

Municipality of Chatham-Kent

Infrastructure and Engineering Services

Engineering and Transportation Division

To: Mayor and Members of Council

From: Jason Cikatricis, C.E.T.,
Engineering Technologist

Date: January 19, 2021

Subject: Consulting Engineering Services for the Rehabilitation of the Heron Line Bridge over the Rivard Drain, Community of Dover

Recommendations

It is recommended that:

1. The proposal in the amount of \$89,914.10 (including HST) for Consulting Engineering Services for the work associated with the Rehabilitation of the Heron Line Bridge over the Rivard Drain, Community of Dover, be awarded to Dillon Consulting Limited, with final terms of the agreement to be approved by the Director, Legal Services and Director, Engineering Services.
2. The Mayor and Clerk be authorized to enter into the recommended agreements.

Background

The Heron Line Bridge was built in 1966, has an east-west orientation, and is located on Heron Line 0.85 km east of Town Line Road in the Community of Dover. This slab on I Girder Bridge carries 2 lanes of predominantly vehicular traffic across the Rivard Drain in 1 continuous span, with a total crossing length of 20.05 m and a maximum clearance of 3.0 m. The deck has a travelled width of 8.65 m and an overall width of 10.15 m. This road has an Average Annual Daily Traffic volume (AADT) of 400 and the speed limit at this location is 80 km/hr.

Bi-annual inspections have been conducted by the Municipality of Chatham-Kent (as legislated under the *Public Transportation and Highway Improvement Act*) to continually monitor the condition of the structures and to ensure public safety. All structures form part of the comprehensive 20 Year Plan managed by the Engineering and Transportation Division.

On July 12, 2019, a direct assign proposal was received from Dillon Consulting for the rehabilitation of the Heron Line Bridge over the Rivard Drain in the amount of \$74,997.10 (including HST).

On January 8, 2021, a scope change proposal was received from Dillon Consulting to complete the environmental aspects of the rehabilitation of the Heron Line Bridge over the Rivard Drain in the amount of \$14,916.00 (including HST).

Comments

The scope of this project is for the design, contract administration and inspection for the rehabilitation of the Heron Line Bridge over the Rivard Drain.

This rehabilitation will provide approximately 30-35 years of service.

Areas of Strategic Focus and Critical Success Factors

The recommendations in this report support the following areas of strategic focus:

- Economic Prosperity:
Chatham-Kent is an innovative and thriving community with a diversified economy
- A Healthy and Safe Community: Chatham-Kent is a healthy and safe community with sustainable population growth
- People and Culture:
Chatham-Kent is recognized as a culturally vibrant, dynamic, and creative community
- Environmental Sustainability:
Chatham-Kent is a community that is environmentally sustainable and promotes stewardship of our natural resources

The recommendations in this report support the following critical success factors:

- Financial Sustainability:
The Corporation of the Municipality of Chatham-Kent is financially sustainable
- Open, Transparent and Effective Governance:
The Corporation of the Municipality of Chatham-Kent is open, transparent and effectively governed with efficient and bold, visionary leadership
- Has the potential to support all areas of strategic focus & critical success factors
- Neutral issues (does not support negatively or positively)

Financial Implications

Project fees associated with this contract will be funded as summarized in the following table:

Financial Implications – Consulting Engineering Fees for the
Rehabilitation of the Heron Line Bridge over the Rivard Drain, Community of Dover
Project Costs

| | |
|--|---------------------|
| Direct Assignment Fees (Including HST) | \$ 74,998.10 |
| Scope Change Fees (Including HST) | \$ 14,916.00 |
| Total Recommended Fees (Including HST) | \$ 89,914.10 |
| Less HST Rebate 11.24% | -\$ 8,943.67 |
| Total Current Project Costs | \$ 80,970.43 |
| Total Current Project Funding | \$ 80,970.43 |

The total current project costs listed above will be funded from the Bridge Lifecycle Reserve, which includes funds under the Association of Municipalities of Ontario (AMO) Federal Transfers of Federal Gas Tax Funding Agreement.

