located southwest of intersection will flash when safe for movements through intersection. When movement is completed, the crew member will operate toggle switch and lock control box. If light does not flash, movement must be manually protected. It can be assumed that such manual operating procedure travelling through the crossing protects against accidents/incidents in between trains and vehicular traffic.

Reviewing the existing condition, it appears that the existing crossing angle is approximately 60^0. Section 6 of GCS provides a range of minimum and maximum value of crossing angles where railway design speed is more than 15mph. The Railway speed in the study area is less than 15 mph, hence this standard will not apply. Furthermore, the Section 3 of GCS suggests the flangeway must be between 65 mm to 120 mm. As per the Rail Safety report by CIMA Canada Inc., the existing flangeway ranges from 70 mm-100 mm, which is within the allowable limit by GCS.

However, the ROW of northbound (NB) right turn lane at Clarence and Colborne intersection runs parallel to the rail track, hence, the crossing angle and the provided flangeway gap impose additional risks on the vehicles turning right, especially motorcyclists and bicyclists.

Dataset on Transportation Safety Board (TSB) records and publishes data from Rail Occurrence Database System (RODs) on reportable accidents and incidents since January 1983. According to this dataset there has been one TSB reportable accident/ injury reported within 500 m of the subject property on the Burford Spur since 1983. However, provided rail safety study by CIMA+ indicates the subject location has experienced a total of 11 motorcycle collisions in between 2012 and 2018 where drivers lost control of the vehicle while crossing the railway track to make a right turn at Colborne St. City of Brantford has also indicated that they have received numbers of complaints from motorcyclists and bicyclists regarding the NB right turn lane at the intersection and there were reported accidents at the intersection.

5.0 ALTERNATE RAIL ALIGNMENT OPTIONS

Stantec has explored various options considering the realigning of Clarence St. and Colborne St. intersection rail line. Given the area is fully developed and operational, available lands are limited, options for realigning are fairly restricted. This report identifies two workable options that the rolling stocks could successfully negotiate and would have minimal impacts on surrounding neighbourhood, less destructive and cost efficient.

5.1 OPTION 1

Option 1, presented in Figure 2 shows a rail realignment option shifting the spur to the east. Realignment starts just north of the building at 298-306 Colborne St., proposes to shift the existing spur towards the east, crosses the intersection at approximately ~90^0, goes into the NB right turn lane marginally, refer to the cross-section presented in Appendix A. This alignment consists of three curves, starting North the curves are: $4^0$57’48”;14^0; and $13^0$14’21” (matches the existing curve). The proposed degree of curve of 14^0 is higher than CN requirements for new track construction; however the existing track geometry, train speed and volume of traffic justify the proposed track alignment. The detailed engineering drawing is included in Appendix A.

Figure 2 Realignment Option 1

This option would have minimal impact on surrounding neighbourhood, however, will require modification to the adjacent pedestrian sidewalk, and potential relocation of the traffic signals, light pole and existing utility box on the southeast side of the intersection as shown in Figure 3. Option 1 crosses the intersection approximately ~90^0, possible accidents/ incidents are anticipated to be reduced with this modification as the wheels of the vehicles will cross across the tracks, as opposed to travelling along the tracks in the existing condition. Furthermore, the light pole, utility pole, and signal post located south of the intersection, adjacent to the foodbank parking require to be relocated.

Figure 3 Required Relocations with Option 1 at Clarence and Colborne Intersection

Figure 4 Required Relocation with Option 1, south of the Intersection

In spite of the fact that the current flangeway gap and depth at the crossing meet the Transport Canada's regulatory requirements, to improve grade crossing safety, it is recommended to use shallow flangeway at the crossing to reduce flangeway gap and to minimize the possibility of wheels getting trapped in the flangeway gap. Shallow Flangeway is a type of 'Safety' Railseal and has proven to reduce and optimize the open flangeway gap, resulting in grade crossings that are much safer and easier to cross for bicycles, wheelchairs and other wheeled pedestrian-based vehicles, reducing the chance of wheels becoming wedged in the flangeway, while still allowing trains to cross pedestrian grades safely. As per the manufacturer there is no certain grade or curvature limit for installing Shallow Flangeway and has proven to perform well in a winter weather application. A typical cross-section of Shallow Flangeway is presented in Figure 5.

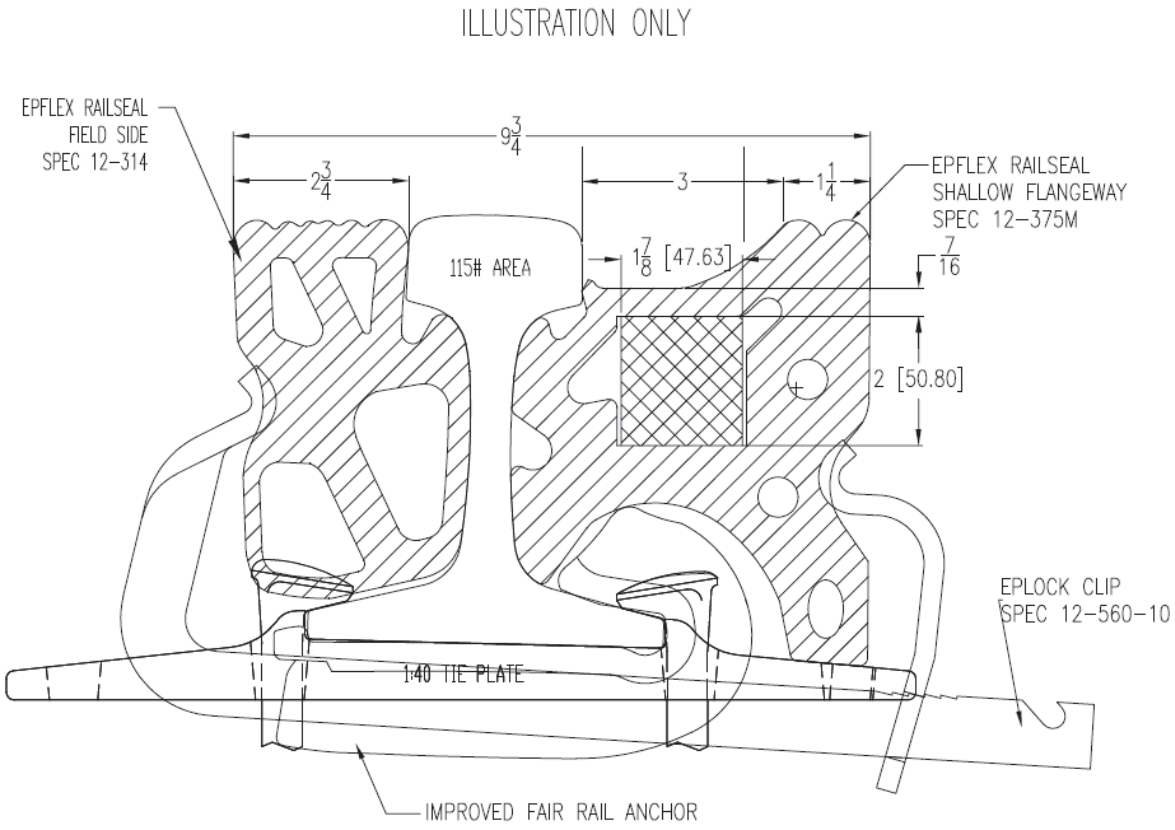


Figure 5 115# Shallow Flangeway [Source: Polycorp]

5.2 OPTION 2

Option 2, presented in Figure 6 shows second rail realignment option. Option 2 follows the similar layout as Option 1, starts from the same location as Option 1, however, it provides lower degree of curves, expecting easier turn for rolling stock. This alignment also consists of three curves, starting North the curves are: $4^0$57'48";12^0; and $13^0$14'21" (matches the existing curve). The detailed engineering drawing is included in Appendix B.

Although Option 2 provides easier turning radius for rolling stock, rail alignment with this option conflicts with the NB right turn lane, crossing angle is approximately ~70^0, less improvement on minimizing accidents/ incidents compared to Option 1, refer to the cross-section presented in Appendix B.

Modification to the adjacent pedestrian sidewalk, and potential relocation of the traffic signals, light pole and utility box on the southeast side of the intersection are required similar to Option 1. Relocation of the light pole, utility pole, and signal post south of the intersection, adjacent to the foodbank parking are also required similar to Option 1.

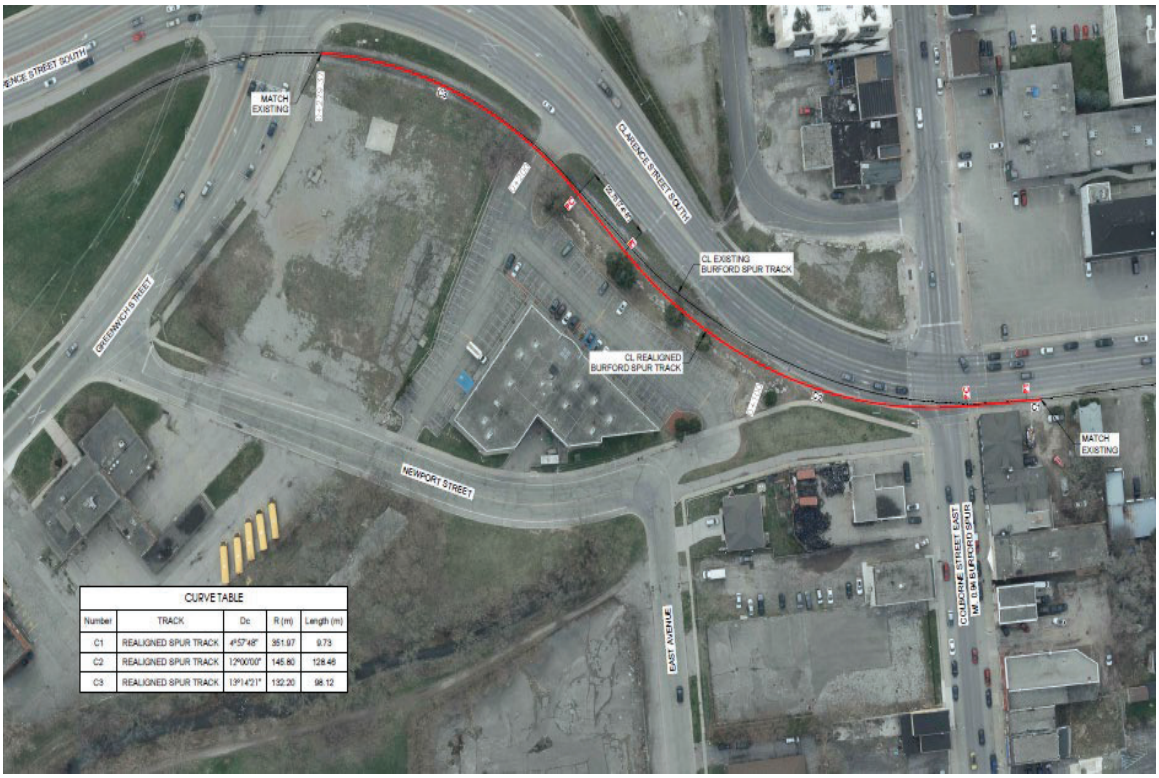


Figure 6 Realignment Option 2

5.3 OTHER ALTERNATIVES

Stantec has explored further alternative realignment options as follows. Constraints associated with each alternative is presented as well.

5.3.1 Alt 1

Realigning the spur to the east at the intersection to remove the conflict at northbound right-turn lane.
Major Constraints:

- Property acquisition and demolition of the existing building on the north of the intersection
- The area that will require modifications extends beyond the limit of this project
- Modification to the adjacent pedestrian sidewalk
- Potential relocation of the traffic signals, light pole and utility box on the southeast side of the intersection
- The light Pole, utility Pole, and signal post south of the intersection, adjacent to the foodbank parking to be relocated

5.3.2 Alt 2

Realigning the rail spur on Newport St.

Major Constraints:

- Full closure of Newport St.,
- Design and construction of an alternative entrance to the foodbank
- Modification to the adjacent pedestrian sidewalk
- Acquisition of the land south of Greenwich St.
- The area that will require modifications extends beyond the limit of this project
- Potential relocation of the traffic signals, light pole and utility box on the southeast side of the intersection
- The light pole, utility pole, and signal post south of the intersection, adjacent to the foodbank parking to be relocated

These alternative options haven't been advanced further as these options offers major conflicts, and expensive and destructive solutions.

6.0 PREFERRED REALIGNMENT OPTION

Based on the investigation, it is deemed, that Option 1 provides an optimal solution, which is cost effective compared to the other options that were explored, would have minimal impacts on the surrounding neighbourhood, also reduces the risks of accidents/ incidents at the NB right turn lane as it improves the crossing angle. The necessary modifications associated with Option 1 are also required for all other options that were investigated. Therefore, Option 1 is the preferred realignment option based on the assessment.

Accidents/ incidents risks can be further reduced using railseal (shallow flangeway) as described in the section above.

6.1 FEE ESTIMATE FOR THE PREFERRED OPTION

An order of magnitude cost estimate is developed based on the feasibility study. It can be anticipated that the design fees for the track realignment, required modifications i.e., modification to the adjacent pedestrian sidewalk, relocation of the traffic signals, light pole and utility box on the southeast side of the intersection and relocation of the light pole, utility pole, and signal post to be relocated south of the intersection, adjacent to the foodbank parking could cost approximately $175,000. An order of magnitude construction cost can be approximately $700,000. It is to note that this is an order of magnitude costs and may change depending on the site situation as many aspects are unknown at this early stage. Breakdown of the cost estimates is presented in Table 1 below:

Table 1 Design and Construction Cost Breakdown

	Description	Cost (CAD$)
Design Cost	Rail Design	$60,000
	Civil Design	$60,000
	Signal Relocation Design	$25,000
	Utility Support	$25,000
	Total Design Cost	**$170,000**
Construction Cost	Mobilization/Demobilization	$100,000
	Remove and Reinstate the Rail	$300,000
	Railseal Installation	$25,000
	Civil Work, including Crossing and Pedestrian Sidewalk	$200,000
	Relocation of Traffic Signal, Light poles (2), Utility box, Singal Pole, Utility Pole	$75,000
	Total Construction Cost	**$700,000**

6.2 LIST OF STUDIES REQUIRED FOR PREFFERED OPTION

- Legal and Topographic Survey
- Traffic Impact Assessment
- Subsurface Utility Engineering (SUE)
- As-Built Drawings to depict present condition

7.0 CONCLUSION

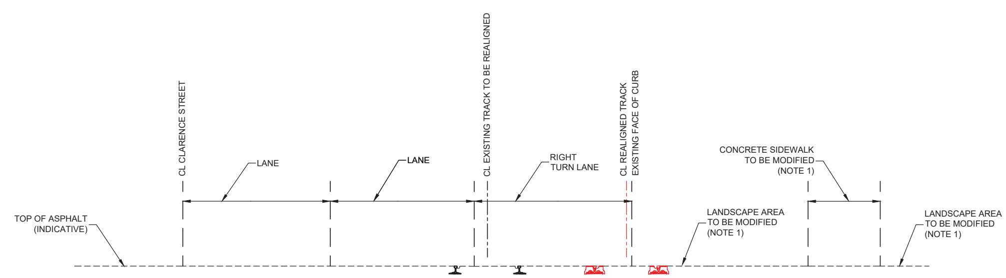
This feasibility study provides an overview of the findings of the feasibility assessment undertaken. Given the area is fully developed and operational, available lands are limited, options for realigning are fairly restrictive. This report identifies various realignment options, however, Option 1 which starts just north of Clarences St. and Colborne St. intersection and involves shifting the spur to the east deemed to have minimal impacts on surrounding neighbourhood. Furthermore, this option is a less destructive and cost efficient, therefore, proposed as the preferred option.

Appendix A REALIGNMENT OPTION 1

ANSI D (22.00 x 34.00 Inches)


CURVE TABLE

Number	TRACK	Dc	R (m)	Length (m)
C1	REALIGNED SPUR TRACK	4°57'48"	351.97	9.73
C2	REALIGNED SPUR TRACK	14°00'00"	125.05	115.15
C3	REALIGNED SPUR TRACK	13°14'21"	132.20	103.37



Notes:

1. ROAD MODIFICATION DETAILS TO BE DEVELOPED WITH DESIGN PROGRESS.

SECTION 'A'
NTS

PLAN
SCALE 1:750

LEGEND:

CL EXISTING TRACK
CL PROPOSED TRACK

Stantec

300-675 COCHRANE DRIVE
MARKHAM, ONTARIO L3R 1A6
www.stantec.com

The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay.
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Permit-Seal

CONCEPTUAL
FOR DISCUSSION ONLY

Notes:

1. BURFORD SPUR MAXIMUM SPEED 10MPH. ENTERING PUBLIC CROSSINGS AT GRADE UNTIL FULLY OCCUPIED 5MPH.

CLIENT

BRANTFORD

Revision | By | Appd. | YY.MM.DD

Issued	Dwn.	Chkd.	Dsgn.	Appd.	YY.MM.DD
1	YL	EVG	JG	EVG	23.10.04
0	YL	EVG	JG	EVG	23.09.12

Client/Project
CITY OF BRANTFORD
PUBLIC WORKS COMMISSION

Title
BURFORD SPUR TRACK
REALIGNMENT OPTION 1

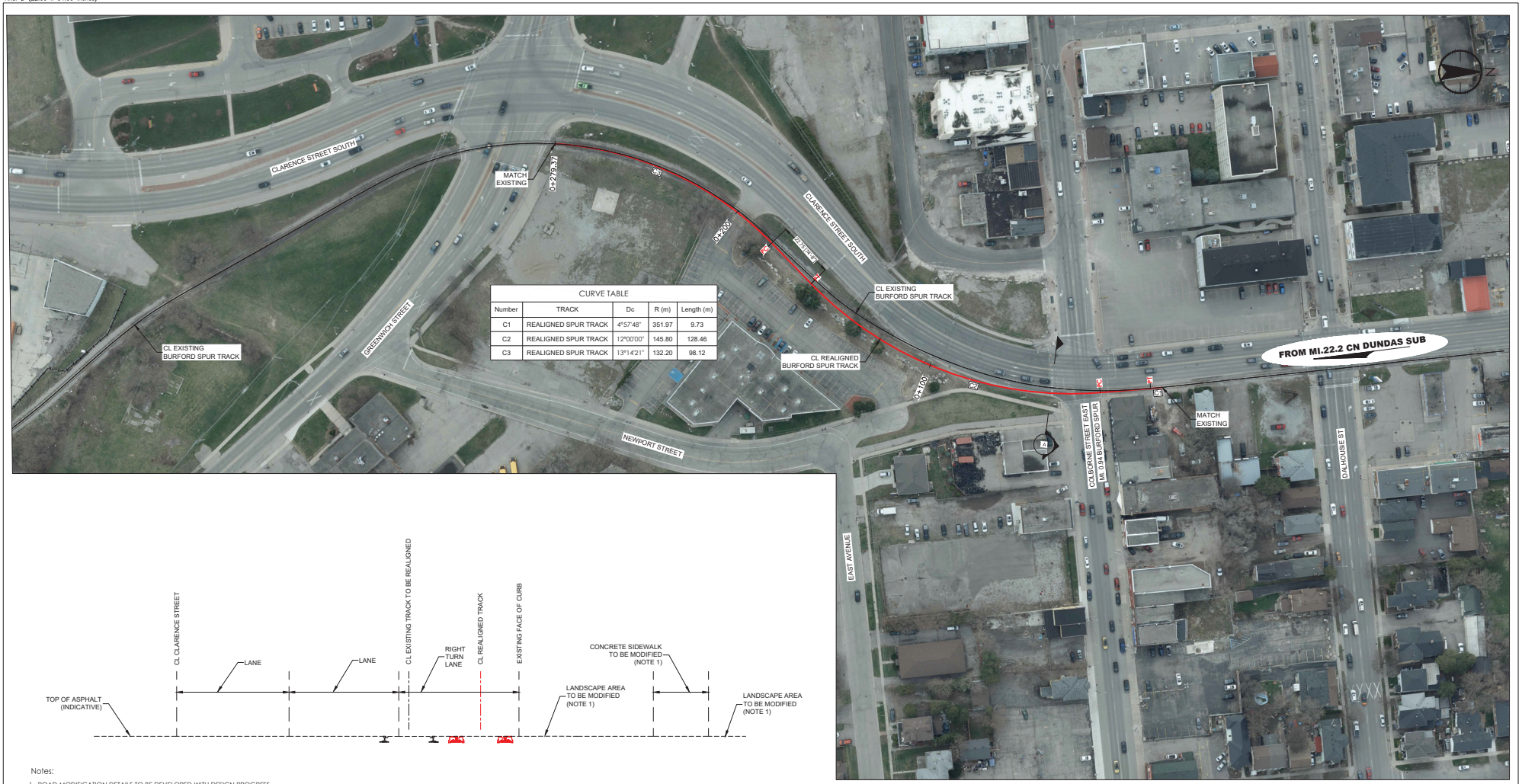
Project No. 160560035
Scale 1:750 (0 10 40m)

