

<b>TO:</b>	<b>CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON JULY 17, 2017</b>
<b>FROM:</b>	<b>KELLY SCHERR, P. Eng., MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL &amp; ENGINEERING SERVICES &amp; CITY ENGINEER</b>
<b>SUBJECT:</b>	<b>APPOINTMENT OF CONSULTING ENGINEERS INFRASTRUCTURE RENEWAL PROGRAM 2017-2019</b>

<b>RECOMMENDATION</b>
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That, on the recommendation of the Managing Director, Environmental & Engineering Services & City Engineer, the following actions **BE TAKEN** with respect to the appointment of Consulting Engineers for the 2017-2019 Infrastructure Renewal Program:

- a) The following consulting engineers **BE AUTHORIZED** to carry out consulting services for the projects, at the upset amounts identified below, in accordance with the estimate on file, and in accordance with Section 15.2 (g) of the Procurement of Goods and Services Policy:
  - (i) AECOM Canada Ltd **BE AUTHORIZED** to carry out the contract administration services, including geotechnical services for the Clean Water and Wastewater Stimulus funded Contract 19, Elworthy Ave and Franklin Ave Reconstruction project in the total amount of \$234,410, including contingency excluding HST;
  - (ii) Ricor Engineering Ltd **BE AUTHORIZED** to carry out the contract administration services, including geotechnical services for the Clean Water and Wastewater Stimulus funded Contract 20 project, Grosvenor Street Reconstruction in the total amount of \$209,000, including contingency excluding HST;
  
- b) The following consulting engineers **BE AUTHORIZED** to carry out consulting services for the projects, at the upset amounts identified below, in accordance with the estimate on file, and in accordance with Section 15.2 (e) of the Procurement of Goods and Services Policy:
  - (i) Archibald, Gray and McKay Engineering Ltd. **BE AUTHORIZED** to carry out the contract administration services, including geotechnical services for the 2017 Infrastructure Renewal Program funded Contract 16 project, Green Valley Road Reconstruction in the total amount of \$157,280, including contingency excluding HST;
  - (ii) Stantec Consulting Ltd **BE APPOINTED** Consulting Engineers to complete the pre-design and detailed design of Clean Water and Wastewater Stimulus funded Contract 1, Wistow Street reconstruction from Oxford Street to Landor Street, in the total amount of \$228,138, including contingency excluding HST;
  - (iii) Spriet Associates London Ltd **BE APPOINTED** Consulting Engineers to complete the pre-design and detailed design of Clean Water and Wastewater Stimulus funded Contract 2, Highway Avenue and Lambeth Avenue reconstruction from Wharncliffe Road to Edward Street, in the

total amount of \$257,620 including contingency, excluding HST;

- (iv) AECOM Canada Ltd **BE APPOINTED** Consulting Engineers to complete the pre-design and detailed design of Clean Water and Wastewater Stimulus funded Contract 3, Waterloo Street reconstruction from Oxford Street to Grosvenor Street, in the total amount of \$191,712, including contingency excluding HST;
  - (v) R.V. Anderson Associates Ltd **BE APPOINTED** Consulting Engineers to complete the pre-design and detailed design of the Clean Water and Wastewater Stimulus funded Contract 4, Talbot Street North reconstruction from Victoria Street to Huron Street, in the total amount of \$182,210, including contingency excluding HST;
  - (vi) GM Blueplan Engineering **BE APPOINTED** Consulting Engineers to complete the pre-design and detailed design 2018 Clean Water and Wastewater Stimulus funded Contract 5, Chippendale Crescent reconstruction, in the total amount of \$223,862, including contingency excluding HST;
  - (vii) Development Engineering (London) Ltd **BE APPOINTED** Consulting Engineers to complete the pre-design, detailed design and construction administration of 2018 Infrastructure Renewal Program funded Contract 6, West Mile Road, North Mile Road, Green Lane and East Mile Road from North Mile Road to Oban Crescent, in the total amount of \$411,939, including contingency excluding HST;
  - (viii) IBI Group **BE APPOINTED** Consulting Engineers to complete the pre-design, detailed design and construction administration of 2018 Infrastructure Renewal Program funded Contract 7, Talbot Street South reconstruction from Fullarton St to Kent St, in the total amount of \$435,855, including contingency excluding HST;
  - (ix) Dillon Consulting Ltd. **BE APPOINTED** Consulting Engineers to complete the Storm Sewer and Water Supply Servicing Study of 2018 Infrastructure Renewal Program funded Assignment 8, Dundas St/Clarke Rd/Wavell St/Pottersburg Creek area, in the total amount of \$224,928, including contingency excluding HST;;
  - (x) Archibald, Gray and McKay Engineering Ltd **BE APPOINTED** Consulting Engineers to complete the pre-design and detailed design of 2019 Infrastructure Renewal Program funded Contract A, Egerton Street reconstruction Phase 2 from Pine Street to Hamilton Road, in the total amount of \$334,401, including contingency excluding HST;
- c) the financing for the projects identified in (a) and (b) above, **BE APPROVED** in accordance with the “Sources of Financing Report” attached hereto as Appendix “A”;
- d) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this work;
- e) the approvals given herein **BE CONDITIONAL** upon the Corporation entering into a formal contract with each Consultant for the respective project; and
- f) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

