

June 4, 2018

Proposal No. P18100695

**Mike Becke, P.Eng., Senior Project Manager**

City of Hamilton  
Public Works Department  
Engineering Services Division  
77 James Street North, Suite 320  
Hamilton, Ontario  
L8R 2K3

**HOT IN-PLACE RECYCLING SUITABILITY STUDY, HAMILTON, ON**

Dear Sir,

Golder Associates Ltd. (Golder) is pleased to present this proposal to the City of Hamilton (City) to investigate the suitability of using a Hot In-Place Recycling (HIR) treatment on the Red Hill Valley Parkway (RHVP), Hamilton, ON. Golder has previously carried out numerous investigations on this road section, including the design of the pavement and Quality Assurance (QA) testing when it was originally constructed. The pavement on the RHVP was originally designed as a perpetual pavement structure, and since its original construction the pavement surface has started to exhibit some deficiencies. In order to rehabilitate the pavement deficiencies we understand that the City would like to evaluate the suitability of carrying out a HIR treatment on the existing pavement surface. This proposal presents our scope of work for this project, and the associated cost estimate to complete the works.

**Scope of Work**

Golder's scope of work for this assignment will be divided into two phases as follows:

- Phase 1 – Preliminary Investigation and Specification Development; and
- Phase 2 – Construction Consultations and Quality Assurance (QA) testing.

The following sections of this proposal detail Golder's proposed scope of work during each of the two phases of this assignment.

**Phase 1**

The primary focus of Phase 1 of this assignment is to evaluate the suitability of using HIR treatment for the rehabilitation of the existing pavement surface on the RHVP. If the treatment is found to be feasible then a specification for the treatment mix design and placement will be developed. Golder will commence this phase of the assignment by selecting locations along the length of the RHVP where pavement samples should be obtained. We understand that the asphalt samples will be saw cut and this will be carried out by a contractor who will be retained directly by the City. At the locations selected by Golder, the contractor will sawcut the

asphalt surface course layer, and a portion of the underlying asphalt upper binder course layer (as required) to collect samples. The samples will then be provided to Golder for further analysis and testing.

The asphalt samples will be brought to a Golder laboratory for further visual examination and testing. The testing of the samples will include asphalt cement content, aggregate gradation, asphalt cement properties and other necessary characteristics. The purpose of carrying out the testing will be to determine likely characteristics of the HIR pavement materials, the amount and type of rejuvenator that will be required to be added to the mix, the grade and amount of asphalt cement that should be added, and the gradation and proportion of aggregates or in the form of beneficiary asphalt mix that will need to be added to the HIR mix for the intended application. Golder will investigate the type and source of the necessary aggregates/mix to be added to the HIR material. The laboratory testing will evaluate if it is possible to HIR the existing material and create a new mix with satisfactory characteristics. Golder will send the recommended blend of aggregates for PSV testing. We anticipate that the HIR mix, the addition of beneficiary asphalt mix, will have to meet Superpave asphalt mix requirements.

The laboratory results, our findings and recommendations will be presented to the City and discussed during at least two meetings. We also anticipate to have consultations with the agencies that currently use HIR (in British Columbia) and leading contractors.

After completion of the laboratory testing, Golder will develop customized special provisions to compliment the existing OPSS.MUNI 1132 specification for the HIR mix properties and execution of the HIR treatment on this particular project. A draft of the special provision will be provided to the City for their review, and after comments have been received the required changes will be made and the special provisions will be finalized.

After the HIR treatment has gone to tender, we anticipate that the City will receive questions and requests for clarifications from bidders. Golder will provide input on the questions received regarding the HIR treatment, on an as needed basis.

## **Phase 2**

After the contract has been awarded, the selected Contractor will be responsible for completing their own mix design for the HIR, which shall meet the requirements of the specifications. If required, Golder can provide the data from our laboratory testing carried out in Phase 1 to the Contractor; however, it is the Contractor's responsibility to confirm and verify the data obtained from Golder, for the purpose of their own mix design. Golder will review the Contractor's mix design.