Drawing No. SK-001
Sheet of
Revision 0

ORIGINAL SHEET - ANSI D 22" x 34" (558.8mm x 863.6mm)

Appendix B REALIGNMENT OPTION 2

ANSI D (22.00 x 34.00 Inches)



CURVE TABLE				
Number	TRACK	Dc	R (m)	Length (m)
C1	REALIGNED SPUR TRACK	4°57'48"	351.97	9.73
C2	REALIGNED SPUR TRACK	12°00'00"	145.80	128.46
C3	REALIGNED SPUR TRACK	13°14'21"	132.20	98.12

Notes:

1. ROAD MODIFICATION DETAILS TO BE DEVELOPED WITH DESIGN PROGRESS.

SECTION 'A'
NTS

PLAN
SCALE 1:750

LEGEND:

— CL EXISTING TRACK

— CL PROPOSED TRACK

Stantec

300-675 COCHRANE DRIVE
MARKHAM, ONTARIO L3R 1A6
www.stantec.com

The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay.
The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

Permit-Seal

CONCEPTUAL
FOR DISCUSSION ONLY

Notes:

1. BURFORD SPUR MAXIMUM SPEED 10MPH. ENTERING PUBLIC CROSSINGS AT GRADE UNTIL FULLY OCCUPIED 5MPH.

CLIENT

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Revision					
1	YL	EVG	JG	EVG	23.10.04
0	YL	EVG	JG	EVG	23.09.12
Issued	Dwn.	Chkd.	Dsgn.	Appd.	YY.MM.DD

Client/Project
CITY OF BRANTFORD
PUBLIC WORKS COMMISSION

Title
BURFORD SPUR TRACK
REALIGNMENT OPTION 2

Project No. 160560035

Scale 0 10 1:750 40m

Drawing No. SK-002

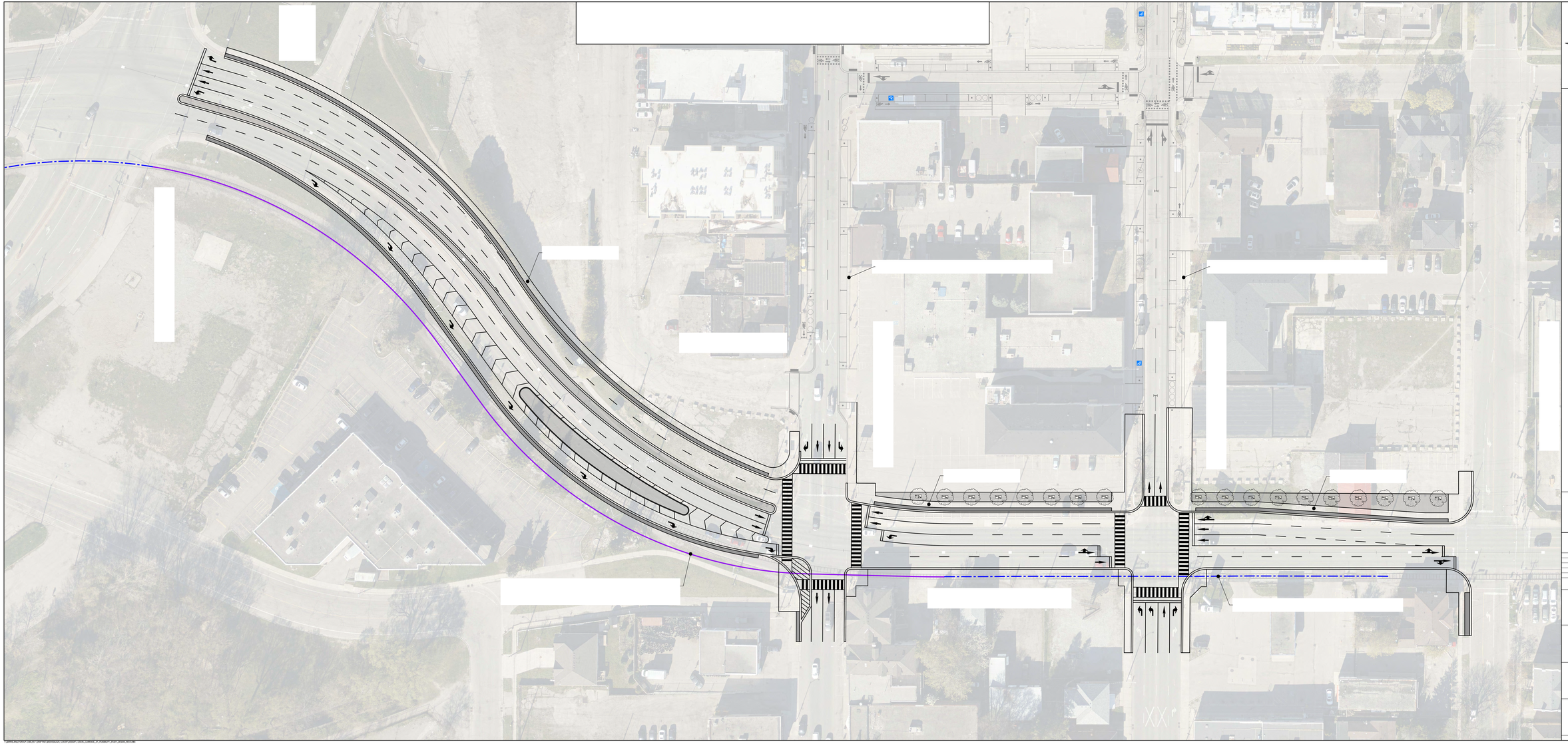
Sheet of

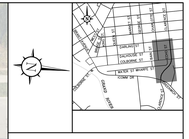
Revision 0

ORIGINAL SHEET - ANSI D 22" x 34" (558.8mm x 863.6mm)

Appendix B

Preliminary Preferred Design Layout





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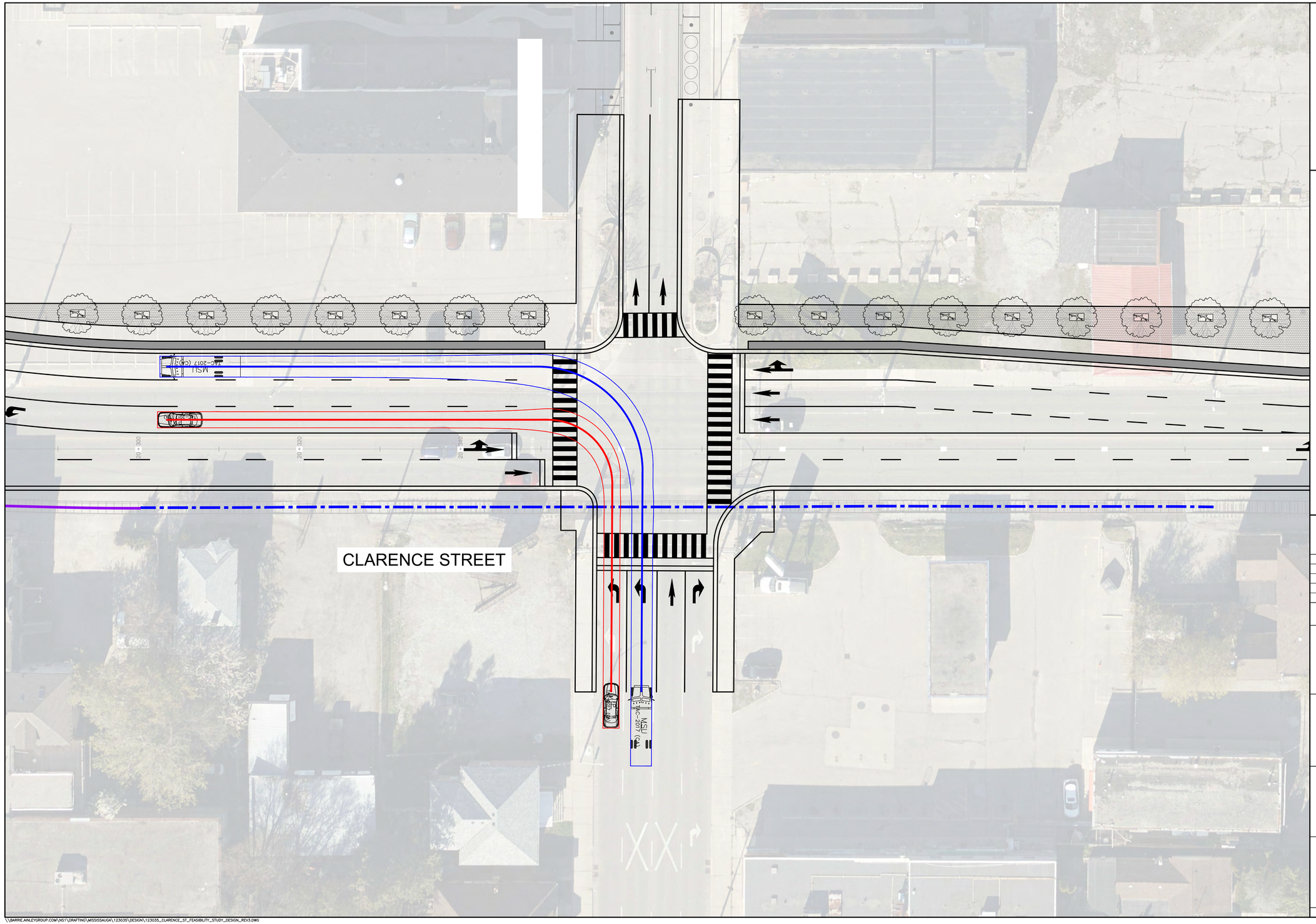
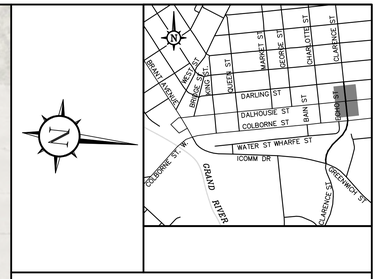
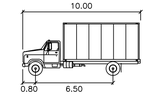
Appendix C

Clarence St & Dalhousie St - Autoturn Findings







MSU

	meters
Width	: 2.60
Track	: 2.60
Lock to Lock Time	: 6.0
Steering Angle	: 40.2

P
TAC-2017 (CA)

	meters
Width	: 2.00
Track	: 2.00
Lock to Lock Time	: 6.0
Steering Angle	: 35.9

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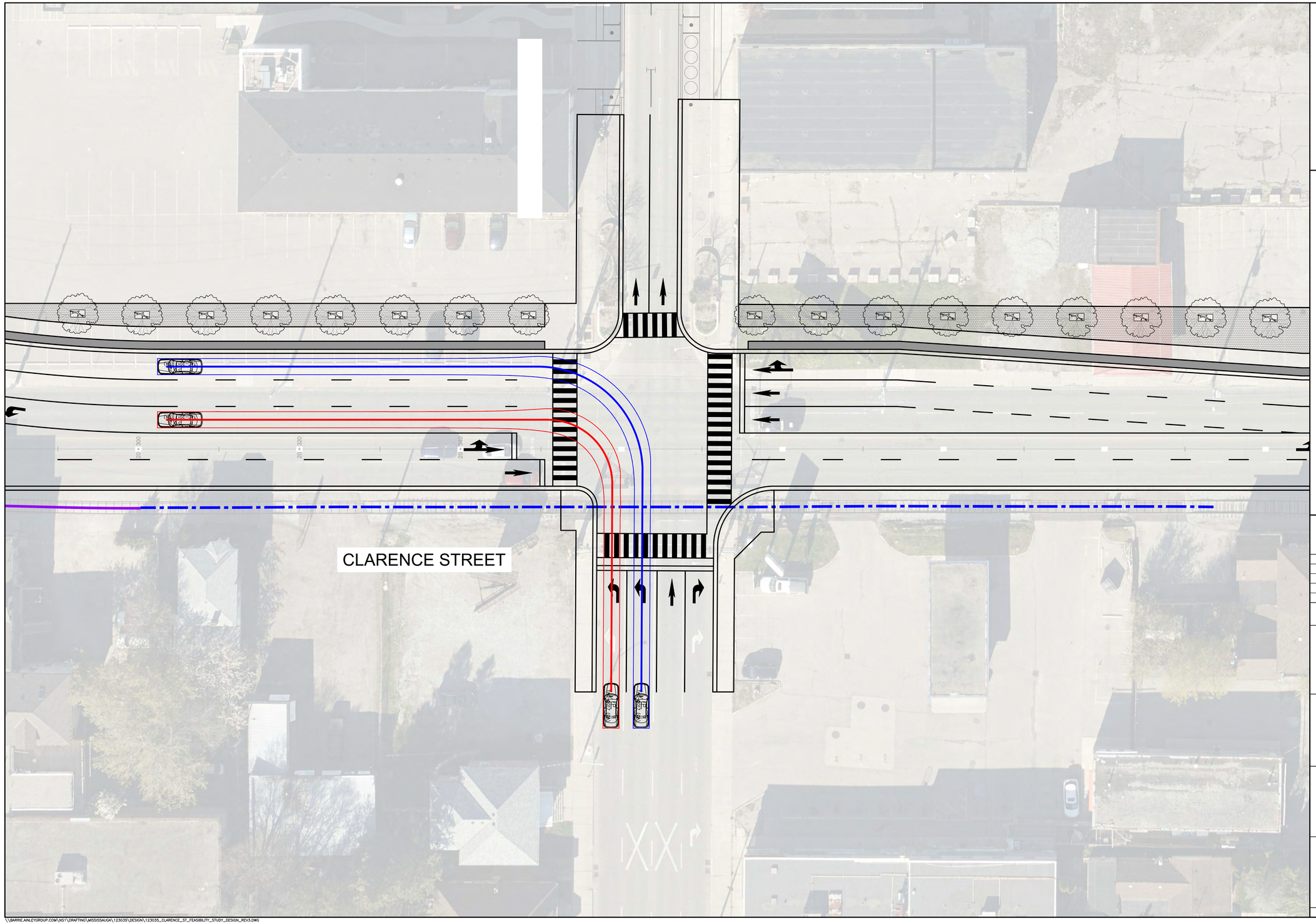

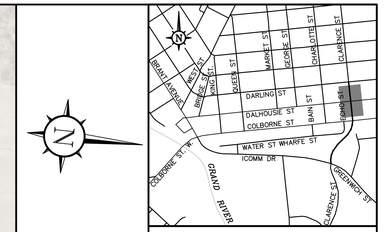

P
TAC-2017 (CA)

	meters
Width	: 2.00
Track	: 2.00
Lock to Lock Time	: 6.0
Steering Angle	: 35.9

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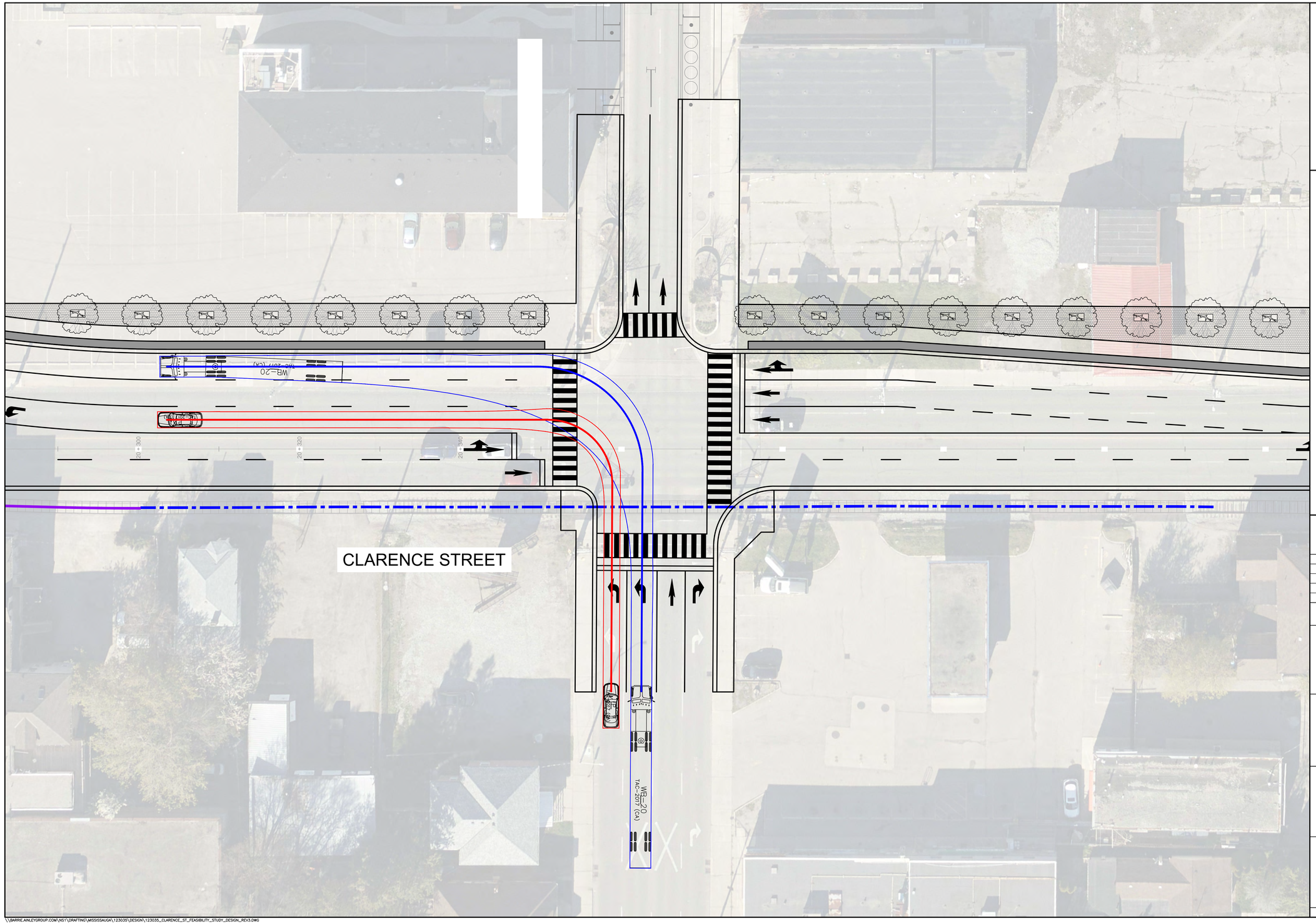

