



Report: TES-DCS-20-05

Region of Waterloo
Transportation and Environmental Services
Design and Construction

To: Chair Tom Galloway and Members of the Planning and Works Committee

Date: March 3, 2020

File Code: T04-20(A) / 05487H

Subject: Project Approval - King Street East, Highway 401 Overpass to Freeport Bridge and Sportsworld Drive, King Street East to Gateway Park Drive

Recommendation:

That the Regional Municipality of Waterloo take the following actions with respect to the recommended improvements to King Street East (Regional Road 8) between the Highway 401 overpass and the Freeport Bridge and Sportsworld Drive (Regional Road 38) between King Street East and Gateway Park Drive in the City of Kitchener:

- a) approve the Recommended Design Concept for King Street East (Regional Road 8) and Sportsworld Drive (Regional Road 38) as outlined in Report TES-DCS-20-05; and
- b) approve an amendment to the Consultant Services Agreement with Associated Engineering (Ont) Ltd to provide engineering consulting services for preliminary design, detailed design, contract administration, and construction inspection services for the proposed improvements on King Street East and Sportsworld Drive to increase the upset limit fee by \$468,584 plus applicable taxes to a revised total of \$1,064,514 plus applicable taxes for preliminary design and detailed design, with contract administration and construction inspection services to be paid on a time basis.

Summary:

In 2017, the Region of Waterloo initiated a planning and design study to determine what improvements to the transportation infrastructure within King Street East and

Sportsworld Drive in the City of Kitchener are required and how they should be implemented. Improvements are required to address the deteriorated pavement structure and lack of active transportation facilities. The study area limits are shown in Appendix A.

In June 2018, Regional Council endorsed the proposed route for Stage 2 of the ION Light Rail Transit project which will link service from Kitchener to Cambridge. The approved route includes King Street East between the Highway 8 and Highway 401 overpasses where a centre running two-way track configuration will be implemented.

A Public Consultation Centre (PCC) was held on May 2, 2019 to present the Preliminary Design Concept for the improvements to King Street East and Sportsworld Drive for public review and comment. Approximately 45 members of the public and property/business owners attended and 20 comment sheets and subsequent emails were received.

The Project Team reviewed the public comments and the implications of the future Stage 2 ION construction and has developed a Recommended Design Concept consisting of the following elements;

- Reconstruction of the existing road pavement structure
- Replacement of selected sections of the existing storm sewer and construction of a new sanitary sewer
- Construction of concrete sidewalks where none currently exist
- Construction of an asphalt multi-use trail within the project limits
- Access and intersection reconfiguration
- Traffic signal modernization and installation of enhanced street-lighting to current standards
- Construction of a raised centre median that would be removed in the future to accommodate the installation of light rail tracks when implementation of Stage 2 ION is undertaken

Subject to approval of the Recommended Design Concept by Regional Council, detailed design of the proposed works, property acquisition and utility relocation are planned to begin immediately. Construction of the first phase of construction on King Street East between Sportsworld Drive and Highway 401 is scheduled in 2021.

The total estimated cost for the Region's share of the project is \$17,195,000 . Funding in this amount has been included in the Regions 2020 Transportation Capital Program (TCP). The City of Kitchener will be responsible for the cost of the construction of the proposed sanitary sewer and sections of the storm sewer replacement in an estimated amount of \$400,000.

Public notification letters advising of the recommendations contained in Report TES-

DCS-20-05 were mailed during the week of February 10, 2020 to all those who provided comments on the project, and to all property owners and residents in the study area.

Based on the Recommended Design Concept, additional engineering design services not included in the existing engineering assignment will be required to accommodate future Stage 2 ION, to design a grade separated crossing of the proposed multi-use trail at the existing Highway 8 on-ramp, to design a proposed multi-use trail on Maple Grove Road and to design new sanitary sewers on behalf of the City of Kitchener. Therefore, staff recommend that the existing agreement with Associated Engineering (Ont) Ltd be extended by \$468,584.00 plus HST to a revised upset limit of \$1,064,514 plus HST for preliminary design and detailed design with contract administration and construction inspection services continuing to be paid on a time basis.

Report:

1. Background

The Region of Waterloo is considering improvements to the transportation infrastructure within King Street East between the Highway 401 overpass and Freeport Bridge and Sportsworld Drive between King Street East and Gateway Park Drive in the City of Kitchener. The study area limits are shown on the Key Plan included in Appendix A.

