Report to Civic Works Committee

To: Chair and Members

Civic Works Committee

From: Kelly Scherr, P.Eng., MBA, FEC, Managing Director, Environmental

& Engineering Services and City Engineer

Subject: Highway 401 / Dingman Drive Bridge Replacement - Agreement

with Ministry of Transportation

Date: March 2, 2021

Recommendation

That on the recommendation of the Managing Director, Environmental & Engineering Services and City Engineer, the attached proposed by-law (Appendix "A") being a by-law to approve and authorize the Agreement between Her Majesty the Queen in right of the Province of Ontario represented by the Minister of Transportation for the Province of Ontario (the "Ministry") and The Corporation of the City of London (the "City") for the construction of the Dingman Drive bridge, BE INTRODUCED at the Municipal Council meeting to be held on March 23, 2021.

Linkage to the Corporate Strategic Plan

The following report supports the Strategic Plan through the strategic focus area of Building a Sustainable City and ensuring London's infrastructure is built, maintained and operated to meet the long term needs of our community.

Executive Summary

This report seeks approval to enter into an Agreement with the Ministry of Transportation (MTO) for the construction of provisions to accommodate a future widening of Dingman Drive. MTO has completed the design phase for the replacement of the Dingman Drive bridge at Highway 401 and are preparing to construct. This agreement follows on a Memorandum of Understanding for the partnership undertaking executed in September 2020. City staff requested that MTO consider a wider bridge foundation at the median pier. This will lower City construction costs when widening the bridge in the future to accommodate potential additional lanes and active transportation facilities on Dingman Drive.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- Strategic Priorities and Policy Committee May 21, 2019 Approval of the 2019
 Development Charges By-Law and DC Background Study;
- Civic Works Committee June 23, 2020 Dingman Drive East of Wellington Road to the Highway 401 Overpass and Area Intersections Improvements Environmental Study Report; and,
- Civic Works Committee August 11, 2020 Replacement of Highway 401 / Dingman Drive Bridge Memorandum of Understanding for the Design and Construction of Provisions to Accommodate Future Widening of Dingman Drive.

2.0 Context

The Ministry of Transportation (MTO) has plans to replace the Dingman Drive bridge at Highway 401 in 2021/22 due to its poor structural condition. The new bridge is expected to be in service for the next 75 to 80 years, and it will include a wider and longer bridge to accommodate future improvements within the Highway 401 corridor. This new bridge will provide a wider travelled surface for Dingman Drive with two lanes and wider shoulders to improve safety.

Dingman Drive travels across the southern portion of the City in a relatively rural setting where future urban growth, including commercial and industrial development, is anticipated. Civic administration recommends for the protection and planning for widening of the Dingman Drive roadway and bridge in a 20 to 25 year horizon for increased capacity for motorized and non-motorized / active transportation use. While widening of the bridge to four lanes is not justified at this time, it is prudent to consider provisions in MTO's current project which will meet the City's needs in the future in a cost effective manner. This Agreement is to provide a wider bridge foundation at the median pier between the eastbound and westbound lanes of Highway 401. Completion of this work now as an incremental part of the MTO project will greatly reduce future costs and complexity for the City when the bridge is ultimately widened.

Through this Agreement, the MTO is looking for the City to share the cost of detailed design, environmental assessment, tendering, construction and contract administration directly related to the municipal works in accordance with this Agreement.

3.0 Discussion and Considerations

MTO has completed the design of a replacement for the Dingman Drive bridge with construction anticipated to start early in 2021 and continue into 2022. Staff have met with MTO and their design team to discuss their work program, impacts in the area and anticipated timing.

The new bridge being built by MTO will provide a wider platform for travel over Highway 401. Currently, the bridge has a width to accommodate two 3.2 m lanes and 1.68 m shoulders. The new structure proposed will include two 3.75 m lanes and two 3.0 m shoulders to better accommodate traffic in the coming years. The wider shoulders will improve safety for pedestrians and cyclists crossing this bridge and connectivity for users of the Murray Marr trail and future active transportation facilities along the yet to be improved Dingman Drive east of Highway 401. When Dingman Drive over Highway 401 is widened by the City in the longer-term future, the bridge will be anticipated to accommodate four lanes of traffic and connect into an active transportation network with two protected bike lanes and two sidewalks.

