

TENDER

REPLACEMENT OF THE BOLINGBROKE BRIDGE CONTRACT #2020-PW-011

TENDERS RECEIVED BY:

The Corporation of Tay Valley Township 217 Harper Road Perth, Ontario K7H 3C6

Attention: Amanda Mabo, Clerk

Telephone: 613-267-5353 ext. 130

Toll Free: 1-800-810-0161 Fax: 613-264-8516

E-mail: <u>clerk@tayvalleytwp.ca</u>
Website: <u>www.tayvalleytwp.ca</u>

1. Tender Form

Sealed Tenders, clearly marked as to the contents, on the forms supplied by the Corporation of Tay Valley Township ("the Township"), will be received, by the undersigned or his/her designated representative, at the Municipal Office, 217 Harper Road, Perth, Ontario, until **1:00 p.m.**, local time, as determined by the clock located on the computer in the reception area of the Municipal Office, on **Thursday, June 4**th, **2020**.

Tenders received after closing time will not be considered.

The Corporation of Tay Valley Township 217 Harper Road, Perth, Ontario K7H 3C6

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One copy of the **completed Form of Tender**, Part "D", on the forms provided, shall be submitted. All information shall be shown in the tender in the spaces provided, including the signature of the Bidder with his/her address and telephone number.

Tender Forms must be properly signed and witnessed, or signed, witnessed and sealed if the bidder is a Corporation. Tenders must be submitted, using the Tender Label – Form 5 (to be affixed on your Tender Envelope).

The Tender must be legible, written in ink or typewritten, where stipulated, with the unit price for every item and other entries clearly shown. Tenders which are incomplete, conditional or obscure or which contain erasures or alterations not properly initialed, or irregularities of any kind, may be rejected. Submissions must not be restricted by a statement added to The Corporation of Tay Valley's Form or by a covering letter, or by alterations to the form supplied, unless otherwise provided in Part "A" - Information to Bidders.

Tenders received by fax or email will be disqualified.

2. Clarification of Documents

Any clarification of the Township's documents required by the Bidder, prior to submission, shall be directed to the Clerk. Any such clarifications so given shall not, in any way, alter the Township's documents and the Bidder and the Township agree that in no case shall oral arrangements be considered.

No officer, agent or employee of the Township is authorized to alter, orally, any portion of these documents. During the period prior to submissions, alterations will be issued by the Clerk to Bidders as a written Addendum. In the submission, the Bidder shall list all Addenda that were issued and considered in the submission.

All questions shall be directed, in writing (by email) to the Clerk.

All questions/discrepancies identified must be sent to the Township at least three (3) business days prior to the submission due date.

Copies of all questions and answers and any addenda will be posted on the website no later than two (2) business days prior to the submission due date.

3. Contract Documents and Order of Precedence

The contract documents shall consist of all the pages of the Tender documents, issued by the Township, and the Company's submission. Do not remove any pages from the Township's Form.

These documents, and portions thereof, take precedence in the order in which they are named, notwithstanding the chronological order in which they are issued or executed.

The intent of the Contract is that the Company shall supply equipment and materials or services complete and suitable for the Township's intended use.

None of the conditions contained in the Bidders standard or general conditions of sale shall be of any effect unless explicitly agreed to by the Township and set forth or specifically referred to therein.

4. Addenda

Bidders may be advised by addenda, of required additions, deletions or alterations in the requirements of the Tender documents. All such changes shall become an integral part of the Tender documents and shall be allowed for in arriving at the total submission price.

5. Tender Deposit

Each Tender shall be accompanied by a certified cheque or Bid Bond in the amount of ten percent (10%) of the bid price payable to the Township, "Tay Valley Township". This shall be returned within ten (10) days of Tender Opening to all bidders except for the successful and second placed bidder. In the case of the second placed bidder this shall be returned upon start of contract by successful bidder. In the case of the successful Tender, this shall be returned after successful completion of the Contract. If a deposit percentage results in a fraction, it must be rounded up to the nearest dollar. If applicable, in subsequent years, sixty (60) days prior to the start of the work, the Township shall require a certified cheque, in the amount of 10%, for each subsequent year of the Contract. Please complete the attached **Tender Deposit – Method of Return – Form 4**.

6. Harmonized Sales Tax

Harmonized Sales Tax (H.S.T.), or any other applicable taxes, will be paid **in addition** to the tendered price.

7. Health and Safety

The Bidder assumes full responsibility for conforming with all legislation regarding the safety of his/her employees and the public on this Contract and all notices required to comply with the legislation.

Accordingly, the Bidder shall:

- (a) Demonstrate establishment and maintenance of a health and safety program with objectives and standards consistent with applicable legislation.
- (b) Provide a copy of your Company's Health and Safety Policy, dated not later than **2020**, to be submitted with the Tender.
- (c) Provide a copy of the applicable WSIB Certificate of Clearance or equivalent (if the Bidder is from outside Ontario), to be submitted with the Tender.

Upon request, at any time, from the awarding to the completion of the Contract, submit proof of fulfillment of the above noted.

8. Accessibility

The Bidder shall provide a declaration with the Tender that they are compliant with the Accessibility for Ontarians with Disabilities Act and its Regulations. An example of a declaration is attached in **Part** "E".

9. Bidder's Checklist

To assist Bidders with completing a response to this Tender, a Tender Checklist is included in Part D.

10. Withdrawal

A Submission may be withdrawn at any time prior to the closing date and time at the Bidder's discretion. Withdrawal notification must be in written form, signed and must be submitted to the Clerk. No fax, telephone calls or emails will be accepted. After the official closing date and time, all Submissions received shall be irrevocable.

11. Public Opening

All submissions will be opened at the Municipal Office, 217 Harper Road, Perth, Ontario, on the same day and time as the closing date.

12. Tender Results

The names of the Bidders and total bid prices will only be made available at the Tender Opening. After the Tender Opening, requests may be submitted to the Township for the results and only the names of the Bidders and total bid prices, as read out at the Tender Opening, will be given in the reply. Bid results will be posted on the Township's Website at www.tayvalleytwp.ca within 48 hours of the Tender Opening.

13. Bid Acceptance

It shall be the policy of the Township that in any procurement of goods, services, facilities or construction invitations to submit a tender to the Township, the Township reserves the right to reject an offer to supply goods and/or services or Tenders presented in response to the Township's procurement processes where the Township determines, in its sole and unfettered discretion, that the entity making the offer has performed poorly on any Township contract during the previous five-year period. Township Council may remove a Company's name from consideration for a contract under this Policy, for a period of up to five (5) years, on the basis of documented poor performance or non-performance on a Township Contract.

Unless otherwise specified in these Tender documents, this Tender constitutes an irrevocable offer to provide the goods and/or services described herein for a period of ninety (90) calendar days from the closing date of the receipt of Tenders. The Township anticipates awarding the Contract no later than June 23rd, 2020.

The Bidder may be required to show, in terms of experience and facilities, evidence of its ability, as well as that of any proposed subcontractor, to perform the work by the specified delivery date.

The Township reserves the right to award by item, or part thereof, groups of items, or parts thereof or all items of the Submission, and to award Contracts to one or more Bidders submitting identical prices, to accept or reject any Submission in whole or in part; to waive irregularities or omissions. If in so doing, the best interests of the Township will be served. No liability shall accrue to the Township for its decision in this regard.

The acceptance of any Submission is subject to appropriate funding acceptable to the Township.

The placing in the mail or delivery of a notice of award to the Company address, given in the Submission, shall constitute notice of acceptance of the Contract.

14. Insurance

The successful Company shall provide the following insurance:

General Liability Insurance

The General Liability policy shall be underwritten by an insurer licensed to conduct business in the Province of Ontario and include but not be limited to the following:

- a) Third party bodily injury, personal injury and property damage, to an inclusive limit of not less than \$5,000,000 per occurrence.
- b) The Township shall be added as an additional insured.
- c) The policy shall contain a provision for cross liability and a severability of interest clause.
- d) The policy shall contain a provision for contractual liability oral and written
- e) The policy shall provide the Township with 30 days' notice of cancellation or nonrenewal.
- f) Non-owned Automobile Coverage for a limit of not less than \$5,000,000 including contractual non-owned coverage.
- g) Contingent Employer's Liability.
- h) Broad Form Property Damage.

Contractors' Equipment Insurance

"All risks" contractors' equipment insurance covering construction machinery and equipment used by the Contractor for the performance of the Work, excluding boiler insurance, shall be in a form acceptable to the Township and shall not allow subrogation claims by the insurer against the Township. The policies shall be endorsed to provide the Township with not less than 30 days' notice, in writing, in advance of cancellation, change or amendment restricting coverage. Subject to satisfactory proof of financial capability by the Contractor for self-insurance of his equipment, the Township agrees to waive the equipment insurance requirement.

Pollution Liability Insurance

Pollution Liability Insurance shall be in the joint names of the Contractor and Tay Valley Township with limits of no less than \$2 million per occurrence, an aggregate of not less than \$2 million in any policy year, and a deductible not to exceed \$5,000, such insurance to be maintained from the date of commencement of the Work until one year from the date of Substantial Performance of the Work. Such insurance shall contain no exclusion of any kind relating to asbestos or asbestos-related operations in conjunction with the Work.

Automobile Liability Insurance

The Company shall provide Automobile liability insurance in respect of licensed vehicles with limits of not less than \$5,000,000.00 inclusive per occurrence for bodily injury, death and damage to property, covering all licensed vehicles owned or leased by the Contractor, and endorsed to provide the Township with not less than 30 days' notice, in writing, in advance of any cancellation, change or amendment restricting coverage.

Other Requirements

The Company acknowledges that he/she is an independent Contractor and shall, indemnify, protect and save harmless The Corporation of Tay Valley Township, its agents and employees from any and all damages, liabilities and claims of whatsoever nature arising out of the furnishing by the Company, its agents or employees of the materials and/or performing of the services covered by this Contract.

The Company remains responsible for maintaining the required insurance even if the certificates are never exchanged and/or requested.

15. Bonding

Performance Bond

A Performance Bond in the amount equal to one hundred percent (100%) of the Total Tendered Price will be required on acceptance of the Contract and prior to the commencement of any work. The Bond will be furnished by a satisfactory surety company with head office in Canada, or authorized to carry on business in Canada.

The Performance Bond shall guarantee workmanship and materials as well as all maintenance required for a period of twenty-four (24) months from the date of acceptance of the works.

Labour and Material Bond

A Labour and Material Payment Bond satisfactory to the Township shall in the amount of fifty percent (50%) of the Total Tendered Price for a one year period, and issued by a satisfactory surety company with head office in Canada, or authorized to carry on business in Canada.

Maintenance Bond

A Maintenance Bond satisfactory to the Township in the amount of one hundred (100%) of the Total Tendered Price for a one year period, and issued by a satisfactory surety company with head office in Canada, or authorized to carry on business in Canada.

16. Failure to Enter into an Agreement

In addition to all of the Township's other remedies, if a selected Bidder fails to execute the accepted agreement or satisfy any other applicable conditions within ten (10) days of notice of selection, the Township may, in their sole and absolute discretion and without incurring any liability, approve an extension (should agreement changes be requested), rescind the selection of that Bidder and proceed with the selection of another Bidder.

17. Assignment

The Company shall not assign the Contract, or any portion thereof, without the prior consent of the Township.