An Environmental Assessment and Preliminary Design Study was initiated in 2017 to determine what improvements should be implemented within the project limits. A Project Team consisting of staff from the Region of Waterloo and City of Kitchener and City of Kitchener Councillor John Gazzola is directing the planning process for the proposed improvements. The Region has hired the consultant engineering firm, Associated Engineering (Ont) Ltd, to prepare the Environmental Assessment and Preliminary Design Study.

The improvements being considered will not change the use, capacity or location of the existing roads and are expected to have minimal long term impacts on the environment. Therefore, the project is classified as a Schedule A+ undertaking in accordance with the Municipal Class Environmental Assessment planning and design process. Any proposed improvements are approved under the Environmental Assessment Act subject to notification of the Public respecting the proposed work.

2. Infrastructure Requirements

King Street East provides an important transportation link connecting the industrial areas located on Maple Grove Road with Highway 401 and the residential and commercial areas on King Street East and Sportsworld Drive with the City's of Kitchener and Cambridge.

King Street East between Highway 401 and the Highway 8 overpass consists of a four lane urban cross-section with a centre left-turn lane and turning lanes at key intersections and a raised centre median between Sportsworld Drive and Deer Ridge Drive. Between the Highway 8 overpass and the Freeport Bridge the road consists of a two lane rural cross-section with roadside ditches. Sportsworld Drive from King Street East to Gateway Park Drive consists of a four lane urban cross-section with turning lanes at intersections. Pedestrian facilities are discontinuous on King Street East. On-road cycling lanes are available on Sportsworld Drive east of the study area limits. The overpass structures and associated access ramps at Highway 401 and Highway 8 are under the jurisdiction of MTO.

King Street East and Sportsworld Drive within the study area limits were last reconstructed in 1984. King Street East was resurfaced in 2001. Storm sewers, sanitary sewers and watermains were installed on both roads in 2000. The Region's 2015 Road Condition Survey determined that due to the age and condition of the pavement structure of King Street East and Sportsworld Drive it is necessary to completely reconstruct both roads. Annual spot repairs have been done to extend the life of the pavement until full reconstruction can be undertaken.

A safety and operational assessment of the existing roadway corridor within the project limits revealed two issues to be addressed by potential improvements. The configuration of the Highway 8 eastbound off-ramp to King Street southbound creates a situation where high speed traffic exiting from Highway 8 must merge with lower speed traffic on the through lanes of King Street at a location where sight distances are insufficient. In addition, several existing commercial driveway entrances on King Street East were noted to be aligned at an acute angle to the road which does not encourage drivers to slow down as they exist the roadway. The preferred alignment of a perpendicular driveway will cause drivers to slow down as they turn into the driveway which increases the safety of pedestrians and cyclists who may be traversing the driveway at the same time.

The Region's 2018 Transportation Master Plan does not identify a need to widen King Street East or Sportsworld Drive to provide additional long term vehicular traffic capacity. Current traffic projections to the year 2031 indicate that widening of either road to more than the existing four lanes is not required.

The Transportation Master Plan does not identify a need for cycling facilities on King Street East between the Highway 8 and 401 overpasses. However, a future boulevard multi-use trail on King Street north of the Highway 8 overpass is identified. The construction of active transportation facilities within the study area limits would provide system connectivity with the future facilities on King Street and the existing facilities on Sportsworld Drive/Maple Grove Road.

The Region's Corridor Design Guidelines identify King Street East south of Sportsworld Drive and Sportsworld Drive east of King Street as Community Connectors. King Street East north of Sportsworld Drive is identified as a Neighbourhood Connector. This distinction is meant to reflect the differing road environment as King Street transitions from primarily moving vehicles as efficiently as possible between Highway 401 and the industrial/commercial land-uses to the east of the study area to a more balanced setting incorporating active transportation approaching the residential areas west of the project area and north of Freeport Bridge.

In June 2018, Regional Council endorsed the proposed route for Stage 2 of the ION Light Rail Transit project which will link service from Kitchener to Cambridge. The approved route includes King Street East between the Highway 8 and Highway 401 overpasses where a centre running two-way track configuration will be implemented. In addition, an ION station is proposed to be constructed on King Street East at the Sportsworld Crossing Road intersection. The timing for construction of the Stage 2 ION project is currently unknown. It is desirable for the proposed improvements on King Street East and Sportsworld Drive to make accommodations for the future installation of light rail infrastructure in order to minimize the need for future relocation or reconstruction.