Considering the bridge replacement will be in place for the next 75 to 80 years in an area where ongoing growth is anticipated, a widening is likely to be necessary before the new underpass is replaced. Therefore, it is cost effective for the City to request MTO to provide a wider median bridge foundation at this time. The City-requested works have been estimated by MTO at \$400,000 plus HST. The source of funding is identified in the Development Charges Background Study. The negotiations leading to the current cost estimate are more favourable than that anticipated in the DC Background Study due to near-term active transportation improvements being realized through widened shoulders in MTO's project at no cost to the City.

Stability of the City's existing 750 mm watermain on the east side of the bridge did present some concerns for both the City and MTO. The new bridge and embankment is anticipated to have an impact on the existing watermain, so MTO has included a new replacement watermain through the limits of the new bridge including a new crossing under Highway 401 for the full extent of their project. These works have been coordinated with Water Engineering Division.

MTO is aware of the City's recently completed Environmental Study Report for improvements to Dingman Drive east of Highway 401 to Wellington Road, and MTO is prepared to coordinate project activities if necessary. Also, the City's Dingman Pumping Station which is located just west of the bridge replacement is planned for City construction starting in the spring of 2021. Coordination of these projects is planned. Related staff are aware of the MTO project, and MTO is aware of the City project to ensure coordination is achieved.

Conclusion

The replacement of the Dingman Drive Bridge over Highway 401 is necessary at this time for MTO to address the aging structure and provide additional vertical clearance for truck traffic on Highway 401. With growth anticipated in south London and along the Dingman Drive corridor, this agreement will provide good value for the City to include a widened bridge foundation within the Highway 401 median for a future widening of the bridge to accommodate future plans for Dingman Drive.

This partnership was established in a Council-approved Memorandum of Understanding executed in September 2020. The agreement with MTO will provide future benefits when a widening of Dingman Drive is necessary. At that time, the City-led bridge widening will have to be coordinated and approved by MTO, and the wider foundation median pier will be available to accommodate the City's widening needs and greatly reduce construction staging and costs.

The City financial commitment is to share the cost of detailed design, construction, contract administration and utility relocations. The City requested works have been estimated by MTO at \$400,000 + HST. These funds are identified in the Development Charges Bylaw.

This Agreement has been reviewed by Legal Department.

Prepared by: Garfield Dales, P.Eng., Division Manager, Transportation

Planning and Design

Submitted by: Doug MacRae, P.Eng., MPA, Director, Roads and

Transportation

Recommended by: Kelly Scherr, P.Eng., MBA, FEC, Managing Director and City

Engineer

Attach: Appendix "A": By-Law

cc: Geddes Mahabir – MTO

Natalia Bartos – MTO Aaron Rozentals Kirby Ouderkerk Karl Grabowski

Appendix A: By-Law

Bill No. By-law No.

A by-law to approve and authorize the Agreement between Her Majesty the Queen in right of the Province of Ontario represented by the Minister of Transportation for the Province of Ontario (the "Ministry") and The Corporation of the City of London (the "City") for the construction of the Dingman Drive bridge.

WHEREAS section 5(3) of the *Municipal Act, 2001* S.O. 2001, c.25, as amended, provides that a municipal power shall be exercised by by-law;

AND WHEREAS section 9 of the *Municipal Act, 2001* provides that a municipality has the capacity, rights, powers and privileges of a natural person for the purpose of exercising its authority under this or any other Act;

AND WHEREAS it is deemed expedient for The Corporation of the City of London (the "City") to enter into a cost-sharing agreement (the "Agreement') with Her Majesty the Queen in Right of Ontario represented by the Minister of Transportation (the "Ministry") for the construction of the Dingman Drive bridge;

AND WHEREAS it is deemed appropriate to authorize the Mayor and City Clerk to execute the Agreement on behalf of the City;

NOW THEREFORE the Municipal Council of The Corporation of the City of London enacts as follows:

- 1. The Agreement <u>attached</u> as Schedule "A" to this by-law, being a cost-sharing Agreement between Her Majesty the Queen in Right of Ontario represented by the Minister of Transportation (the "Ministry") and The Corporation of the City of London (the "City") for the construction of the Dingman Drive bridge is hereby authorized and approved.
- 2. The Mayor and City Clerk are authorized to execute the Agreement authorized and approved under section 1 this by-law.
- 3. This by-law shall come into force and effect on the day it is passed.