If the Township agrees to the assignment of the Contract, all Assignment Agreements will be prepared, at the sole cost of the Company, and under no circumstances will the Township be responsible for these costs.

18. Laws and Regulations

The Company shall comply with relevant, federal, provincial and municipal statutes, regulations and by-laws pertaining to the work and its performance. The Company shall be responsible for ensuring similar compliance by its suppliers and subcontractors.

The Contract shall be governed and interpreted in accordance with the laws of the Province of Ontario.

19. Default by Company

If the Company commits any act of bankruptcy or if a receiver is appointed on account of its insolvency or in respect of any of its property or if the Company makes a general assignment for the benefit of its creditor, then, in any such case, the Township may, without notice, terminate the Contract.

If the Company fails to comply with any request, instruction or order of the Township or fails to pay its accounts or fails to comply with or persistently disregard statutes, regulations, by-laws or directives or relevant authorities relating to the work or fails to prosecute the work with skill and diligence or assigns or sublets the Contract without the Township's written consent or refuses to correct defective work or is otherwise in default in carrying out its part of any of the terms, conditions and obligations of the Contract, then, in any such case, the Township may, upon expiration of ten (10) days from the date of written notice to the Company, terminate the Contract.

Any termination of the Contract by the Township, as aforesaid, shall be without prejudice to any other rights or remedies the Township may have.

If the Township terminates the Contract, it is entitled to:

- Take possession of all of the work in progress and finish the work by whatever means the Township may deem appropriate under the circumstances.
- Withhold any further payments to the Company until its liability to the Township can be ascertained.
- Recover from the Company loss, damage and expense incurred by the Township by reason of the Company's default (which may be deducted from any monies due or becoming due to the Company, any balance to be paid by the Company to the Township).

20. Contract Cancellation

The Township shall have the right, which may be exercised from time to time, to cancel any uncompleted or unperformed portion of the work or part thereof. In the event of such cancellation, the Township and the Company shall negotiate a settlement.

The Township shall not be liable to the Company for loss of anticipated profit on the cancelled portions of the work.

21. Responsibility

The Township shall not be responsible for any liabilities, costs, expenses, loss or damage incurred, sustained or suffered by any Bidder prior to, subsequent to, or by reason of the acceptance or the non-acceptance of a Tender save as provided in the Contract. The Township reserves the right to reject any or all Tenders and to waive formalities as the interest of the Township may require without stating reasons, therefore, and the lowest or any Tender will not necessarily be accepted.

22. Payments

The Company shall invoice the Township, "Tay Valley Township", monthly, for services and materials provided.

The successful Company will be required to complete the applicable paperwork to facilitate payment via Electronic Funds Transfer (EFT). This paperwork will be provided to the Bidder by the Township after the Contract is awarded.

The Township shall have the right to withhold, from any sum otherwise payable to the Company, such amount as may be sufficient to remedy any defect or deficiency in the work, pending correction of the same.

23. Municipal Freedom of Information and Protection of Privacy Act

Any personal information collected by or on behalf of the Township under this Tender is subject to the *Municipal Freedom of Information and Protection of Privacy Act*. The information provided to the Township may be used to confirm certain information provided in the submissions for this project. The person submitting this Tender consents to such collection and use of the information. The person submitting this Tender acknowledges the Tender is a public document and that the information contained in the Tender may become public and consents to the release of that information. By responding to this Request for Tender, respondents waive any challenge to the Township decision in this regard. Any questions regarding the collection, use, or disclosure of the information should be directed to the Clerk of the Township.

The contractor is hereby notified that OPSS. MUNI 100 General Conditions of Contract, dated November 2018, shall govern except as amended or extended herein. The OPSS. MUNI 100 General Conditions of Contract have not been reproduced as part of these Contract documents. It will be the responsibility of the Contractor to obtain current copies of these documents.

1. Ability and Experience of Bidders.

The Township reserves the right to reject any tender where satisfactory evidence of sufficient capital, plant and experience to successfully undertake and complete the work in the specified time, is not furnished by the Bidder where requested by the Township. This evidence shall be provided by completing the following statements:

<u>Statement 'A' – Bidder's Experience</u> (see Form of Tender)

As an integral part of the Form of Tender, the Bidder shall list three examples of their experience in work of a similar nature to that being tendered, which it has successfully completed in the last three years.

<u>Statement 'B' – List of Proposed Subcontractors</u> (see Form of Tender) As an integral part of the Form of Tender, the Bidder shall provide the name, the category of work and the address of all subcontractors proposed in this Tender.

2. Co-ordination Meetings

The Contractor shall attend such meetings with the Township as may be required to co-ordinate services affected by the Contract and routinely review its progress. A preconstruction meeting shall be scheduled to be held within 10 days of notification of acceptance of the Tender by the Township.

3. Hours of Work

The Contractor's operations under the Contract will be restricted by daylight hours, Monday to Friday half an hour after sunrise and half an hour before sunset. No work will be permitted on weekends or statutory holidays, unless otherwise approved.

4. Utilities

The Contractor shall be responsible for the protection and locating of all utilities at the job site during the time of construction. The Township will be responsible for the relocation of utilities where required. However, no claims will be considered which are based on delays or inconvenience resulting from the relocation not being completed before the start of this Contract.

5. Guaranteed Maintenance

The Contractor shall guarantee and maintain the entire work called for under this Contract for a period of twenty-four (24) months in accordance with Section GC 7.16 of OPSS General Conditions (MUNI. 100).

The Contractor shall make good in a permanent manner, satisfactory to the Township, any and all defects or deficiencies in the work, both during the construction and during the period of maintenance as aforesaid. The Contractor shall commence repairs on any work identified as defective under this clause within 48 hours of receipt of notice from the Township. The severity of defective work shall be identified by and evaluated at the discretion of the Township.

In the event the Contractor refuses or is unable to carry out the repairs on defective work, the Township shall use the holdback funds to have the remedial work completed to the Township's satisfaction.

6. Restrictions on Open Burning

Open fires will not be permitted within the limits of this Contract. Brush and debris must be disposed of in compliance with the requirements specified elsewhere for Management and Disposal of Excess Material.

7. Contract Time and Liquidated Damages

NOTICE TO CONTRACTOR – Aggressive Work Schedule

The Contractor is advised that the Completed Date specified for November 6, 2020 is considered to be aggressive and it is expected that crews will be required to be working at multiple tasks simultaneously to complete the work within the allotted time. Extended hours and weekend work will likely also be required.

The Completion Date is critical importance to the Township and the Contractor shall plan and schedule their work accordingly.

All costs associated with providing multiple crews, additional equipment, working extended hours, and allowing for inclement weather shall be borne by the Contractor and no additional cost to the Owner.

Progress of the Work and Contract Time

Forthwith upon acceptance of this Contract, the Contractor shall provide a "Contractor's Schedule of Work" to the Township.

The Schedule shall include the proposed methods of construction and the name of a responsible individual from the Contractor's firm who can be contacted in the event of emergencies. The Contractor must prepare and submit its schedule to the Township within ten (10) calendar days of Contract acceptance and prior to start of construction.

The Contractor shall accomplish substantial completion of this Contract as defined in Section GC8.02.04 of the OPSS General Conditions (MUNI. 100) **on or before November 6, 2020.**

If the Contract time allowed by the above-noted date is not sufficient to permit completion of the work by the Contractor working a normal number of hours each day or week on a single daylight shift basis, it is expected that additional and/or augmented daylight shifts will be required throughout the life of the Contract to the extent deemed necessary by the Contractor to insure that the work will be completed within the contract time specified. Any additional costs occasioned by compliance with these provisions will be considered to be included in the prices bid for the various items of work and no additional compensation will be allowed.

If completion of the project is delayed beyond the time specified in the Contract, and the delay is not excused by the Township, the Contractor shall pay to the Township the sum of \$500 per day for each calendar day during which completion of the project is delayed beyond the time specified for completion.

8. Dust Control

As part of the work required under the scope of work of this Contract, the Contractor shall take such steps as may be required to prevent dust nuisance resulting from its operations either within the right-of-way or elsewhere or by public traffic where it is the Contractor's responsibility to maintain a roadway through the work.

9. Use of Sub-Contractors

The Contractor agrees to submit a list of any Sub-contractors who will be carrying out any part of this Contract. The list shall show the names of the proposed sub-contractors and for what work each sub-contractor will be responsible for. The Township have the right to reject any of the sub-contractors so named. In this event, the Contractor shall arrange to have the proposed work done by such other sub-contractors as may be approved by the Township.

Should the Contractor cease operation, under no circumstances shall sub-contractors be allowed to continue the work on the site unless an authorized representative of the Contractor is present on the site at all times. The Contractor shall notify the Township, in writing, of the names and positions of the person or persons so representing the Contractor.

10. Traffic Control and Construction Signs

In accordance with Section GC7.06 of OPSS General Conditions (MUNI. 100), the Contractor is responsible for the supply, erection, maintenance and subsequent removal of all temporary traffic controls, including signs, lights, barricades, delineators, cones, etc., required for the project.

Traffic controls shall be provided in accordance with the latest edition of the Ontario Traffic Manual, Temporary Conditions, Book 7.

Traffic controls shall be operational before work affecting traffic begins.

11. Maintenance of Traffic

The Contractor shall maintain all pre-construction traffic lanes open for traffic at all times except when lane closures are required to allow for construction operations as approved by the Township in writing. Only single-lane closures shall be permitted.

Vehicular and pedestrian access shall be maintained to all properties abutting this Contract at all times.

12. Storage Areas

The Contractor shall obtain the approval of the Township prior to designating areas within the road allowance for storage of their equipment and materials for housing.

13. Occupational Health and Safety Act – Designated Substances

The Contractor shall be responsible for determining the presence of designated substances on the sites within the limits of this Contract in accordance with the requirements of Section 30 of the *Occupational Health and Safety Act*. The Contractor shall identify and report any designated substances determined to be present to the Township and ensure that all sub-contractors performing work under the Contract have received a copy of the report.

The Contractor shall comply with the governing Ministry of Labour regulations respecting protection of workers, removal, handling and disposition of the designated substances determined to be present with regards to this Contract. All related costs shall be deemed to be included in the appropriate tender items.

14. Workplace Hazardous Material Information System (WHMIS)

Prior to the commencement of work, the Contractor shall provide to the Township a list of those products controlled under WHMIS which it expects to use on this Contract.

Related Safety Data Sheets shall accompany the submission. All containers used in the application of products controlled under WHMIS shall be labeled.

The Contractor shall notify the Township in writing of changes to the list and provide the relevant Safety Data Sheet.

15. Spills Reporting

Spills or discharges of pollutants or contaminants under the control of the Contractor, and spills or discharges of pollutants or contaminants that are a result of the Contractor's operations that cause or are likely to cause adverse effects shall immediately be reported to the Township. Such spills or discharges and their adverse effects shall be as defined in the *Environmental Protection Act*.

All spills or discharges of liquid, other than accumulated rain water, from luminaries, internally illuminated signs, lamps and liquid type transformers under the control of the Contractor, and all spills or discharges from this equipment that are a result of the Contractor's operations shall, unless otherwise indicated in the Contract, be assumed to contain PCB's and shall immediately be reported to the Township.

This reporting will not relieve the Contractor of its legislated responsibilities regarding such spills or discharges.