The Ministry of Transportation (MTO) completed the reconstruction and widening of Highway 401 between Highway 8 in the City of Kitchener and Hespeler Road in the City of Cambridge in 2019. In 2020, the MTO will begin the reconstruction and widening of the Highway 401 Grand River bridge west of Highway 8 and the rehabilitation of the King Street overpass. This work is expected to be completed by 2024.

The Region intends to rehabilitate the Freeport Bridge in 2023. This work is not included in the King Street East Environmental Assessment and Preliminary Design Study.

The City of Cambridge and the landowner are moving ahead with plans for the development of the North Cambridge Business Park east of King Street East and north of the Highway 8 overpass. A Class Environmental Assessment Study was completed in 2017 for the construction of municipal services within these lands including a new North-South Collector Road between King Street and Middle Block Road. The initial phase of development is expected to occur by 2020.

3. Preliminary Design Concept development and Public Consultation

The Project Team developed a Preliminary Design Concept which addressed the identified operational and infrastructure deficiencies within the study area. The elements of the Preliminary Concept included full depth pavement structure reconstruction, storm sewer replacement, construction of active transportation facilities, traffic signal

modernization, installation of enhanced roadway illumination and access and intersection reconfiguration.

A Notice of Study Commencement was circulated to property owners in the area and advertised in the local newspapers in June 2018. A Public Consultation Centre (PCC) was held on May 2, 2019 to present the Preliminary Design Concept for the potential improvements to King Street East and Sportsworld Drive. Notices of the PCC were mailed out to property owners in the vicinity of the study area. The Grand Hill Village Community Association and Settlers Grove Community Association were notified in writing of the PCC. Notices were also placed in the local newspaper and on road-side signs. Staff from the Region of Waterloo and Associated Engineering (Ont) Ltd were available at the PCC to discuss the potential improvements.

The Consultation Centre was attended by approximately 45 local property and business owners. A total of 20 written comments regarding the project were submitted at and following the PCC for consideration by the Project Team. General support from the public was provided for the need to reconstruct King Street East, the need for active transportation facilities and the provision of an interim corridor for future use for Stage 2 ION to minimize the need for future reconstruction of the road.

The comments are summarized as follows;

- 3.1 Access must be available to all residential and commercial properties during construction. Maintaining one lane of traffic in each direction may not be adequate.

Project Team Response – The need for continuous access to all properties during construction is recognized. Options to maintain access and minimize resulting traffic congestion will be considered during detailed design. These may include maintaining two lanes in one or both directions where space is available by constructing temporary lanes within the existing median or boulevards. The possibility of diverting northbound through traffic around the construction site via Gateway Park Drive and Sportsworld Crossing Drive will also be investigated.

- 3.2 Much of the traffic congestion on King Street would be eliminated if a southbound to westbound ramp were available between Highway 8 and Highway 401.

Project Team Response – Staff have consulted with MTO regarding the timing of the planned ramp between Highway 8 and Highway 401 and have been advised that work is not currently scheduled prior to 2040.

- 3.3 The lane configuration of Baxter Place at the King Street/Sportsworld Drive intersection should be changed to allow easier access from Baxter Street to King Street

Project Team Response – The configuration of the western leg of the King Street East/Baxter Place intersection is made difficult by the close proximity of the Pioneer Tower Road/Baxter Place intersection. This limits the storage length available for left-turning vehicles at the King Street intersection and creates numerous potential conflict points between turning vehicles approaching the intersection. Regional staff will work with the City of Kitchener to consider potential lane reconfigurations at both intersections during the detailed design process.

- 3.4 Speeding vehicles from the Highway 8 off-ramp merging onto King Street impact the safety of the Deer Ridge Drive at King Street East intersection

Project Team Response – The proposed reconfiguration of the lane transition from the Highway 8 off-ramp to King Street East to eliminate the need for these vehicles to merge will improve safety in the immediate area. This will also result in fewer vehicles changing lanes as they approach Deer Ridge Drive.

- 3.5 Active transportation facilities should be extended on King Street East south of the study area to connect with Shantz Hill Road

Project Team Response – The extension of the proposed multi-use trail within the eastern boulevard of King Street south of the study area would require that the trail be constructed across the ramps at the Highway 401 interchange and under the overpass structure. Regional staff met with MTO to discuss the possibility of constructing a pedestrian or cyclist facility under the overpass structure. The existing structure has less than 1.2m of width available between the edge of pavement and bridge abutment for such a facility based on the existing lane configuration. The overpass will require reconstruction to accommodate an appropriate pedestrian or cyclist facility. MTO staff advised that reconstruction of the overpass would not be considered for a period of at least 20 years.