## PREVIOUS REPORTS PERTINENT TO THIS MATTER

- Appointment of Consulting Engineers, Clean Water and Wastewater Fund Projects, Civic Works Committee, November 1, 2016, Agenda Item # 10.
- Infrastructure Canada Phase 1 Project Requests Clean Water and Wastewater Fund, Civic Works Committee, October 4, 2016, Agenda Item # 8.
- Appointment of Consulting Engineer for Contract Administration Services Associated with the Construction of 2017 Infrastructure Renewal Projects - Emery St, East Mile Road/Oban Crescent/Glen Crescent/Hyman Street/Victor Street/Tecumseh Avenue/Byron Avenue, Civic Works Committee, March 27, 2017, Agenda Item #7
- Appointment of Consulting Engineer for Contract Administration Services Associated with the Construction of 2017 Infrastructure Renewal Projects - Waterloo St, Trowbridge Ave, Civic Works Committee, May 9, 2017, Agenda Item #7

## 2015-19 STRATEGIC PLAN

The 2015-2019 Strategic Plan identifies this objective under Building a Sustainable City: 1B – Manage and improve our water, wastewater and stormwater infrastructure and services.

## BACKGROUND

### Purpose

This report recommends the authorization of Consulting Engineering firms to carry out detailed design and contract administration for twelve infrastructure renewal projects five of which are funded by the Clean Water and Wastewater Fund.

### Context

The Infrastructure Renewal Program (IRP) is an annual program intended to maintain the life of municipal infrastructure at an acceptable performance level. Typically, approximately ten Capital Works Projects are awarded to consultants every year to work with the City to help deliver the program and meet increasingly challenging infrastructure needs. The consulting work outlined above will allow for the construction of an estimated \$23.8M of capital infrastructure. The consultant selection for the 2018-2019 Infrastructure Lifecycle Renewal Program has used and updated grouped procurement process developed in partnership with the Purchasing and Supply Division. The goal of this trial process is to ensure the City achieves the best value through a transparent, fair and competitive process.

## DISCUSSION

### Clean Water and Wastewater Fund

The first phase of funding for the Clean Water and Wastewater Fund (CWWF) is a 2 year - \$2 Billion Government of Canada investment to meet immediate priorities for

clean water and wastewater to support a cleaner and healthier environment for communities. CWWF focuses on investing in projects that:

- Rehabilitate and optimize water, storm water and wastewater related infrastructure;
- Improve asset management approaches including pilots and studies;
- Plan for future upgrades to wastewater treatment and collection infrastructure;
- Include new construction projects like naturalized systems.

### **Procurement Process: 2017 Infrastructure Lifecycle Renewal Program**

AECOM and Ricor were previously approved by the Municipal Council to prepare all approvals, complete the detailed design engineering work, and tender drawing and document package for two 2017 Clean Water and Wastewater Fund Infrastructure Renewal Projects, Elworthy Ave & Franklin Ave Reconstruction (AECOM) and Grosvenor St Reconstruction (Ricor). It was noted at that time that these same consultants will be required to obtain approval to proceed with subsequent phases of engineering for their projects subject to satisfying all financial, reporting and other conditions contained within the PGSP.

AGM was previously approved by the Managing Director and City Engineer to prepare all approvals, complete the detailed design engineering work and tender drawings and document package for Infrastructure Renewal Project Green Valley Road Reconstruction, in accordance with Section 15.2 (c) of the Procurement of Goods and Services Policy.

These three projects have been identified as high priorities in the replacement programs due to the poor condition of the municipal infrastructure and in some cases, the need for sewer separation. The sanitary sewer, private drain connections and/or watermains on these streets are old and have reached the end of their life expectancy.

Over the past year, these firms have connected with the community related to their projects with public meetings and onsite consultation. They are well positioned to manage the societal needs of the community during the construction phase of these projects. Given their engineering foresight, knowledge, and experience, these firms were requested to submit a proposal to continue with the construction phase of these projects and carry out inspection, contract administration and engineering services.