Prepared by:

Reviewed by:

Jason Cikatricis, C.E.T.
Engineering Technologist,
Engineering and Transportation

Brendan Falkner, P.Eng.
Manager,
Engineering and Transportation

Reviewed by:

Reviewed by:

Chris Thibert, P.Eng.
Director,
Engineering and Transportation

Thomas Kelly, P.Eng., MBA
General Manager
Infrastructure and Engineering Services

Attachments:

Appendix A - Direct Assign Proposal July 12, 2019
Appendix B – Scope Change Proposal January 8, 2021

(RTC:\Infrastructure & Engineering\I&ES\2021\4336 – Consulting Engineering Fees for the rehabilitation of the Heron Line Bridge over Rivard Drain, Community of Dover)



July 12, 2019

Municipality of Chatham-Kent
315 King Street West
P.O. Box 640
Chatham, Ontario N7M 5K8

Attention: Mr. Jason Cikatricis, C.E.T.
Engineering Technologist

Proposal for Professional Services
Heron Line Bridge over Rivard Drain - Revised

Dear Sir:

Thank you for the opportunity to re-submit this Proposal. Based on our correspondence and discussions, we understand that the Municipality of Chatham-Kent requires engineering services for the renewal of the Heron Line over Rivard Drain Bridge.

Background

The Heron Line over Rivard Drain structure was built in 1966 and is located on Heron Line 0.85 km east of Town Line Road. This slab on steel plate girder bridge carries two lanes of predominately vehicular traffic across the Rivard Drain in one span with an approximate crossing length of 20 m and a maximum clearance of 3.0 m to the normal water level. The deck has a roadway width of 8.65 m and an overall width of 10.15 m. There are no records of previous rehabilitations for this structure.

It is our understanding the following issues have been observed based on the October 2016 inspection carried out by EMSI:

- Absence of appropriate roadside safety measures
- Very severe deterioration of the girder coatings, abutment bearings, concrete abutments and wingwalls
- Leaking joints
- Erosion of the drain banks exposing the end walls and retaining walls

10 Fifth Street South
Chatham, Ontario
Canada
N7M 4V4
Telephone
519.354.7802
Fax
519.354.2050



Proposed Renewal

The proposed scope of the work anticipated for the renewal of the bridge includes the following:

- Salvage existing concrete abutments and wingwalls and perform concrete repairs as required
- Replace abutment bearings with new elastomeric bearings
- Full superstructure replacement including new steel girders, new concrete deck (consider exposed high performance concrete); with deck drains, if required; with new barriers/railings & semi-integral abutments
- Installation of guiderails and possible re-alignment of access driveways
- Install rip-rap at all four (4) corners of the bridge embankments
- Clean out and fix any minor drain alignment issues in direct vicinity of the bridge
- Environmental reviews and reports are not included but can be provided via a scope change
- If we determine that a full bridge replacement is recommended during our initial review we can discuss providing a new work plan

As the existing foundation configurations are not known, any renewal approach that maintains the existing foundations will need to be of a similar overall weight to the existing structure to avoid the risk of overstressing the foundations. As such, this may limit options for the number of girders, deck thickness and width (reducing ability to improve the road width), and might prohibit the use of asphalt and waterproofing or semi-integral abutments. GFRP will be considered for a new bridge deck, which will help facilitate a thinner deck.

Scope of Work

The proposed scope of the design work anticipated for the renewal of the bridge includes the following:

- Review of background documents provided by Chatham-Kent (OSIM report, Drain Reports. No original drawings are available for the structure).
- Initial assessment and field investigation to confirm scope of work (in comparison to the above noted proposed renewal)
- Identify to Chatham-Kent immediately if the scope of the work is different than anticipated by the Municipality (This will verify if the work can be completed within the required \$75,000 cap)



- A bridge deck condition survey, if deemed required, can be completed via a scope change
- Field work (as required) to capture survey information and measurements to prepare design drawings
- Advise immediately of any safety critical issues
- Develop a structure renewal strategy (according to the latest version of the CHBDC) with estimated construction costs
- Complete Agency approvals as required (MNRF, DFO, Conservation Authorities, and any other governing agencies)
- Review of existing utilities (Gas, Hydro, Bell, Cogeco etc.) to verify possible conflicts with the proposed rehabilitation strategies. Address those conflicts with individual utility, with assistance from Chatham-Kent.
- Submit/ confirm renewal strategy to Chatham-Kent in a Technical Memo
- Proceed with preparation of design drawings and specifications on the selected option. (Drawings require 2 engineer's stamps)
- Submit tender package, answer tender questions, issue addenda as required, and perform a bid analysis and letter of recommendation for successful bidder
- Perform all Contract Administration duties including but not limited to: pre-construction meeting, additional meetings (if required), construction reviews, shop drawing reviews, traffic control plan reviews, construction observation, resolve any construction related issues, review and submit construction payment certificates
- Provide digital as-built package including: copies of all shop drawings and submittals, testing reports, mix designs, digital as-built drawing package
- Perform 1 year maintenance walk-through and deficiency identification report