16. Protection of Water Quality

At all times, the Contractor shall maintain existing stream flows and shall control all construction work so as not to allow sediment or other deleterious materials to enter streams.

No waste or surplus organic material, including topsoil, is to be stored or disposed of within 30 metres of any watercourses. Run-off from excavation piles will not be permitted to drain directly into watercourses but shall be diffused onto vegetative areas a minimum of 30 metres from the watercourse. Where this measure is not sufficient or feasible to control sediment entering the watercourses, sedimentation traps or geotextile coverage will be required.

If dewatering is required, the water shall be pumped into a sedimentation pond or diffused onto vegetated areas a minimum of 30 metres from the watercourses and not pumped directly into the watercourses.

No machinery shall enter the creek bed of any watercourse. Movement of construction equipment in the vicinity of any creeks shall be limited to the minimum required for construction.

The Contractor shall not carry out equipment maintenance or refueling or store fuel containers within 100 metres of any watercourse. The Contractor shall not stockpile construction debris or empty fuel/pesticide containers within the Contract limits.

17. Mailboxes

The Contractor shall maintain access to mailboxes at all times. In the event that mailboxes are damaged as a result of construction activities or any other activity related to the execution of this Contract, the Contractor will be responsible for replacement at no additional cost.

18. Private Entrances

The Contractor is responsible for ensuring private entrances affected by the scope of work within this Contract are restored to a reasonable gradient with the elevation of the new road surface.

19. Endangered Species

It is the responsibility of the Contractor to ensure the Protection and Recovery of Endangered Species as set out in the *Endangered Species Act, 2007.*

20. Sampling and Testing

Sampling and testing to be performed as per OPSS 304 at the expense of the Contractor.

21. Prevention of Damage

The failure of the Township to order necessary precautionary measures, protective works or any other requirements shall not relieve the Contractor of the responsibility for the prevention of damage to the project, buildings or other surface or sub-surface structures, or for accidents to persons, whether employed on the project or not, which might result from such failure to install, place or use such precautionary measures, protective works or other precautionary measures, protective requirements shall not relieve the Contractor from any of its responsibilities under this Contract.

22. Emergency and Maintenance Measures

Wherever the construction site is unattended by the general superintendent, the name, address and telephone number of a responsible official of the Contractor shall be provided to the Township. This official shall be available, at all times, and have the necessary authority to mobilize workmen and machinery to take any action, as directed by the Township, in case emergency or maintenance measures are required,

regardless of whether the emergency or requirement for maintenance was caused by the Contractor's negligence, act of God or any cause whatsoever.

Should the Contractor be unable to carry out immediate remedial measures required, the Township will carry out the necessary repairs, the cost of which shall be charged to the Contractor.

23. Losses and Damages

The Contractor is hereby specifically notified that any loss or damage to the work caused by the action of the elements, including severe rain storms, wind storms or any other unforeseen circumstances, shall be sustained and borne by the Contractor at its own expense. All material and additional work required, to make good any loss or damage to work previously completed, shall be done at the cost of the Contractor and no claims for extra payment will be allowed.

NOTICE TO CONTRACTOR – Aggressive Work Schedule

Special Provision

The Contractor is advised that the Completed Date specified for November 6, 2020 is considered to be aggressive and it is expected that crews will be required to be working at multiple tasks simultaneously to complete the work within the allotted time. Extended hours and weekend work will likely also be required.

The Completion Date is critical importance to the Township and the Contractor shall plan and schedule their work accordingly.

All costs associated with providing multiple crews, additional equipment, working extended hours, and allowing for inclement weather shall be borne by the Contractor and no additional cost to the Owner.

ITEM A1 SITE PREPARATION

1.0 SCOPE

This special provision covers the requirements for the following:

- a) Cost of the Performance Bond and Liability Insurance outlined in Part "A"-Information to Bidders.
- b) Supplying, erecting and maintaining all signs, barricades, flashers, delineators, flashing lights and such other protection as may be required by the Township to protect the workers and the public during the course of the Contract.
- c) Supplying properly trained and properly attired flag personnel and the required equipment, for all operations, including the Equipment Rental Items.
- d) Preparing a Traffic Protection Plan to comply with the Ontario Traffic Manual Book 7.
- e) Dust control for the duration of the project. The Contractor shall provide a minimum of 3 dust suppression treatments with water per day (am, noon and pm).
- f) Supplying a foreman or a representative on the job at all times for coordination of the project with the Township's Representative and completing layout and grade control, if required.
- g) Security protection of the Contractor's office, plant and stored materials during

the course of the Contract.

- h) Mobilizing onto the site and setting up the Contractor's office, storage facilities, plant, etc.
- i) Demobilizing from the site and removal of the Contractor's office, storage facilities, plant, etc.
- j) Supplying a detailed construction schedule a minimum of 5-days prior to the construction start up meeting.

2.0 MEASUREMENT FOR PAYMENT

Measurement for payment for Site Preparation shall be by Lump Sum.

3.0 BASIS FOR PAYMENT

The Lump Sum price entered for this item shall be consistent with the costs involved but shall not exceed five percent (5%) of the total Bid Price. If the Bidder has entered against this item in his Bid a price in excess of five percent (5%) of the total Bid Price, the Counties shall reduce the price for the said item to an amount not exceeding five percent (5%) of the total Bid Price.

Fifty (50%) percent of the price for the item "Site Preparation", shall be deemed to relate to mobilization and the balance (50%) to demobilization.

The payment for the mobilization shall be included in the first progress payment certificate issued for the Contract subject to the Contract Administrator being satisfied that full mobilization has been carried out. If in the opinion of the Contract Administrator that this is not the case, he shall allow payment, which reflects the degree of mobilization affected to date. The Contract Administrator's decision shall be considered as final.

The payment for demobilization shall be paid following the complete demobilization from the site and following any interim breaks or shutdown periods where no construction work is required to be completed at the site as well as the project being considered substantially completed being used for the intended purpose.

ITEM A2 GENERAL SITEWORK

1.0 SCOPE

This special provision covers the requirements for the following:

1. All necessary tree, vegetation and stump removal, clearing, close cutting and grubbing required to complete the work. All brush and debris shall be disposed of outside the right-of-way in waste disposal area arranged by the Contractor.

Vegetation removal not permitted April 15 – August 15. If removals are required in this timing window then the area should be cleared by a qualified avian biologist.

OPSS 201, November 2011 shall apply except as amended herein. Section 201.09 of OPSS 201 is deleted. No measurement for payment will be made for any clearing or grubbing.

Any information on clearing and grubbing given herein is approximate only and the Contractor shall base his bid solely on the findings of his investigations of the site.

- 2. The removal and reinstatement of signs and sign posts within the contract limits as required to complete the work as described in the Contract.
- 3. The supply, installation and grading of imported 100mm deep topsoil on all broken ground (as determined by the Contract Administrator) on road edges except where riprap is placed, plus seeding and mulching. Materials for seeding shall be as follows.
 - a) Grass Seed Mixture: The grass seed mixture shall be the MTO Standard Canada No. 1 lawn grass seed mixture. It shall be supplied in bags labelled to indicate species content, grade and mass.
 - b) Nurse Crop Seed: The nurse crop seed shall be Canada No. 1 seed and shall be supplied in bags labelled in indicate species, grade and mass. It shall be of the species indicated below for the appropriate seeding season.

Spring and Summer Seeding – Rye Grain Fall Seeding – Rye or Fall Wheat Grain

- c) Fertilizer: Fertilizer shall be a standard 8-32-16 analysis in granular form. It shall be dry, free-flowing and free from lumps and shall be supplied in bags labelled to indicate mass and analysis.
- d) Water: Water used for hydraulic seeding shall be free of any impurities which would adversely affect growth.

The rate of application per 10,000 m² measured on the slope shall be as indicated below:

Primary Seed (MTO Seed Mix)	100 kg
Nurse Crop Seed (Fall Wheat and Rye Grain)	60 kg
Fertilizer (8-32-16)	350 kg
Water (with hydraulic seeder only)	7,600 I

Alternates to hydraulic seeding will be considered, but must be approved by Contract Administrator. The Contractor shall make a submission to the Contract Administrator for approval prior to use.

Top soil depth to be 100 mm.

- 4. All clean-up.
- 5. All costs for items required in the general special provisions of this Contract and which are not covered under other items of work.

2.0 MEASUREMENT OF PAYMENT

All costs for this item are to be included in the lump sum bid for the item, General Site Work.

3.0 BASIS OF PAYMENT

Payment for this item shall be prorated over the course of the project with 100% being achieved following the payment certificate reflecting substantial performance.

ITEM A3 ENVIRONMENTAL PROTECTION

Amendments to OPSS.MUNI 182, November 2012

182.01 SCOPE

Section 182.01 of OPSS MUNI.182 is amended by the addition of the following:

Under this Item, the Contractor is required to supply and install all labour, equipment, and materials for the protection of the watercourse(s), its water quality and fish habitat during the project.

In addition, this item shall include, but is not limited to:

- Restoration of the water body and water body banks to conditions existing at commencement of construction or as otherwise specified on the drawings;
- ii) Placement of filter cloth over all catch basins, manhole covers and deck drains within the construction zone to contain all sediment run-off as a result of the work;
- iii) Provide all protection measures to ensure that no deleterious material from any operation enters the stream with particular concern for demolition debris and sediment from runoff;

- iv) No refuelling of vehicles, equipment, etc. is to take place within 100m of a watercourse;
- v) Stationary equipment operating within 30m of the watercourse shall have hydrocarbon spill containment measures in place;
- vi) Disturbed areas at the construction site are to be stabilized and re-vegetated after completion of the project, using native plant species as much as possible, and the site is to be restored to a pre-construction state or better;
- vii) Machinery shall not operate directly in a watercourse.

182.04 DESIGN AND SUBMISSION REQUIREMENTS

Section 182.04 of OPSS MUNI.182 is amended by the addition of the following:

Temporary protection strategies and access measures taken by the Contractor shall be done so in accordance with the Occupational Health and Safety Act. Shop drawings for any temporary protection configuration must be signed and sealed by a Professional Engineer in the Province of Ontario.

Environmental measures shall satisfy the requirements described in the Contract Documents and Drawings.

182.07 CONSTRUCTION 182.07.01 General Requirements

Subsection 182.07.01 of OPSS MUNI.182 is amended by the addition of the following:

The Contractor is responsible for ensuring that any environmental protection strategies used, will perform such that temporary protection strategies are sufficiently strong and stable that no material, equipment or personnel can fall in the watercourses. The Contractor is also responsible for establishing the necessary spacing of any temporary anchor type supports and sizing of the materials for the support systems making up either temporary protection strategies. Where temporary anchorages are used for either temporary protection or for access, anchorages shall be installed into sound concrete outside the areas where removals are required.

182.10 BASIS OF PAYMENT

Section 182.10 of OPSS MUNI.182 is amended by the addition of the following:

Payment for this item shall be prorated over the course of the project with 100% being achieved following the payment certificate reflecting substantial performance

For the lump sum bid for the above item the Contractor shall supply all labour, equipment and materials for the installation of the temporary protection such that no material, including and not limited to, concrete of all states, construction equipment and any other deleterious material enters the creek during the undertaking of the work most notably removal of concrete, abrasive blasting and the installation of new concrete.