In accordance with Section 15.2(g) of the PGSP, Civic Administration is recommending that these firms be authorized to carry out the remainder of engineering services to complete these projects. These firms have satisfactorily completed a substantial part the projects and are recommended for award of the balance of the projects having satisfied all financial, reporting and other conditions required of the Policy. It is to the financial advantage of the City due to the fact that these consultants have specific knowledge of the project and have undertaken work for which duplication would be required if another firm were to be selected.

In addition, staff have reviewed the fee submissions in detail considering the hourly rates provided by each staff member. Staff have confirmed that hourly rates are consistent with those submitted through competitive processes. Staff also reviewed the time allocated to each project related task. Staff can confirm that the amount of time allocated to each project task is consistent with prior projects of a similar nature that have been awarded through a competitive process. In general, all of the assignments are found to be reasonable and in-line with those that would be expected through a competitive process.

The approval of these works will increase the value of the existing consulting engineering assignments noting the total fees associated with these works are listed in the table below.

<b>CLEAN WATER AND WASTEWATER PROJECT</b>	Engineering Design and Tendering Services	<b>Inspection, Contract Administration &amp; Engineering Services</b>	Total Engineering Design & Contract Administration
T17-22; Elworthy Ave & Franklin Ave Reconstruction: AECOM	\$253,602.00	<b>\$234,410.00</b>	\$488,012.00
T17-60; Grosvenor St Reconstruction: Ricor	\$188,680.00	<b>\$209,000.00</b>	\$397,680.00
T17-12; Green Valley Road Reconstruction: AGM	\$97,810.00	<b>\$157,280.00</b>	\$255,090.00

These firms have shown their competency and expertise with infrastructure projects of this type and have provided good performance in the past on City projects. City staff continue to foster a collaborative working relationship with these consultants that focuses on achieving the lowest life cycle cost and highest service performance for municipal infrastructure to the benefit of water and sewer rate payers and taxpayers in the long term.

#### **Procurement Process: 2018-2019 Infrastructure Lifecycle Renewal Program**

The consultant selection for the 2018-2019 Infrastructure Lifecycle Renewal Program has used and updated grouped procurement process developed in partnership with the Purchasing and Supply Division. The process includes an open, publicly advertised Request for Qualifications and a subsequent Request for Proposal submitted by short-listed firms. The new process was put forward as a trial for the 2018 Infrastructure Lifecycle Renewal Program and formalized as a new grouped consultant selection process for the 2019 program. Further details will be provided as part of a Q3 2017 report to committee. The final version of the new process will have been developed with the participation of project managers, EES top management, Purchasing and Procurement Division, the Legal Division, and the City's Fairness Advisor.

An additional change to the 2018-2019 program is the inclusion of the Construction Administration portion of the consultant assignment as part of the single procurement process. In 2014, PricewaterhouseCooper (PwC) undertook an audit of the stormwater service area and made several recommendations to improve administrative efficiency. One of these recommendations was to group the Design and Construction Administration phases into one procurement process. Previously, all lifecycle and infrastructure projects went through two procurement processes, one for the detailed design and one from construction administration, that depended on the second process to rely on provision 15.2 g) of the Procurement of Good and Services Policy:

#### ***Procurement of Good and Services Policy 15.2 g)***

*A consulting firm which has satisfactorily partially completed a project may be recommended for award of the balance of a project without competition subject to satisfying all financial, reporting and other conditions contained within this Policy. This should be to the financial advantage of the City due to the fact that such a consultant has specific knowledge of the project and has undertaken work for which duplication would be required if another firm were to be selected.*

PwC commented that awarding the design and construction administration work together will result in efficiencies in the procurement process and will provide corresponding operational savings. In addition to these benefits, this practice will also limit the need to use provision 15.2 g) of the Procurement of Good and Services Policy to only special situations.

It should be noted that for the CWWF funded and single 2019 assignment, this report recommends approval of design fees only as funding is currently unavailable to award the construction administration portion of the work. However, as part of the procurement process, a quotation for the construction administration portion of the projects were provided and will be the basis for the award of this work if future CWWF applications and the 2019 capital budget are approved.

## **Work Description**

This report recommends the appointment of Engineering Consultants for nine engineering design assignments as identified in Appendix “B”. Five of the assignments will be funded through the Clean Water and Wastewater stimulus fund. Seven of the projects are scheduled for construction in 2018, one in 2019 and there is one area study. The project to be constructed in 2019 is a larger and more complex project and includes study and design that will span over two years. Funds have been budgeted in the Transportation, Water and Sewer Capital Budgets to support the engineering design work for these projects as identified in the “Sources of Financing Report” (Appendix “A”).

The projects include watermain and sewer replacement/repairs, as well as restoration of areas disturbed by the construction activity. The scope of each project varies in length and infrastructure components which require rehabilitation or replacement. In some cases, full road reconstruction including traffic signal and streetlight replacement will be part of the overall project. Location maps are provided in Appendix “C”.