Assumptions

The following has been assumed in the preparation of this workplan:

- Soffit elevation and hydraulic opening will not change and will not a Hydraulic Analysis considering the dam control downstream of the bridge
- Geotechnical Report will not be required based on the fact this is not a full replacement, the existing foundations are unknown and the loads will not exceed the existing loads. If needed, the Municipality can directly retain a Geotechnical Firm for the boreholes and report.



- Environmental investigations, memos and mitigations plans will be provided by others to Dillon for incorporation into Contract Documents
- Any erosion repairs will be localized to the bridge structure and no significant alterations to the waterway are included

Project Schedule

| Milestone Description | Date |
|---|-------------------|
| Technical Memo with design options and high level cost estimate | August 16, 2019 |
| Chatham-Kent confirmation of preferred design option | August 26, 2019 |
| Draft tender package for Chatham-Kent review | October 21, 2019 |
| Chatham-Kent review and comments | October 28, 2019 |
| Final tender package issued | November 13, 2019 |
| Tender Close | November 28, 2019 |
| Project Completion (Based on either 2020 or 2021 start date) | TBD |

Project Team

For this project, Larry Oulds will serve as Project Manager and will be the main contact.

Larry Oulds, C.E.T., B.A. – Project Manager

Larry Oulds has over 26 years of experience in municipal engineering in southern Ontario for both public and private sector clients. He has undertaken the project management and design of a variety of works including rehabilitation, replacement or extension of rural and urban watermains; road widenings, intersection improvements and resurfacing; subdivision developments; private landfills, horizontal directional drills of natural gas pipelines, site plan approvals for municipal and provincial agencies. He also coordinates with utility companies, government agencies, railways and planning officials.

Brad Schmidt, P.Eng. – Project Engineer

Brad has over sixteen years of structural engineering experience with analysis and design on numerous structural engineering bridge projects, many of which he directly managed or assisted the project manager as part of multi-discipline projects.



Monica Sokolski – EIT

Monica is an engineer-in-training with experience focused on structural bridge engineering. She will assist Brad Schmidt with the on-site structure inspections and design calculations.

John Alves – Engineering Technologist

John is a civil engineering technologist with over eight years of experience with most of his experience falling within the fields of structural and civil engineering. He has been involved in detailed design and drafting of various provincial and municipal bridge projects ranging from large multi-structure rehabilitation contracts to small single structure projects.

Richard Antczak – Senior Construction Inspection

Richard has over 25 years of experience within the fields of structural and civil engineering. He has been involved in the on-site inspection and contract administration of numerous roads, sewers, watermain and small bridges/culverts during his career. Richard will provide oversight to our Junior Inspector and will attend the site at key milestones.

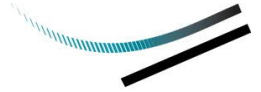
Chelsea Field – Junior Construction Inspection

Chelsea is a recent civil engineering graduate with experience in civil engineering infrastructure. Under the guidance of the Project Manager and the Senior Inspector Chelsea will perform inspection duties on site.

Project Budget

The table below provides a fixed priced breakdown (lump sum) of the budget required to complete the required tasks. Our fee is exclusive of HST and includes project management fees.

| Project/Task(s) | Maximum Fees & Expenses |
|---|-------------------------|
| Task 1: Start-up & Preliminary Design | \$14,700.00 |
| Task 2: Detailed Design & Tender | \$30,690.00 |
| Task 3: Construction Administration & Observation, As-builts and One Year Maintenance Reviews | \$20,980.00 |
| Total Budget (excluding HST) | \$66,370.00 |



Should the scope of the project change during the completion of the above noted works, we will contact you in writing and confirm the nature of the change, the additional works required and the cost to complete said works.

Statement of Acceptance and Closing

Thank you for requesting this Proposal from us. In accordance with our company procedures, we require a written authorization to proceed. If you agree with this offer of services, please sign the attached Agreement for Professional Services form and return one copy to us for our files.