Included in the lump sum bid for this item the Contractor shall prepare and provide to the Contract Administrator, for approval, shop drawings describing the methodology for implementing the measures for environmental protection including provisions for concrete capturing strategies, a minimum of five (5) working days prior to installing protection strategies

ITEM A4 and ITEM A5 LIGHT-DUTY SILT FENCE BARRIER and STRAW BALE FLOW CHECK DAM

Amendments to OPSS.MUNI 805, November 2018

805.01 Scope

Section 805.01 of OPSS MUNI.182 is amended by the addition of the following:

Sediment and erosion control measures shall be installed as shown on the Contract Drawings and as directed by the Contract Administrator as required to suit site conditions such that sediment does not enter the watercourse.

805.07 CONSTRUCTION 805.07.01 Operational Constraints

805.07.01.06 Construction and Removal of Measures

Clause 805.07.01.06 of OPSS 805 is deleted and replaced by the following:

Further to requirements specified in the Contract Documents, the following items shall be installed and removed according to the timing constraints set out in Table A below:

Tender Item Location		Timing Constraints	
render nem	Location	Installation	Removal
Light–Duty Silt Fence Barriers	As specified on the Contract Drawings and directed by the Contract Administrator	In advance of grading operations	Upon completion of grading operations and restoration of vegetative cover
Straw Bale Flow Check Dam	As specified on the Contract Drawings and directed by the Contract Administrator	In advance of grading operations	Upon completion of grading operations and restoration of vegetative cover

805.10 BASIS OF PAYMENT

Subsection 805.10.01 of OPSS 805 is amended by the addition of the following;

The unit price bid for item "Light-Duty Silt Fence" shall include supply, installation, maintenance and monitoring of light duty silt fence in accordance with OPSS 805 and OPSD 219.110. Where fencing becomes dilapidated or ineffective the Contractor shall correct the installation expeditiously at no additional cost to the owner.

The unit price bid for item "Straw Bale Flow Check Dam" shall include supply, installation, maintenance and monitoring of straw bales in accordance with OPSS 805 and OPSD 219.180.

Progress payments for the temporary erosion and sediment control measures shall be made as follows:

- a) 30% for Installation
- b) 50% Prorated for Maintenance
- b) 20% for Removal

ITEM A7 TRAFFIC CONTROL SIGNING

Amendments to OPSS.MUNI 706, April 2018

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706.01 SCOPE

Section 706.01 of OPSS.MUNI 706 is amended by the addition of the following:

Under this item and for the Contract price the Contractor shall provide all labour, equipment, and materials necessary to meet the traffic management restrictions and requirements to:

Bolingbroke Bridge - Crow Lake Road

Close Crow Lake Road at the bridge site for the duration of construction in accordance with the Contract requirements and Supplemental General Conditions.

The Contractor shall:

- a. Provide full road closure for the duration of construction.
- b. Provide a Traffic Control Plan and Detour Route Plan, via Highway No.36., Crow Lake Road, Highway No.7, and Highway No.38, in accordance with the Ontario Traffic Manual Book 7 Temporary Conditions, to be submitted to the Contract Administrator for review two (2) weeks prior to commencement of the work. The Traffic Control Plan shall also include an approved encroachment permit from the MTO. The permit must be submitted to the Contract Administrator prior to placement of detour signs on Highway No. 7.
- c. Supply, maintenance, and removal of TC-54
- d. Set up and maintain Detour Route signs in accordance with the approved Detour Route Plan.
- e. Allow Local traffic and maintain access for same at all times.
- f. Provide and maintain work area fencing.
- g. Construct, maintain, & restore all required site access.

706.02 REFERENCES

Section 706.02 of OPSS.MUNI 706 is amended by the addition of the following:

All Traffic Control and Signage shall be in accordance with OPSS 706, the "Ontario Traffic Manual – Book 7 – Temporary Conditions", "Ontario Traffic Manual – Book 5 – Regulatory Signs", and the Occupational Health and Safety Act, except as may be indicated otherwise in this section.

All references in OPSS 706 to "Traffic Control Manual for Roadway Work Operations", "Manual of Uniform Traffic Control Devices" or "M.U.T.C.D." shall be replaced by the "Ontario Traffic Manual – Book 7 – Temporary Conditions" (OTM – Book 7).

Traffic control on this Contract shall be in conformance with Ministry of Labour Policies, Occupational Health and Safety Act any safety the provisions of Tay Valley Township and the procedures outlined in the pamphlet entitled "Correct Methods for Traffic Control" issued by

the Construction Safety Associations of Ontario. Copies of this pamphlet may be obtained from the Ministry of Transportation's District Office.

706.03 DEFINITIONS

Section 706.03 of OPSS.MUNI 706 is amended by the addition of the following:

For the purposes of this Contract, the OPSS MUNI.706 definition of "Construction Signs" is amended to include all Contract Identification and Public Advisory Signs.

706.04 DESIGN AND SUBMISSION REQUIREMENTS

Section 706.04 of OPSS.MUNI 706 is amended to include the following:

The Contractor shall provide the Contract Administrator with a detailed construction sign plan prior to moving onto the site. The plan shall include all necessary advisory and contract identifications signs, and all detour warning signs including type, size and location as well as all signs and barricades required to limit vehicle and pedestrian traffic during construction.

Contract Identification and Public Advisory signs as described shall be placed at both ends of the work areas and should be identified on the Contractors detailed signing plan.

The Traffic Control Plan shall also include an approved encroachment permit from the MTO. The permit must be submitted to the Contract Administrator prior to placement of detour signs on Highway No. 7.

706.05 MATERIALS

Section 706.05 of OPSS.MUNI 706 is amended by the addition of the following:

Public Advisory Signs shall be minimum 2400 mm x 1200 mm size.

Public Advisory Signs shall have an orange background with black lettering.

706.07 CONSTRUCTION

Section 706.07 of OPSS.MUNI 706 is amended by the addition of the following:

The work administered under this item shall include the supply, erection, maintenance, repair, replacement (as necessary), and removal of all signs, delineators and barricades necessary in accordance with the OTM, OTM Book 6 Warning Signs and OTM Book 7 Temporary Conditions – Field Edition to advise the public, control traffic and protect the work area during all stages of construction.

All existing signs that will be in conflict with the traffic control plan shall be bagged by the Contractor prior to the commencement of the road closure.

All signs shall be installed by buried installation to a minimum depth of 1.2 m unless otherwise approved by the Contract Administrator.

The Contractor shall also barricade the work area in and around the bridge site to prevent vehicles or pedestrians from gaining access to the work area during construction. Barricades shall be preceded by warning signs and shall be sufficient to prevent an errant vehicle from entering any work area or excavation. Barricades shall not be placed in a manner that will restrict access to local entrances and/or mailboxes or interfere with the use of traffic lanes for vehicles and pedestrians as specified elsewhere.

Contract Identification and Public Advisory signs shall be placed at both ends of the work areas and should be identified on the Contractor's Detailed Signing Plan.

The Public Advisory signs shall be erected as soon after the execution of the Contract Documents as possible and prior to moving onto the site, in order to alert the public of the impending construction and lane modifications or restrictions and timing.

All signs shall be placed in locations that do not impair driver visibility in either direction or from any intersection, driveway or laneway.

ITEM B1, B2 and B3

Removal of Pavement, Full Depth, Removal of Steel Beam Guide Rail including End Treatments and Removal of Bridge Structure

Amendments to OPSS.MUNI 510, November 2018

510.01 SCOPE

Section 510.01 of OPSS.MUNI 510 is amended by the addition of the following:

Work for the item "Removal of Steel Beam Guide Rail including End Treatments" will include removal of the existing structural connections, guide rail panels, wood posts, and existing end treatments as indicated in the Contract Drawings.

Work for the item "Removal of Existing Structure" will include removal of the existing concrete deck, steel deck barriers, wingwalls, abutments walls, abutment footings, and steel pier shafts as indicated in the Contract Drawings.

Removals shall not commence until all signs, barricades and temporary protection systems are in place and an approval to proceed is given by the Contract Administrator.

All removals shall comply with the environmental protection requirements stipulated elsewhere in the specifications. No dust, debris or other deleterious material is to enter the waterway. Provide suitable tarps or other means of protection that will comply with this requirement to the satisfaction of the Contract Administrator.

510.07 CONSTRUCTION 510.07.02 Bridge Work 510.07.02.01 Removal of Bridge Structures and Bridge Footings

Clause 510.07.02.01 of OPSS.MUNI is amended by the addition of the following:

Temporary protection strategies and access measures taken by the Contractor shall be done so in accordance with the Occupational Health and Safety Act. Shop drawings for any temporary protection configuration must be signed and sealed by a Professional Engineer in the Province of Ontario.

The Contractor shall prepare and provide the Contract Administrator, for approval, shop drawings describing the methodology for implementing the measures for environmental protection including provisions for concrete capturing strategies, a minimum of five (5) working days prior to installing protection strategies.

Temporary protection must be properly and completely installed in accordance with the approved shop drawings, prepared and submitted by the Contractor for removals, to the satisfaction of the Contract Administrator before any concrete removals may commence.

The Contractor is responsible for ensuring that any environmental protection strategies used, will perform such that temporary protection strategies are sufficiently strong and stable that no material, equipment or personnel can fall in the watercourse. The Contractor is also responsible for establishing the necessary spacing of any temporary anchor type supports and sizing of the materials for the support systems making up either temporary protection strategies. Where temporary anchorages are used for either temporary protection or for access, anchorages shall be installed into sound concrete outside the areas where removals are required.

The Contractor will be required to contain all debris from entering the water. No in-water work is permitted between March 15th and June 30th in any calendar year.

All removals shall comply with the environmental protection requirements stipulated elsewhere in the specifications. No dust, debris or other deleterious material is to enter the waterway. Provide suitable tarps or other means of protection that will comply with this requirement to the satisfaction of the Contract Administrator.

510.07.06 Pavement Work 510.07.06.01 General

Clause 510.07.06.01 of MUNI 510 is deleted in its entirety and amended with the following:

During pavement removal operations, care shall be taken to prevent contamination with granular and other foreign materials.

Removal shall be performed in such a manner as to leave adjacent pavement and structures remaining in place undisturbed.

When the roadway is to be opened to traffic after the daily shut down and full width pavement removal is required, the following shall apply:

- Prior to opening the lanes to traffic, temporary ramping shall be provided as specified in the Contract Documents.
- Removal shall be done to the same station for the full pavement width prior to shutdown at the end of the day.
- Prior to opening the lane to traffic after pavement removal, adjacent granular shoulder material shall have any asphalt material removed, reshaped and compacted to ensure proper drainage of the milled surface and adjoining shoulders.

Asphalt pavement material from removal operations is not to be used on this Contract.

Removed asphalt pavement material shall not remain on the roadway after completion of the day's operation. Placing of the material on grade other than a bituminous surface prior to hauling to a stockpile shall not be permitted.

Unless otherwise noted elsewhere in the Contract Documents, material generated from removal activities will be disposed as per OPSS.MUNI 180 (November 2016), at no extra cost to the Owner.

510.07.10 Management of Excess Material

Subsection 510.07.10 of OPSS.MUNI 510 is deleted in its entirety and amended with the following:

All removals shall become property of the Contractor and shall be disposed of offsite.

Unless otherwise noted elsewhere in the Contract Documents, material generated from removal activities will be disposed as per OPSS 180, at no extra cost to the Owner.