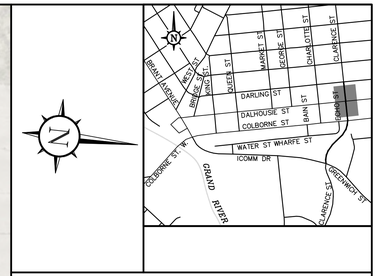

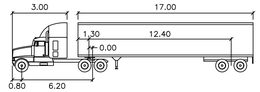

WB-20
TAC-2017 (CA)

meters

Tractor Width	: 2.60	Lock to Lock Time	: 6.0
Trailer Width	: 2.60	Steering Angle	: 28.2
Tractor Track	: 2.60	Articulating Angle	: 70.0
Trailer Track	: 2.60		

P
TAC-2017 (CA)

meters

Width	: 2.00
Track	: 2.00
Lock to Lock Time	: 6.0
Steering Angle	: 35.9

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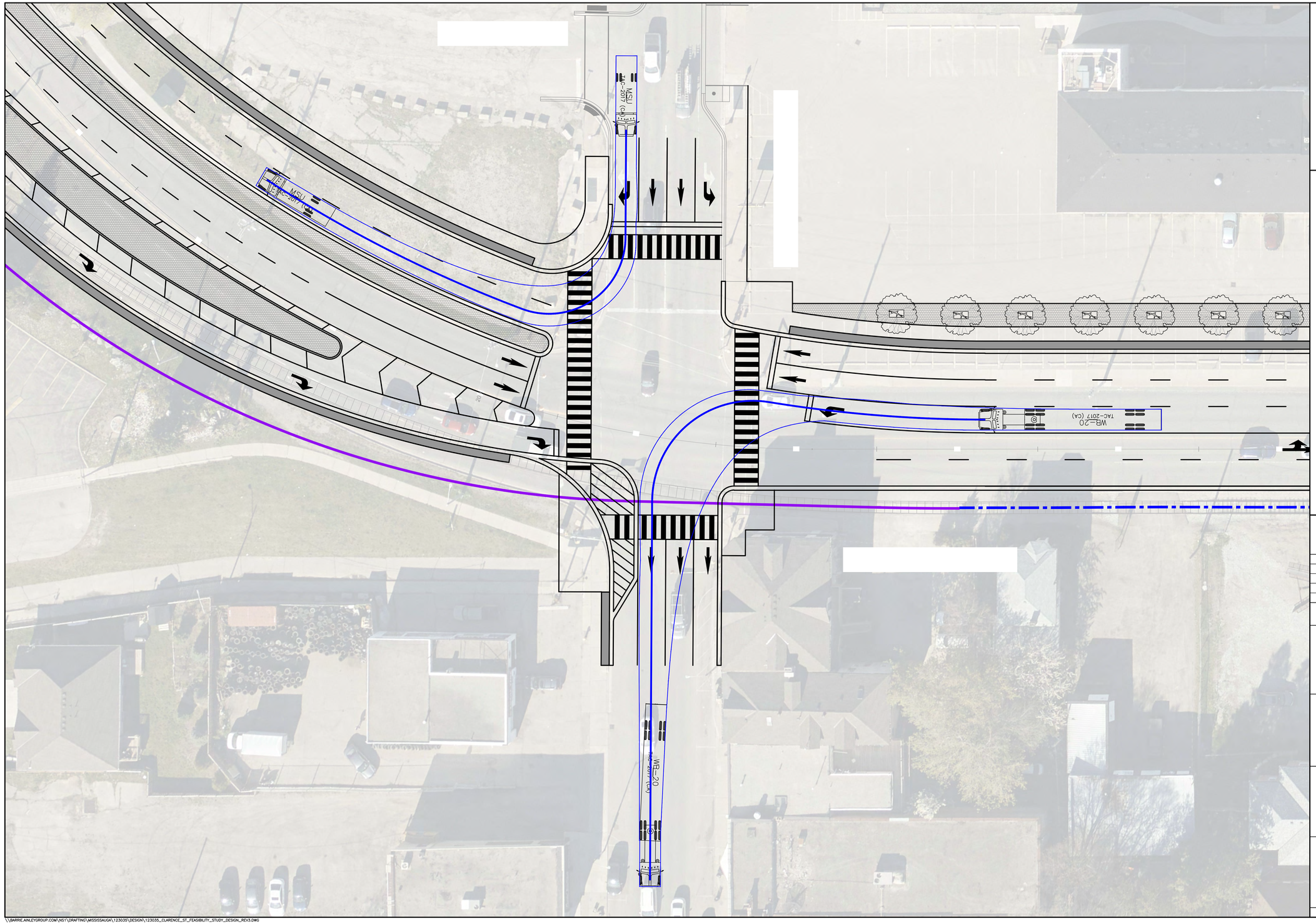
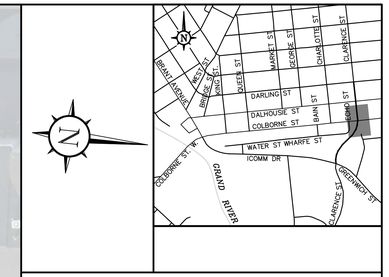
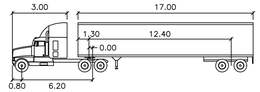
Appendix D

Clarence St & Colborne St - Autoturn Findings

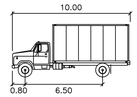






WB–20
TAC–2017 (CA)

	meters		
Tractor Width	: 2.60	Lock to Lock Time	: 6.0
Trailer Width	: 2.60	Steering Angle	: 28.2
Tractor Track	: 2.60	Articulating Angle	: 70.0
Trailer Track	: 2.60		



MSU

	meters
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Track	: 2.60
Lock to Lock Time	: 6.0
Steering Angle	: 40.2

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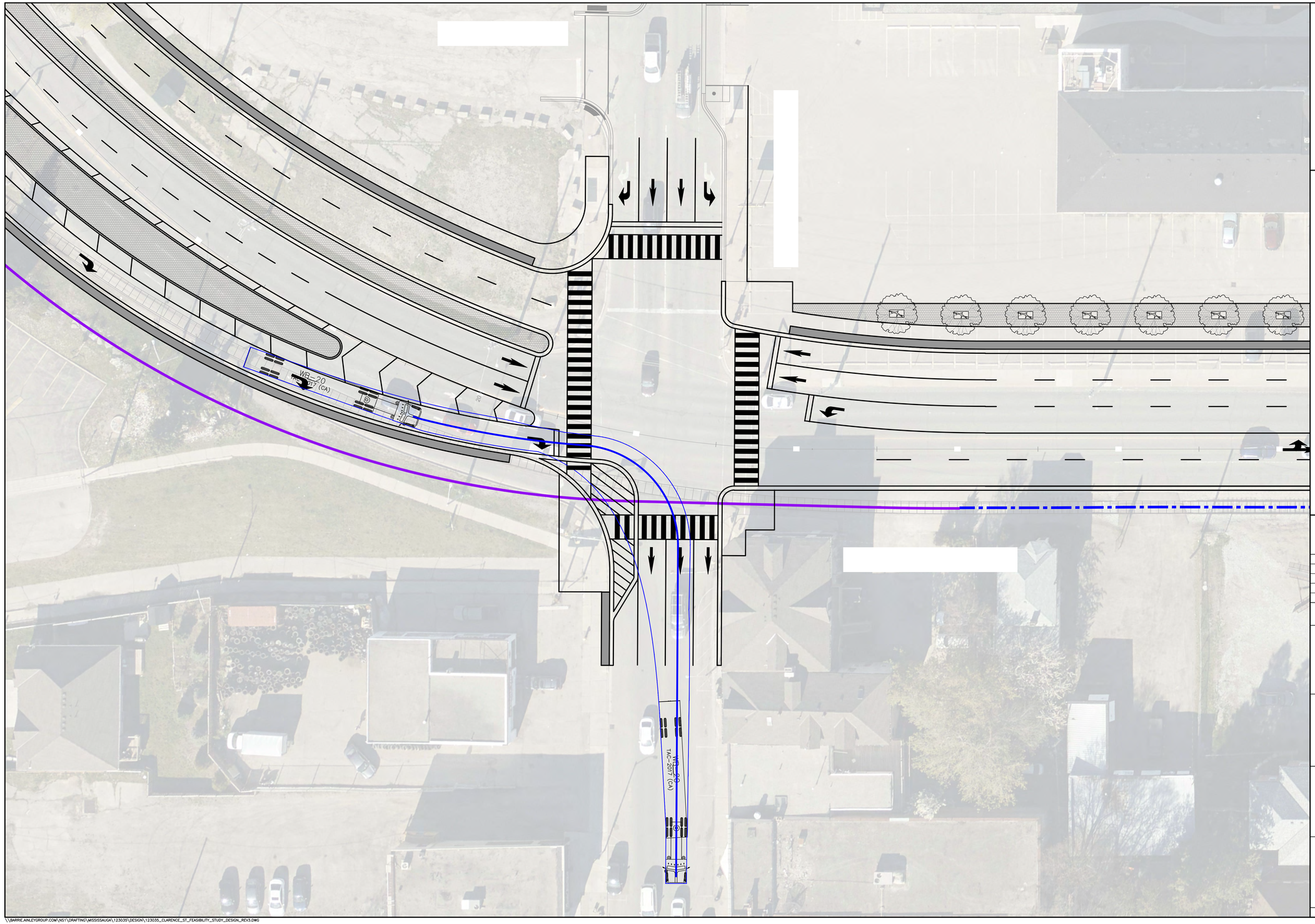

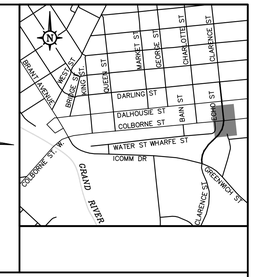

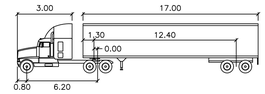

WB-20
TAC-2017 (CA)

meters

Tractor Width	: 2.60	Lock to Lock Time	: 6.0
Trailer Width	: 2.60	Steering Angle	: 28.2
Tractor Track	: 2.60	Articulating Angle	: 70.0
Trailer Track	: 2.60		

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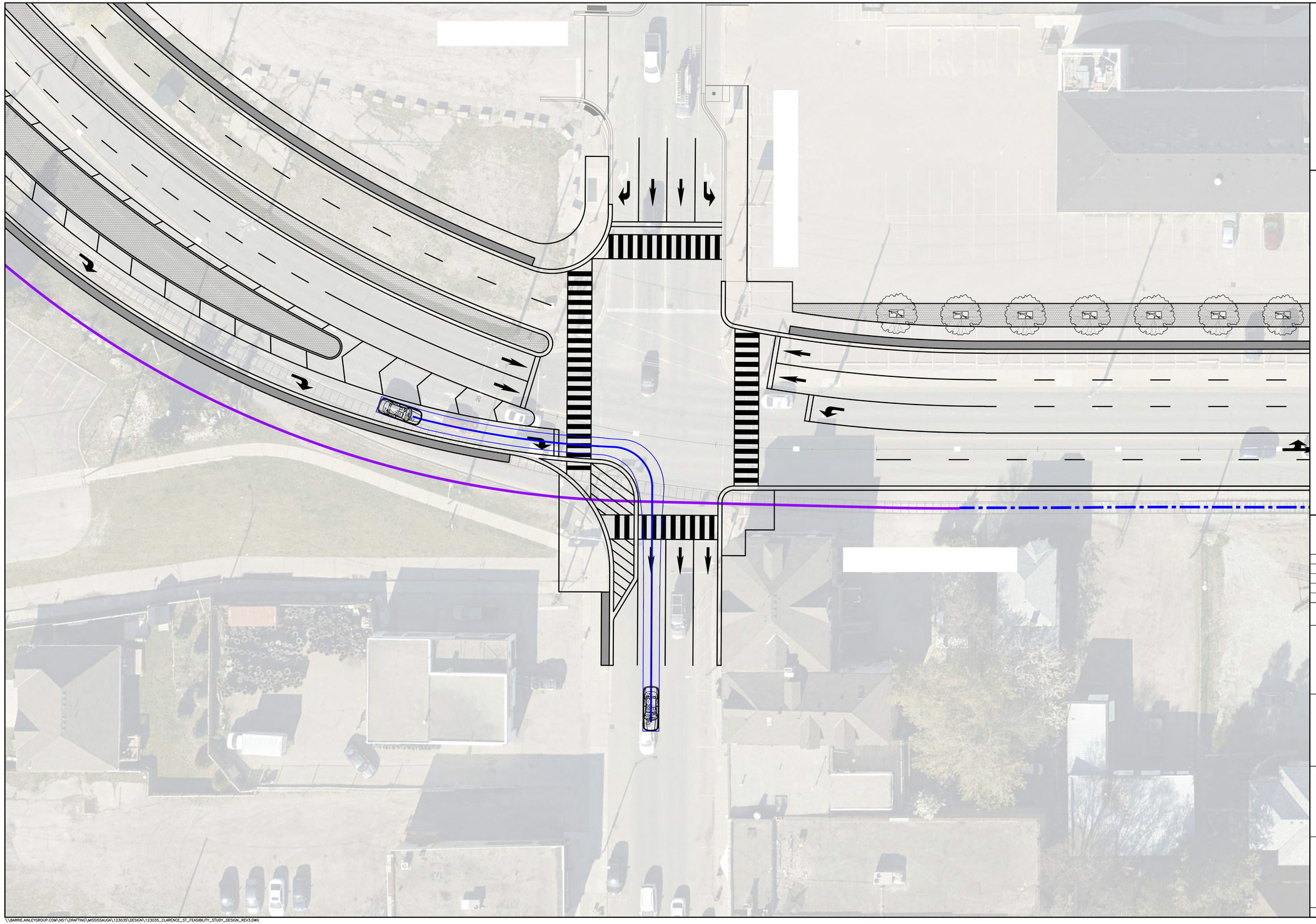

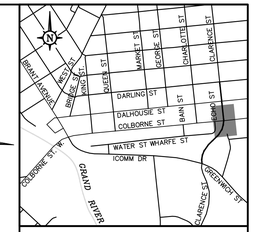

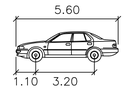

P
TAC-2017 (CA)

	meters
Width	: 2.00
Track	: 2.00
Lock to Lock Time	: 6.0
Steering Angle	: 35.9

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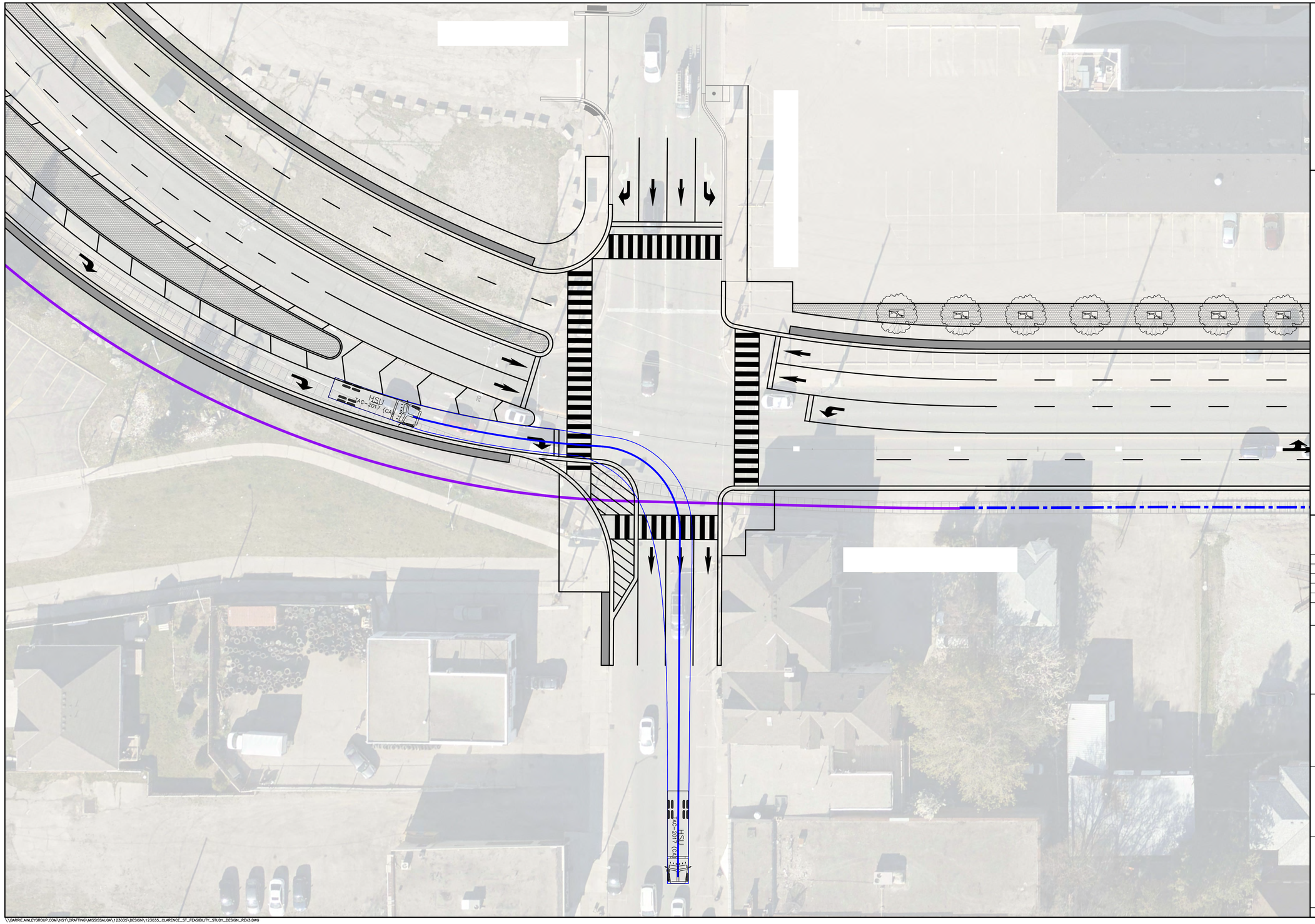

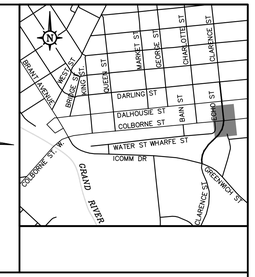

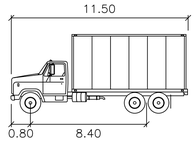

HSU

	meters
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Lock to Lock Time	: 6.0
Steering Angle	: 40.0