We appreciate the opportunity to continue working with you and look forward to assisting you on this project.

Sincerely,

DILLON CONSULTING LIMITED

Larry Oulds, CET, B.A.
Project Manager

Andrea Winter, P. Eng.
Partner

LRO:lld

Encl.

Our File: Proposal

Commercial Confidential

This document contains trade secrets or scientific, technical, commercial, financial and labour or employee relations information which is considered to be confidential to Dillon Consulting Limited ("Dillon"). Dillon does not consent to the disclosure of this information to any third party or person not in your employ. Additionally, you should not disclose such confidential information to anyone in your organization except on a "need-to-know" basis and after such individual has agreed to maintain the confidentiality of the information and with the understanding that you remain responsible for the maintenance of such confidentiality by people within your organization. If the head or any other party within any government institution intends to disclose this information, or any part thereof, then Dillon requires that it first be notified of that intention. Such notice should be addressed to: Dillon Consulting Limited, 235 Yorkland Boulevard, Suite 800, Toronto, Ontario, M2J 4Y8, Attention: President

AGREEMENT FOR PROFESSIONAL SERVICES

1. This Agreement for Professional Services (this "Agreement") is between DILLON CONSULTING LIMITED ("Dillon"), and _____ (Client to insert full legal name) (the "Client").

2. The Client is a: (Please check the appropriate box and provide the requested information)

- Corporation incorporated under the laws of _____ (insert jurisdiction of incorporation);
Partnership having the following general partners _____ (list all general partners);
Sole Proprietorship; or
Other (please specify) _____

3. The Client acknowledges that it has read, understood and accepts the following attachments which form part of this Agreement:

- A. Terms of Engagement (dated December 21, 2015).
B. Offer of Services Letter from Dillon (dated: July 12, 2019).
Heron Line Bridge over Rivard Drain - Revised
C. Other:
i) NONE
ii)
iii)

4. The Client agrees to the following additions or amendments to the attached Terms of Engagement:

- A. The laws of Ontario shall govern all matters arising out of this agreement and the venue for any related litigation will be Windsor.

5. The Client:

- A. Authorizes Dillon to proceed with the work described in the Offer of Services Letter;
B. Acknowledges that it has had the opportunity to read, discuss and negotiate the attached Terms of Engagement prior to executing this Agreement;
C. Agrees to be bound by and comply with the provisions of this Agreement, the attached Terms of Engagement and Offer of Services Letter, and any other attachments to this Agreement;
D. Agrees that the signing of a facsimile copy or portable document format (PDF) copy of this Agreement and any amendments thereto shall have the same effect as the signing of an original; and
E. Agrees that the retention of an electronic version of this agreement is permitted and that the subsequent production of an electronic version of this document shall be treated as if it was the production of an original signed copy.

DILLON CONSULTING LIMITED:

THE CLIENT:

Per: [Signature]
I/We have authority to bind Dillon.
Name: Andrea Winter, P.Eng.
Title: Partner
Date: July 12, 2019

Per:
I/We have authority to bind the Client.
Name:
Title:
Date:

Per:
I/We have authority to bind Dillon.
Name:
Title:
Date:

Per:
I/We have authority to bind the Client.
Name:
Title:
Date:

DILLON CONSULTING LIMITED - TERMS OF ENGAGEMENT

These terms of engagement govern the services to be provided by Dillon Consulting Limited ("Dillon") to the Client and constitute part of the agreement for services between Dillon and the Client (the "Agreement"). By accepting Dillon's offer of services, the Client agrees to be bound by and comply with these terms of engagement.

1. Warranty

1.1 Dillon warrants that it will perform its services with the standard of due care and diligence usually practised by the consulting profession, at the time that the services are rendered. The Client acknowledges and agrees that all other warranties, representations or remedies, express or implied, except the warranty for loss of the work required under Section 2118 of the Civil Code of Quebec are excluded and the Client agrees to waive any right, remedy or cause of action it may have with respect to such warranties, representations or remedies. In addition, the Client agrees to defend and indemnify Dillon from all other liability, including but not limited to liability for direct, incidental or consequential damages arising in connection with Dillon's actions, whether such liability arises in contract, tort or otherwise.