510.09 MEASUREMENT FOR PAYMENT

510.09.01 Actual Measurement

Subsection 510.09.01 of OPSS.MUNI 510 is amended by the addition of the following:

510.09.01 Removal of Steel Beam Guide Rail including End Treatments

Measurement of removal of traffic barrier shall be the length in metres horizontally along each type of element removed, including end treatments.

Removal of Bridge Structure

No measurement for payment will be made for the item "Removal of Bridge Structure". Payment shall be lump sum.

510.10 BASIS OF PAYMENT

Subsection 510.10.01 of OPSS.MUNI 510 is amended by the addition of the following:

Removal of Steel Beam Guide Rail including End Treatments – Item

Payment for above items shall be full compensation for all labour, equipment and materials to do the work for this item in accordance with theses specifications and the Contract Drawings.

For the above noted items the Contractor shall also supply all labour, equipment and materials for the installation of the temporary protection such that no material, including and not limited to, concrete of all states, construction equipment and any other deleterious material enters the watercourse during the undertaking of the work most notably removal of concrete.

Disturbed or damaged portions not designated for removal that result from the Contractor's operations shall be corrected or repaired at no additional cost to the Owner.

Removal of Asphalt Pavement, Full Depth – Item

Payment at the contract price for the above items "*Removal of Asphalt Pavement*, Full Depth" shall be full compensation for all labour, equipment and material required to do the work. All research, preparation, supply of water, operation maintenance and excess material removed from the site are deemed to be included with the item.

All asphalt removals shall be carried out to the limits indicated in the Contract Drawings.

Disturbed or damaged portions not designated for removal that result from the Contractor's operations shall be corrected or repaired at no additional cost to the Owner.

All costs associated with temporary ramping, including ramping material, shall be included in the item price for Removal of Asphalt Pavement.

Removal of Bridge Structure - Item

Payment at the Contract price for the appropriate removal tender item shall be full compensation for all Labour, Equipment, Material and Submissions in order complete the work as described on the drawings and specifications including any incidental earth excavation that may be required in the course of the removal operations.

Disturbed or damaged portions not designated for removal or salvage that result from the Contractor's operations shall be corrected or repaired at no additional cost to the Owner.

ITEM B4, B5 and C8 GRANULAR A, GRANULAR B, TYPE I AND GRANULAR B, TYPE I (STRUCTURE BACKFILL)

Amendments to OPSS.MUNI 314, November 2019 Amendments to OPSS.MUNI 902, November 2019 Amendments to OPSS.MUNI 1010, November 2013

314.01 SCOPE

Section 314.01 of OPSS.MUNI 314 is deleted in its entirety and replaced by the following:

This special provision covers the requirements for the above items to supply, place and compact the aggregate material in accordance with this special provision and the Contract Drawings.

The following minimum construction standards for the roadway shall apply:

- Granular 'A' 150 mm minimum.
- Granular 'B', Type I 300 mm minimum.

314.07 CONSTRUCTION 314.07.07 Stockpiling of Granular Material

Subsection 314.07.07 of OPSS.MUNI 314 is deleted in its entirety and replaced by the following:

The contractor shall examine the site for a suitable location for stockpiling. If required, the Contractor shall stockpile material off site and import as required. No additional payment will be made for this work and it is considered incidental to the item. Compensation for the clean-up of the stockpile site on completion of the operation, when required, shall be included as part of the granular item cost.

The first paragraph of subsection 501.07.01 of OPSS.MUNI 501 is deleted in its entirety and replaced by the following:

All granular material shall have an in-situ moisture content within 2% of their optimum moisture content, and shall be placed and compacted to 95% of their SPMDD's in uniform lifts not exceeding 200 mm.

The Contractor shall notify the Contract Administrator when he is satisfied that the granular grade conforms to both compaction and grades requirements so that grades and compaction can be checked prior to asphalt placement.

If compaction test fails to meet minimum standard, the Contractor will be required to hire a consultant, at no additional cost to the Owner, to perform additional tests until proper compaction results are obtained.

902.09 MEASUREMENT FOR PAYMENT 902.09.01 Actual Measurement 902.09.01.02 Granular Backfill

Clause 902.09.01.02 of OPSS 902 is amended with the addition of the following:

Granular 'B', Type I (Structure Backfill)

Payment for the item "Granular 'B', Type I (Structure Backfill)" shall be by the tonne placed.

902.10 BASIS OF PAYMENT 902.10.03 Granular Backfill to Structure – Item

Subsection 902.10.03 of OPSS 902 is deleted in its entirety and replaced by the following:

Granular 'B', Type I (Structure Backfill) - Item

Payment at the Contract price for the above item shall be full compensation for all material, labour and equipment to complete the work under this item. The estimated quantity of earth excavation shown on the drawings is for information purposes only and is not guaranteed. The quantity is based on excavation to the neat lines shown on the Contract Drawings.

The Contract Administrator may check the accuracy of the completed subgrade. When requested, the Contractor shall provide a person to assist the Contract Administrator in checking grades and lines.

1010.05 MATERIALS 1010.05.03 Granular B 1010.05.03.01 Granular B, Type I

Clause 1010.05.03.02 of OPSS.MUNI 1010 is deleted in its entirety and replaced by the following:

Granular B shall be Type I.

Aggregates for Granular B shall be aggregates produced from one or a blend of the following, subject to the following restrictions:

- a) Boulders, cobbles, gravel, sand, and fines from naturally formed deposits.
- b) A quarry or talus.

Granular 'B', Type I, shall be produced by crushing with the maximum particle size not to exceed 100 mm.

Granular 'B', Type I, shall not contain any Portland cement and/or reclaimed asphalt.

ITEM B6 STEEL BRIDGE DECK WATERPROOFING

Amendments to OPSS.MUNI, November 2014

914.07 CONSTRUCTION 914.07.01 General 914.07.01.01 Bridge Deck Waterproofing

Bridge deck water proofing shall be in accordance with the suppliers' instructions.

914.07.08 Samples for Testing 914.07.08.01 Delivery of Samples

Clause 914.07.08.01 of OPSS.MUNI 914 is deleted in its entirety and replaced by the following:

Samples of the membrane, joint sealant, and primer shall be delivered to the Contract Administrator.

914.10 BASIS OF PAYMENT 914.10.01 Bridge Deck Waterproofing – Item

Section 914.10.01 of OPSS.MUNI 914 is amended by the addition of the following:

Payment at the contract price for the item "Bridge Deck Waterproofing" shall be full compensation for all labour, equipment and material to complete the following works:

 Supply and application of Royston Bridge Membrane 10A-65 with Roybond 713B primer (or approved equivalent) on the steel bridge deck prior to application of hot mix asphalt in accordance with the installation recommendations and requirements of the supplier

The Royston Bridge Membrane and associated products are available from Chase Corporation via Dave Fricke, Sales Manager – Bridge & Highway Products, dfricke@chasecorp.com.

ITEM B7 and B8 TACK COAT AND HOT MIX HL-3

Amendments to OPSS.PROV 308, April 2012 Amendments to OPSS.MUNI 310, November 2017 Amendments to OPSS.MUNI 1003, November 2013 Amendments to OPSS.MUNI 1101, November 2016 Amendments to OPSS.MUNI 1150, November 2018

308.05 MATERIALS

308.05.01 Tack Coat and Joint Painting Material

Subsection 308.05.01 of OPSS.PROV 308 is amended by the addition of the following:

The approved tack coat shall be water-based, and not oil, to ensure proper placement of asphalt material. The undiluted materials shall be according to OPSS 1103.

308.07 CONSTRUCTION 308.07.01 Application of Tack Coat

Subsection 308.07.01 of OPSS.PROV 308 is amended by the addition of the following:

Tack coat shall be applied to the following:

f) bridge deck and prior to the placing of Hot Mix Asphalt

Subsection 308.08.01 of OPSS.PROV 308 is amended by the addition of the following:

Areas of insufficient or non-uniform tack coat coverage may be re-sprayed by the Contractor at no additional cost to the Owner. Where the tack coating is performed using hand held devices, the visual appearance of such areas shall be consistent with the adjacent area of the machine applied material.

310.02 REFERENCES

Section 310.02 of OPSS.MUNI 310 is amended with addition of the following:

Ontario Provincial Standard Specifications, Construction

OPSS 308 Tack Coating and Joint Painting

310.07 CONSTRUCTION 310.07.01 Quality Control

Subsection 310.07.01 of OPSS.MUNI 310 is amended with addition of the following:

The Contractor will be responsible for providing samples for Quality Assurance (QA) at random locations throughout the site as required by OPSS.MUNI 310 or as directed by the Contract Administrator. Contractor shall be responsible for his own Quality Control (QC) and the Township will retain consultant. At each location, the Contractor shall take:

- 1. A sample for QA
- 2. A referee sample to be kept and stored by the Contract Administrator
- 3. A QC sample to be retained and tested by the Contractor

Compaction testing for this project will be undertaken with a nuclear testing device. Core sampling will only be undertaken if there is a need to confirm nuclear testing results outside of specifications.

A pre-pave site meeting will be conducted to review execution of the work and testing procedures with the Contractor, the paving Sub-contractor and the Contract Administrator.

No surface course trial area shall be required on this Contract.

310.07.06 Placing Hot Mix Asphalt **310.07.06.01** General

Clause 310.07.06.01 of OPSS.MUNI 310 is amended with addition of the following:

The new asphalt surface is to be paved to the depth specified in the Contract Documents and shall provide a 2% cross fall from the centre of the two driving lanes or applicable superelevation.

Binder course of asphalt on the bridge deck shall be placed in the opposite direction of the placement of the protection board.

For each side the final lift or surface coarse paving shall not be placed until all base course paving is completed and all topsoil is placed, unless otherwise authorized by the Contract Administrator.

310.07.11 Longitudinal and Transverse Joints 310.07.11.01 General

Clause 310.07.11.01 of OPSS.MUNI 310 shall be deleted in its entirety and amended with the addition of the following:

All joints shall be made to ensure a full-face bond and a smooth riding surface.

A step joint shall be created at the tie in location between the new asphalt and existing asphalt as indicated in the Contract Drawings.

All dirt or other foreign material and all loose material shall be removed from all vertical surfaces. When matching a compacted joint, the depth of the uncompacted mat shall be set to allow for compaction. The paver screed shall overlap the adjoining mat by no more than 50 mm.

310.07.15 Management of Excess Material

Subsection 310.07.15 of OPSS.MUNI 310 shall be deleted in its entirety and amended with the addition of the following:

Unless otherwise noted elsewhere in the Contract Documents, all surplus material generated from construction activities will be disposed as per OPSS.MUNI 180, at no extra cost to the Contract.

310.10 BASIS OF PAYMENT 310.10.01 Hot Mix HL-3 - Item

Subsection 310.10.01 of OPSS.MUNI 310 is amended with the addition of the following:

The Contractor shall, for the unit price bid for the items, supply all materials including asphalt cement, required for placing and compacting asphalt including coarse and fine aggregates blending sand screenings or mineral filler, asphalt cement, joint painting materials, any additional granular material needed to meet grade requirements, and all other materials required to complete the job.