PASSED in Open Council

, 2021

Ed Holder Mayor

Catharine Saunders
City Clerk

First Reading Second Reading Third Reading

Schedule "A" to the City By-Law

THIS AGREEMENT made this_	day of	, 20	
B F T W F F N·			

HER MAJESTY THE QUEEN in right of the Province of Ontario, represented by the Minister of Transportation for the Province of Ontario (hereinafter referred to as the "Ministry")

- and -

THE CORPORATION OF THE CITY OF LONDON (hereinafter referred to as the "City")

Individually a "Party" and collectively the "Parties"

WHEREAS:

- A. The Ministry is undertaking a detail design and environmental assessment for the replacement of the existing Dingman Drive Underpass structure (GWP 3103-18-00) as shown on Schedules "A", "B" and "C" attached to this Agreement ("MTO Project"). The existing structure has two 3.20-m lanes and 1.68-m shoulders. The new structure will provide two 3.75-m lanes with 3.0-m shoulders.;
- B. The underpass structure which carries Dingman Drive over Highway 401 is under the jurisdiction and control of the Ministry (the "Dingman Drive Underpass");
- C. The City's planning for the future includes the need to widen the Dingman Drive Underpass structure in the future to an ultimate cross-section of four lanes (two lanes in each direction) with multi-use paths on each side of the bridge. The time horizon for the widening of the Dingman Drive Underpass structure is not known at this time and it is anticipated to be beyond the 20-year long-range planning horizon.
- D. The City has requested the Ministry to design and construct a wider foundation at the median pier ("Municipal Works") to be included in the MTO Project. The purpose of the wider foundation is to take advantage of the upcoming structure replacement and accommodate future widening of the Dingman Drive Underpass structure to the ultimate cross-section.
- E. The City has agreed to pay the costs of the Municipal Works to the Ministry pursuant to the terms of this Agreement.
- F. It is deemed necessary that the City and the Ministry enter into this Agreement to

accommodate improvements to the Dingman Drive Underpass structure to accommodate future improvements to the same.

NOW THEREFORE THIS AGREEMENT WITNESSES that in consideration of the premises and the covenants contained herein the Parties hereto for themselves and their respective successors and permitted assigns mutually agree as follows:

DEFINITIONS:

1. In addition to those words and terms elsewhere defined in this Agreement,

"Construction Costs" shall mean those costs for the construction of the Municipal Works, being all related hard costs, including without limitation, costs for environmental remediation, surveys, utility relocations, geotechnical investigation, placement of fill, granular lifts, asphalt, traffic staging, illumination, zone painting and signing, and the cost for detail design and contract administration.

"cost" shall mean all the items of cost all howsoever styled inclusive of interest, inclusive of a cost sum or sums, and inclusive, but not limited to, out of pocket expenses, consultants, contractors, environmental remediation, surveyors, solicitor and their client costs. And includes the concept of expense and all the items of expense all howsoever styled, inclusive of an expense sum or sums, unless specified otherwise. The staff time of neither the City nor the Ministry shall be included as a cost and each party shall be responsible for the cost of their own staff time related to the Work.

"costs" shall mean the same as "cost", but in plural.

"Director" means the Director of the Ministry's Design and Engineering Office or a nominee;

"Municipal Works" means the design and construction of a wider foundation at the median pier shown in Schedules "A", "B" and "C" attached to this Agreement;

DESIGN:

- 2. The Ministry will undertake the design of the Municipal Works, at the cost of the City, in consultation with the City in accordance with Ministry design standards. The Ministry will rely upon and use the relevant standards and specifications contained in the Ontario Provincial Standards for Roads and Public Works: Provincial for the construction of the Municipal Works. The final decision of the structure type, span arrangements, pier and girder sizes, will be at the sole discretion of the Ministry.
- 3. The Ministry will incorporate the design of the Municipal Works into the MTO Project (GWP 3103-18-00).
- 4. The City will, at no cost to the Ministry, cooperate with the Ministry to pass all City by-

laws, provide all City permits required for the completion of the Municipal Work and provide timely feedback during the design and construction phases.

- 5. The Ministry will be responsible for obtaining any and all *Environmental Assessment Act* approval for the Municipal Works. The Ministry agrees to provide the City with a copy of the final engineering design and *Environmental Assessment* report.
- 6. The detail design will be carried out by the Ministry's selected consulting firm and Ministry staff assigned to the MTO Project.
- 7. The Ministry will undertake, at the cost of the City, any utility relocation work and property acquisition necessary for the Municipal Works.