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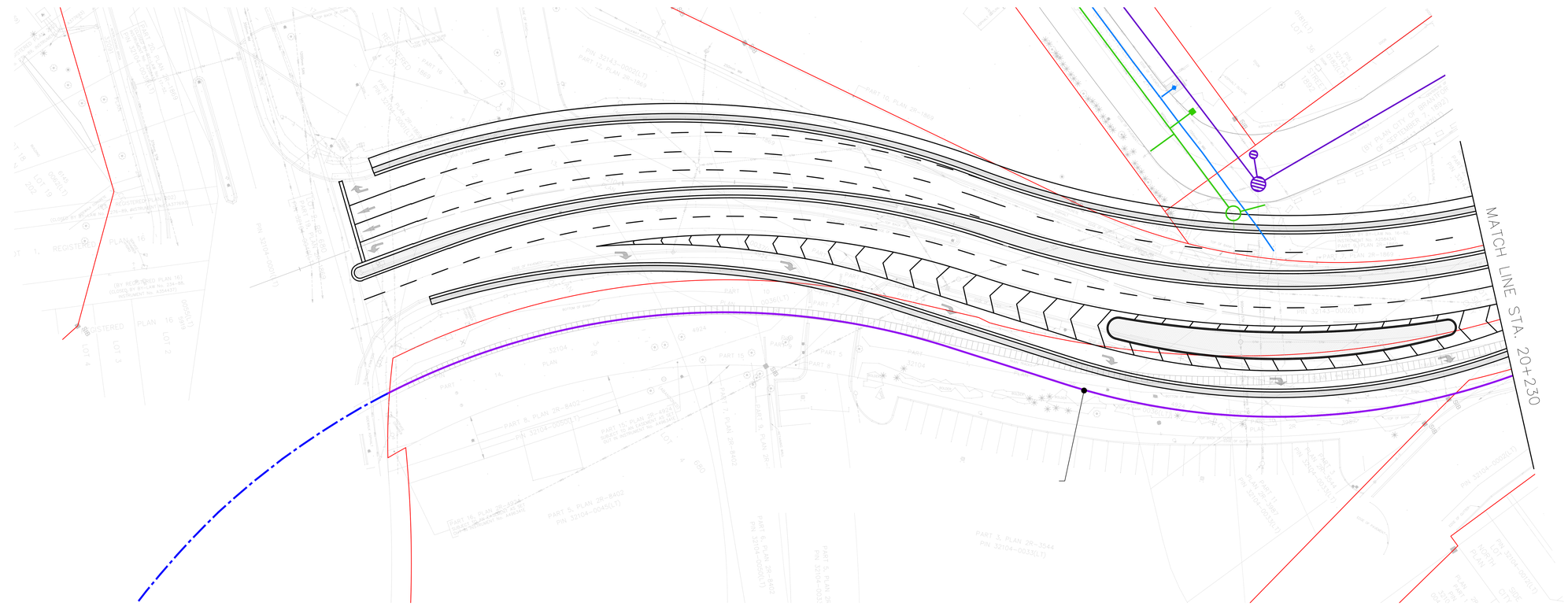
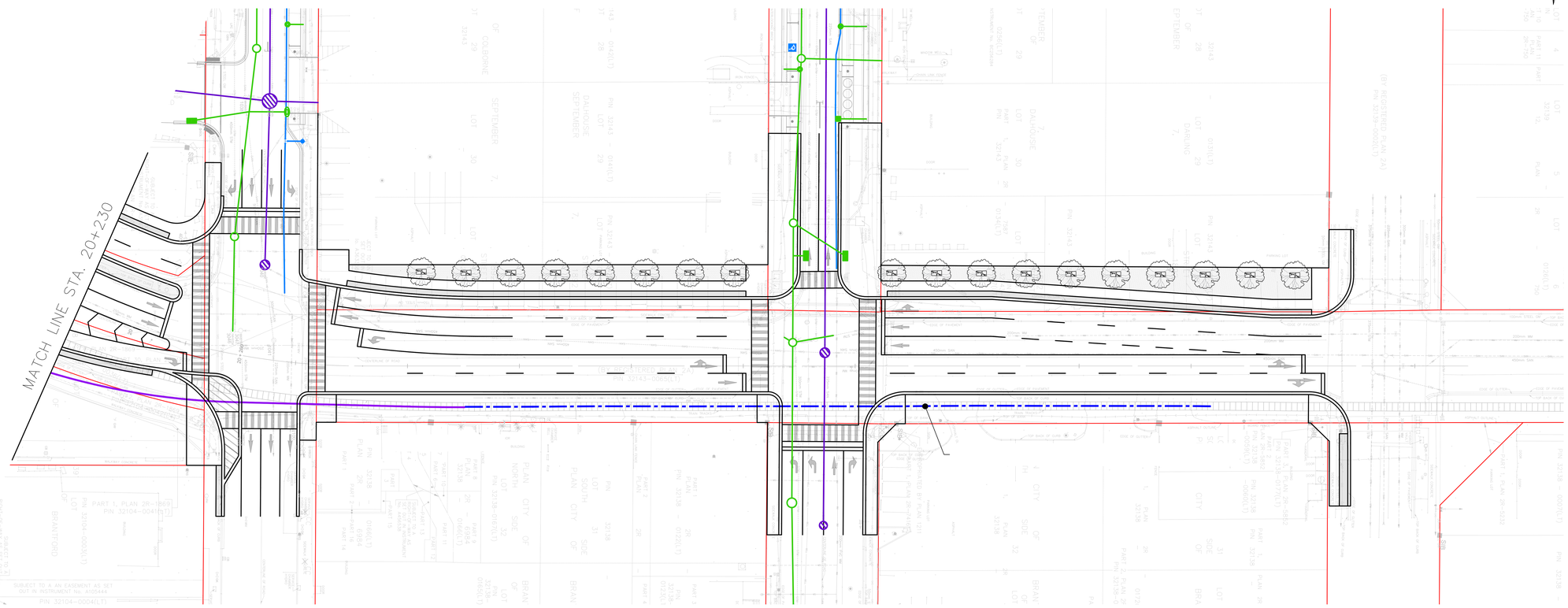
Appendix E
Existing Utilities (SUE Data)





MAY 22, 2025

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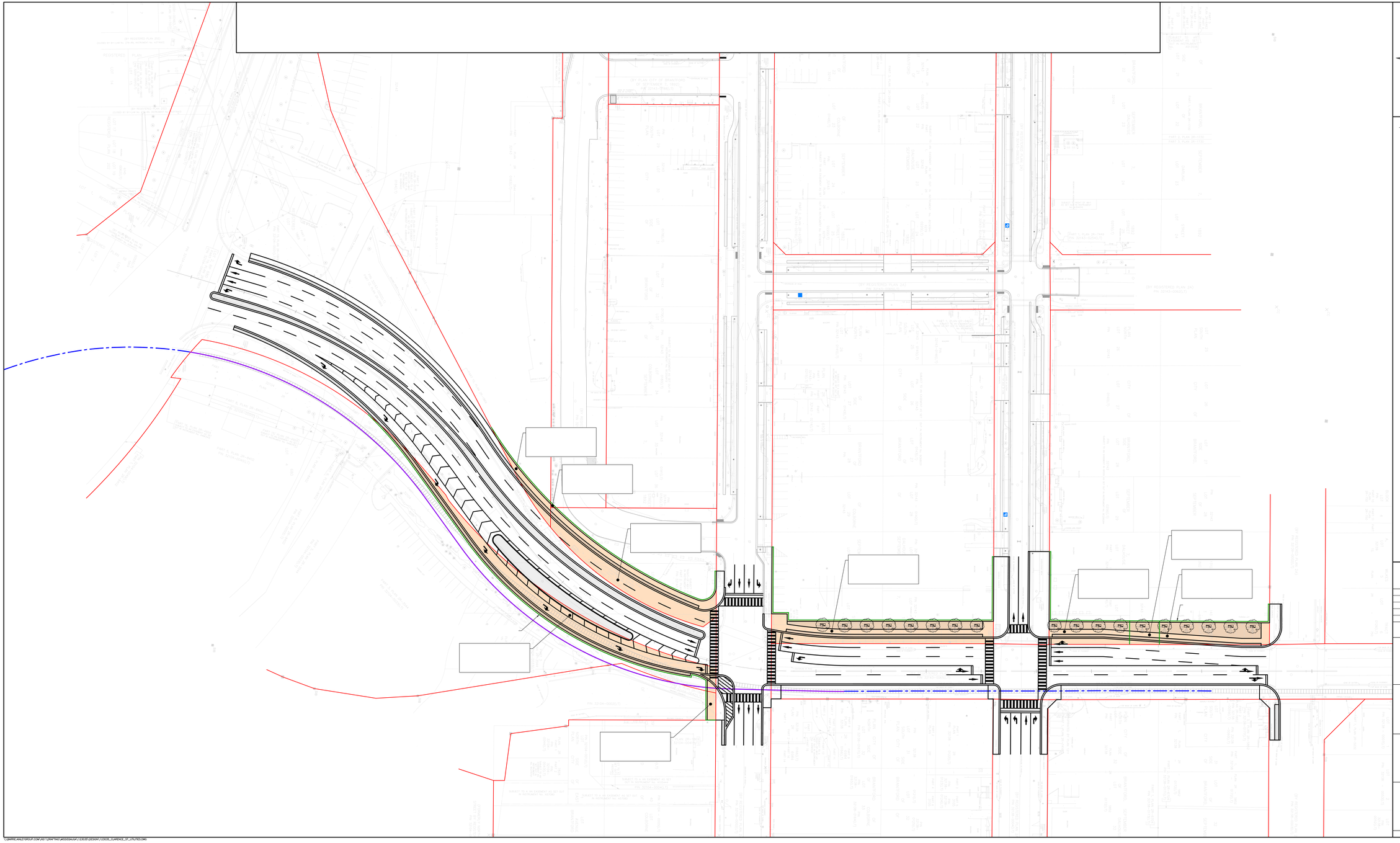
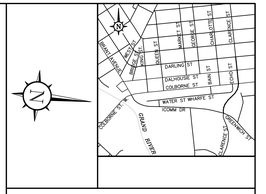
Appendix F
Proposed Property Take Areas





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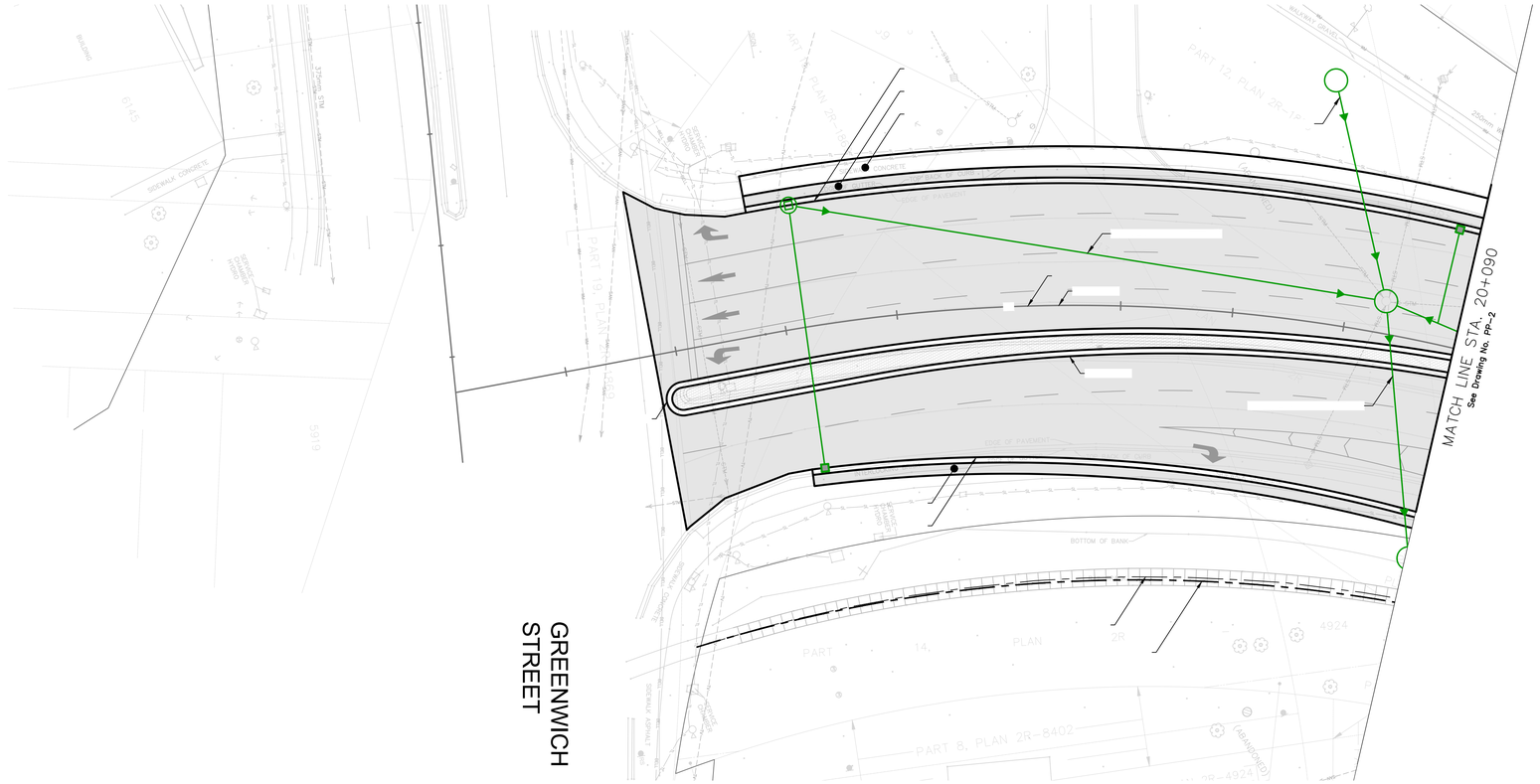
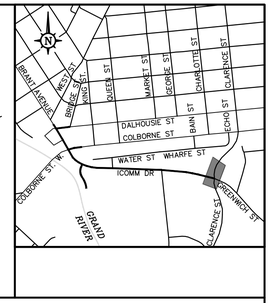
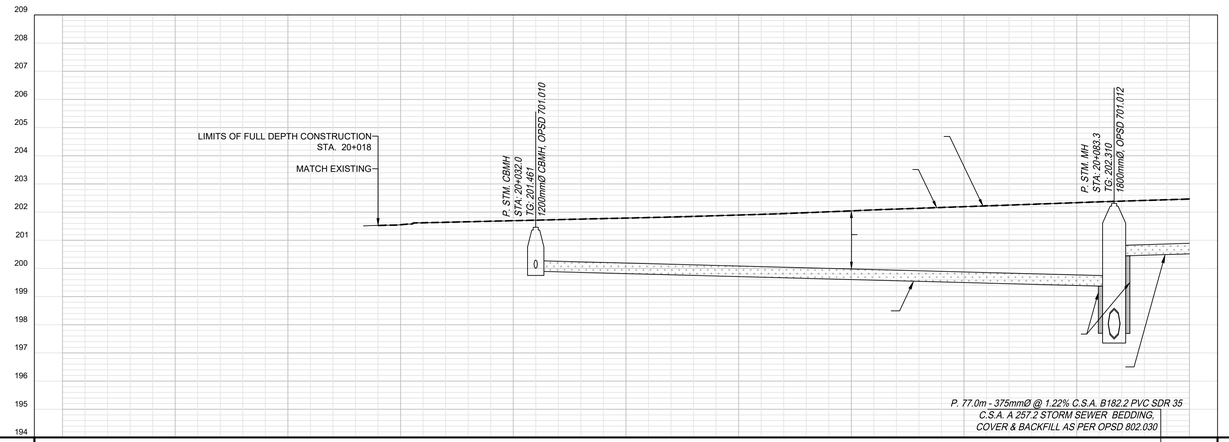
CONSULTING ENGINEERS PLANNERS

Appendix G
Preliminary Design Information







WATERMAIN OBVERTS										
SANITARY INVERTS										
STORM INVERTS					200.002E 199.890NE	P. 54.0m - 375mmØ @ 1.00% C.S.A. B182.2 PVC SDR 35 C.S.A. A 257.2 STORM SEWER BEDDING, COVER & BACKFILL AS PER OPSD 802.030			200.435NE 199.335SW 197.540W 197.490E	
EXISTING ROAD ELEV.										
PROPOSED ROAD ELEV.										
CHAINAGE		20+000	20+010							