During the HIR treatment process, an experienced Golder representative will be present on site to monitor the construction process to ensure compliance with the project specifications. Additionally, Golder will carry out QA field and laboratory testing during construction including compaction testing using a nuclear density gauge, obtain samples of the HIR mix for laboratory testing, and visually monitoring the appearance of the surface of the paved mat and the quality of the joints. Laboratory testing will include testing of recovered asphalt cement, gradation, asphalt cement content and Superpave characteristics including air voids.

Golder's senior pavement specialist will also provide consultation during the construction operation, as required, and will assist in the resolution of any issues that are encountered. Timely resolution of issues during the construction operation is critical to ensuring that the final product meets the performance expectations of the City.

Golder will provide the City with daily monitoring reports for the days that Golder representatives are on site to inspect the construction operations and carry out QA testing. Additionally, Golder will provide laboratory testing

reports for all the HIR mix samples that are tested during the course of construction. At this stage it is not anticipated that Golder will prepare a final close-out report at the conclusion of the construction, however if such a report is required, Golder would be pleased to prepare it at an additional cost to what is included in this proposal.

After completion of the construction, Golder’s senior pavement specialist will carry out a final inspection of the pavement surface to identify any deficiencies that may exist. If any such deficiencies are encountered, Golder will provide recommendations regarding possible remedial actions correct the deficiencies. Golder will prepare and submit a letter to the City, with the findings of our final inspection.

### Cost Estimate

The total cost to complete the scope of work detailed above will be \$130,270, excluding applicable taxes. The table below provides a break down of the total cost.

**Table 1: Project Costs Breakdown**

Task	Labour					Disbursements	Total
Project Team Member	Principal	Project Manager or Senior Professional	Jr. Engineer	Sr. Technician	Project Coordinator		
Rate	\$200/hr	\$180/hr	\$95/hr	\$95/hr	\$90/hr		
Task	Hours						
Phase 1	102	92	44	0	10	\$7,770	\$49,810
Phase 2	137	105	40	206	12	\$9,710	\$80,460
<b>Project Total</b>	<b>239</b>	<b>197</b>	<b>84</b>	<b>206</b>	<b>22</b>	<b>\$17,480</b>	<b>\$130,270</b>

### Roster Agreement

It is understood that this project will be completed within Roster C12-07-16 Category 12, dated January 4, 2017. However, given the unique nature of this assignment and scope, this Roster Assignment Proposal is conditional upon acceptance by the City of the revisions to the (i) Roster Terms and Conditions, and (ii) Data Licence Agreement, requested by Golder in the attached Contract Exceptions document; revisions which shall form part of the Roster Assignment Contract and Consultant Agreement.

## Closure

We thank you for the opportunity to submit this proposal and look forward to working with you on this interesting assignment. If you are agreeable to the scope of work and cost estimate detailed in this proposal, please provide us with written authorization to proceed. If you have any questions about this proposal or require further clarification, please do not hesitate to contact the undersigned.

Yours truly,

**Golder Associates Ltd.**



Vimy Henderson, Ph.D., P.Eng.  
*Pavement and Materials Engineer*



Ludomir Uzarowski, Ph.D., P.Eng.  
*Principal, Senior Pavement and Materials Engineer*

RR/AJ/VH/LU/aj

Attachments: Contract Exceptions

[https://golderassociates.sharepoint.com/sites/27773g/proposal\\_project\\_management/p18100695\\_proposal\\_4'june'18.docx](https://golderassociates.sharepoint.com/sites/27773g/proposal_project_management/p18100695_proposal_4'june'18.docx)

