



## Essex Region Conservation Authority

### Executive Committee

### Meeting Agenda

Meeting Date: Thursday, September 26, 2024

Time: 9:00 am

Location and Details: Conference Room E, Essex Civic Centre, Essex, ON

#### List of Business

#### Page Number

1. **Call to Order**
2. **Land Acknowledgement**
3. **Declarations of Pecuniary Interest**
4. **Approval of Agenda** 1-2
5. **Hearings**  
None
6. **Tenders**
  - A. **Caldwell First Nation Wetland Award** XX
  - B. **Maidstone Conservation Area Parking Lot Re-Coating** XX
  - C. **ProcellaCor Certified Applicators for Hydrilla in West Cell, Hillman Marsh Conservation Area**
7. **Reports for Approval**  
None
8. **Committee of the Whole**  
None
9. **New Business**
10. **Other Business**
  - A. **Next Meeting**

The next meeting of the ERCA Board of Directors will be held on Thursday, November 14, 2024, starting at 6:00 p.m. in Council Chambers at the Civic Centre, Essex.

**11. Adjournment**



A handwritten signature in black ink, appearing to read "Tim Byrne", with a long horizontal flourish extending to the right.

**Tim Byrne, CAO/Secretary-Treasurer**

**CONSTRUCTION SPECIFICATIONS**  
**for**  
**217 Mersea Road 19, LEAMINGTON**  
**CALDWELL FIRST NATION**  
**WETLAND CONSTRUCTION PROJECT**

**September 9, 2024**



Essex Region Conservation  
*the place for life*

**CONSTRUCTION SPECIFICATIONS**  
**for**  
**217 MERSEA ROAD 19, LEAMINGTON**  
**CALDWELL FIRST NATION**  
**WETLAND CONSTRUCTION PROJECT**

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**217 MERSEA ROAD 19, LEAMINGTON  
WETLAND CONSTRUCTION**

**SCHEDULE OF ITEMS OF PRICES**

To: Essex Region Conservation Authority (Owner)

\_\_\_\_\_, the undersigned having examined the site of the works, Specifications, Drawings, Information to Bidders and Schedule of Items and Prices, hereby offer to furnish all materials and perform all work necessary and maintain the said work, as described in the above mentioned Documents, in accordance with the said Documents and

\_\_\_\_\_ attached Addenda to the said Documents,

this the firm of \_\_\_\_\_

being a \_\_\_\_\_

which \_\_\_\_\_

registered under the laws of the Province of \_\_\_\_\_ hereinafter called

the "Contractor" with head office at \_\_\_\_\_

\_\_\_\_\_

does hereby tender and agree to perform and maintain all the works in conformity with and as described in the said Contract Documents and attached Addenda for

the Total Price of \_\_\_\_\_

\_\_\_\_\_

or such other sums as may be finally ascertained in accordance with the allowance for additions and deductions as set out in the Contract Documents. The aforesaid Total Price is made up from the following Schedule of Prices.

And also agrees that if this Bid is accepted, to furnish Liability Insurance and accept payments and complete the works as elsewhere outlined in the documents.

And also agrees that the Owner has the right to accept or reject all or any portion of this Bid.

DATED AT \_\_\_\_\_ THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2024

\_\_\_\_\_  
Signature of Contractor

**217 MERSEA RD 19, LEAMINGTON  
WETLAND CONSTRUCTION  
SCHEDULE OF ITEMS AND PRICES**

ITEM NO.	SPEC. CODE	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
<b><u>SECTION A - PROPOSED WORKS</u></b>						
1	2.1	Supply, install (prior to construction) and maintain a silt fence barrier as per OPSD 219.110	Lump Sum	90 m		_____
2	2.2	Strip topsoil from area of new wetland and berm construction and stockpile on-site	Lump Sum			_____
3	2.3	Excavate new wetland and construct berm as indicated in the attached Contract Drawings, and as directed by ERCA on-site; all excavated material shall remain on-site	Lump Sum			_____
4	2.4	Final grade and compact soil excavated during new wetland and berm construction, including any excess spoils (in designated excess fill areas, as directed by ERCA on-site)	Lump Sum			_____
5	2.5	Place and final grade topsoil (from on-site stockpile) over newly constructed berm(s), including any excess fill areas	Lump Sum			_____
6	2.6	Break and plug all existing field tiles within wetland footprint, if any are located while excavating the new wetland	Each	provisional	_____	TBD
7	2.7	Mobilization and Demobilization	Lump Sum			_____
<b>TOTAL TENDER PRICE</b>						_____

**217 MERSEA ROAD 19, LEAMINGTON  
WETLAND CONSTRUCTION**

**INFORMATION TO BIDDERS**

**1.0 QUANTITIES**

The quantities as set out in the Schedule of Items and Prices are approximate and have been prepared by the Owner. They are not warranted by the Owner. The Contractor shall note that quantities are subject to change and shall consider this in preparing the price. No claims for extra payment due to changes to final quantities shall be entertained by the Owner unless the Scope of Work is deemed by the Owner not to logically fall within the specified Scope of Work for items contained in this Contract.

The Contractor shall note that the quantities as set out in the Schedule of Items and Prices may be altered by the Owner at any time and for any reason. In addition, any Item of work may be deleted from the Contract at the discretion of the Owner. If any quantity is altered or Item deleted, the Contractor will have no claim against the Owner for so doing. The Contractor is advised to take this requirement into consideration when determining his unit prices and Total Price Bid.