2. Limitation of Liability

2.1 Dillon's liability to the Client and all claimants not party to this agreement shall be limited to injury or loss caused by negligence of Dillon and/or sub-consultants for which it is responsible. The total amount of Dillon's liability for said negligence shall not exceed the lesser of \$50,000.00 or Dillon's fees for this project in total for all claims, costs and expenses and the Client hereby waives all claims in excess of this amount howsoever arising including any claim for contribution and indemnity which the Client may have against Dillon. The Client irrevocably and unconditionally agrees to defend, indemnify and hold Dillon harmless from all claims and expenses associated therewith resulting from claims brought by other parties in excess of the aforesaid limit.

2.2 Increased liability limits may be negotiated prior to the commencement of services by Dillon upon the prior written request of the Client, the payment of an additional fee as determined by Dillon, and the prior written agreement of Dillon.

3. Confidentiality

3.1 Documents prepared by Dillon and provided to the Client (the "Dillon Documents"), such as proposal documentation, reports and any documentation containing professional advice, are intended exclusively for the purposes, project and site locations outlined in those documents. The information contained in any Dillon Document may not be appropriate for other uses by the Client or for use by third parties and any such use or reuse is at the sole risk of the user.

3.2 Certain Dillon Documents contain confidential information which is the intellectual property of Dillon and which is provided to the Client solely for the purposes outlined in the document. The Client shall not provide any such confidential information to any other person, or use the information in a manner other than prescribed in the Dillon Document or Documents without the prior written consent of Dillon.

4. Provision of Relevant Information

4.1 The Client shall provide Dillon with all relevant information of which the Client is aware and which may be required by Dillon to perform its services for the Client. Without limiting the generality of the foregoing, if the Client has knowledge of or suspects that hazardous materials may exist at any site at which services are to be performed by Dillon, the Client shall provide this information promptly to Dillon in writing.

4.2 Dillon shall not be responsible or liable for any incorrect or inadequate advice, report, recommendation, finding, decision or conduct based either directly or indirectly on inaccurate or inadequate information supplied by the Client.

5. Site Access, Subterranean Structures and Utilities

5.1 The Client shall grant or obtain free and ready access to each project site at which Dillon is to perform services for the Client. The Client shall notify all owners and occupiers of property at the project site that Dillon is to be granted free and ready access to the site.

5.2 Unless otherwise agreed in writing by Dillon and the Client, the Client shall delineate accurately on the Client's property all subterranean structures and utilities. The Client assumes sole and complete responsibility for any damage or injury caused to any person, property, subterranean structures or utilities because of incorrect or inadequate information provided to Dillon and the Client agrees to indemnify, defend and hold Dillon harmless from any claim or liability for injury or loss resulting from such damage or injury.

6. Samples

6.1 Unless otherwise agreed in writing, all samples obtained by Dillon, including soil cores, may be discarded by Dillon within 30 days after submission of Dillon's report to the Client. A mutually agreed storage fee will be charged to the Client for any samples stored longer than this 30 day period.

6.2 If any of the samples contain substances or constituents that Dillon believes may be hazardous or detrimental to the environment or human health and safety, Dillon may, at the Client's expense, return such samples to the Client or dispose of the samples in a manner deemed appropriate by Dillon.

7. Force Majeure

7.1 Notwithstanding any other provision of the Agreement, Dillon shall not be deemed in breach of the Agreement or liable for any failure or delay in performing any of its obligations under the Agreement, if the failure or delay is caused directly or indirectly by any event or circumstance beyond Dillon's control, including, without limiting the generality of the foregoing, acts of God, government or civil or military authority, inclement weather, fire, flood, labour trouble, failure of transportation, accident, act or omission of the Client or anyone employed or engaged directly or indirectly by the Client, or the discovery of hazardous or potentially hazardous materials or situations at or near the project site.

7.2 Where an event or circumstance of the kind referred to in Clause 7.1 arises, Dillon may, at its option, extend the period of time for completion of the Agreement or terminate the Agreement.