CLIENT: City of Hamilton  
 ROSTER ASSIGNMENT: Hot-in-Place Recycling Pavement

REFERENCE	Exceptions to Roster Terms & Conditions
Part A – Sec. 4.  Roster Contract Documents	<p>Please delete this provision and replace it with the following:</p> <p>“Upon acceptance by the City of the Selected Consultant’s Roster Assignment Proposal, the City and the Selected Consultant shall enter into a Consultant Agreement which shall consist of the documents listed in this Section 4. In the event that agreement with respect to a Consultant Agreement is not reached within 14 Business Days, the City shall have the right to issue a Roster Assignment for the same Service to any other Selected Consultant of its preference. The following documents shall form the Consultant Agreement that will govern the performance and interpretation of the rights and obligations of the City and the Selected Consultant under this Roster Assignment, in successive order of priority:</p> <ol style="list-style-type: none"> <li>i. This Roster Terms and Conditions, as amended by agreement in writing by the City and the Selected Consultant;</li> <li>ii. Selected Consultant’s Roster Assignment Proposal, as accepted by the City;</li> <li>iii. the Category Specific Form of Submittal for the Roster Category under which the Roster Assignment is being carried out; and</li> <li>iv. Any Purchase Order issued pursuant to the Roster Assignment.”</li> </ol>
Part C – Sec. 2.I.  Warranty For Professional Services	<p>Please delete this provision and replace it with the following:</p> <p>“The Selected Consultant warrants and represents that the Selected Consultant and all the Subconsultants it proposes to use on or in connection with this Roster Assignment will perform the Service in a manner consistent with that level of care and skill ordinarily exercised by other professionals currently practicing under similar conditions in the same locality, subject to the time limits and financial, physical or other constraints applicable to the Services. No other warranty, express or implied is made.</p> <p>For clarity, Selected Consultant shall be entitled to rely on information provided by the City or any other person for whom the City is responsible at law, including without limitation the City’s personnel, agents or other contractors.”</p>
Part D – Sec. 1.  Ownership of Deliverables	<p>Please delete this provision and replace it with the following:</p> <p>“The Selected Consultant shall retain ownership of all Work Product created as a result of the performance of any Services, including any deliverables identified in the Selected Consultant’s Roster Assignment Proposal, provided under this Roster Assignment. “Work Product” means any item (tangible and intangible) which is created or produced as a result of the performance of the Services by the Selected Consultant hereunder. The Selected Consultant grants the City a perpetual, non-exclusive, non-transferable, non-assignable license to use the Work Product, solely in connection with the Services. Except for this limited license, Golder expressly reserves all other rights in and to the Golder Products.</p> <p>Further, the Work Product is intended for one time use only. The City understands and acknowledges that the Work Product is not intended or represented by the Selected Consultant to be suitable for reuse by any party, including, but not limited to, the City, its employees, agents, or other contractors on any extension of a specific project not covered by this Roster Assignment or on any other project, without the Selected Consultant’s prior written permission.”</p>
Part E – Sec. 4.  Liens	<p>Please delete this provision and replace it with the following:</p> <p>“INTENTIONALLY DELETED”</p>
Part H - Heading  Indemnification	<p>Please revise the heading of this Part H as follows:</p> <p>“Part H: INDEMNIFICATION AND LIMIT OF LIABILITY”</p>
Part H – Sec. 1  Indemnification	<p>Please revise this provision as follows:</p> <p>“Unless otherwise specific in the Category Specific Terms of Reference or any executed Consultant Agreement, <del>a Rostered Candidate</del> the Selected Consultant shall indemnify, defend, and hold the City (including its officials, officers, directors, employees, agents, affiliates, subsidiaries, and representatives) [collectively referred to as the “Indemnified Party”] harmless against any and all claims, demands, costs (including reasonable legal costs <del>on a substantial indemnity basis</del>), penalties, fines, fees, royalties, damages (including indirect, special, remote, and/or consequential damages) and causes of action, <del>including, without limitation, proprietary</del> commenced or claimed by third parties with respect to property damage or personal injury (including death) to the extent that such claims, demands, costs, actions etc. directly arise from, <del>either directly or indirectly, or relate to,</del> any negligent act or omission of <del>a Rostered Candidate</del> the Selected Consultant, its officials, directors, officers, employees, agents, affiliates, partners (general or limited), joint venturers, contractors, Subconsultants, and other representatives, in connection with the <del>Rostered Candidate’s</del> Selected Consultant’s responsibilities pursuant to this <del>Request for Roster Candidates and any</del> Roster Assignment, including</p>