TENDERING:

- 8. The Ministry will tender the Municipal Works, at the cost of the City, as part of the MTO Project (GWP 3013-18-00).
- 9. Following the close of the tender and before awarding the contract for the construction of the MTO Project, the Ministry will notify the City of the bid prices for the Municipal Works.

CONSTRUCTION:

- 10. The Ministry will construct and administer the Municipal Works at the cost of the City.
- 11. The Ministry will give the City at least thirty days written notice before construction of the Municipal Works is commenced.
- 12. The City shall allow the Ministry, including its servants, agents, employees, assigns and contractors, to enter upon the City's lands and right-of-way, as may be necessary to construct the MTO Project, including the Municipal Works, and until the completion of the MTO Project, including any warranty and maintenance periods that may be required and set out in the construction contract for the MTO Project.
- 13. The Ministry will be responsible for the construction administration associated with the MTO Project, including the Municipal Works, and other duties normally associated with the supervision and administration of the construction of the project of this type. It is understood and agreed by the City that the Ministry may retain a consulting engineering firm for the actual or day-to-day construction administration of the Municipal Works.
- 14. The Ministry will be responsible for the resolution of any and all construction liens or disputes in respect of the MTO Project, including the Municipal Works.

PAYMENT:

- 15. The City shall pay the Ministry for all the costs of the design, environmental assessment, tendering, Construction Costs and contract administration actual costs directly relating to the Municipal Works in accordance with this Agreement.
- 16. The City agrees to compensate the Ministry for any and all costs of the utility relocation work and property acquisition directly relating to the Municipal Works.
- 17. For purposes of budgeting, the City's costs are estimated to be \$400,000.00, plus applicable surcharges and the Harmonized Sales Tax ("HST"), that are based on parametric estimating as more particularly described in Schedule "D" attached to this Agreement. The Ministry agrees to provide a detailed estimate within three (3) months of commencement of Construction.
- 18. The City acknowledges and agrees that the said sum is an estimate only and that payment shall be made by the City to the Ministry for all costs associated with the design, tendering, construction and contract administration of the Municipal Works incurred by the Ministry in respect of the Municipal Work and any applicable surcharges and HST.
- 19. In addition, the liability of the Municipality to pay the Ministry for the costs for the design, tendering, construction and contract administration of the Municipal Works, includes the following:
 - a. to pay one hundred per cent of all increased costs incurred by the Ministry to complete any additional work beyond the scope of the Municipal Works, which is requested by the City and not included in the estimated cost provided to the City;
 - b. to pay one hundred per cent of all increased costs incurred by the Ministry to comply with any request of the City to change the Municipal Works;
 - c. to pay one hundred per cent of all increased costs incurred by the Ministry attributed to any delays attributed solely to the City with respect to the Municipal Works; and,
 - d. to pay one hundred per cent of all increased costs incurred by the Ministry attributed to unforeseen obstacles or other problems encountered during construction of the Municipal Works not foreseen in the tendered construction contract.
- 20. The Ministry agrees to notify the City of any extra work relating to the Municipal Works

identified during construction that is required for the completion of the Municipal Works upon

becoming aware of this extra work. The Ministry will also notify the City of the additional cost

for such extra work. The City agrees to pay the Ministry its share of the costs of any extra work

related to the Municipal Works that was not included in the original estimate along with

applicable HST thereon.

21. Upon substantial completion of the Municipal Works, the Ministry shall invoice the City

for the actual cost of completing the Municipal Works. The City shall pay the Ministry the

amount of the invoice within thirty days from the receipt of the invoice.

22. The City shall not acquire any title, right, easement, licence or any other interest in the

lands of the Ministry, as a result of its payment to the Ministry of any amounts paid or owing

pursuant to this Agreement.

GENERAL PROVISIONS:

23. Notices under this Agreement shall be in writing and sent by personal delivery, facsimile

transmission ("Fax") or by registered mail. Notices by registered mail shall be deemed to have

been received on the fourth business day after the date of mailing. Notices by personal delivery

or by Fax shall be deemed to have been received at the time of the delivery or transmission,

unless delivered or transmitted on a weekend or holiday, in which case such notice shall be

deemed to have been received on the next business day. In the event of an interruption in

postal service, notice shall be given by personal delivery or by Fax. The address, contact

person and Fax of the parties under this Agreement, unless otherwise noted is:

The Ministry:

Mr. Steven McInnis, P.Eng.