• The unit price bid for this item shall also include temporary ramping of asphalt at paving limits and removal prior to the placement of the proceeding lift

1003.05 MATERIALS 1003.05.01 General

Subsection 1003.05.01 of OPSS.MUNI 1003 has been amended by the addition of the following:

For HL-3,

 a) Asphalt aggregates shall be furnished by the Contractor from Ministry of Transportation approved Commercial Aggregate Sources. A list of approved sources is available from the Ministry. The Contractor shall provide the name of suppliers.

b) The Contractor shall select, from his list of Commercial Sources, the source or sources which are capable of providing correctly graded materials of the quality and quantity and at the times required, to satisfy the Contract requirements.

1101.05 MATERIALS

Section 1101.05 of OPSS.MUNI 1101 is amended by deleting the fourth paragraph and replacing with:

Asphalt cement supplied shall be **PGAC 58-34** as a minimum.

1150.04 DESIGN AND SUBMISSION REQUIREMENTS

1150.04.01 Design Requirements

1150.04.01.01 Mixture Requirements for Design Purposes

1150.04.01.01.01 Reclaimed Asphalt Pavement Proportions

Clause 1150.04.01.01 of OPSS.MUNI 1150 is deleted in its entirety and replaced with the following:

The use of RAP shall not be permitted for the HL-3 hot mix asphalt.

1150.04.01.02 Mix Design

1150.04.01.02.02 Mix Design Method

Clause 1150.04.01.02.02 of OPSS.MUNI 1150 is amended by the addition of the following:

Mix designs shall be completed by appropriately certified third party lab. Mix designs prepared by the Contractor will not be accepted. The Contractor shall provide the Contract Administrator with their proposed mix design, a minimum of thirty (30) days prior to the placing of asphalt. The Contractor shall not place any asphalt until the proposed mix design has been approved by the Contract Administrator.

ITEM B9 PAVEMENT MARKINGS, PERMANENT

Amendments to OPSS 710, November 2010

710.03 DEFINITIONS

Section 710.03 of OPSS 710 is amended by the addition of the following:

Track Free: means the condition of the paint marking when a passenger car, driven across the marking does not pick up any marking on the tire treads.

710.07 CONSTRUCTION

710.07.09 Application 710.07.09.02 Organic Solvent Based Traffic Paint

Clause 710.07.09.02 of OPSS 710 is amended by the addition of the following:

The Contractor shall apply two (2) applications of paint and glass beads to the top course of asphalt or concrete pavement. The first application on the top course shall be applied when the pavement surface temperature is 3 °C or above, unless otherwise approved in writing by the Contract Administrator.

The second application shall not be applied until the first application is track free.

710.10 BASIS OF PAYMENT

Section 710.10 of OPSS 710 is deleted and replaced by the following:

Payment at the contract price for the above tender item(s) shall include full compensation for all labour, equipment and material required to do the work, including the second application of line painting as indicated above.

Progress payment will be made based on the following for the above item "Pavement Markings, Permanent"

50% for the first application 50% for the second application

ITEM B10 and B11 STEEL BEAM GUIDE RAIL INCL. CHANNEL AND STEEL BEAM ENERGY TERMINAL SYSTEM

Amendments to OPSS.MUNI 721, November 2018

721.01 SCOPE

Section 721.01 of OPSS.MUNI 721 is deleted in its entirety and replace with following:

This special provision covers the work to supply and installation of the single rail steel beam guide rail panels, channel, steel posts, and steel beam energy attenuating terminal systems, high intensity markers (WA-33LR) as indicated in the Contract Drawings.

Work for the item "Steel Beam Energy Attenuating Terminal System" the Contractor shall install the steel beam attenuating terminal system as per OPSD 922.186, OPSD 912.255 and as indicated in the Contract Drawings.

721.07 CONSTRUCTION

721.07.01 General

Subsection 721.07.01 of OPSS.MUNI 721 is amended by the addition of the following:

Steel posts and blocks shall conform to ASTM A 36/A 36 M, and shall be hot dipped galvanized conforming to CAN/CSA G164M.

Guide rail shall be installed plumb, and set according to alignment and grade, regardless of the material encountered.

Posts damaged through handling or installation shall be removed and replaced at the expense of the Contractor.

Cut ends, field-drilled holes, and abrasions to galvanizing shall be coated with two coats of an approved zinc rich paint.

Steel bases shall be installed level and square to the centreline of the roadway to produce a vertically plumb post.

Washers at the front face of steel beam elements or steel blocks will only be installed when specified in the Contract.

721.10 BASIS OF PAYMENT

721.10.01 Steel Beam Guide Rail incl. Channel – Item
Steel Beam Energy Attenuating Terminal System – Item

Subsection 721.10.01 of OPSS.MUNI 721 is deleted in its entirety and replaced with the following:

Payment at the Contract price for the tender items "Steel Beam Guide Rail incl. Channel" and "Steel Beam Energy Attenuating Terminal System" shall be full compensation for all labour, materials, incidentals, granular and equipment necessary to complete the work of the item in accordance with the Contract Drawings and these Specifications.

Any damaged components shall be replaced or repaired by the Contractor at no additional costs to the Owner.

ITEM B12 DECK JOINT ASSEMBLIES, INSTALLATION

Amendments to OPSS.MUNI 920, November 2012

920.01 SCOPE

Section 920.01 of OPSS.MUNI 920 is amended with the addition of the following:

For the lump sum bid of item "Deck Joint Assemblies" the Contractor shall supply all materials, equipment, and labour, prepare the concrete surface and install the deck joint assemblies as indicated in the Contract Drawings.

920.10 BASIS OF PAYMENT 920.10.01 Deck Joint Assemblies, Installation – Item

Subsection 920.10.01 of OPSS.MUNI 920 is amended with the addition of the following:

Work for the item, "Deck Joint Assemblies, Installation", shall include the supply and installation of the concrete, granular material and any other materials required needed to complete the work as well as the submission of formwork and falsework design and drawings, to the Contract Administrator for review, a minimum of fourteen (14) days prior to placing the concrete.

Any damage to the existing structure shall be repaired immediately at no additional cost to the owner.

ITEM B16 CONCRETE SEALER

1.0 SCOPE

As part of the work under the above tender item, the Contractor shall include surface preparation and application of a concrete sealer to exposed concrete in the following areas:

Top and interior faces of the curb and gutter.

5.0 MATERIALS

The concrete sealer used shall be CIPADAM S-15 Ultra, or equivalent as approved by the Contract Administrator, a two-coat protection system which prevents the intrusion of chlorides and water. The two-coat system consists of:

- A) A base coat of CIPADAM S-15, a silane base which penetrates into the substrate and reduces chloride ion migration through cement materials.
- B) The top coat is CIPADECK Paver and Concrete Sealer. It is a colorless acrylic resin in a solvent base or CIPADECK Cure & Seal WB.

This product is available from Construction Products Distribution Services, 219 Connie Crescent, Unit 13, Concord, Ontario, L4K 1L4, Tel: (905) 669-5013. A comparable alternative sealer will also be acceptable at the discretion of the Contract Administrator.

The material shall be stored in a dry, frost free environment protected from direct heat. The containers shall remain sealed until their contents are required for use. The contents of any opened container shall be used within 48 hours or discarded.

Sealer shall be applied using spray equipment recommended by the sealer's manufacturer.

Any repairs to concrete surfaces shall be carried out prior to surface sealing.

Application of a sealer shall be carried out at no less than 28 days after new concrete has been placed.

7.0 CONSTRUCTION

Surface Preparation

Prior to the application of the primer, the entire surface to be sealed shall be abrasive blast cleaned as per OPSS 929 to remove laitance, contamination, loose materials, and any traces of curing compounds and release agents.

Sealer Application

Concrete areas to be treated shall be surface dry for a minimum of 24 hours prior to sealer application. Artificial drying shall not be permitted. Sealer shall not be applied under any of the following conditions:

- Ambient temperature is less than 0°C.
- Temperature of the concrete surface is greater than 25°C.
- Rain is forecast within the next 48 hours.
- Exposed asphalt pavement and joint sealants shall be masked off before the sealer application.

Concrete shall receive one application of the penetrating base coat and one application of the top coat. The rate of application shall be as recommended by the product's manufacturer. The sealer shall be applied by spraying, working from the bottom of the wall upwards

Primer shall be allowed to dry before application of the top coat. The drying period shall be as specified by the sealer's manufacturer.

The Contractor shall take all necessary precautions to prevent spills, overspray, splatter and rundown spills. Overspray and splatter shall be removed at the Contractor's expense. Rundown shall be brushed or rolled down.

10.0 BASIS OF PAYMENT

Payment at the Contract Price for the above tender item shall be full compensation for all labour, equipment, and material required to do the work.

ITEM C1 and C12 (PROVISIONAL) EARTH EXCAVATION FOR STRUCTURE AND ROCK EXCAVATION FOR STRUCTURE (PROVISIONAL)

Amendments to OPSS.MUNI 902, November 2019

902.03 DEFINITIONS

Section 902.02 of OPSS.MUNI 902 is amended by the addition of the following:

Section 902.03 is amended by the deletion of the definitions for Certificate of Conformance and for Quality Verification Engineer.

902.04 DEFINITIONS 902.04.02 Submission Requirements 902.04.02.02 Milestone Inspections

Clause 902.04.02.02 of OPSS.MUNI 902 is deleted in its entirety and replaced with the following:

The Contract Administrator shall witness the following interim inspections of the work:

- a) Dewatering of excavation for structure.
- b) Completion of excavation for foundation.
- c) Excavation for backfill and frost tapers.
- d) Backfilling.

The next operation shall not proceed until the Contract Administrator has examined the excavation and given approval in writing to perform subsequent work.

902.07 CONSTRUCTION 902.07.05 Excavation 902.07.05.01 General

Clause 902.07.05.01 of OPSS.MUNI 902 is removed in its entirety and replaced with the following:

Under the item of work "Rock Excavation for Structure", the Contractor shall remove bedrock by line drilling and hoe-ram, within the limits indicated on the Contract Drawings.

Under this item, the Contractor shall be responsible for the location, identification and protection of all underground utilities within the limits of construction. No additional payment will be made

for the repair or replacement of such utilities that have been damaged by the work of this Contract.

902.07.08 Certificate of Conformance

Subsection 902.07.08 is deleted in its entirety.

902.07.09 Management of Excess Materials

Subsection 902.07.09 of OPSS.MUNI 902 is amended by the addition of the following:

Excavated materials shall be disposed of off-site unless approved by the Contract Administrator as back fill for side slopes.

Unsuitable excavated material, including broken pavement, concrete, etc. and excess earth material which is surplus to the requirements for backfill, shall be disposed of outside of the right-of-way at locations arranged for by the Contractor, at his own expense, and in accordance with applicable legislation.

902.09 MEASUREMENT FOR PAYMENT 902.09.01 Actual Measurement 902.09.01.01 Earth Excavation for Structure

Clause 902.09.01.01 of OPSS 902 is deleted in its entirety and replaced by following:

No measurement for payment will be made for the item "Earth Excavation for Structure". The item shall be paid as lump sum.

902.10 BASIS OF PAYMENT
902.10.01 Earth Excavation for Structure – Item
Rock Excavation for Structure – Item

Subsection 902.10.01 of OPSS 902 is amended by the addition of the following:

Payment at the tendered lump sum price shall be full compensation for all work under this item. The estimated quantity of earth excavation shown on the drawings is for information purposes only and is not guaranteed. The quantity is based on excavation to the neat lines shown on the Contract Drawings.