REFERENCE	Exceptions to Roster Terms & Conditions
	<p>without limitation, the provision of any and all Goods and Services, as well as any patent, trademark, or copyright infringement or breach of any intellectual property right, except to the extent that same was caused by the negligence or willful misconduct of the Indemnified Party.</p> <p>The City agrees to limit the liability of the Selected Consultant, its affiliates, and their respective employees, officers, directors, agents, consultants and subcontractors (“Selected Consultant Group”) to the City, its employees, officers, directors, agents, and other consultants/contractors, whether in contract, tort, or otherwise, which arises from the Selected Consultant Group’s acts, negligence, errors or omissions, such that the total aggregate liability of the Selected Consultant Group to all those named shall not exceed two times the Selected Consultant’s total fees for the Services rendered under this Roster Assignment.</p> <p>Neither party shall be responsible to the other for lost revenues, lost profits, cost of capital, claims of customers, loss of data or any other special, indirect, consequential or punitive damages.”</p>
Part I – Sec. 3, 4, 5 and 6  Insurance Requirements	<p>Please delete the phrase “not less than” every time it appears in these sections.</p> <p>Also, please add the phrase “and in the aggregate” after the phrase “per claim” in Section 6 related to Professional Errors &amp; Omissions Liability Insurance.</p>
Part I – Sec. 8  Insurance Requirements	<p>At the beginning of this section 8, please revise the phrase “All policies of insurance within the scope of” as follows:</p> <p>“Except for Subsection 8.V., which shall apply only with respect to the Commercial General Liability Insurance policy, all policies of insurance within the scope of”</p> <p>[NTD: waiver of subrogation will be provided only under CGL]</p>
Part I – Sec. 8.III  Insurance Requirements	<p>Please delete this provision and replace it with the following:</p> <p>“The Selected Consultant shall be responsible for any deductible of the insurance policies required under this Part I.”</p>
Part I – Sec. 13.IV  Proof of Insurance	<p>Please delete the phrase “deductible levels”.</p>
Part L – Sec. 1  Occupational Health	<p>Please delete “and for greater clarity, the Rostered Candidate shall be the “employer” and where applicable, the Rostered Candidate shall be the “constructor”.</p> <p>[NTD: this requirement would be appropriate under an EPC/EPCM scope, but not for the proposed scope]</p>
Part M – Sec. 3  City Property [Site Conditions]	<p>Please delete this provision and replace it with the following:</p> <p>“The Selected Consultant confirms that it has familiarized itself with the location and physical surface conditions of the Site. The Selected Consultant acknowledges and the City agrees that any examination or investigation carried out prior to signing the Consultant Agreement is limited to visual inspection; therefore, the Selected Consultant shall not be responsible for any concealed condition of the Site.”</p>
Part O – Sec. 3  Confidentiality	<p>Please add the following:</p> <p>“Notwithstanding the foregoing, the Selected Consultant shall not be obligated to erase or destroy Confidential Information that is contained in an archived computer back-up system and may keep a copy of such information that it is required by law to be maintained or for the purpose of proving compliance with the requirements of this Roster Assignment.”</p>
REFERENCE	Exceptions to Data Licence Agreement
Sec. 5 No Warranty	<p>Please delete this provision. See Part C – Sec. 2.I above [NTD: Golder must be entitled to rely on information provided by the City]</p>
Sec. 6 Indemnity	<p>Please delete this provision. Note that indemnity given by Golder are dealt with in Part H – Sec. 1 above.</p>
Schedule B Data Dissemination Fees	<p>Please remove or indicate in sec. 2, for clarity, that Schedule B shall not apply.</p>