Director

Design and Engineering Branch

Ministry of Transportation

659 Exeter Rd

London, Ontario N6E

1L3

Telephone: (519) 871-9148

The Municipality:

Mr. Doug MacRae, P.Eng

Director, Roads & Transportation City of

London

300 Dufferin Avenue

London, Ontario N6A 4L9

24. The City warrants that it has taken all necessary steps, done all acts, passed any

necessary by-laws and obtained all approvals within its power legally required to give it the

authority to enter into this Agreement.

25. The rights, duties and powers of the Minister under this Agreement may be exercised by

the Director.

- 26. Any changes, alterations or amendments to this Agreement shall be made in writing signed by the City's authorized signing officers and by the Ministry's Director.
- 27. This Agreement constitutes the entire agreement between the Parties with respect to the subject matter contained in the Agreement and supersedes all prior oral or written representations and agreements, including the Memorandum of Understanding executed between the Parties September 10, 2020.
- 28. This Agreement shall be governed by the laws of the Province of Ontario and any applicable federal laws of Canada.

THIS AGREEMENT shall enure to the benefit of and be binding upon the Parties hereto and their respective successors and assigns.

IN WITHER WITHERE Contained in this Agreement

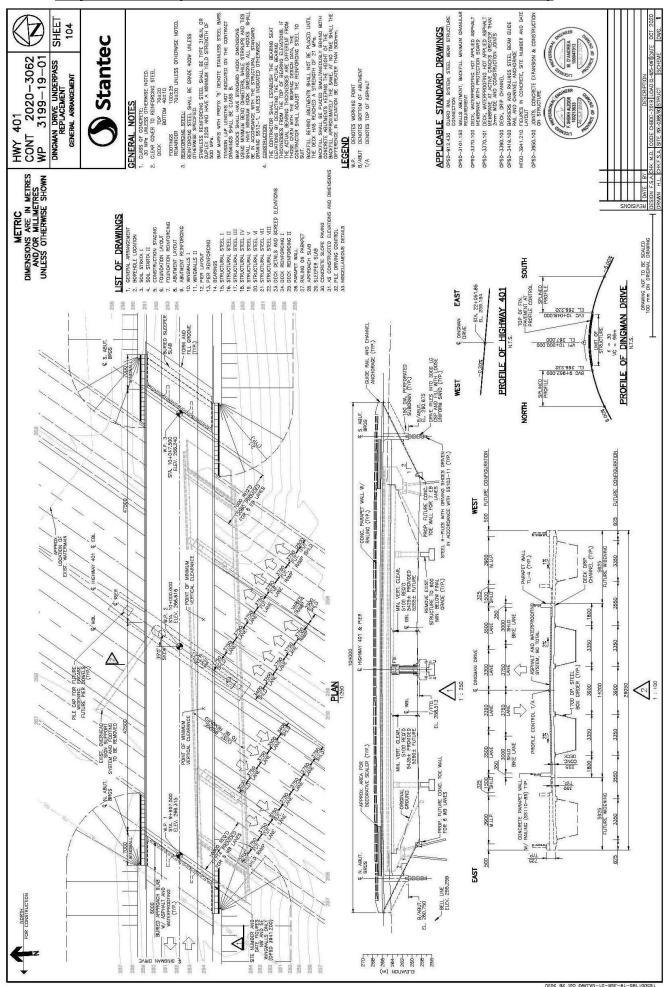
SIGNED thisday of_		
	HER MAJESTY THE QUEEN in right of the Province of Ontario, represented by the Ministe of Transportation for the Province of Ontario)r
	MINISTER OF TRANSPORTATION (ONTARIO)	
SIGNED AND SEALED this_	day of, 20	_•
	THE CORPORATION OF THE CITY OF LONDO	NC
	Ed Holder, Mayor	
	Catharine Saunders, Clerk	

I/We have authority to bind the Corporation.