The unit bid price for this item shall include all costs for labour, material, equipment, etc. necessary to complete all rock excavation for structure foundations as directed by the Contract Administrator.

The Contract Administrator may check the accuracy of the completed subgrade. When requested, the Contractor shall provide a person to assist the Contract Administrator in checking grades and lines.

The Contractor shall also be responsible for locating, identifying and protection of all underground utilities within the limits of construction. No additional payment will be made for the repair or replacement of such utilities.

902.10.05 Over Excavation

Subsection 902.10.05 is amended by the addition of the following:

No payments shall be made for unauthorized over excavation or backfill of such. Unauthorized over excavation shall be corrected as follows at the expense of the Contractor:

- Supply and place Granular "B", Type I, including compaction as directed by the Contract Administrator.
- If excavation is carried out beyond the design limits, without the approval of the Contract Administrator, no payment will be made for the additional excavation.

ITEM C2, C3 and C4 H-PILES, SUPPLY EQUIPMENT FOR INSTALLING DRIVEN PILES AND ROCK POINTS

Amendment to OPSS.MUNI 903, April 2016

903.01 SCOPE

Section 903.01 of OPSS.MUNI 903 is amended by the addition of the following:

This specification covers the work of suppling the necessary equipment and materials for installing driven steel H-piles with rock points as indicated on the Contract Drawings and in accordance with the Contract specifications.

903.07 CONSTRUCTION

903.07.02 **Driven Piles**

903.07.02.07 Monitoring Driven Piles

903.07.02.07.03 Driving to a Specified Elevation

903.07.02.07.03.02 Driving to a Set

Clause 903.07.02.07.03.02 of OPSS. MUNI 903 is amended by the addition of the following:

Dynamic pile driving formula used shall be the Hiley Formula in accordance with the MTO Structural Manual and the SS103-11. Ultimate Geotechnical resistances are 1500 kN as noted in the geotechnical report.

903.09 MEASUREMENT FOR PAYMENT

903.09.01 Actual Measurement

Clause 903.09.01.07 of OPSS.MUNI 903 is amended by the addition of the following:

Supply of Equipment for Installing Driven Piles Installation of Driven Piles

No measurement of payment will be made for the above items, payment shall be by lump sum.

903.10 BASIS OF PAYMENT

903.10.01 Supply of Equipment for Installing Driven Piles - Item

Installation of Driven Piles - Item

Subsection 903.10.01 of OPSS.MUNI 903 is amended by the addition of the following:

For payment purposes, 50% of the work under these items is completed when the satisfactory performance of the equipment has been demonstrated to the Contract Administrator by the installation of 1% of piles. The remaining 50% shall be paid on the satisfactory completion of the installation of piles.

When the hammer performance is requested to be verified, such verification shall be completed at no extra cost to the Owner when the energy delivered is less than 90% of the stated potential energy (rated energy) specified in the submission.

When the energy is equal to or greater than 90% of the stated potential energy stated in the required submission, the cost verifying the hammer performance shall be paid as Extra Work.

Payment for redriving piles shall be at the Contract price for the applicable tender item above.

ITEM C5 and C6 35M BEDROCK ANCHORS AND MECHANICAL CONNECTORS

SCOPE

For the unit price bid the Contractor shall supply and install doweled reinforcement and mechanical connectors as indicated on the Contract Drawings.

The installation shall be completed in strict accordance with the manufacturer's instruction. The Contractor shall submit Shop Drawings / product data sheets describing the chemical anchorage for approval. In the field prior to use the Contractor will complete a field verification of the dowel installation. Dowels shall be installed at the locations and depths indicated in the Contract Drawings.

The Contractor for the unit price shall include drilling of holes, blast cleaning of holes, supply and installation of reinforcing steel of all types and chemical anchorage materials as per the design drawing of all types;

35M = 6 Dowels / Bedrock Anchors Mechanical Connectors = 246

ITEM C7 and C8 CONCRETE IN SUBSTRUCTURE AND CONCRETE IN APPROACH SLABS

Amendments to OPSS MUNI.904, November 2012

904.01 SCOPE

Section 904.01 is amended by the addition of the following:

This specification covers the work to place concrete in the approach slabs, and substructure as indicated on the Contract Drawings and in accordance with all applicable specifications.

904.03 DEFINITIONS

Section 904.03 is amended by the addition of the following:

Injection Port: means a mechanical device with a shut-off valve that is attached to the formwork and connected to the discharge line of a pump to facilitate delivery of concrete directly into formwork.

Rehabilitation: means any modification, alteration, or improvement to a structure or its components, which is designed to correct defects or deficiencies.

904.04 DESIGN AND SUBMISSION REQUIRMENTS

904.04.01 Submission Requirements

Subsection 904.04.01 is amended by the addition of the following:

904.04.01.06 Falsework and Formwork

The Contractor shall submit formwork and false work design and drawings, to the Contract Administrator for review a minimum of fourteen (14) days prior to casting any concrete in the deck, approach slabs and abutment walls. Falsework and formwork design and drawings for this item shall bear the seal and signature of a Professional Engineer licensed in the Province of Ontario.

904.07 CONSTRUCTION

904.07.04 Cold Weather Protection 904.07.04.01 General

Clause 904.07.04.01 is amended by the addition of the following:

Prior to placing new concrete for the substructure elements and approach slabs, the Contractor shall demonstrate to the Contract Administrator that the substrate temperatures meet specification requirements by measuring and recording the substrate temperatures.

No construction vehicles, equipment or traffic, with the exception of saw cutting equipment, shall be permitted on the finished surface until the curing and cold weather protection period has elapsed and a minimum of 100% of the specified compressive strength has been attained demonstrated by concrete cylinder break undertaken by an approved material testing facility.

904.09 MEASURMENT FOR PAYMENT

904.09.02 Actual Measurement

Clause 904.09.02.01 is deleted in its entirety and replaced by the following:

904.09.02.01 Concrete in Approach Slabs Concrete in Substructure

No measurement for payment will be made for the above items. Payment shall be by lump sum for each item.

904.10 BASIS OF PAYMENT

Subsection 904.10.01 is deleted in its entirety and replaced by the following:

904.10.01 Concrete in Approach Slabs – Item

Work for this item shall include but not limited to, the following:

- Supply, placement and curing of concrete for the approach slabs.
- Supply and placement of asphalt impregnated fiber board, required sawcutting of
 pavement along the full width of the approach slab and the supply and installation of
 the hot poured rubberized joint sealing compound located at the free end of the
 approach slabs as depicted on the Contract Drawings.
- Supply and install of reinforcing steel.
- Supply and install bearing strip.

Payment at the Contract Price for this item shall be full compensation for all labour, equipment and materials including all reinforcing steel to do the work for this item in accordance with theses specifications and the Contract Drawings.

Concrete in Substructure - Item

Work for this item shall include but not limited to, the following:

- Supply, placement and curing of concrete for the substructure.
- Supply and install of sub drain.
- Supply and install of reinforcing steel and any associated embedded hardware.

Payment at the lump sum contract price shall be for full compensation for all labour, equipment and material necessary to complete the work as describe by the Contract Drawings and Specifications.

ITEM C10 RIP-RAP

Amendments to OPSS MUNI.511, November 2019

511.05. MATERIALS

511.05.01 Rip-Rap, Rock Protection, and Granular Sheeting

Subsection 511.05.01 is amended by the addition of the following:

Rip-rap shall be R-50 and meet the gradation requirements indicated in Table 8 of OPSS.MUNI 1004. Rip-rap shall be placed 300 mm thick at the locations indicated in the Contract Drawings.

ITEM C11 Permanent Modular Bridge

1.0 SCOPE

This specification covers the requirements for the design, supply, delivery and installation of a modular bridge structure from an approved supplier for permanent installation, including the following:

- Design, supply, delivery and installation of the new modular bridge complete with galvanized heavy steel decking and all associated hardware components;
- Design, supply and installation of modular bridge bearings, bearing plates and anchor bolts:
- Supply and installation of TL-2 Box Beam and steel posts with fasteners;

- Supply and installation of the Structure Connections/Transition Rail for TL-2 Box Beam at the ends of the bridge and the connection to the approach Steel Beam Guide rail as detailed in the Contract Documents; and
- All labour, equipment and materials required to assemble and launch the new modular bridge to its permanent location.

2.0 REFERENCES

This specification refers to the following standards, specifications, or publications:

Ontario Provincial Standard Specifications, Construction

OPSS.MUNI 721 Steel Beam Guide Rail and Cable Guide Rail

OPSS 906 Structural Steel for Bridges

OPSS 907 Structural Wood Systems

OPSS.MUNI 908 Metal Traffic Barriers and Metal Railings for Structures

OPSS.MUNI 911 Coating for Structural Steel Systems

Ontario Provincial Standard Specifications, Material

OPSS 1601 Wood, Preservative Treatment, and Shop Fabrication

Ontario Ministry of Transportation Publications

Structural Manual

CSA Standards

CSA S6-14 Canadian Highway Bridge Design Code G164-18 Hot Dip Galvanizing of Irregularly Shaped Articles

3.0 DEFINITIONS

For the purpose of this specification, the following definitions apply:

Stamped: Means drawings or details that have been reviewed and stamped "Conforms with Contract Documents". The stamp shall include the date and signature of an Engineer.

Engineer: An Engineer licensed to practice in the Province of Ontario, who has a minimum of five (5) years of experience in the design and installation of modular bridge structures. The Engineer shall be retained by the Contractor to ensure conformance with the Contract Documents and issue certificate(s) of conformance.

Modular Bridge means a superstructure comprised of commercially available standard proprietary prefabricated components that can be assembled and disassembled on site.

4.0 DESIGN AND SUBMISSION REQUIREMENTS

4.01 Design Requirements

The modular bridge structure shall be designed per the Contract Documents, CSA S6-14 and the Structural Manual except that:

- a) The following requirements of the CSA S6-14 are not mandatory:
 - i. Traffic lane widths, side clearance, and sidewalks.
 - ii. Deck crossfall and drain outlets.
- b) The following are additional requirements:
 - i. Camber is required, to account for all dead loads.
 - ii. Fatigue design shall be based on a Highway Class C
 - iii. Traffic lanes and side clearances shall be as detailed in Contract Drawings.

4.02 Submission Requirements

4.02.01 Working Drawings, Procedures & Certifications

The following documents, bearing the seal and signature of a design Engineer and a design-checking Engineer, shall be submitted to the Contract Administrator at least 7 days prior to commencement of the installation of the modular bridge.

Design and Working Drawings of the modular bridge.

- (a) Launching and installation procedures.
- (b) A letter and design calculations certifying that the modular bridge has been designed according to the Canadian Highway Bridge Design Code.
- (c) Where modular bridge components are fabricated outside of Canada, a letter submitted certifying that the materials used, and the fabrication of the modular bridge components are according to the requirements of the Canadian Highway Bridge Design Code.
- (d) Where the load carrying capacity of the modular bridge or any of its components has been established by testing, the load test reports provided by the manufacturer of the modular bridge shall be submitted confirming the bridge satisfies the requirements of the Evaluation Section of CSA S6-14, using a Reliability Index (β) not less than 3.75.

When other authorities are involved in the approval of the design or construction of the modular bridge, submissions shall be made at least 5 weeks prior to commencement of work and one additional copy of the submission shall be provided for each authority. The requirements of each authority shall be satisfied prior to commencement of the work.