4. Recommended Design Concept

Following the Public Consultation Centre, updated information was obtained regarding the planned Stage 2 ION project, the rehabilitation of the Highway 401 overpass and the need for local sanitary sewer infrastructure as the design of these projects was

advanced.

In consideration of the comments provided by the public at the PCC and the subsequent updated information provided to the Project Team, the Preliminary Design Concept has been refined. A typical cross-section of the Recommended Design Concept for King Street showing the proposed multi-use trail and central corridor for future use for Stage 2 ION is shown in Figure 1.

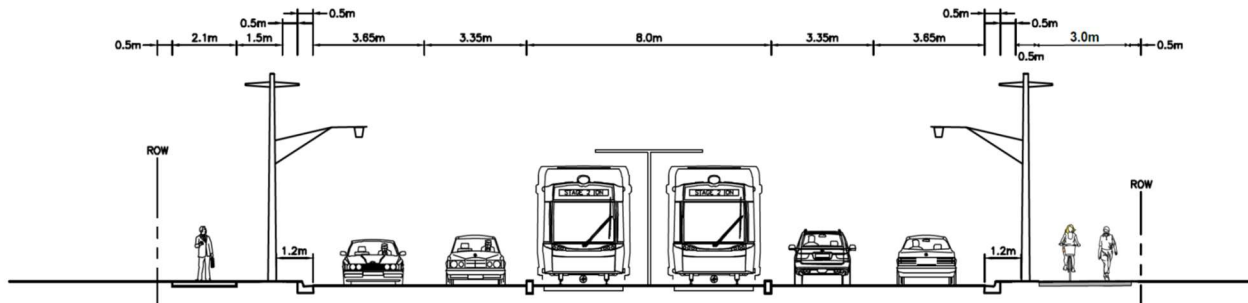


Figure 1 – Recommended Design Concept Cross-section

The Recommended Design Concept includes the following elements;

4.1 Pavement Structure Reconstruction

Full depth reconstruction of King Street East and Sportsworld Drive to a four lane urban standard is required between the Highway 8 and 401 overpasses. Full depth reconstruction of King Street East to a two lane urban standard from the Highway 8 overpass to the Freeport bridge is also required. Existing and future traffic volumes north and south of the Highway 8 access ramps are significantly different due to vehicles entering/exiting Highway 8.

The Recommended Design Concept includes a reduction of the existing four lane cross-section at the Highway 8 overpass to two though lanes (one in each direction) to take advantage of the decreased traffic volumes north of the overpass. With this configuration, the traffic entering King Street East from the Highway 8 off-ramp south of the overpass will enter a dedicated lane without the need to merge with through traffic on King Street.

As the geometric requirements for Stage 2 ION were developed, the preliminary design concept was revised to ensure that future construction of the light rail tracks would not require replacement or reconstruction of the King Street East roadworks. The road alignment has been revised to conform with the proposed Stage 2 ION geometrics. In addition, all existing and proposed underground utilities and servicing infrastructure will be relocated

from under the future light rail corridor. This has resulted in the need for a widened road platform requiring additional property acquisition beyond that originally anticipated.

The centrally located Stage 2 ION corridor is proposed to be constructed on an interim basis as a temporary continuous raised median between the Highway 8 and Highway 401 overpasses. Median openings will be constructed at strategic locations to ensure that vehicular access to all abutting properties remains available. The surface of the centre median will be removed in the future to allow construction of the Stage 2 Ion tracks in the future.

The City of Kitchener has recently completed a servicing feasibility study of the King Street corridor from the Freeport Bridge to Highway 401 to investigate the need to construct sanitary sewer infrastructure to service commercial properties in the corridor which are not currently serviced. City staff have advised that they intend to proceed with the installation of a sanitary sewer as part of the reconstruction of King Street East.

4.2 Active Transportation facilities

The construction of a multi-use trail within the eastern boulevard of King Street East and southern boulevard of Sportsworld Drive within the study area is recommended. Based on the geometry of the King Street to Highway 8 access ramp, a grade separated crossing of the ramp is recommended at this location to avoid conflicts between motor vehicles and cyclists. It is proposed that the multi-use trail be constructed under the access ramp.