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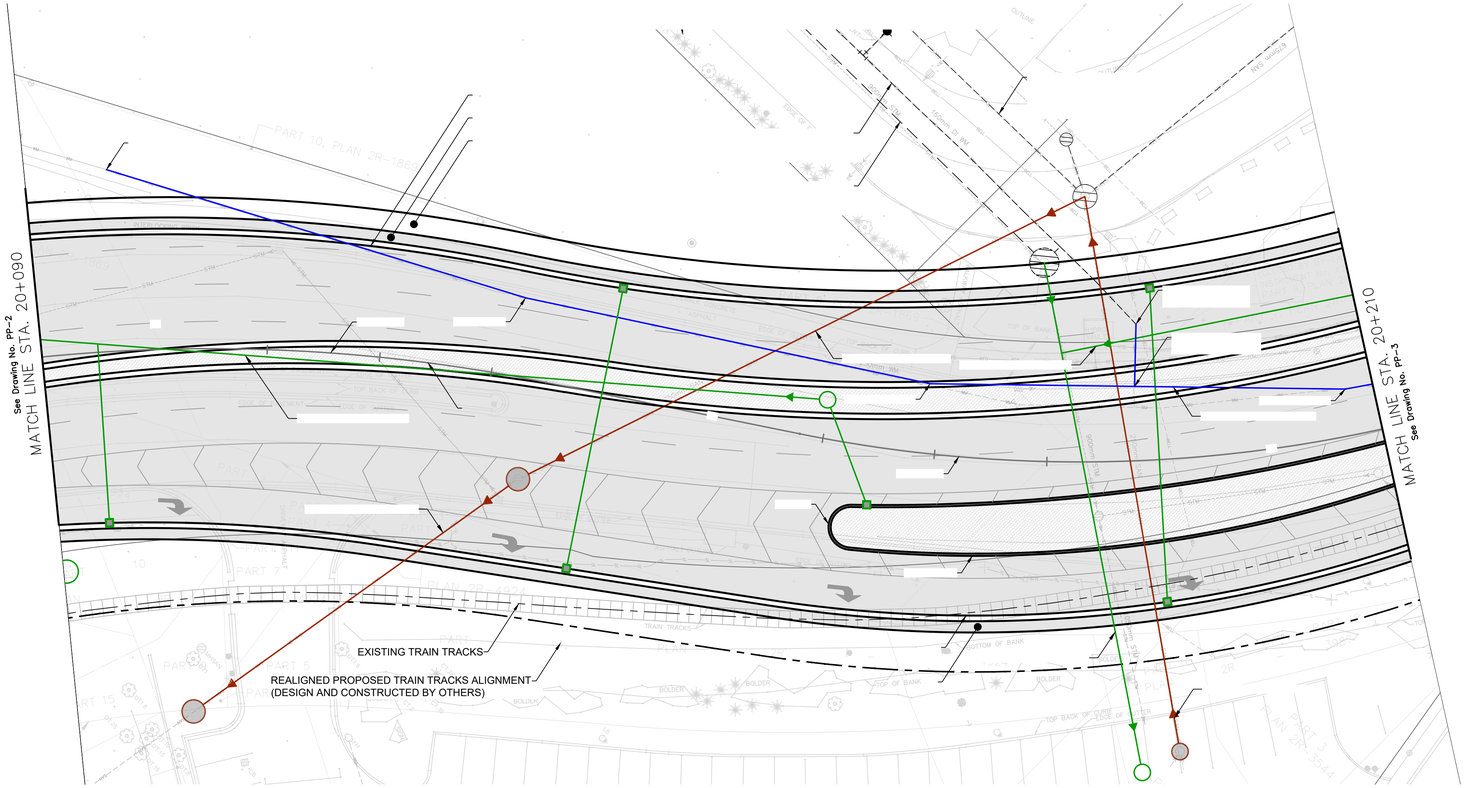
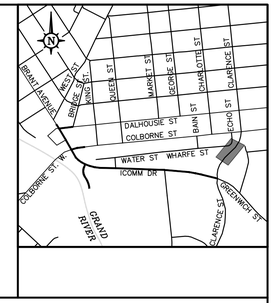
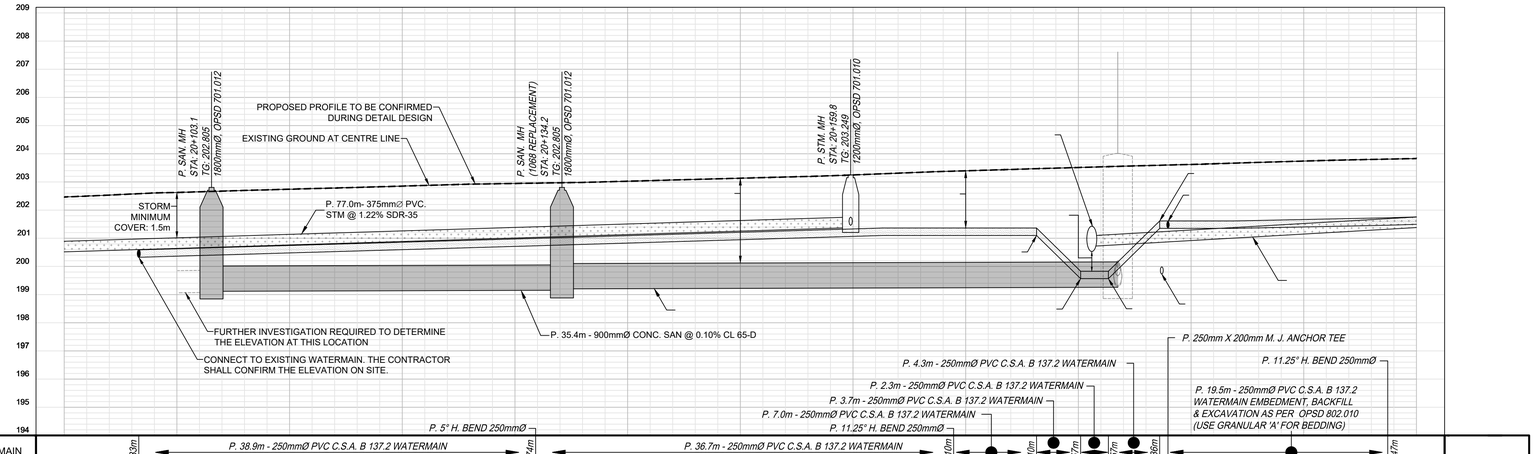
PROPOSED ROAD, SEWER AND WATERMAIN CONSTRUCTION ON:

Manager of Design, Engineering Services.

\\BARRIE.AINLEYGROUP.COM\NS1\DRAFTING\MISSISSAUGA\123035\DESIGN\123035_CLARENCE_ST_PLAN_PROFILE.DWG







WATERMAIN OBVERTS	200.33m	P. 38.9m - 250mmØ PVC C.S.A. B 137.2 WATERMAIN EMBEDMENT, BACKFILL & EXCAVATION AS PER OPSD 802.010 (USE GRANULAR 'A' FOR BEDDING)	200.74m	P. 36.7m - 250mmØ PVC C.S.A. B 137.2 WATERMAIN EMBEDMENT, BACKFILL & EXCAVATION AS PER OPSD 802.010 (USE GRANULAR 'A' FOR BEDDING)	201.10m	201.10m	199.57m	199.57m	201.06m	P. 19.5m - 250mmØ PVC C.S.A. B 137.2 WATERMAIN EMBEDMENT, BACKFILL & EXCAVATION AS PER OPSD 802.010 (USE GRANULAR 'A' FOR BEDDING)	201.41m	
SANITARY INVERTS	199.17IN	P. 35.4m - 900mmØ @ 0.10% Reinforced Concrete C.S.A. A 257.2 SANITARY SEWER BEDDING, COVER & BACKFILL AS PER OPSD 802.030	199.203W 199.153S	P. 56.2m - 900mmØ @ 0.10% Reinforced Concrete C.S.A. A 257.2 SANITARY SEWER BEDDING, COVER & BACKFILL AS PER OPSD 802.030	199.310W (EX.)	199.260W (EX.)	199.660NW (EX.)	199.960SE (EX. 4 PR.) 199.960S (EX. 4 PR.)				
STORM INVERTS	P. 77.0m - 375mmØ @ 1.22% C.S.A. B182.2 PVC SDR 35 C.S.A. A 257.2 STORM SEWER BEDDING, COVER & BACKFILL AS PER OPSD 802.030				201.465E 201.375SW				P. 54.1m - 375mmØ @ 2.50% C.S.A. B182.2 PVC SDR 35 C.S.A. A 257.2 STORM SEWER BEDDING, COVER & BACKFILL AS PER OPSD 802.030			
EXISTING ROAD ELEV.	202.626	202.741	202.852	202.945	203.026							
PROPOSED ROAD ELEV.												
CHAINAGE	20+100	20+110	20+120	20+130	20+140							

BRANTFORD

Ainley GROUP CONSULTING ENGINEERS PLANNERS

PROPOSED ROAD, SEWER AND WATERMAIN CONSTRUCTION ON:

Manager of Design, Engineering Services.

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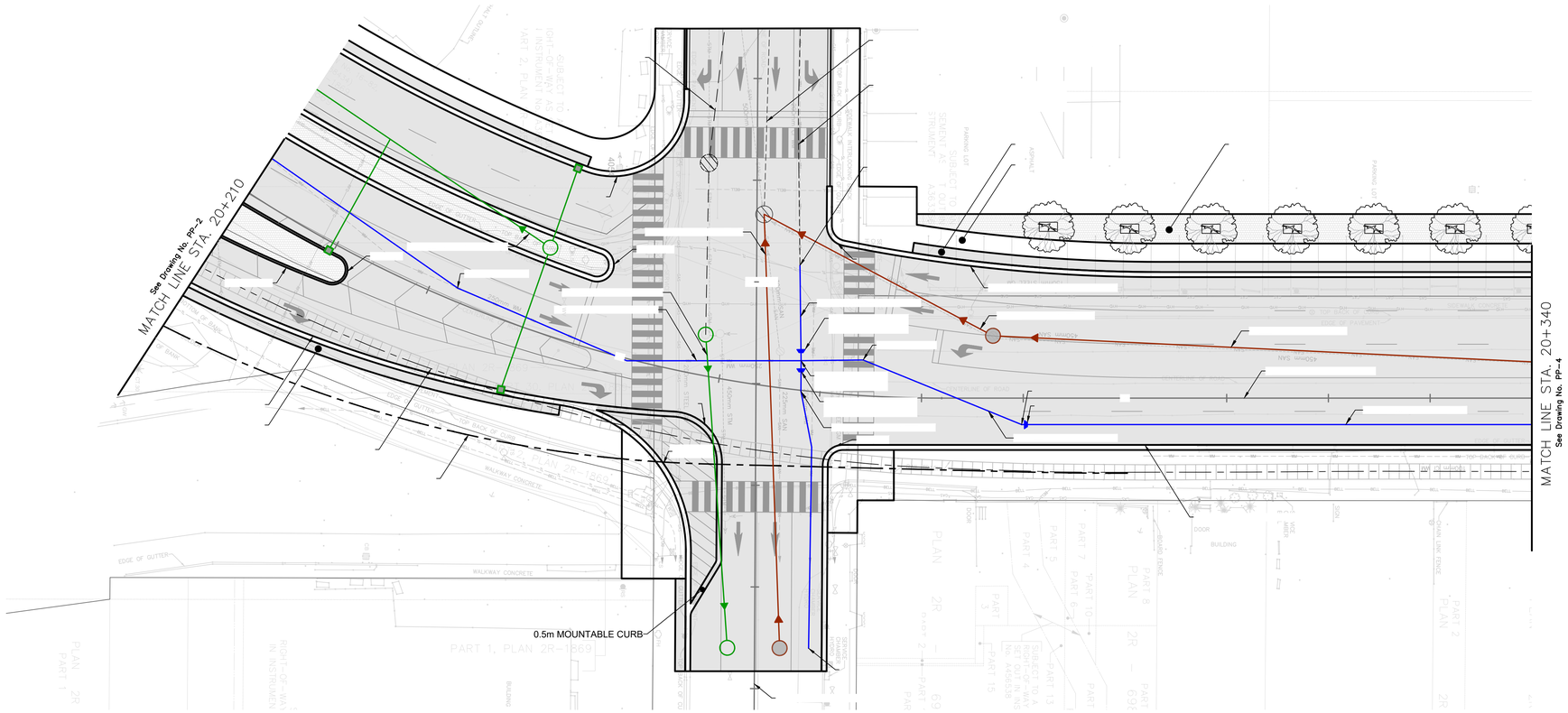

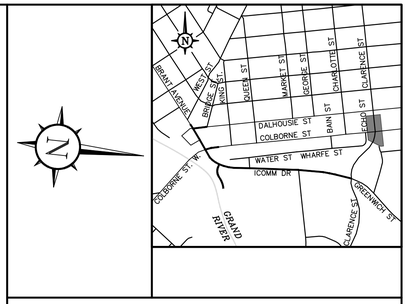

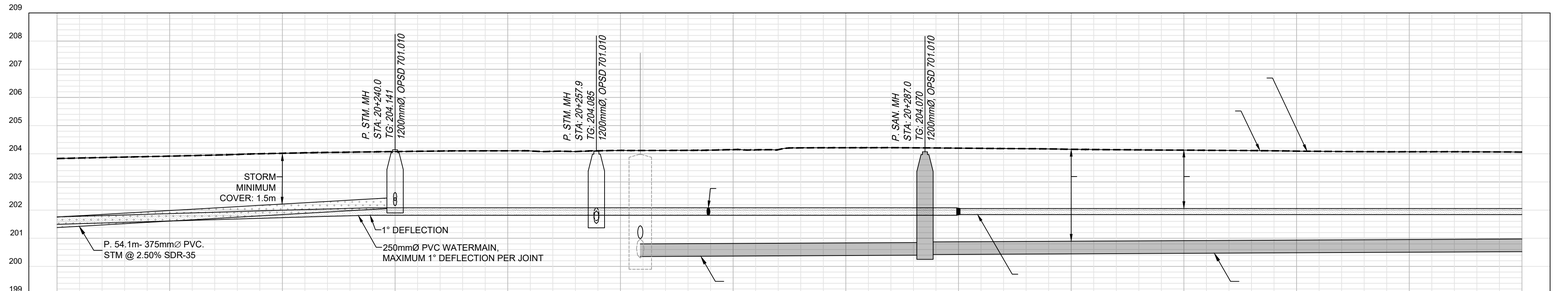

WATERMAIN OBVERTS	P. 24.7m - 250mmØ PVC C.S.A. B 137.2 WATERMAIN EMBEDMENT, BACKFILL & EXCAVATION AS PER OPSD 802.010 (USE GRANULAR 'A' FOR BEDDING) 201.77m 201.82m 201.82m 201.82m 201.82m 201.82m 201.82m 201.85m P. 76.8m - 200mmØ PVC C.S.A. B 137.2 WATERMAIN EMBEDMENT, BACKFILL & EXCAVATION AS PER OPSD 802.010 (USE GRANULAR 'A' FOR BEDDING)
SANITARY INVERTS	200.309W (EX) 200.439E 201.439W 200.589E P. 25.5m - 450mmØ @ 0.20% Reinforced Concrete C.S.A. A 257.2 SANITARY SEWER BEDDING, COVER & BACKFILL AS PER OPSD 802.030 200.439E 201.465W P. 76.8m - 450mmØ @ 0.20% Reinforced Concrete C.S.A. A 257.2 SANITARY SEWER BEDDING, COVER & BACKFILL AS PER OPSD 802.030
STORM INVERTS	P. 54.1m - 375mmØ @ 2.50% C.S.A. B182.2 PVC SDR 35 C.S.A. A 257.2 STORM SEWER BEDDING, COVER & BACKFILL AS PER OPSD 802.030 202.339W 202.070SW 202.150E 201.532E 201.628W (EX)
EXISTING ROAD ELEV.	203.916 204.017 204.078 204.106
PROPOSED ROAD ELEV.	
CHAINAGE	20+220 20+230 20+240 20+250

THE CORPORATION OF THE CITY OF BRANTFORD

Ainley GROUP CONSULTING ENGINEERS PLANNERS

PROPOSED ROAD, SEWER AND WATERMAIN CONSTRUCTION ON:

Manager of Design, Engineering Services.

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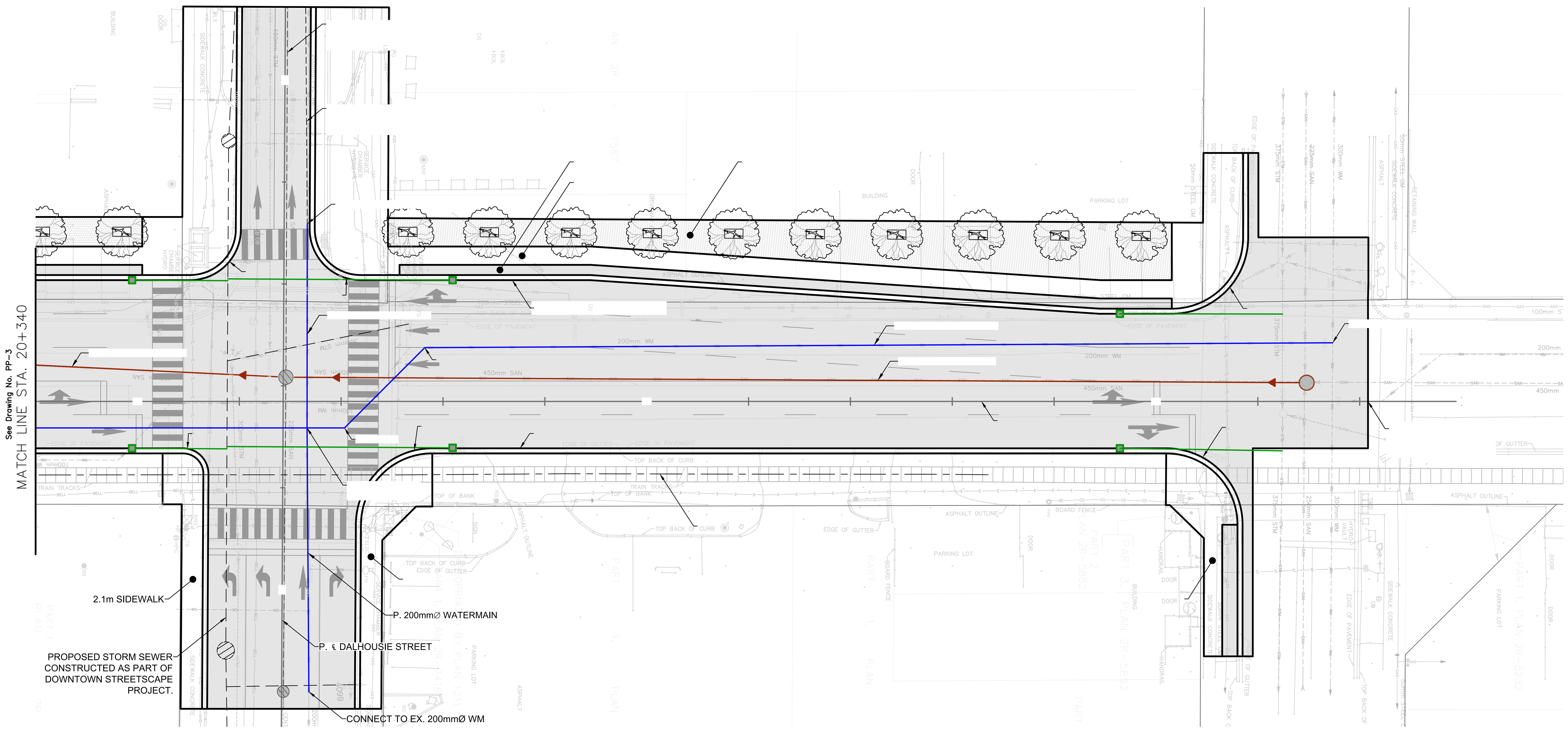