SCHEDULE A

To an Agreement between MTO and the City

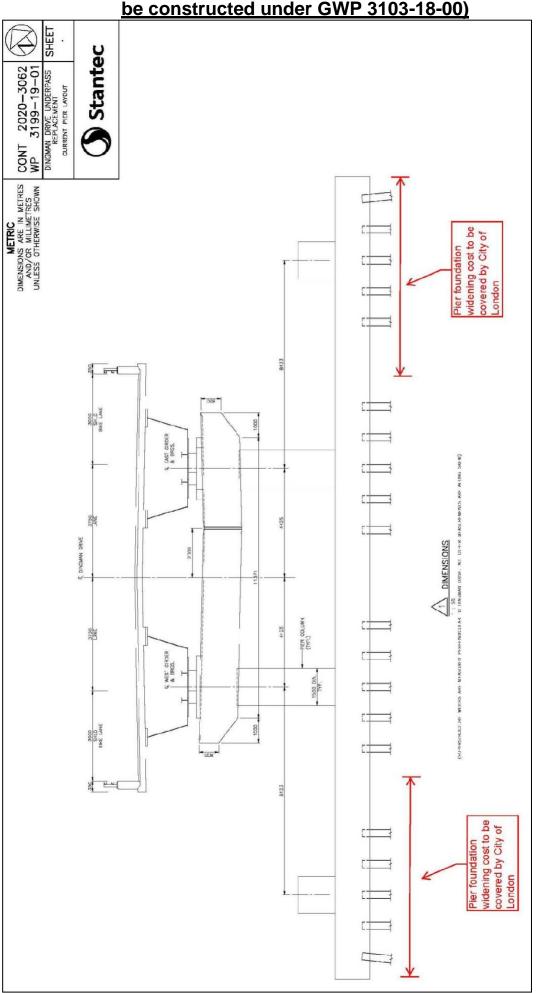
General Arrangement Drawing for Dingman Drive Replacement (to be constructed under GWP 3103-18-00)



SCHEDULE B

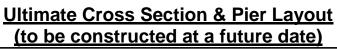
To an Agreement between the Ministry and the City

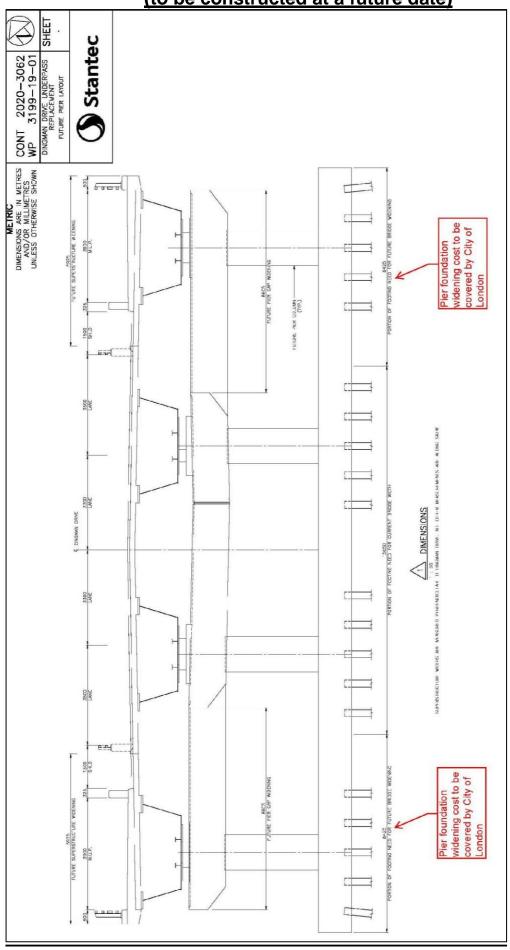
Interim Cross Section & Pier Layout (to be constructed under GWP 3103-18-00)



SCHEDULE C

To an Agreement between the Ministry and the City





SCHEDULE D

To an Agreement between the Ministry and the City

Estimated Cost to be Paid by The City

Number	Item	Estimated
		Costs
1	Piling supply and	\$250,000
	installation	
2	Concrete in footing	\$104,000
3	Reinforcng steel	\$36,000
4	Miscellaneous	\$10,000
	(excavation and	
	mass concrete)	
5	Total	\$400,000.00 +
		HST*

^{*}Notwithstanding anything to the contrary, the costs of \$400,000 + HST stipulated herein is an estimate only. The City acknowledges and agrees that the actual costs payable to the Ministry shall be based on the terms of this Agreement.