Within the western boulevard of King Street East (south of the Highway 8 overpass) and the northern boulevard of Sportsworld Drive, the construction of a concrete sidewalk is proposed at locations where an existing sidewalk is not present.

The Recommended Design Concept was presented to the Regions Active Transportation Advisory Committee on January 21, 2020 for input regarding the proposed pedestrian and cyclist facilities. The Committee endorsed the Recommended Design Concept.

4.3 Access and Intersection reconfiguration

The installation of a multi-use trail within the eastern boulevard of King Street East will require the reorientation of the Gateway Park Drive intersection. The skewed angle of the existing intersection will be eliminated by the reconstruction of the approach to a perpendicular orientation with King Street

East. In addition, the existing skewed driveways between Tu Lane Street and Sportsworld will be similarly reconstructed.

4.4 Traffic signal modernization and installation of enhanced roadway illumination

All traffic control equipment at the signalized intersections within the project limits will be updated to current Regional standards. Turning lane configuration will be assessed during the detailed design process to determine where operational improvements can be made.

The existing single sided street lighting system will be upgraded to current standards and lighting provided on both sides of the reconstructed roads in order to meet required lighting levels with the addition of the proposed active transportation facilities

4.5 Construction phasing

The construction schedule for the rehabilitation of the Highway 401 overpass structure by MTO will extend from 2020 to 2024. This work will require periodic access ramp closures and lane restrictions on King Street East. In order to consolidate such traffic restrictions, it is recommended that the first phase of reconstruction of King Street be from Highway 401 to Sportsworld Drive. Funding for this first phase of construction is included in the 2020 TCP for 2021. Preliminary staging of construction for this first phase indicates that it may be possible to maintain two lanes of southbound traffic and one lane of northbound traffic on King Street during reconstruction. Final staging of construction requirements will be determined during the detailed design process.

The second phase of reconstruction of King Street will be from Sportsworld Drive to the Freeport bridge and the third phase would include Sportsworld Drive. Staff recommend that the Maple Grove Road multi-use trail be constructed as part of the third phase of construction.

During construction, vehicular traffic will be maintained in both directions on King Street and Sportsworld Drive. Access to adjacent businesses and residential areas will be maintained at all times. Phasing of the construction will allow access from alternative directions to ensure continuous access for emergency vehicles, customers and delivery vehicles. Co-ordination of the timing of the proposed roadworks with the rehabilitation of the Highway 401 overpass will be required to minimize traffic impacts in the area.

5. Estimated Project Cost

The Regions approved 2020 Transportation Capital Program includes funding totalling \$17,195,000.00 for design and construction as follows;

- Project #5487 – King Street, Highway 401 to Sportsworld Drive – road reconstruction and traffic signal modernization, construction of cycling facilities and sidewalks, storm sewer repairs (2020).
- Project #5693 – Sportsworld Drive, King Street to Gateway Park Drive - road resurfacing and traffic signal modernization, construction of cycling facilities and sidewalks (2023)
- Project #5932 – King Street, Sportsworld Drive to Freeport Bridge – road resurfacing and traffic signal modernization, construction of cycling facilities and sidewalks (2022)
- Project #7594 – Maple Grove Rd. Multi- Use Trail between King St. E. to Fountain St. N. (2024)

The estimated cost to construct the new sanitary sewer proposed by the City of Kitchener as part of the King Street East Reconstruction project is approximately \$300,000. The City's share of the cost of storm sewer replacement is approximately \$100,000.

6. Next Steps

Subject to approval of the Recommended Design Concept by Regional Council, detailed design of the proposed works, property acquisition and utility relocation are planned to begin immediately. Construction of the first phase of reconstruction of King Street East between Sportsworld Drive and Highway 401 is scheduled for 2021.

7. Additional Scope Added to Consulting Assignment

The original consulting engineering assignment for the preparation of the Environmental Assessment and Preliminary Design Study, Detail Design, Construction Inspection and Contract Administration Services was awarded to Associated Engineering (Ont.) Ltd in July 2017. Significant changes to the scope of work have occurred since then due primarily to the approval of the routing for Stage 2 of the ION Light Rail Transit project in June 2018. In order to proceed with the detailed design for the recommended design concept for the reconstruction of King Street East and Sportsworld Drive, additional engineering services will be required.