8. Payment

8.1 Unless otherwise stipulated in this agreement for services, the Client shall pay Dillon for its services as follows (applicable taxes are extra):

- (a) fees shall be paid on the basis of Dillon's current schedule of standard flat hourly rates;
- (b) routine expenses and disbursements (communications, local travel, project office supplies, production of routine documents/drawings, courier/messenger services, standard software/computer costs, and similar items) shall be paid at a standard rate of 8% of fees;
- (c) other project-related expenses and disbursements (sub-consultant/sub-contractor charges, travel beyond local area, living expenses when away from home office, advertising costs, testing services, use of specialized equipment or software, approval/permit/licence fees, project specific insurance, production of tender or other non-routine documents, and similar items) shall be paid at cost plus a 5% administration fee;
- (d) payment shall be made within thirty days of the date of Dillon's invoice;
- (e) interest shall be paid by the Client at an annual rate equivalent to the average bank prime rate plus 4% on all amounts unpaid within 30 days of the date of Dillon's invoice, with payment to be applied first to accrued interest and then to the unpaid principal amount.

9. Independent Professional Services Consultant

9.1 Unless otherwise agreed in writing by Dillon and the Client, it is acknowledged that Dillon is an independent professional services consultant in performing services under this agreement, and accordingly it is further acknowledged that Dillon is an independent contractor.

10. Defects in Service

10.1 The Client shall promptly report to Dillon any defects or suspected defects in Dillon's work or services of which the Client becomes aware, so that Dillon may take measures to minimize the consequences of such defects. Failure by the Client to notify Dillon in a timely manner shall relieve Dillon of the costs of remedying the defects above the sum such remedy would have cost had prompt notification been given. No unilateral withholdings, deductions or offsets shall be made from Dillon's compensation for any defects or suspected defects unless Dillon has been found legally liable for such amounts.

11. Suspension of Services

11.1 If the Client fails to make payments when due, or otherwise is in breach of the Agreement, Dillon may suspend performance of services upon five (5) calendar days' notice to the Client. Dillon shall have no liability whatsoever to the Client for any costs or damages as a result of such suspension.

12. Agreement

12.1 These terms of engagement govern the services to be provided by Dillon under the Agreement, shall be amended only by the written agreement of Dillon's authorized representative and the Client, and shall not be altered or supplemented by any other understanding or agreement. The Client waives its right to unilateral rescission of contract under the Civil Code of Quebec and undertakes not to seek termination of the Agreement during the term of the Agreement.

12.2 The Agreement, of which these terms of engagement form a part, shall be governed by and interpreted in accordance with the laws of the province or territory of jurisdiction named on the Agreement for Professional Services.

12.3 Titles and section headings are for convenience of reference only and shall not be considered in interpreting the text of the terms of engagement.

12.4 If any clause in these terms of engagement is held illegal, invalid or unenforceable in whole or in part, the remaining clauses shall not be impaired and shall remain in full force and effect. All limitations of liability, releases, indemnities and similar provisions shall survive termination of the Agreement for any cause, and shall apply even in the event of the fault, negligence or other liability of Dillon, and shall extend to the officers, directors, employees and agents of Dillon.

CHANGE IN SCOPE – CLIENT APPROVAL



Client: Corporation of the Municipality of Chatham-Kent
Project Name: Heron Line Bridge over Rivard Drain Rehabilitation
Project Number: 19-1492
Date: January 8, 2021

Dillon Consulting Limited (“Dillon”) requests authorization to proceed with the work outlined below (the “Additional Services”) for the above-mentioned project. The Additional Services shall be governed by the agreement entered into between Dillon and the Client on August 8, 2019 & OP 163758 for the project and any amendments thereto expressly agreed to in writing by Dillon and the Client.

The Additional Services:

NATURAL ENVIRONMENT WORK PLAN

Task 1: Species at Risk Screening

Dillon will complete a Species at Risk (SAR) screening that will include a review of available background information in order to determine the potential for SAR to occur within 1 km of the project location. The potential for the project location to support the habitat of SAR identified in Task 1 will be determined based on the results from Task 2. The SAR screening results will be used to assist in determining the next steps regarding the need for potential permitting and/or approvals under the Endangered Species Act, 2007 (ESA).

Task 2: Field Surveys

Dillon will complete one aquatic habitat assessment in Fall 2020/Winter 2021 to document existing habitat associated with the project location. Information documented may include; aquatic habitat features, shoreline vegetation including invasive species, nest search and potential for the project location to provide SAR habitat for species identified under Task 1.