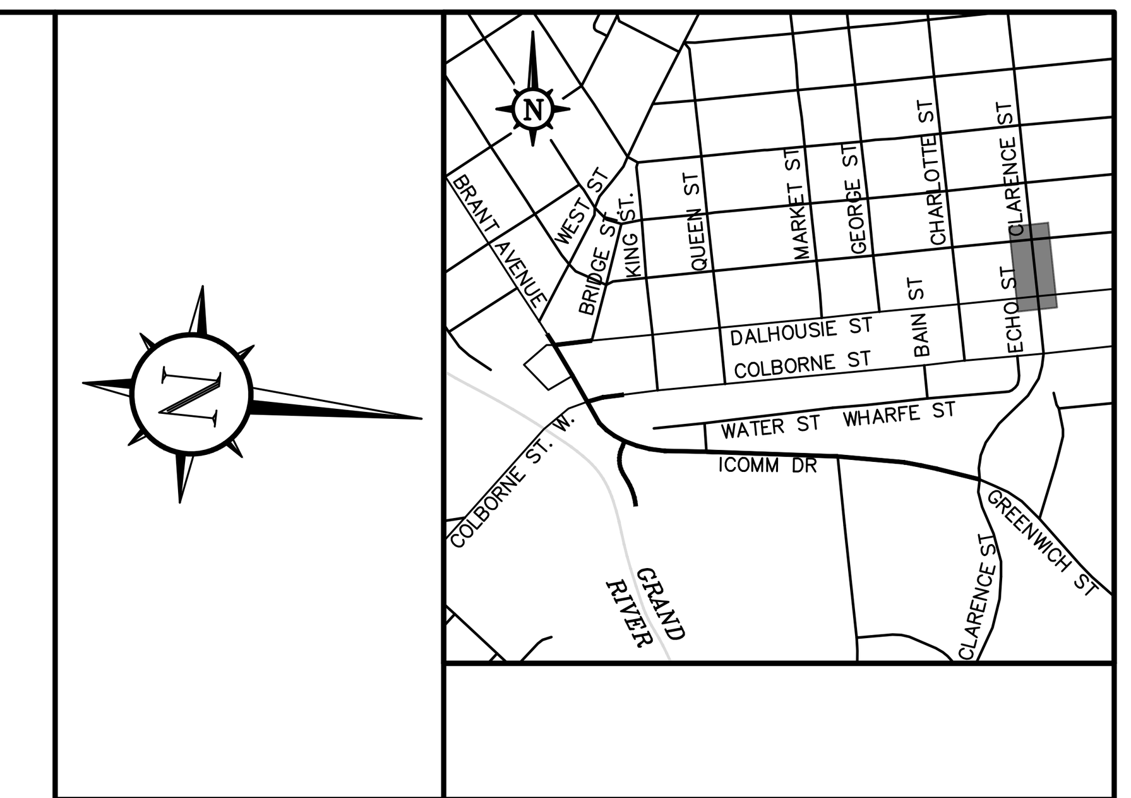

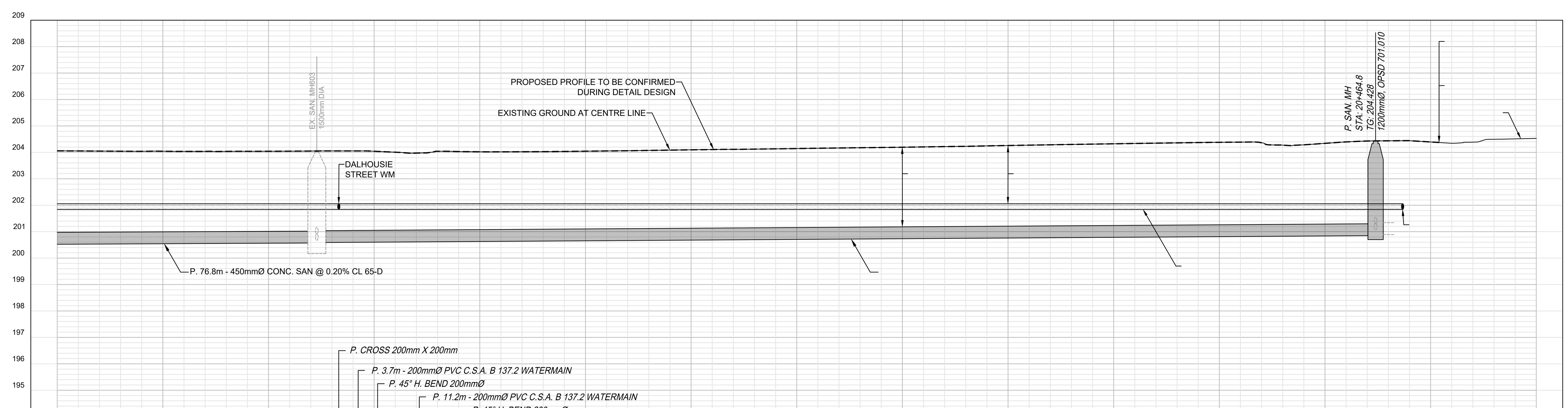

WATERMAIN OBVERTS	P. 76.8m - 200mmØ PVC C.S.A. B 137.2 WATERMAIN EMBEDMENT, BACKFILL & EXCAVATION AS PER OPSD 802.010 (USE GRANULAR 'A' FOR BEDDING); 201.85m; 201.85m; 201.85m	P. 89.2m - 200mmØ PVC C.S.A. B 137.2 WATERMAIN EMBEDMENT, BACKFILL & EXCAVATION AS PER OPSD 802.010 (USE GRANULAR 'A' FOR BEDDING); 201.85m				
SANITARY INVERTS	P. 76.8m - 450mmØ @ 0.20% Reinforced Concrete C.S.A. A 257.2 SANITARY SEWER BEDDING, COVER & BACKFILL AS PER OPSD 802.030; 200.670W (EX.) 200.918E (EX.) 200.600N (EX. & PR.) 200.580S (EX. & PR.)	P. 99.4m - 450mmØ @ 0.26% Reinforced Concrete C.S.A. A 257.2 SANITARY SEWER BEDDING, COVER & BACKFILL AS PER OPSD 802.030; 200.870N (EX.) 200.830S (EX. & PR.) 201.280W (EX.) 201.050E (EX.)				
STORM INVERTS						
EXISTING ROAD ELEV.	204.043	204.043	204.043	204.023	204.045	204.097
PROPOSED ROAD ELEV.						
CHAINAGE	20+350	20+360	20+370	20+380	20+390	20+400

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PROPOSED ROAD, SEWER AND WATERMAIN CONSTRUCTION ON:

Manager of Design, Engineering Services.

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Appendix H

Initial Assessment of Sewers Report (GEI)

GEI Consultants

CITY OF BRANTFORD

Hydraulic Modelling Analysis, and Engineering Services Assignment

Clarene Street Sanitary Sewer Sizing

Submitted to:
Alex Chalov
City of Brantford

Submitted by:
GEI Consultants Canada Ltd.
1266 South Service Road, Unit C31
Stoney Creek, ON L8E 5R9
905-643-6688

May 15, 2025
Project No. 2402709

DRAFT

Alyssa Kochanski, P.Eng.
Project Manager

Jonathan Brickman, P.Eng.
Project Manager

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Alyssa Kochanski/JB
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Certification

PREPARED BY:
GEI Consultants Canada Ltd.

Alyssa Kochanski, P.Eng.
Project Manager

REVIEWED BY:
GEI Consultants Canada Ltd.

Jonathan Brickman, P.Eng.
Project Manager

DRAFT

1. Project Scope

1.1. Study Area

The City is currently undergoing a feasibility study for Clarence Street from Darling Street to Greenwich Street/Icomm Drive. As part of this feasibility study, the City is confirming the wastewater sewer sizing including if there is a need for upsizing. Additionally, there is currently no stormwater servicing along Clarence Street within the project limits and will need local servicing following the reconstruction. **Figure 1-1** provides an overview of the reconstruction area along Clarence Street.

Figure 1-1. Study Area

1.2. Project Scope

In consultation with the City, the project scope will consist of reviewing the City's wastewater and stormwater systems to determine appropriate wastewater sewer sizing and stormwater sewer needs. The scope of work includes:

- Wastewater
  - Confirm capacity of wastewater sewers along Clarence Street between Darling Street to Greenwich Street/Icomm Drive under existing and future flows
  - Provide recommendations to meet required level of service for proposed sewer replacement
- Stormwater
  - Provide recommendations for future stormwater servicing needs along Clarence Street between Darling Street to Greenwich Street/Icomm Drive

1.3. Analysis Tools

The analysis was completed by utilizing the City's existing:

- Wastewater model, developed/updated in 2013 and 2020 as part of the MSP, and subsequently updated in 2023 using additional flow monitoring records, and
- Stormwater model, developed in 2020 as part of the MSP.

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2. Wastewater System Analysis

2.1. Local Wastewater System

The wastewater sewer to be replaced is located on Clarence Street between Darling Street to Greenwich Street/Icomm Drive and consists of 450 mm to 750 mm sewers. The sewers are fed by gravity to the 900 mm trunk sewer along Greenwich Street which flow south and south-east to the Wastewater Treatment Plant (WWTP). The sewers reviewed in this analysis include the following:

- 450 mm Clay Tile (CT) sewer from Darling Street to Dalhousie Street (100 m)
- 450 mm Asbestos Cement (AC) sewer from Dalhousie Street to Colborne Street (103 m)
- 500 mm AC sewer on Colborne Street (30 m)
- 675 mm Concrete Pipe (CP) from Coborne Street to Wharge Street (60 m)
- 750 mm CP sewer from Wharfe Street to Greenwich Street (45 m)

Figure 2-1 presents the local wastewater system.

2.2. Wastewater Performance Objectives

The sewer performance was assessed under dry weather flow and the 10-year design storm, the level of service objective identified in the City's MSP update, using the updated InfoWorks ICM wastewater model. This model was updated and calibrated using flow monitoring and water billing records. Sewer conditions were defined and assessed on the following conditions:

- Maximum d/D: Maximum depth of flow in pipe relative to obvert elevation of downstream. Surcharging occurs when depth of flow in pipe is equal to or greater than obvert elevation (d/D = 1)
- Average d/D: Average depth of flow in pipe relative to obvert elevation of downstream. Surcharging occurs when depth of flow in pipe is equal to or greater than obvert elevation (d/D = 1)
- Minimum freeboard: Minimum depth of hydraulic grade line (HGL) below ground elevation within pipe segment during peak flow conditions
- Average freeboard: Average depth of HGL below ground elevation within pipe segment

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2.3. Wastewater System Impacts and Modelling Results

2.3.1. Gravity Sewer Performance

Table 2-1 summarizes the peak wet weather flow results along the subject sewer on Clarence Street under a 10-year design storm.

Table 2-1. Downstream Gravity Sewer Performance – Peak Wet Weather Flow

Description			Peak Wet Weather Flow	
			d/D	Freeboard (m)
Existing Conditions	MH CN204 at Darling St to MH CN 234 on Colborne St (450 mm sewer)	Max	0.64	2.9
		Avg	0.60	3.1
	MH CN 234 on Colborne St to MH EP540 on Icomm Dr (500-750 mm sewer)	Max	0.58	3.4
		Avg	0.49	3.7
2051 Conditions	MH CN204 at Darling St to MH CN 234 on Colborne St (450 mm sewer)	Max	0.65	2.9
		Avg	0.61	3.1
	MH CN 234 on Colborne St to MH EP540 on Icomm Dr (500-750 mm sewer)	Max	0.61	3.4
		Avg	0.51	3.7

Notes:
1. Sewer surcharging when d/D >1

Within both existing and future, 2051 growth conditions, the sewer on Clarance Street sewer has sufficient capacity to accommodate 10-year peak wet weather flows as pipe capacity remains below 0.7. As such, additional upsizing is not necessary and the sewer sizing from Darling Street to Icomm Drive can be maintained with existing sizing.

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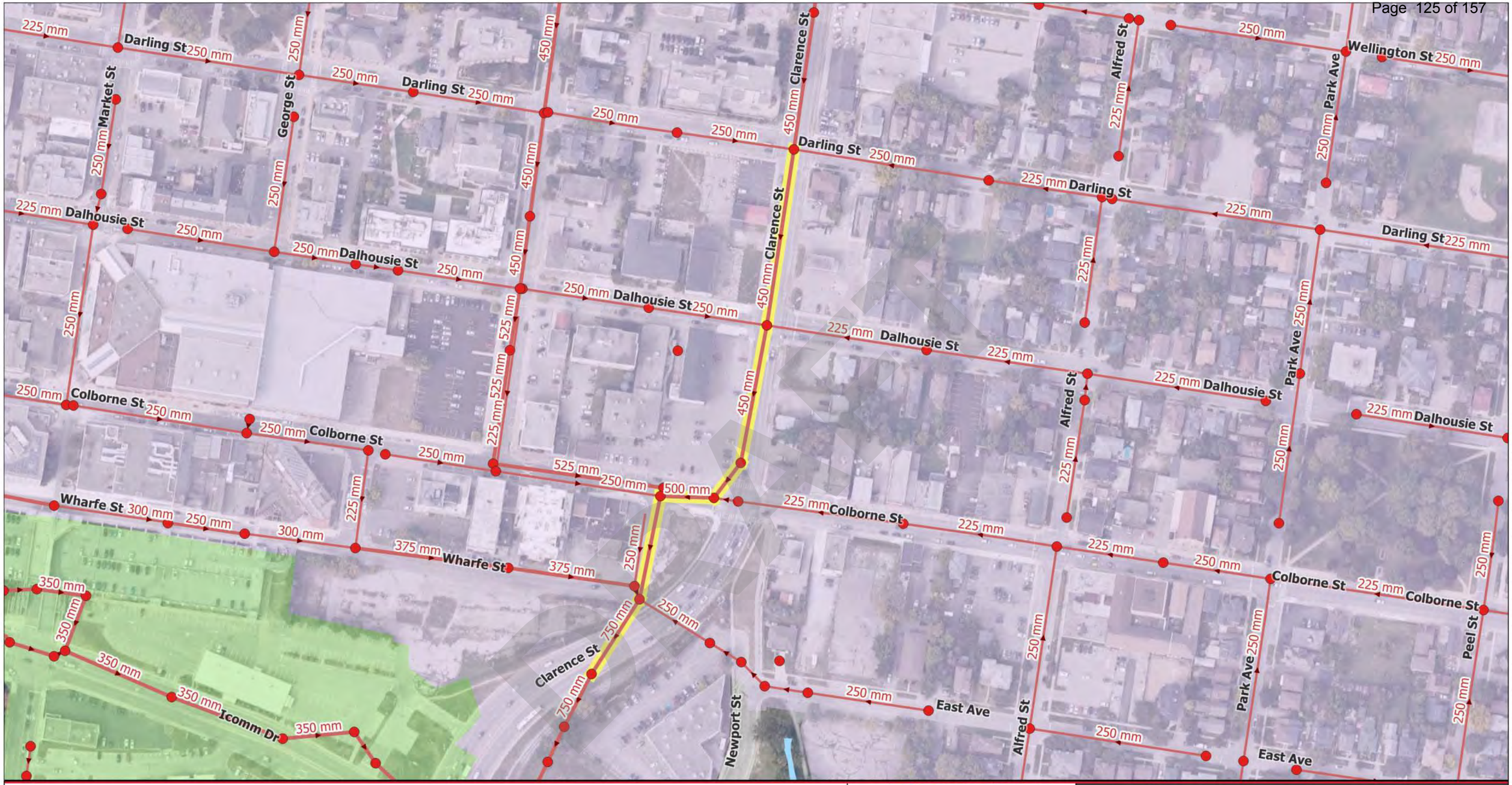

Existing Wastewater Infrastructure

- WWPS
- WWTP
- Wastewater Sewer (≤300 mm)
- Wastewater Trunk (>300 mm)
- Forcemains
- Manholes

- Alexander Dr WWPS
- Empey St WWPS
- Fifth Ave WWPS
- Greenwich St WWPS
- Johnson Rd WWPS
- Lawren S. Harris Dr WWPS
- Somerset Rd WWPS
- St.Andrew's Ave WWPS
- Woodlawn Rd WWPS
- Upstream of Flow Split
- WWTP

Feasibility Study Area

- Subject Sewer

Reference(s)
1. Projection EPSG:2958

50 100 150 200 m

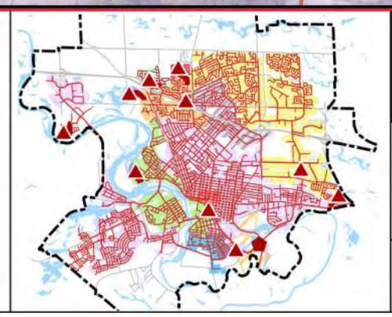

Figure 2-1
Local Wastewater System

Project Name:
Clarence Street Sanitary Sewer Sizing

Client Name:
City of Brantford

GEI

Last Updated: May 2025
Document ID: 2402709-WW-001

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3. Stormwater System Review

3.1. Existing Stormwater System

There are currently no storm sewers running along Clarence Street between Darling Street and Icomm Drive; however, five (5) storm sewers run perpindicular to the subject alignment, crossing Clarence Street at Darling Street (375mm), Dalhousie Street (600mm), Colborne Street (450mm), Wharfe Street (900mm), and immediately north of Icomm Drive (1050mm). These storm sewer collect stormwater runoff from catchbasins located at each of these storm sewer crossings along Clarence Street. Flows are then conveyed west to east to the trunk storm sewer through an easement east of Clarence Street, ultimately outletting into the Mohawk Canal within the Mohawk subcatchment.

Figure 3-1 provides an illustration of the existing stormwater system.

3.2. Stormwater System Impacts and Modelling

The sewer performance was assessed under the 2-year Chicago 3-hr design storm, the level of service objective identified in the City's MSP update, using the updated InfoWorks stormwater model. **Table 3-2** summarizes the peak wet weather flow results of the existing system at each major intersection along Clarence Street noting that performance includes existing flows from Clarence Street.

Table 3-1. Stormwater Sewer Performance – Peak Wet Weather Flows

Intersection Street	Manhole ID	Peak Wet Weather Flow		
		Flow (L/s)	d/D	Freeboard (m)
Darling Street	11M545	328	**2.00**	0.7
Dalhousie Street	11M379	293	0.63	1.3
Colborne Street	11M390	478	**2.00**	0.7
Wharfe Street	11M482	1813	0.88	0.6
Icomm Drive	10M087	567	**1.00**	3.2

Notes:
1. d/D < 1 - Water level at the upstream and / or downstream end of the pipe is below the soffit level
2. d/D = 1 - Water level at the upstream and / or downstream end of the pipe is at or above the soffit level, but the flow does not exceed the pipe's theoretical full capacity
3. d/D = 2 - Water level at the upstream and / or downstream end of the pipe is greater than the soffit level, and the flow exceeds the pipe's theoretical full capacity.

The current configuration on Clarence Street may be insufficient during heavier rainfall events, potentially leading to localized surface ponding and increased flood risk along the roadway. Further, debris buildup in the curb/gutter may prevent runoff from draining to the nearest inlet causing additional ponding at the surface. Installing local storm sewers along Clarence Street could improve stormwater conveyance by providing a dedicated flow path, thereby reducing surface runoff accumulation, minimizing flooding at low points, and improving overall system resilience.

DRAFT

New local storm sewers would connect at major intersections noting that there are currently constraints within the downstream storm sewers on Darling Street, Colborne Street, and Icomm Drive; however, additional flows from Clarence Street are already accounted for in the presented analysis and the currently system does not result in overland flooding as a result.

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Existing Stormwater Infrastructure

- 0 - 300
- 300 - 2450
- Manhole
- Detention

- D'Aubigny
- Fairchild-Garden
- Fairchild-Jones
- Fairchild-North
- Fairchild-South
- Grand Eagle View
- Grand Homedale
- Grand NW
- Grand SW
- Mohawk
- Tutela Heights
- Unknown

Feasibility Study Area

Subject Storm Sewer

Reference(s)
1. Projection EPSG:2958

60 120 180 240 m

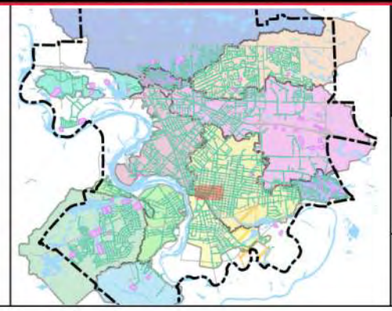

Figure 3-1
Local Stormwater System

Project Name:
Clarence Street Sanitary Sewer Sizing

Client Name:
City of Brantford

GEI

Last Updated: May 2025
Document ID: 2402709-SW-001

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4. Recommendation & Conclusion

4.1. Wastewater

The feasibility study area along Clarence Street between Darling Street and Icomm Drive has sufficient capacity with existing sewer diameters under a 10-year design storm under both existing and future (2051) conditions. As such, existing sewer sizing should be maintained as sewers are replaced due to age and condition:

- 450 mm from Darling Street to Dalhousie Street
- 450 mm from Dalhousie Street to Colborne Street
- 500 mm on Colborne Street
- 675 mm from Coborne Street to Wharge Street
- 750 mm Wharfe Street to Greenwich Street

4.2. Stormwater

Clarence Street does not have continuous storm sewers running north-south. Instead, catchbasins located near each intersection convey runoff eastward, relying on limited cross-street conveyance. This configuration may be insufficient during heavier rainfall events, potentially leading to localized surface ponding and increased flood risk along the roadway. Further, debris buildup in the curb/gutter may prevent runoff from draining to the nearest inlet causing additional ponding at the surface. Installing local storm sewers along Clarence Street could improve stormwater conveyance by providing a dedicated flow path, thereby reducing surface runoff accumulation, minimizing flooding at low points, and improving overall system resilience. New storm sewers would connect at major intersections and can accommodate additional flows without surface flooding.