Associated Engineering staff have prepared an estimate of the additional fees required for the extra work in response to a request from the Region. The additional fees are summarized below;

- a) Preliminary Design Revisions

Changes are required to the preliminary road reconstruction geometry to accommodate light rail transit design standards including preparation of revised cross-sections, additional property impact plans, median design development, additional utility relocation plans and coordination of work with MTO.

Additional fee \$42,800 plus HST

b) Detailed Design of Stage 2 ION track profile within project limits

In order to ensure that the proposed reconstruction of King Street East between the Highway 8 and Highway 401 overpasses does not negatively impact the future installation of light rail tracks within the centre of the road, detailed design for the tracks within the project limits must be completed now and coordinated with the design of the roadworks. In this way, all aspects of the King Street East roadworks can be located to accommodate future construction of the tracks without the need for extra costs for relocation or reconstruction.

Additional fee \$226,680 plus HST

c) Detailed Design of Multi-Use Trail grade separation

The construction of a grade separated crossing of the proposed multi-use trail on King Street East at the existing Highway 8 on-ramp has been identified as part of the recommended design concept as a result of discussions with MTO staff. An at-grade crossing was determined to be undesirable due to the high motor vehicle speeds on the on-ramp and limited sight distance for cyclists and motorists due to the configuration of the Highway 8 overpass. Additional fees are required to prepare the detailed design and obtain approvals from MTO for the grade separation.

Additional fee \$109,896 plus HST

d) Preliminary and Detailed Design of Maple Grove Road Multi-use Trail

The construction of a multi-use trail on Maple Grove Road from Gateway Park Drive to Fountain Street is identified in the approved 2020 Transportation Capital Program as project number 7594. Total funding in the amount of \$570,000 for design and construction of the facility has been allocated. An amount of \$60,000 is available for detailed design. Associated Engineering has prepared a fee estimate in the amount of \$49,836 plus HST for the detailed design. Staff recommend that this work be added to Associated Engineering's original scope of work for the King Street East and Sportsworld Drive project.

Additional fee \$49,836 plus HST

e) Detailed Design of local sanitary sewers

The City of Kitchener's recently completed Sanitary Servicing Feasibility Study determined that approximately 800m of new sanitary sewer are required within the King Street corridor. The City of Kitchener has requested that the detailed design of these sewers be included in Associated Engineering's scope of work. Fees for this will be recovered from the City of Kitchener upon completion of the detailed design.

Additional fee \$39,372 plus HST

The total estimated fee for the additional scope of work is \$468,584 plus HST

Section 21(g) of the Regions Purchasing Bylaw 16-032 allows for the "extension of an existing or previous contract where it would prove more cost effective for the Region". Council approval of such an extension is required where the value is greater than \$150,001. It is more cost effective to extend the existing contract with Associated Engineering than to hire a separate consulting engineering firm to do the additional work within the existing study area. Staff recommend that the existing agreement with Associated Engineering (Ont) Ltd for preliminary design, detailed design, contract administration and construction inspection services related to the reconstruction of King Street East and Sportsworld Drive be extended by \$468,584 plus HST to a total revised upset limit of \$1,064,514 plus HST for services related to preliminary and detailed design, with contract administration and construction inspection services continuing to be paid on a time basis.

Corporate Strategic Plan:

The proposed reconstruction of King Street East and Sportsworld Drive supports the strategic objectives listed under Focus Area #2 – Sustainable Transportation of the 2019-2023 Strategic Plan by continuing detailed planning for Stage 2 ION to Cambridge and constructing new active transportation facilities.

Financial Implications:

The Region's approved 2020-2029 Transportation Capital Program includes a total budget of \$17,195,000 for the reconstruction of King Street East and Sportsworld Drive (Project #s 05487,05693,05932 and 07594) to be funded from the Federal Gas Tax Reserve Fund (61%, \$10,502,000), the Roads Rehabilitation Reserve (28%, \$4,785,000) and from the Regional Development Charges Reserve Fund (11%, \$1,908,000). The final project funding allocations from the Roads Rehabilitation and Federal Gas Tax reserves will ultimately be determined by the actual eligible federal gas tax costs incurred.

Other Department Consultations/Concurrence: The Finance Department (Purchasing and Procurement) was consulted regarding the extension of the existing consultant agreement.