The infrastructure design groups within each service area work closely together to coordinate infrastructure repair, rehabilitation and replacement. They prepare a list of the highest priority projects depending on condition assessment, capacity, criticality of the infrastructure link and the safety and social impacts should the link fail. Staff meet regularly throughout the year to coordinate their respective work with the goal to build projects where more than one infrastructure element can be renewed, thereby significantly reducing social disruption and saving on construction costs. Design work starts early in the budget cycle which allows projects to tender early in the season to realize the most competitive construction pricing.

The design and construction administration fees recommended for approval in this report are detailed in the table below. For the CWWF and 2019 projects future approval will be requested if future CWWF applications and the 2019 capital budget are approved.

The construction administration estimates presented in the table below will be requested in a future report. All values below include 10% contingency and do not include HST.

<u>Contract</u>	<u>Street</u>	<u>Design Fee</u>	<u>CA fee</u>	<u>Total Fee</u>	<u>Current Funding Request</u>	<u>Future Funding Request</u>
2018 CWWF #1	Wistow	\$228,137	\$217,077	\$445,214	\$228,137	\$217,077
2018 CWWF #2	Highway/Lambeth	\$257,620	\$248,490	\$506,110	\$257,620	\$248,490
2018 CWWF #3	Waterloo	\$191,712	\$205,423	\$397,135	\$191,712	\$205,423
2018 CWWF #4	Talbot St	\$182,210	\$211,217	\$393,427	\$182,210	\$211,217
2018 CWWF #5	Chippendale	\$223,861	\$245,696	\$469,557	\$223,861	\$245,696
2018 IRP #6	East, West, North Mile, Green Lane	\$201,014	\$210,925	\$411,939	\$411,939	\$0
2018 IRP #7	Talbot St S	\$265,917	\$169,938	\$435,855	\$435,855	\$0
2018 IRP #8	Churchill Area Study	\$224,928	\$0	\$224,928	\$224,928	\$0
2019 IRP #A	Egerton Phase 2	\$334,400	\$422,862	\$757,262	\$334,400	\$422,862

## CONCLUSIONS

Replacing infrastructure at the end of its life is a prerequisite to building a sustainable city. These consultant assignments for the 2017- 2019 Infrastructure Lifecycle Replacement Program is another step forward in replacing London's aging infrastructure. The projects discussed above have been identified as high priorities due to their poor condition and their associated risk of failure.

In the spirit of continuous improvement, the process for undertaking consultant appointment will continue to evolve ensuring the City achieves the best value through a transparent, fair and competitive process. The procurement process trial for 2018 will be more fully circulated and documented and brought back to committee in Q3 2017 for review.

All the firms selected through this consultant appointment have shown their competency and expertise with replacement projects of this type. The infrastructure renewal program will managed to continue to ensure high value for cost and endeavour to achieve a consistent high degree of public satisfaction.

**Acknowledgements:**

This report was prepared by Doug Harron, Senior Technologist, Aaron Rozentals, Environmental Services Engineer, and Kyle Chambers, Environmental Services Engineer.

<b>SUBMITTED BY:</b>	<b>CONCURRED BY:</b>
<b>TOM COPELAND, P. ENG. DIVISION MANAGER WASTEWATER AND DRAINAGE ENGINEERING</b>	<b>SCOTT MATHERS, MPA, P.ENG. DIRECTOR, WATER AND WASTEWATER</b>
<b>RECOMMENDED BY:</b>	
<b>KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL &amp; ENGINEERING SERVICES &amp; CITY ENGINEER</b>	

July 10, 2017

SM/dh

Attach: Appendix "A" – Sources of Financing  
Appendix "B" - Project Information list, Consultants & Construction Estimates  
Appendix "C" – Project Locations Maps

c.c. AECOM Canada Ltd, 410 – 250 York Street, Citi Plaza, N6A 6K2  
Dillon Consulting Ltd, 130 Dufferin Avenue, Suite 1400  
IBI Group, 350 Oxford Street West, Suite 203, N6H 1T3  
Spriet Associates, 155 York Street, N6A 1A8  
Archibald, Gray & McKay Engineering, 3514 White Oak Road, N6E 2Z9  
R.V. Anderson Associates Ltd, 557 Southdale Road East Suite 200, N6E 1A2  
Stantec Consulting Ltd, 800-171 Queens Avenue, London, ON, N6A 5J7  
Development Engineering Ltd., 41 Adelaide St N, Unit 71, London ON, N6B 3P4  
GM Blueplan Engineering, 235 North Centre Road, Suite 103, London, ON N5X 4E7