4.02.02 Notice of Installation

The Contract Administrator shall be given written notice at least three weeks in advance of the commencement of installation of the modular bridge.

5.0 MATERIALS

5.01 General

All materials and components shall be according to the Working Drawings.

5.02 Modular Bridge Components

The modular bridge shall be standardized proprietary product supplied by:

Acrow Limited 2150 Islington Ave, Suite 206 Toronto, ON M9B 3V4 T. 416-551-3836

OR by approved equivalent supplier. All modular bridge components shall be fabricated in accordance with OPSS 906 and shall be hot dipped galvanized in accordance with OPSS 911.

All material shall be new, hot-dip galvanized as per OPSS 911, and shall comply with the details specified and shown on the Contract Drawings.

Hardware

The hardware used in the assembly and installation of the modular bridge shall be according to the modular bridge manufacturer's requirements.

Structural Steel

Any structural steel components that are not part of the modular bridge shall be designed and constructed according to OPSS 906.

Barrier System

Barrier System shall be according to OPSS 908 or an equivalent modular bridge manufacturer barrier system.

6.0 EQUIPMENT – NOT USED

7.0 CONSTRUCTION

7.01 General

Documentation indicating that the modular bridge Superintendent who shall oversee the installation of the modular bridge has had experience and has successfully performed these duties on at least 3 similar bridges shall be submitted to the Contract Administrator at least 7 Days prior to installation of the modular bridge.

7.02 Installation of Modular Bridge

The modular bridge shall be assembled and installed as per the Working Drawings, procedures and Contract Documents.

The launching nose, rollers and related installation materials shall be supplied by the Contractor. The Contractor shall be responsible for supply, delivery, offloading, assembly, disassembly, reloading and return of launching nose and related materials to the supplier. The Contractor shall obtain launching nose materials from the modular bridge manufacturer. The launching nose shall stay the property of the Contractor if purchased.

The modular bridge manufacturer's Engineer representative shall be on site during installation of the bridge.

TL-2 Box Beam Barrier sections and all associated components shall be installed along the full length of both sides of the structure. This shall include: four (4) Box Beam structure connections/transition sections, steel posts and all associated materials and hardware to facilitate complete installation.

Certificate of Conformance

Upon the completion of construction of the modular bridge, a Certificate of Conformance bearing the seal and signature of an Engineer with a minimum of five (5) years of experience in this specific type of work shall be submitted to the Contract Administrator. The certificate shall state that the modular bridge has been constructed in general conformance with the Design, Working Drawings, procedures and Contract Documents.

Management of Excess Material

Management of excess material shall be according to the Contract Documents.

8.0 QUALITY ASSURANCE – Not Used

9.0 MEASUREMENT FOR PAYMENT

No measurement for payment will be made for this item. Payment for this item shall be lump sum.

10.0 **BASIS OF PAYMENT**

10.01

10.01 Prefabricated Modular Bridge
Payment at the Contract price for the above item shall be full compensation for all labour, equipment, and material to do the work.

I	, of,	,				
	nd seal is or are attached be	r than the one whose signature or the signature or the signature or low, has any interest in this Tender or in the				
figures or arrangement		It this Tender is made without any connections, knowledge, comparison of any other company, firm or person making a Tender for the same work and thout collusion or fraud.				
I FURTHER DECLARE that no member of the Township Council, or any Officer of the Township is or will become interested, directly or indirectly, as a contracting party or otherwise, in the performance of the Contract, or in the supplies, work or business to which it relates or any portion of the profits thereof, or any such supplies to be used therein or in any of the monies to be derived therefrom.						
I FURTHER DECLARE	that several matters stated i	in the said Tenders are in all respects true.				
I FURTHER DECLARE that this offer is to continue open to acceptance until the formal contract is executed by the successful Company for the said Tender OR for a period of ninety (90) days after the closing date, whichever first occurs and that the Township may, at any time, within that period, without notice, accept this Submission whether any other Submission has been previously accepted.						
	JRTHER DECLARE that the awarding of the contract based on this Tender by the Township shall bacceptance of this Tender.					
received, and that all cl submitted. I do hereby necessary labour, mac deliver, place and erec herein described, in str in full payment therefor	nanges specified in the Adder tender and offer to enter into hinery, tools, apparatus and of all materials mentioned and ct accordance with the plans	o, inclusive, has/have been indum/Addenda have been included in the prices of a Contract, to do all of the work and to furnish a other means of construction, and to provide, furnity described or implied therein, to complete the work, specifications and special provisions and to accordance with the actual measured quantities, the tender therein as follows:				
Witness		Signature				
Date Name of Company						
E-mail Address	E-mail Address Address					
Name of Signing Author						

I/We hereby agree to provide section rehabilitation services in accordance with the provisions set out in Parts A, B, C and D of this Tender, for the following firm prices.

Item No.	Spec. No.	Description	Estimated Quantities	Unit	Bid Price Per Unit	Total Bid	
PART A: 0	PART A: General						
A1	SP	Site Preparation	1	L.S.	\$	\$	
A2	SP	General Sitework	1	L.S.	\$	\$	
А3	182 805 SP	Environmental Protection	1	L.S.	\$	\$	
A4	182 805 SP	Light-Duty Silt Fence Barrier	130	m	\$	\$	
A5	182 805 SP	Straw Bale Flow Check Dam	3	m	\$	\$	
A6	1860	Geotextile	125	m²	\$	\$	
A7	706 SP	Traffic Control Signing	1	L.S.	\$	\$	
	Total PART A (Carried to Summary) \$						
PART B: I	Road W	orks					
B1	SP	Removal of Pavement, Full Depth	500	m²	\$	\$	
B2	SP	Removal of Steel Beam Guide Rail including End Treatments	71	m	\$	\$	
В3	SP	Removal of Bridge Structure	1	L.S.	\$	\$	
B4	314 501 SP	Granular A	291	t.	\$	\$	
B5	314 501 SP	Granular B, Type I	250	t.	\$	\$	
B6	914 SP	Steel Bridge Deck Waterproofing	235	m ²	\$	\$	
B7	308	Tack Coat	235	m ²	\$	\$	

Item No.	Spec. No.	Description	Estimated Quantities	Unit	Bid Price Per Unit	Total Bid
	SP					
B8	310 SP	Hot Mix HL-3	90	t.	\$	\$
В9	710 SP	Pavement Markings, Permanent	58.0	m		
B10	721 SP	Steel Beam Guide Rail incl. Channel	62.3	m	\$	\$
B11	721 SP	Steel Beam Energy Attenuating Terminal System	3	Ea.	\$	\$
B12	920 SP	Deck Joint Assemblies, Installation	1	L.S.	\$	\$
B13	305	Granular Sealing	27	m ²	\$	\$
B14	353	Concrete Curb and Gutter	45.0	m	\$	\$
B15	353	Concrete Outlets	4	EA.	\$	\$
B16	SP	Concrete Sealer	22.5	m ²	\$	\$
Tot			al PART B (0	Carried	to Summary)	\$
PART C: S	Structur	е				
C1	902 SP	Earth Excavation for Structure	1	L.S.	\$	\$
C2	903 SP	H-Piles	45.8	m	\$	\$
C3	903 SP	Supply Equipment for Installing Driven Piles	1	L.S.	\$	\$
C4	903 SP	Rock Points	10	EA.	\$	\$
C5	SP	35M Bedrock Anchors	6	EA.	\$	\$
C6	SP	Mechanical Connectors	246	EA.	\$	\$
C6	904 SP	Concrete in Substructure	1	L.S.	\$	\$

Item No.	Spec. No.	Description	Estimated Quantities	Unit	Bid Price Per Unit	Total Bid
C7	904 SP	Concrete in Approach Slabs	1	L.S.	\$	\$
C8	314 902 SP	Granular B, Type I (Structure Backfill)	380	t	\$	\$
C9	511 SP	Rip-Rap	103	m ²	\$	\$
C10	SP	Prefabricated Bridge	1	L.S.	\$	\$
(PROV) C11	902 SP	Rock Excavation for Structure	5	m ³	\$	\$
Total PART C (Carried to Summary)					\$	

Tender Summary

Sub-Total Tender (excluding H.S.T)	\$
Total PART C: Structure	\$
Total PART B: Road Works	\$
Total 1 7 ti Ci 7 ti. Golloral	τ
Total PART A: General	\$

Notes:

- i) H.S.T. will be paid in addition to the tendered price.
- ii) Prices must be rounded to two decimal places only.
- iii) OPSS.MUNI specifications shall apply when applicable.

Statement "A" - Bidder's Experience in similar work

Year	Description of Contract	For whom Performed	Project Foreman	Value

Statement "B" - List of Proposed Sub-Contractors

Sub-Trade	Name of Subcontractor	Address

TENDER DEPOSIT METHOD OF RETURN - FORM 4

Please complete this form indicating your preference for returning your tender deposit cheque.

The Contractor will pick up the tender deposit. Township Staff will notify the Contractor when the cheque is available for pick-up.
If you are selecting this option, if possible, please provide the name of the representative who will pick up the cheque.
Name:
Send cheque by Purolator Courier. Note: courier charges will be the responsibility of the Contractor. My Purolator Account #:
Send cheque by Regular Mail . Contractor Name:
Signature of Contractor representative

CHECKLIST

Enclosed with submission:

1.	Completed Part "D" enclosed	
2.	2020 Health and Safety Policy – Part "A" (#7)	
3.	WSIB Certificate of Clearance - Part "A" (#7)	
4.	Accessibility Declaration – Part "A" (#8)	
5.	Tender Deposit – Part "A" (#5)	
Docu	ments upon Award of Contract:	
1.	Performance Bond – Part "A" (#15)	
2.	Material and Labour Bond – Part "A" (#15)	
3.	Maintenance Bond – Part "A" (#15)	
4.	Certificate of Liability Insurance – Part "A" (#14)	

TENDER LABEL - FORM 5

To help identify your Tender, please cut out the label below and affix this label to the outside of your Tender Envelope:

THE CORPORATION OF TAY VALLEY TOWNSHIP				
	TENDER FOR			
	NT OF THE BOLINGBROKE BRIDGE TRACT #2020-PW-011			
The Corporation of Tay V				
217 Harper Road,	aney rownship			
Perth, Ontario K7H 3C6				
Attention:	Amanda Mabo, Clerk			
Talanhana	C42 2C7 E2E2 avt 420			
Telephone: Toll Free:	613-267-5353 ext. 130			
	1-800-810-0161 613-264-8516			
Fax: E-mail:	clerk@tayvalleytwp.ca			
CONTRACT NUMBER:	CLOSING TIME/DATE:			
CONTRACT NOMBER.	1:00PM			
2020-PW-011				
YOUR COMPANY'S NAM	·			
TOOK COMPANT S NAME AND ADDRESS.				

Use the above label for your envelope when you submit your Tender Document.

[COMPANY LETTERHEAD]

To: The Corporation of Tay Valley Township

From: [Company Name]

[DATE]

[CONTRACT NUMBER, CONTRACT TITLE]

Re: Declaration of Compliance – Accessibility of Ontarians with Disabilities Act (AODA)

Please accept this letter as confirmation [COMPANY NAME] is in compliance with the Accessibility of Ontarians with Disabilities Act and its regulations

[SIGNATURE]
[NAME]
[POSITION]
[CONTACT INFORMATION]
[COMPANY]