Attachments:

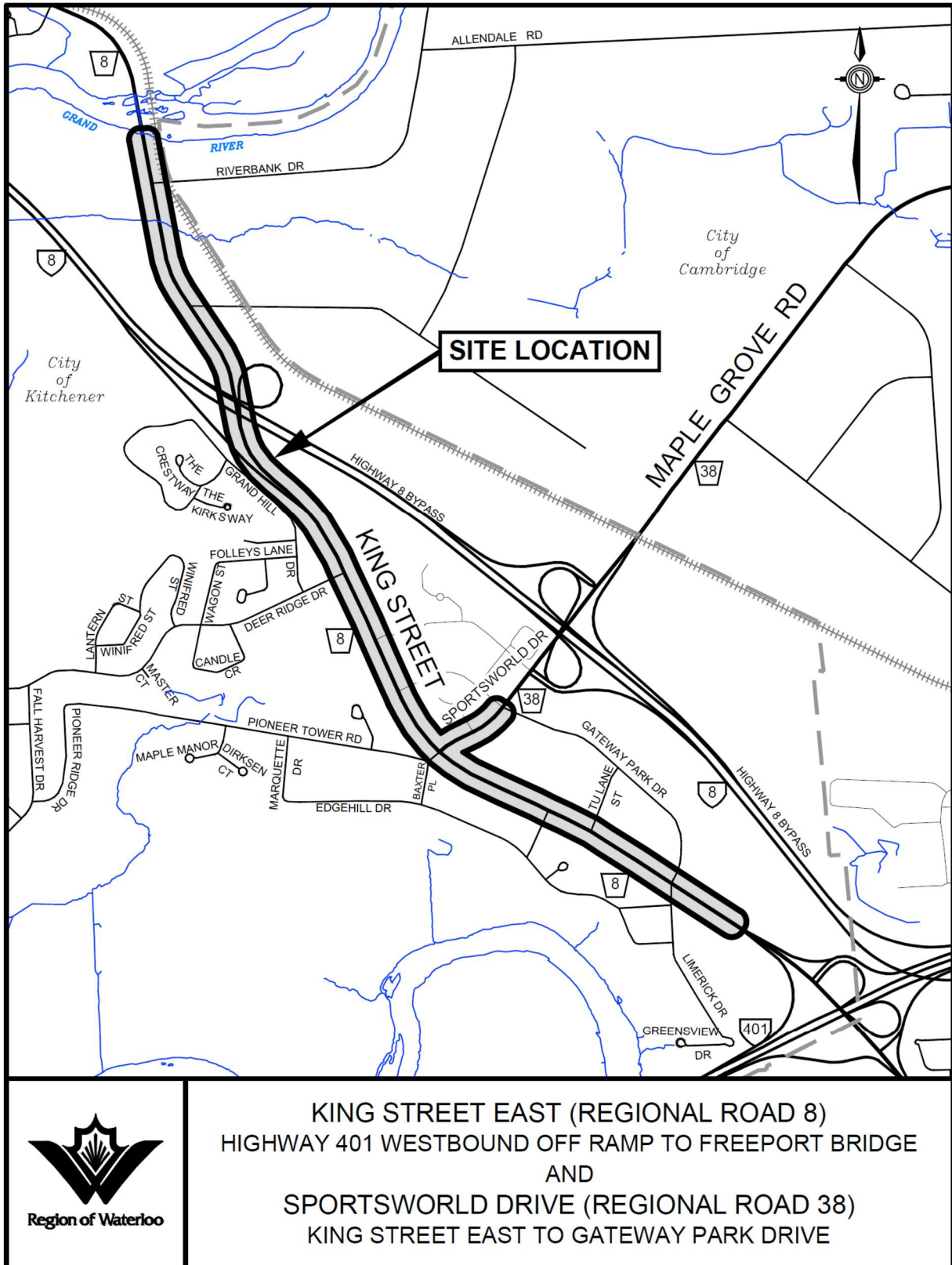
Appendix A – Study area drawing

Appendix B – Record of comments received at Public Consultation Centre and Project Team responses

Prepared By: Peter Linn, Senior Project Manager, Design & Construction

Approved By: Thomas Schmidt, Commissioner, Transportation & Environmental Services