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Alternative formats and communication supports available upon request. Please contact accessibility@brantford.ca or 519-759-4150 for assistance.

Date December 2, 2025 **Report No. 2025-587**

To Chair and Members
Committee of the Whole Operations

From Selvi Kongara, M.S.(Eng.), P.Eng.
Commissioner of Public Works

1.0 Type of Report

Consent Item	[ ]
Item For Consideration	[X]

2.0 Topic: Update on Emergency Procurement to Address Nitrates in the Grand River [Financial Impact - None]

3.0 Recommendation

A. THAT Report No. 2025-587 titled “Update on Emergency Procurement to Address Nitrates in the Grand River” BE RECEIVED.

4.0 Executive Summary

In a Special City Council meeting on January 21, 2025, Report No. 2025 – 18, council was informed of high Nitrate levels in the Grand River and how this was affecting Water Operations for the City of Brantford and what actions Water Operations were implementing to ensure the drinking water for the City remained safe. One of the actions that was completed was the installation and operation of mobile reverse osmosis treatment system to help reduce the rising Nitrate levels in the Grand River. This was done to ensure the City’s treated water stayed below the Nitrate Maximum Allowable Concentration (MAC) of 10

mg/L which is regulated by the Ministry of Environment, Conservation and Parks (MECP).

Given the importance and urgency to meet the Provincial drinking water safety requirements, the Commissioner of Public Works authorized the emergency procurement of the mobile reverse osmosis treatment system. As per the purchasing policy requirement, this report is submitted to inform Council about the reasons and details of the procurement. The procurement included delivery, set-up, and commissioning of four (4) temporary reverse osmosis trailers, two (2) pump skids, two (2) diesel generators, inlet and outlet piping, valves, hoses, along with process, SCADA and building modifications, with assistance from contractors, consultants and equipment providers. The temporary system was in operation from March 2025 to May 2025 and the overall cost of procurement and operation was about $1.175 million. It enabled uninterrupted supply of safe drinking water to residents and businesses in the City including the duration when the Nitrate level in the Grand River reached over 10 mg/l.

As the Nitrate level in the Grand River tends to increase in colder months, the temporary (rental) mobile reverse osmosis system will be remobilized again for this winter 2025/2026 (beginning in December 2025 and will be available until April 2026) to supply safe drinking water. For future years, the City is exploring the purchase of temporary trailers like the current rental units to reduce the overall annual cost and to improve operational efficiency. The reverse osmosis is a robust technology from the supply of safe drinking water point of view. It removes not only Nitrate but also other contaminants such as microcystin from excess algal growth, pharmaceuticals, and Polyfluoroalkyl Substances (PFAS).

The capital project (#WT2501): *Nitrate issue in source water* has $25 million allocated from 2025 to 2027 to fund studies, preliminary investigations, temporary reverse osmosis system, and the design of permanent reverse osmosis system. Construction of the permanent reverse osmosis system is estimated to cost about $125 million which is included in the capital budget for the year 2030. To minimize the financial impact on water rate payers, staff are evaluating Nitrate trending in the Grand River, use of the temporary system for longer periods and available grant funding from provincial and federal programs for this project.

5.0 Purpose and Overview

The purpose of this report is to update council on the mobile reverse osmosis (RO) treatment systems used from March 2025 to the end of May 2025 and the

mobile reverse osmosis treatment system is being installed and operated in December 2025 to April 2026.

6.0 Background

On January 1, 2025, Water Operations experienced an emergency situation with the Nitrate levels in the Grand River reaching the MAC of 10 mg/L. Even though the City of Brantford's Holmedale Water Treatment Plant (WTP) is a highly sophisticated level 4 water treatment plant, it is unable to remove or reduce Nitrates in the raw water. For the January 1st event, Water Operations implemented emergency procedures including closing of inlet gates to prevent use of impacted water from the Grand River for water production and dilution of Nitrate using treated water in the storage reservoirs and were able to avert the City's drinking water from reaching the MAC. Had treated water gone over the MAC of 10 mg/L, Grand Erie Public Health (GEPH) would have issued a drinking water advisory to the City.

Because of this event, it was determined that emergency actions needed to be put in place to protect the City's drinking water. The Commissioner of Public Works determined that the impending situation required immediate procurement in order to prevent or mitigate danger to life, health, or property and exercised Section 3.04 Special Provisions for emergencies in the City's Purchasing Policy in effect at the time to allow for Water Operations to quickly have temporary trailer mounted Reverse Osmosis (RO) treatment units installed and operational as soon as possible. The RO systems were supplied by Veolia.

The procurement, delivery, set-up, and commissioning of four (4) temporary reverse osmosis trailers, two (2) pump skids, two (2) diesel generators, inlet and outlet piping, valves, hoses, along with process, SCADA and building modifications, and with the assistance from contractors, consultants and equipment providers, was all completed in a commending short 5-week period and the trailer mounted RO treatment system was on line and operational at the beginning of March 2025. The Grand River Nitrate level stayed between 6 mg/l to 10 mg/l between Jan-March 2025. Even though the level dropped in April, it stayed above 8 mg/l for few days in May 2025. The temporary RO system was decommissioned at the end of May 2025 when the Nitrate levels went down.

While the temporary RO system was operating on site, Water Operations staff collected a large amount of water quality data. This was done to ensure Nitrate removal was occurring and at what concentration, to analyze how the RO water was affecting our typical water treatment process, and to ensure the quality of water being treated was meeting all regulated parameters. Staff also spent

numerous hours adjusting the water treatment process to ensure the RO system and the treatment process were being optimized and working as intended. All of the process optimization and data collected being done with the temporary system in place will prove to be very valuable for the implementation and operation of the permanent RO system.

Water Operations, through the City's Request for proposal (RFP) process, secured an RO system for the winter of 2025/2026 and Veolia is again the successful company providing the RO systems. The anticipated commissioning and operational start date is early December 2025. Water Operations will continue to collect and analyze data and optimize the treatment process to ensure the optimal removal of Nitrate is occurring while not affecting finished treated water quality. Water Operations will also continue to review the market regarding mobile RO treatment systems to ensure that the units are efficient in a cost-effective manner.

Along with procuring the temporary RO system, Water Operations moved forward with having an electrical transformer installed to eliminate the need to use rented diesel generators to supply power to the trailers and pump skids. The transformer was sized to not only supply electrical power for the temporary RO system but also can be used for the permanent RO system when it is built. Having the transformer in place eliminates the labor-intensive operation of generators and eliminates the greenhouse gas (GHG) emissions while the RO system is in operation.

7.0 Corporate Policy Context

Council Priority #10 – Build a Greener Brantford - The Grand River - Plan for the river to be an integral and unique part of the City, both from a tourist perspective but also to improve the Quality of Life for the community.

8.0 Input From Other Sources

Input was received from City of Brantford Purchasing department, Communications and Customer Service departments, Grand River Conservation Authority, GrandBridge Energy, MECP, and Grand Erie Public Health (GEPH).

9.0 Analysis

As per the procedures approved by the MECP and the GEPH, when Nitrate levels in the Grand River rise above 8 mg/L in the winter months, Water Operations staff will start operating the temporary RO systems. Water

Operations continue to optimize the WTP to ensure the maximum Nitrate removal can be achieved. To install the permanent RO system, the City is undertaking preliminary investigations and the design of the system will start in 2026.

Water Operations also investigated installing a dedicated electrical transformer that would not only support the temporary mobile RO systems but also the permanent RO system. A cost analysis of renting diesel generators, including fuel costs, over a 5-year period was compared to the cost to purchase and install a new 2500 kVA transformer to supply power to the mobile temporary RO systems. It was determined that there would be tremendous cost savings in purchasing, installing and using a new transformer compared to renting the generators. Installing the new transformer has a payback of approximately 3 years and could save the City more than $600,000 over the lifetime of renting the mobile RO systems. The transformer will be able to be used for the permanent RO system. The installation of an electrical transformer will also eliminate any GHG emissions being produced by the generator engines.

Table 1: Comparison of rental cost of diesel generators against installation of permanent transformer.

Diesel Generator Rental Costs including diesel fuel – March to May (3 Months)	2500 kVA permanent transformer installed to be used for the seasonal mobile RO treatment rental system and for the full RO build out
$243,682	$750,000 *estimated at time of report

10.0 Financial Implications

The 2025-2027 capital project account WT2501 includes $25 million (debenture financing supported by water rates) for all studies, assessments, temporary RO system and design of the permanent RO system to address the Nitrate issue. As given in Table 2 below, the installation and operation of the temporary RO system during last winter (from March to May 2025) cost $1,175,727 and it is estimated to cost $1,298,000 for the upcoming winter (from December 2025 to April 2026). It is anticipated that the temporary RO system will be needed for at least another five (5) years until permanent RO system is constructed. The City is exploring the purchase of temporary trailers like the current rental units to reduce the overall annual cost and to improve operational efficiency.

Table 2: Annual operating cost of Temporary Reverse Osmosis (RO) system

Temporary RO System Costs include rental mobile RO treatment system, equipment such as piping and valves, chemicals, building and grounds works, consultant and contractor fees – **February 2025 to May 2025** (4 months, 3 months of RO system rental)	Temporary RO System Costs include rental mobile RO treatment system, system upgrades, chemicals, and grounds works. – **December 2025 – April 2026** (5 months, 4 months of RO system rental)
$1,175,727	$1,298,000 *estimated at time of report

Construction of the permanent reverse osmosis system is estimated to cost about $125 million (debenture financing supported by water rates and Development Charges) which is included in the capital budget for 2030. To minimize the financial impact on rate payers, staff are evaluating Nitrate trending in the Grand River, use of the temporary system for longer periods and pursuing grant funding from provincial and federal programs for this project.

11.0 Climate and Environmental Implications

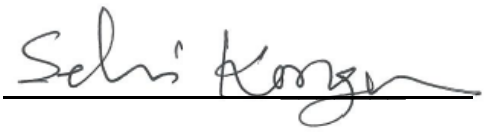
Two 750 kW diesel generators were rented to run the mobile RO treatment system from March to May 2025. Prior to the diesel generators arriving on site at the WTP, a nitrogen oxide (NOx) emission and noise model were completed to ensure they would meet compliance with MECP guidelines and standards. The MECP reviewed the model and documentation provided and approved the use of the generators. With installing the transformer, the need for the generators is eliminated. It also eliminates the GHG emissions produced by the generator engines.

Water Operations also had to ensure the temporary mobile RO treatment systems met all regulations from the MECP. The Ministry's main concern was the discharge of waste from the RO membranes, known as water concentrate, that was being discharged to the onsite storm sewer that leads back to the Grand River. Water Operations were required to show through a detailed water analysis that the water being discharged to the river, which included Nitrates, was within compliance with any regulations and would not have any negative effects on the environment. The MECP provided permission to move forward with its water concentrate discharge practice.

12.0 Conclusion

The City of Brantford Water Operations has been monitoring the trend of Nitrate, a form of Nitrogen, in the Grand River for many years. During the last two to three years, Nitrate levels have trended upwards. On two occasions earlier in 2025, levels of Nitrate in the Grand River were measured at more than 9.0 mg/L, which is very close to exceeding the Ontario Drinking Water Standard of 10 mg/L. If the level exceeded 10 mg/L in the finished treated water, it could pose health risks to infants under the age of one and pregnant women and could cause a drinking water advisory to be called for the City.

The mobile RO treatment systems that are being rented during the cold season are designed to remove Nitrate from the raw water before it is disinfected. Water Operations will operate the RO system to reduce the Nitrate levels when the levels are seen to be trending upwards toward the MAC. Water Operations are fully committed to ensure the water being produced at the WTP remains safe for the citizens of Brantford.



Selvi Kongara, M.S.(Eng.), P.Eng.
Commissioner of Public Works

Prepared By:

Duane Ayres, Director of Environmental Services

Attachments

None

Copy to:

None

In adopting this report, is a by-law or agreement required? If so, it should be referenced in the recommendation section.

By-law required	[ ] yes	[x] no
Agreement(s) or other documents to be signed by Mayor and/or City Clerk	[ ] yes	[x] no
Is the necessary by-law or agreement being sent concurrently to Council?	[ ] yes	[x] no

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Date December 2, 2025 **Report No.** 2025-87

To Chair and Members
Committee of the Whole - Operations

From Selvi Kongara, M.S.(Eng.), P. Eng.
Commissioner, Public Works Commission

1.0 Type of Report

Consent Item [ ]
Item For Consideration [X]

2.0 Topic Grand River Ice Jam Study Update [Financial Impact - None]

3.0 Recommendation

A. THAT Report 2025-87 titled “Grand River Ice Jam Study Update” BE RECEIVED.

4.0 Executive Summary

The City of Brantford experienced a Flooding Event as a result of the sudden release of an upstream ice jam in the Grand River in the early hours of February 21, 2018. Following this event, The Grand River Conservation Authority (GRCA) completed a study to characterize ice jam and flooding risk in this area in 2018. Matrix Solutions (then Ecosystem Recovery Inc.) was retained by the GRCA, in partnership with the City of Brantford, and completed the feasibility study for the development and refinement of alternative mitigation measures to reduce ice jam potential in Brantford.

In 2024, the GRCA, in partnership with the City of Brantford, retained Montrose Environmental Solutions to undertake the Brantford Ice Jam Mitigation Class Environmental Assessment (EA). Baseline environmental reports (Natural Heritage, Cultural Heritage, Archaeological) have been completed as part of the work for the EA. Once the preferred alternative(s) have been confirmed through the evaluation of alternatives and supported by consultation with the public and agencies, as well as engagement with First Nations, it will be subjected to a more detailed analysis of potential environmental impacts. Following this process, the Environmental Study Report (ESR) will be finalized, after which a Notice of Completion of the ESR will be issued for a 30-day public review period, followed by the Notice of Project Completion.

5.0 Purpose and Overview

The purpose of this report is to provide Council with an update on progress related to the Brantford Ice Jam Mitigation Class Environmental Assessment following the 2018 Flooding Event.

6.0 Background

The City of Brantford experienced a Flooding Event as a result of the sudden release of an upstream ice jam in the Grand River in the early hours of February 21, 2018. Following this event, The Grand River Conservation Authority (GRCA) completed a study to characterize ice jam and flooding risk in this area in 2018. The investigation was completed in cooperation with the City of Brantford and Report No. 2020-92[1] was received by Council and the GRCA Board in March 2020 with a recommendation to carry out an Ice Jam Mitigation Feasibility Study to advance the development of mitigation options.

Matrix Solutions (then Ecosystem Recovery Inc.) was retained by the GRCA, in partnership with the City of Brantford, to undertake the feasibility study for the development and refinement of alternative mitigation measures to reduce ice jam potential in Brantford. A draft Ice Jam Mitigation Feasibility Study has been prepared, with an initial evaluation of mitigation measures completed. At this stage in the Feasibility Study, to recognize efficiencies in advancing to detailed design, additional scope to satisfy the Class Environmental Assessment was recommended.

In 2024, the GRCA, in partnership with the City of Brantford, retained Montrose Environmental Solutions to undertake the Brantford Ice Jam Mitigation Class

[1] https://pub-brantford.escribemeetings.com/filestream.ashx?DocumentId=5142

Environmental Assessment. Work completed to date includes draft technical reports, evaluation of alternatives, and engaging with First Nations at various stages throughout the process. The public consultation to present the technical report findings and evaluation of the alternatives is planned for winter 2026. The study will be completed in accordance with the Conservation Ontario Class Environmental Assessment (EA) for Remedial Flood and Erosion Control Projects. The completion of the EA will further advance the ice jam mitigation preferred management strategy to detailed design and construction, which will be completed in subsequent project phases. This report provides a summary of the work done to date, which will be provided to the public through the Public Information Center (PIC). Detailed design and construction will proceed under subsequent separate projects, in partnership with the City of Brantford.

7.0 Corporate Policy Context

This project is in line with the following Council Priorities (2023-2026):

- **Strategic Theme No.2** – Focus on production and collaborative partnerships
- **Strategic Theme No.10** – Build a greener Brantford

8.0 Input From Other Sources

Input for this report was provided by the GRCA and the City's Finance Department.

9.0 Analysis

Baseline environmental reports (Natural Heritage, Cultural Heritage, Archaeological) have been completed as part of the work for the Brantford Ice Jam Mitigation Environmental Assessment. The work involved site assessments, some of which were attended by representatives from Indigenous partners. Results from the reports are as follows:

- **Natural Heritage** – The study area includes provincially and locally significant wetlands, and a large portion of the study area has been designated as Core Natural Areas in the City of Brantford's Official Plan. A total of 55 terrestrial species at risk (SAR) were identified as potentially occurring within the study area. In total, 64 fish and 19 mussel records were identified as potentially occurring within the study area, which include 4 SAR fish and 4 SAR mussels;

- **Cultural Heritage** – The cultural heritage screening and review identified 21 potential built heritage resources (BHR) and 3 cultural heritage landscapes (CHL). The preliminary impact assessment conducted for the Preferred Alternatives determined that there are no anticipated direct or indirect impacts to 3 of 21 identified potential BHRs as a result of the proposed construction activities. Potential direct and/or indirect impacts have been identified for the remaining 18 potential BHRs and 3 CHLs; and

- **Archaeological** – As the study area contained several features signaling archaeological potential, as well as imagery indicating that disturbance had occurred within portions of the study area, a Stage 1 property inspection was conducted to evaluate the current conditions of the project area and determine if any areas of archaeological potential remained intact. All portions of the study area identified as retaining archaeological potential will require a Stage 2 archaeological assessment prior to ground disturbing activities.

The Brantford Ice Jam Mitigation Feasibility Study in 2021 identified ten alternative methods that were carried forward for further evaluation as potential solutions as part of this Environmental Assessment Study. The evaluation of each of the alternatives was completed by establishing appropriate evaluation categories and criteria consistent with the Conservation Ontario Class Environmental Assessment for Remedial Flood and Erosion Control Infrastructure and reflecting local stake holder and rights holder interests.

The four evaluation categories and criteria include:

- **Technical/engineering environment** – design, construction, operation and maintenance;

- **Natural heritage environment** – terrestrial environment, aquatic environment;

- **Socio-economic / Cultural environment** – public health and safety, archaeological value, built and cultural heritage resources, aesthetics, First Nations, planning; and

- **Economic environment** – flood damage, implementation costs, operation and maintenance.

The preferred alternatives that are being proposed to be carried forward include a combination of raising the dike and floodwall protection and overbank vegetation management or grading to provide flow conveyance relief on the west bank.

A PIC will be held to present the technical reports and the evaluation of preferred alternatives for public input. Further consultation will be undertaken with First Nations prior to the PIC to review the findings of the technical reports and incorporate feedback on the evaluation of the alternatives.

Once the preferred alternative(s) have been confirmed through the evaluation of alternatives and supported by consultation with the public and agencies, as well as engagement with First Nations, it will be subjected to a more detailed analysis of potential environmental impacts. Following this process, the Environmental Study Report (ESR) will be finalized, after which a Notice of Completion of the ESR will be issued for a 30-day public review period, followed by the Notice of Project Completion.

The next phase of the Brantford Ice Jam Mitigation will include detailed design and construction of the preferred alternative which will be advanced as a new project to be undertaken by the GRCA and City of Brantford.