Task 3: Existing Conditions and Species at Risk Screening Memo

Dillon will provide a brief existing conditions and SAR screening memo. Existing conditions will be based on background information and field survey results, while the SAR screening will include an assessment of the project location’s potential to support the habitat for the SAR identified in Task 1. Based on these results, the memo will include recommended next steps in terms of potential permitting under the ESA, Fisheries Act and/or approvals with the relevant regulatory agencies, as applicable.

Task 4: Fisheries Act Request for Review Package

The proposed bridge rehabilitation is expected to require review from Fisheries and Oceans Canada (DFO) under the Fisheries Act. As such, Dillon will prepare a Fisheries Act Request for Review package to be submitted to DFO that will include the following:

- Summary of available background fisheries information and existing conditions
- Evaluation of project impacts to fish and fish habitat, and
- Development of mitigation measures

If upon review of the submission package, DFO deems the project unlikely to cause death of fish or a Harmful Alteration, Disruption or Destruction (HADD) of fish habitat, then a Letter of Advice may be issued. However, if DFO concludes that the project is likely to cause a HADD, they may request an application for a Fisheries Act Authorization. Should the latter scenario occur, Dillon would be pleased to assist with the Fisheries Act Authorization application and can provide a scope of work in the future should it be necessary.

Task 5: ESA Registration and Mitigation Plan

Based on our experience working in the general area, as well as our understanding of local SAR occurrences, at a minimum the drain is associated with Regulated habitat for Eastern Foxsnake (*Pantherophis gloydi*); a species listed as Endangered under the ESA. To address the aforementioned Regulated habitat, as well as potential impacts to SAR and/or SAR habitat identified under Task 1, Dillon will register the project on behalf of the Municipality via a Notice of Activity submission under Section 23.18 (Threats to Health and Safety, not Imminent) of Ontario Regulation (O. Reg.) 242/08. As a condition of registration, Dillon will also prepare a Mitigation Plan in accordance with the Regulation. Registration and preparation of the Mitigation Plan will be completed prior to construction.

Task 6: Environmental Monitoring

Environmental monitoring is anticipated during the construction phase to inspect erosion and sediment control (ESC) and mitigation measures. Based on the proposed bridge rehabilitation works, we have assumed up to five (5) site visits:

- During pre-construction, one visit to inspect initial set up of ESC and mitigation measures and to provide input on adjustments to ESC and mitigation measures based on site conditions, if necessary
- Up to three (3) visits to evaluate ESC and mitigation issues brought forward during construction, and
- One site visit for post construction inspection of the site

Following each site visit, a Deficiency Report will be prepared.

ASSUMPTIONS

- The Municipality has an Ontario ONE-Key account and will add a Dillon biologist as an authorized representative in order to submit the Notice of Activity on behalf of the Municipality
- SAR identified as having the potential to be impacted by the project are eligible for registration under Section 23.18 of O. Reg. 242/08
- The Mitigation Plan will be provided to the Municipality in draft and subsequently finalized based on one round of consolidated comments
- The Municipality and/or its contractor will implement the measures outlined in the Mitigation Plan when undertaking the activity
- The above work plan does not include tasks to address any requirements identified by the Lower Thames Valley Conservation Authority (LTVCA). If LTVCA requires additional natural heritage work, Dillon can provide a detailed scope of work in the future.

Reason for the Additional Services:

As requested by the Municipality.

The compensation for the Additional Services shall be:


| Description | Estimated Lump Sum Fees |
|---|-------------------------|
| Task 1 – Species at Risk Screening | \$ 400.00 |
| Task 2 – Field Surveys | \$ 1,000.00 |
| Task 3 – Existing Conditions and Species at Risk Screening Memo | \$ 1,800.00 |
| Task 4 – Fisheries Act Request for Review Package | \$ 2,000.00 |
| Task 5 – ESA Registration and Mitigation Plan | \$ 2,800.00 |
| Task 6 – Environmental Monitoring | \$ 5,200.00 |
| TOTAL (Excluding HST) | \$ 13,200.00 |

The Client hereby agrees to and authorizes Dillon to proceed with the Additional Services in accordance with the terms of this agreement.

CORPORATION OF THE MUNICIPALITY OF
CHATHAM-KENT

DILLON CONSULTING LIMITED

Signature: _____
I/We have authority to bind the Client.

Signature:  _____
I/We have authority to bind Dillon Consulting Limited.

Name (print):

Name (print): Andrea Winter, P.Eng.

Title:

Title: Partner

Date:

Date: January 8, 2020