Appendix A



Appendix B

Comment	Response
The inclusion of cycling facilities within the project limits is supported.	Acknowledged
The cycling facilities should be extended across the Freeport Bridge to Fairway Drive	There is currently insufficient room on the Freeport Bridge for cycling lanes.
The proposed cycling and pedestrian facilities should extend from the project limits under the Highway 401 overpass to Shantz Hill Road	The existing bridge structure at the Highway 401 overpass does not have enough space for a pedestrian or cyclist facility. The available space between the edge of the King Street road surface and the bridge abutment is less than 1.2 metres. Installing a guiderail to protect cyclists and pedestrians would leave approximately 0.6 metres for a sidewalk. MTO staff have indicated that any work to change the configuration of King Street to create room for a sidewalk would have to wait until after their work is done to rehabilitate the overpass in 2024. Reconstruction of the overpass may be required for Stage 2 ION on King Street.
The current merge from the Highway 8 (eastbound) to King Street (southbound) through lane is dangerous	The Recommended Design Concept has addressed this by eliminating an existing through lane on King Street at this location. Vehicles on the ramp will no longer need to merge with traffic on King Street as the ramp will direct traffic into a separate lane.
The existing configuration of lanes at the King Street/Sportsworld Drive/Baxter Place intersection creates operational difficulties for vehicles attempting to access Baxter Place. Left turning movements from Baxter Place are difficult and sometimes lead to vehicles blocking the intersection of Pioneer Tower Road	Staff will work with the City of Kitchener to consider solutions to the difficulties being encountered by drivers at this intersection. Physical changes to the intersection may be included in the reconstruction of King Street.
There is nothing wrong with the King Street/Sportsworld Drive/Baxter Place intersection	The existing configuration of the intersection does not allow sufficient storage for vehicles turning on to King Street. See above comment.

Comment	Response
Additional vehicular traffic on Limerick Drive is unacceptable	The proposed central median on King Street for future use when the light rail infrastructure is built for Stage 2 ION will block left turn access to Limerick Drive. Right-in and right-out access will remain available. There is no consideration being given to relocating the access to the adjacent commercial plaza to Limerick Drive.
If the road must be reconstructed, do not spend funds on a study	The Environmental Assessment and Preliminary Design Study is required in order to consider alternative solutions and determine the safest and most cost-effective solution.
Can bus bays be installed instead of having buses block traffic in the curb lane	It is not standard practice to install bus bays on Regional roads. Grand River Transit staff will be consulted during the detailed design process to see if alternatives are available. Upon construction of Stage 2 ION, bus routes in this area will be reviewed and modified to improve customer access to transit.
When will the southbound Highway 8 to westbound Highway 401 ramp be built? The King Street project is premature until the westbound access ramp to Highway 401 is built. Once the ramp is built, King Street only needs two lanes.	MTO staff have advised that funding is not currently available for the westbound Highway 401 access ramp and construction is not expected in the next 20 year horizon.
The intersection of King Street/Riverbank Drive south of the Freeport bridge should be made right-in and right-out only	Traffic volumes on King Street between the Freeport bridge and the Highway 8 overpass are lower than south of the Highway 8 overpass. From a traffic operations point-of-view, the delay to left turning vehicles at this intersection is not significant. The imposition of left turn prohibition at this intersection will result in minimal benefits.
Providing a central area in the middle of King Street for future use by Stage 2 ION is a waste of money until funding is in place for Stage 2 ION	Staff are of the opinion that the incremental cost to provide sufficient space now for future light rail transit infrastructure will be less than completely reconstructing King Street in the future to accommodate this infrastructure.
Enhanced landscaping should be included in the project	Enhanced landscaping within the constraints of the project budget will be considered during the detailed design process
King Street needs to be reconstructed as soon as possible as it is falling apart and is becoming unsafe	The proposed reconstruction schedule for King Street has been prepared to address the worst road section with the highest current traffic volumes first (Highway 401 to Sportsworld Drive)

Comment	Response
The elimination of left-in/left-out access to my commercial property is a concern	Left-in and left/out access will be impacted by the future construction of Stage 2 ION. The central area designated for future use for light rail transit infrastructure will include left-in access at strategic locations and the ability to do u-turns at signalized intersections.
The elimination of left-in/left-out access to the commercial properties on King Street will improve safety for all drivers.	Acknowledged
The reconstruction of King Street between the Highway 8 overpass and Freeport bridge should be completed first	The proposed reconstruction schedule for King Street has been prepared to address the worst road section with the highest current traffic volumes first (Highway 401 to Sportsworld Drive) and to coordinate with MTO work at the 401 overpass.
Access to Deer Ridge Drive must remain available during the reconstruction of King Street.	Access to all intersections and properties will be maintained during construction. It will be particularly important to maintain access to Deer Ridge Drive given that alternative access to this large residential development is limited. Construction staging will be developed during the detailed design process.