10.0 Financial Implications

The City and the GRCA will work together following identification of the preferred alternatives, in conjunction with Dyke Maintenance Agreements, in relation to cost sharing requirements for the design and construction. Required funding of the preferred alternatives will be included within the next Multi-Year Budget submission.

11.0 Climate and Environmental Implications

There are no direct climate and environmental implications as a result of this report. However, as design and construction of the various preferred alternatives come before City Council, the Climate and Environmental Implications will be detailed.

12.0 Conclusion

As a means to update Council, the GRCA, in partnership with the City of Brantford, retained Montrose Environmental Solutions to undertake the Brantford Ice Jam Mitigation Class Environmental Assessment (EA). Baseline

environmental reports (Natural Heritage, Cultural Heritage, Archaeological) have been completed as part of the work for the EA. Once the preferred alternative(s) have been confirmed through the evaluation of alternatives and supported by consultation with the public and agencies, as well as engagement with First Nations, it will be subjected to a more detailed analysis of potential environmental impacts.

In early-mid 2026 the Environmental Study Report (ESR) is anticipated to be finalized, after which a Notice of Completion of the ESR will be issued for a 30-day public review period, followed by the Notice of Project Completion.

Selvi Kongara, M.S.(Eng.), P.Eng.
Commissioner of Public Works

Prepared By:

Jennifer Elliott, LET, C.E.T., Dipl.M.M.
Director of Engineering Services

Katelyn Lynch, P.Eng.
GRCA, Director of Water Infrastructure

Attachments (if applicable)

Copy to:

In adopting this report, is a by-law or agreement required? If so, it should be referenced in the recommendation section.

By-law required	[ ] yes	[X] no
Agreement(s) or other documents to be signed by Mayor and/or City Clerk	[ ] yes	[X] no
Is the necessary by-law or agreement being sent concurrently to Council?	[ ] yes	[X] no

COMMITTEE OF THE WHOLE

OPERATIONS MINUTES

November 4, 2025
6:00 p.m.
Council Chambers, Brantford City Hall
58 Dalhousie Street, Brantford

Present: Mayor Davis
Councillor Sicoli
Councillor Sullivan
Councillor Caputo
Councillor Sless
Councillor Martin
Councillor McCreary
Councillor Hunt
Councillor Carpenter
Councillor VanTilborg
Councillor Samwell

1. Invocation

Chair Sullivan called the meeting to order and read the invocation.

2. Roll Call

Roll Call was confirmed.

3. Declarations of Conflicts of Interest

No declaration of pecuniary interest was made regarding items appearing on the agenda.

4. Separation of Items for Consideration and Consent Items for Discussion Purposes

Moved by Councillor Caputo

THAT all Items contained within consideration/consent (6.1 and 6.2) **not separated for discussion purposes** BE APPROVED.

Yes (11): Mayor Davis, Councillor Sicoli, Councillor Sullivan, Councillor Caputo, Councillor Sless, Councillor Martin, Councillor McCreary, Councillor Hunt, Councillor Carpenter, Councillor VanTilborg, and Councillor Samwell

Carried (11 to 0)

The following items were subject to the vote and carried accordingly:

6. Items for Consideration/Consent

6.2 Consent Items

6.2.2 Minutes

6.2.2.1 Committee of the Whole - Operations - October 7, 2025

5. Delegations/Presentations

5.1 Delegations

5.1.1 Sylvia Collins, Neighbourhood Alliance

Re: Item 6.1.3 - Volunteer Brantford Policy 2025-507 [Financial Impact: None]

Sylvia Collins, Neighbourhood Association Alliance, appeared before the Committee, provided an overview of the application and responded to questions of Committee.

5.1.2 Kari Astles, Brant Regional Association for Volunteer Administrators (BRAVA)

Re: Item 6.1.3 - Volunteer Brantford Policy 2025-507 [Financial Impact: None]

Kari Astles, Brant Regional Association for Volunteer Administrators (BRAVA), appeared before the Committee, provided comments in favor of volunteerism, and responded to questions of Committee.

5.1.3 Karen Adams, Kiwanis Club of Brantford

Re: Item 6.1.3 - Volunteer Brantford Policy 2025-507 [Financial Impact: None]

Karen Adams, Kiwanis Club of Brantford, appeared before the Committee, provided comments in favour of the report and responded to questions of Committee.

5.1.4 Armanda Lambert, East Ward Echo Place Neighbourhood Association

Re: Item 6.1.3 - Volunteer Brantford Policy 2025-507 [Financial Impact: None]

Armanda Lambert, East Ward Echo Place Neighbourhood Association appeared before the Committee, provided comments in favour of volunteerism, and responded to questions of Committee.

5.2 Presentations

Without objection from the Committee, the Chair announced that a total of 15 minutes would be permitted for the presentation.

5.2.1 Jennifer Elliott, Director of Engineering Services, Mike Abraham, Manager of Infrastructure Planning, and Chris Hamel, GEI Consultants Ltd.

Re: Item 6.1.1 Northwest Municipal Service Expansion Environmental Assessment – Preferred Alternatives [Financial Impact - None], 2025-25

Jennifer Elliott, Director of Engineering Services, Mike Abraham, Manager of Infrastructure Planning, and Chris Hamel, GEI Consultants Ltd. appeared before Committee, provided a PowerPoint presentation and responded to questions of Committee.

Moved by Mayor Davis
Seconded by Councillor Caputo

> THAT section 15.6.3 (a) of Chapter 15 the City of Brantford Municipal Code BE WAIVED in order to provide staff an additional 10 minutes to present the staff report and answer questions from the Committee.

Yes (11): Mayor Davis, Councillor Sicoli, Councillor Sullivan, Councillor Caputo, Councillor Sless, Councillor Martin, Councillor McCreary, Councillor Hunt, Councillor Carpenter, Councillor VanTilborg, and Councillor Samwell

Carried (11 to 0)

Staff continued to answer questions from the Committee.

6. Items for Consideration/Consent

Moved by Councillor Hunt
Seconded by Councillor Carpenter

THAT all Items for consideration/consent (6.1 and 6.2) **separated for discussion purposes** BE APPROVED.

6.1 Items for Consideration

6.1.3 Volunteer Brantford Policy 2025-507 [Financial Impact: None]

A. THAT the Volunteer Brantford Policy Report 2025-507 BE RECEIVED; and

B. THAT the Volunteer Brantford – Corporate Policy 057 attached to Report 2025-507, BE APPROVED; and

C. THAT a By-law to adopt the Volunteer Brantford Policy BE PRESENTED to City Council for approval; and

D. THAT Staff develop the Volunteer Brantford Standard and Volunteer Brantford Engagement Program as outlined in the Analysis Section of this report.

Yes (11): Mayor Davis, Councillor Sicoli, Councillor Sullivan, Councillor Caputo, Councillor Sless, Councillor Martin, Councillor McCreary, Councillor Hunt, Councillor Carpenter, Councillor VanTilborg, and Councillor Samwell

Carried (11 to 0)

6.1.1 Northwest Municipal Service Expansion Environmental Assessment – Preferred Alternatives [Financial Impact - None], 2025-25

A. THAT Report 2025-25 titled “Northwest Servicing Environmental Assessments – Preferred Alternatives” BE RECEIVED; and

B. THAT staff BE DIRECTED to issue notice of completion and initiate the 30-day public review period.

Yes (11): Mayor Davis, Councillor Sicoli, Councillor Sullivan, Councillor Caputo, Councillor Sless, Councillor Martin, Councillor McCreary, Councillor Hunt, Councillor Carpenter, Councillor VanTilborg, and Councillor Samwell

Carried (11 to 0)

6.1.2 Proposed License Agreement [$20,000], 2025-506

A. THAT Council report 2025-506 titled “Proposed Telecommunications License Agreement” BE RECEIVED; and

B. THAT the Director of Environmental Services be AUTHORIZED to execute the proposed Telecommunications License Agreement (TLA) with Rogers Communications Inc. and its affiliates, all documents being in a form satisfactory to the City Solicitor, on behalf of the Corporation of the City of Brantford granting permission to install, operate, maintain and replace telecommunication equipment on Environmental Services’ Operational Facilities for an initial five-year term, plus one (1) additional five-year renewal term with an option for two (2) additional five-year renewal terms (total of up to 20 years).

Yes (11): Mayor Davis, Councillor Sicoli, Councillor Sullivan, Councillor Caputo, Councillor Sless, Councillor Martin, Councillor McCreary, Councillor Hunt, Councillor Carpenter, Councillor VanTilborg, and Councillor Samwell

Carried (11 to 0)

Moved by Councillor McCreary
Seconded by Councillor Martin

THAT staff BE DIRECTED to bring forward options to Council to increase the cost of the agreement.

Yes (3): Councillor Sless, Councillor Martin, and Councillor McCreary

No (8): Mayor Davis, Councillor Sicoli, Councillor Sullivan, Councillor Caputo, Councillor Hunt, Councillor Carpenter, Councillor VanTilborg, and Councillor Samwell

Lost (3 to 8)

6.2 Consent Items

6.2.1 Highway 403 Emergency Detour Route Review [Financial Impact - None], 2025-505

THAT report no. 2025-505 regarding the Highway 403 Emergency Detour Route Review BE RECEIVED.

Yes (11): Mayor Davis, Councillor Sicoli, Councillor Sullivan, Councillor Caputo, Councillor Sless, Councillor Martin, Councillor McCreary, Councillor Hunt, Councillor Carpenter, Councillor VanTilborg, and Councillor Samwell

Carried (11 to 0)

7. Resolutions

7.1 Right of Way Policy Review – Councillor McCreary

Moved by Councillor McCreary
Seconded by Councillor Martin

WHEREAS a right-of-way (ROW) activity permit is required by any person, utility company, contractor, or event organizer performing activities within the City streets right-of-way; and

WHEREAS City Council approved Public Works-023 Right-Of-Way Activity policy on April 27, 2021; and

WHEREAS the policy reduced the number of permits required, and streamlined the application and fee structure; and

WHEREAS the last updates to the policy was approved by City Council on March 28, 2023; and

WHERAS the policy has now been operational for over four years, and ought to be reviewed for potential improvements:

NOW THEREFORE BE IT RESOLVED: City staff be DIRECTED to:

A. CONSULT and solicit feedback from past permit holders on any potential improvements to the policy, including but not limited to:

   i. Allow for the parking of trucks and trailers for short term projects and/or durations; and

   ii. Annualized permits

B. A COMPARISON of the fees and charges for an activity permit with other municipalities; and

C. Provide Recommendations for City Council's consideration by the end of Q1 2026.

Yes (11): Mayor Davis, Councillor Sicoli, Councillor Sullivan, Councillor Caputo, Councillor Sless, Councillor Martin, Councillor McCreary, Councillor Hunt, Councillor Carpenter, Councillor VanTilborg, and Councillor Samwell

Carried (11 to 0)

8. Notices of Motion

8.1 Accessible Parking - Councillor McCreary

Councillor McCreary read the title of his Notice of Motion.

WHEREAS accessible parking is instrumental in enabling residents to have equal access to work, shopping and leisure; and

WHEREAS users of accessible parking may have differing needs relating to the nature of their disability; and

WHEREAS legislation is in place to permit discernment of accessible parking to allow for wheelchair-user-specific designations in locations with multiple accessible parking spaces on private and public property

NOW THEREFORE BE IT RESOLVED THAT staff BE DIRECTED to research statutes regarding options available to further discern accessible parking spaces, make recommendations and REPORT BACK to council by 31 March 2026.

9. Adjournment

The meeting adjourned at 8:04 p.m.

Councillor Sullivan, Chair

E. Vokes, Deputy Clerk/Manager, Legislative Services

BRANTFORD AIRPORT BOARD

MINUTES

September 22, 2025
3:00 p.m.
Flight Centre, Brantford Municipal Airport
110 Aviation Avenue, Brantford

1. Roll Call

Chair Littell called the meeting to order and roll call was confirmed by the Clerk.

Present: Mark Littell, Chuck Baxter, Jeff Kowal, County Councillor Garneau, Darryl Casey, Councilor Martin, Mayor Davis

Regrets: Aaron Penrice, Jared Houliston, Ron Johnson

2. Declarations of Conflict of Interest

No declaration of pecuniary interest was made regarding items appearing on the agenda.

3. Presentations/Delegations

Blaine Field, President Brant Aero and Hangar 83 Inc., and Michael Hicks, President 1 Air attended to speak to Item 5.1 - September 2025 Airport Real Estate Report, 2025-474 and answer questions of committee.

4. Items for Consideration

There were no items for consideration.

5. Consent Items

Moved by: Councillor Martin
Seconded by: Jeff Kowal

THAT all Items for Consent (5.1-5.3) BE APPROVED:

5.1 September 2025 Airport Real Estate Report [Financial Impact: None], 2025-474

Joe Muto, Director of Economic Development, provided the Real Estate Report and responded to questions.

Shawn Broughton, Brantford Flying Club, provided the Airport Management Update and responded to questions.

THAT Report 2025-474 titled September 2025 Airport Real Estate Report BE RECEIVED.

Moved by: Mayor Davis
Seconded by: Councillor Martin

Amendment:

THAT the Airport Board recommends that opportunities to assist 1 Air be explored by City Staff and the Brantford Municipal Airport Board of Management; and

THAT a report back to the Airport Board will be prepared, if necessary, with recommended actions for consideration.

Carried

Vote on Item 5.1, as amended:

Carried

5.2 September 2025 Airport Facilities Update [Financial Impact: None], 2025-415

Sheldon MacDonald, Manager Facilities Operations & Maintenance, provided the Airport Facilities Update and responded to questions of Committee.

THAT Report 2025-415 titled “September 2025 Airport Facilities Update” BE RECEIVED.

Carried

5.3 Minutes

5.3.1 Brantford Airport Board - July 28, 2025

THAT the minutes of the Brantford Airport Board BE APPROVED.

Carried

6. Notices of Motion

There were no Notices of Motion.

7. Resolutions

7.1 Provincial Support of the Ontario Airport Capital Assistance Program (OACAP) - Councillor Martin

Moved by: Councillor Martin
Seconded by: Jeff Kowal

WHEREAS small and regional airports in Ontario serve as critical infrastructure—facilitating essential public services including air ambulance operations, forest firefighting, search & rescue, and law enforcement activities, while also driving local and regional economic development; and

WHEREAS many of these airports are ineligible for the federal Airports Capital Assistance Program (ACAP) due to eligibility constraints such as lacking year□round scheduled service, yet still require capital funding for safety-related infrastructure; and

WHEREAS the Airport Management Council of Ontario (AMCO) has identified a persistent funding gap for non□ACAP□eligible community airports, estimating that approximately 85 such airports need $5.5 million annually to address critical airside infrastructure needs; and

WHEREAS provinces including British Columbia, Alberta, and Saskatchewan have successfully managed permanent provincial capital-assistance programs—offering clear models for cost-sharing frameworks, eligible project criteria, and annual funding envelopes; and

WHEREAS AMCO's proposed Ontario Airport Capital Assistance Program (OACAP) envisions an annual operational budget of $8.5–10 million, with a 75% provincial / 25% owner cost-share, a

$2 million per applicant cap, and bonuses for key community-benefiting projects; and

WHEREAS the 2025 Ontario Budget has already acknowledged "airports as cross country infrastructure" and signaled intent to include them in upcoming capital investments; and

WHEREAS the City of Brantford and the County of Brant benefit directly from airport-enabled services, and ensuring its continued operation is in the public interest of resident safety, economic resilience, and efficient connectivity.

NOW THEREFORE BE IT RESOLVED THAT The Corporation of the City of Brantford formally urges the Government of Ontario to:

1. Implement the Ontario Airport Capital Assistance Program (OACAP) managed by the Ministry of Transportation.
2. Adopt the recommended cost-sharing structure (75% provincial / 25% municipal or operator), and cap funds at $2 million per project per applicant.
3. Expand eligibility to include public-use registered aerodromes and certified airports not currently eligible for ACAP.
4. Reinstate the Ontario Air Advisory Panel to advise on airport infrastructure and policy priorities.
5. Designate community and regional airports as critical infrastructure under provincial policy.
6. Investigate stable funding mechanisms—such as a dedicated stream from the aviation fuel tax—to support OACAP sustainably.

BE IT FURTHER RESOLVED THAT a copy of this resolution be forwarded to the Premier of Ontario, Minister of Transportation, local MPPs, Brant County, AMCO, and all Ontario municipalities operating public airports calling for provincial commitment to OACAP.

Carried

8. Adjournment

The meeting adjourned at 3:40pm.

M. Littell, Chair

K. Demeulemeester, Committee Coordinator

Alternative formats and communication supports available upon request. Please contact accessibility@brantford.ca or 519-759-4150 for assistance.

Date: December 2, 2025

To: Mayor Davis and Members of Council

From: Councillor Carpenter

Re: Creation of an Elected Deputy Mayor position

1.0 Resolution

WHEREAS Section 217 of the Municipal Act, 2001 permits municipalities to change the composition of council, including creating new offices, provided that such changes are approved through by-law prior to January 1 of an election year; and

WHEREAS the City of Brantford currently does not have a Deputy Mayor position, and the establishment of an elected Deputy Mayor would enhance civic leadership, support Councils collective responsibilities, and strengthen the City's regional, provincial, and federal representation; and

WHEREAS several Ontario municipalities elect Deputy Mayors to provide clear continuity in representation, increased visibility at community and regional functions, and additional support to the Mayors office; and

WHEREAS implementing an elected Deputy Mayor position for the 2026 Municipal Election requires advance preparation, including legislative compliance, public notice, budget considerations, and administrative planning;

THEREFORE BE IT RESOLVED THAT:

A. The necessary by-law to establish a new Deputy Mayor position for the City of Brantford to be elected at large beginning with the 2026 Municipal Election BE PRESENTED for adoption to City Council on December 16, 2025
B. The duties of the Deputy Mayor be tailored to Brantford's governance structure and include:

i. Representing the City at community events, regional forums, and public functions when the Mayor is unavailable;
ii. Acting as the Mayors alternate at intergovernmental meetings, stakeholder engagements, and emergency-related coordination when delegated;
iii. Supporting Councils strategic priorities, including participating in committees, task forces, and special assignments as directed by Council;
iv. Providing leadership continuity by serving as the primary elected representative to assume ceremonial or representational duties when the Mayors schedule or statutory responsibilities prevent attendance;
v. Performing any additional responsibilities assigned through the establishing by-law or by future Council direction, provided such duties do not conflict with the statutory roles of the Mayor under the Municipal Act, 2001 or the Strong Mayor powers; and

C. Staff BE DIRECTED to hold a town hall/consult the public/lets talk Brantford campaign in Q1 to assist in determining the duties etc.
D. Staff report back to Council no later than March 2026 with:
i. Financial and administrative implications, including remuneration options;
ii. A full implementation timeline ensuring readiness prior to the opening of the 2026 Nomination Period.

2.0 Corporate Policy Context

This notice of motion complies with the Municipal Act.

3.0 Resources

Staff resources to execute implementation.

In adopting this report, is a by-law or agreement required? If so, it should be referenced in the resolution section.

By-law required	[ ] yes	[ ] no
Agreement(s) or other documents to be signed by Mayor and/or City Clerk	[ ] yes	[ ] no
Is the necessary by-law or agreement being sent concurrently to Council?	[ ] yes	[ ] no