**2.0 EXAMINATION OF SITE, PLANS AND SPECIFICATIONS**

The Contractor may attend an onsite meeting scheduled by ERCA to visit the site and review the plans and specifications before submitting a bid and must satisfy themselves as to the extent of the work and local conditions to be met during the construction period. The Contractor is not to claim at any time after submission of a bid that there was any misunderstanding of the terms and conditions of the contract relating to site conditions.

The submission of a Contract Bid shall be deemed proof that the Contractor has satisfied themselves as to all the conditions which may enter into the carrying out of the Contract to a satisfactory conclusion and the quantities of the works required. No claims will be entertained from the Contractor who was uninformed as to any of the provisions or conditions intended to be covered by the Contract.

**3.0 ACCEPTANCE OR REJECTION OF BIDS**

It is understood that the Essex Region Conservation Authority is not bound to accept the lowest, or any particular bid. The Owner reserves the right to reject any or all Bids or to waive or not waive any informalities as he may deem advantageous.

The criteria to be considered by the Owner in awarding the contract will include a combination of price, scheduling, expertise, qualifications and such other conditions as may be determined by the Owner to be in its own best interests. Additions, alterations, deletions or other irregularities in the bid form may, but will not necessarily result in the Owner's rejection of the bid. The bidder acknowledges that it shall have no claim against, or entitlement to damages from, the Owner by reason of the Owner's rejection of its bid or of all bids.

**4.0 INSURANCE**

The Contractor shall furnish to the Owner satisfactory evidence that he has insurance to cover risk and liability for the period of the execution of the work.

The Liability Insurance shall have a limit of liability of not less than 5 Million Dollars inclusive for any one occurrence. It shall be a comprehensive liability insurance covering all operations and liability assumed under the Contract and it shall name the Essex Region Conservation Authority as additional insured

under the policy and shall also contain a cross liability and save harmless clause for the Essex Region Conservation Authority. The liability insurance shall not contain any exclusions or limitations in respect to shoring, underpinning, raising or demolition of any building or structure, pile driving, caisson work, collapse of any structure or subsidence of any property, structure or land from any cause.

The liability insurance shall be endorsed to provide that the policy shall not be altered, cancelled or allowed to lapse without 30 days prior written notice to the Owner; such copy of this policy to be submitted to the Owner prior to commencement of the work.

## **5.0 HARMONIZED SALES TAX (HST)**

The successful Bidder will be completely responsible for complying with all requirements regarding Sales Tax. The successful Bidder will cooperate with the Owner in providing any documentation necessary to support the accurate calculation and administration of the HST on this project. This documentation will be provided in advance of any payment requests. Contract payments will not be made without the necessary HST support documentation.

The Harmonized Sales Tax (HST) is not to be included in any lump sum or unit pricing, and shall not be included in the Total Price Bid.

## **6.0 APPROVALS**

This project is subject to the approvals of the Essex Region Conservation Authority. Any approvals and permits required for this project will be obtained by the Owner. During the execution of this project, the Contractor shall be bound to comply with all conditions of approval and permits.

## **7.0 LABOUR CONDITIONS**

Labour conditions, as set out by the Ministry of Labour, must be adhered to during the course of this project.

## **8.0 WORKPLACE SAFETY AND INSURANCE**

The Contractor will be required to submit, to the Owner, Certificates of Clearance from the Workplace Safety and Insurance Board prior to commencement of the work and before final payment is made.

The Contractor shall carry out this project in strict accordance with all applicable Occupational Health and Safety Acts, including the regulation for construction projects, Ontario Regulation 213/91 as amended by Ontario Regulation 613/94, and other prescribed legislation and regulations as they may pertain to the work.

The Contractor shall provide and maintain the necessary first aid items and equipment as called for under the First Aid Regulations of the Workplace Safety & Insurance Act.

## **9.0 COMMENCEMENT AND COMPLETION**

The Contractor shall start his work on this Contract within 5 working days of receiving written notice to commence work. Once work has begun, the Contractor will be required to furnish a normal labour and equipment force, without interruption, until final completion of the Contract. The Contractor shall complete his work on this Contract to completion within a period no greater than 10 working days, subject to weather. **All excavation work must be completed by November 1, 2024**



## 10.0 MAINTENANCE

The Contractor shall guarantee the work for a period of one year from the Date of Substantial Performance thereof from deficiencies that, in the opinion of the Owner, were caused by faulty workmanship or materials. The Contractor shall, at his own expense, make good and repair deficiencies and every part thereof, all to the satisfaction of the Owner. Should the Contractor for any cause fail to do so, then the Owner may do so and employ such other person or persons as the Owner may deem proper to make such repairs or do such work, and the whole costs, charges and expenses so incurred may be deducted from any amount due to the Contractor or may be collected otherwise by the Owner from the Contractor.

The decision of the Owner shall be final as to the necessity of repairs of any work required to be done under the provisions of this clause or any other clause or clauses, in the amounts expended therefore.

## 11.0 HOLDBACK

Progress Payments (if required) shall be subject to a holdback of ten percent (10%) of the price of the services and materials which have been supplied in accordance with the requirements of the Construction Lien Act.

In addition to the ten percent (10%) holdback, the Owner may withhold a sufficient and reasonable sum, as determined by the ERCA Project Manager until uncompleted work is finished or deficiencies in any part of the constructed works are rectified.

Provided that no liens are registered against the project, holdback monies will be released in accordance with the Construction Lien Act and after the following required documentation has been submitted by the Contractor.

- a) Certificate of Clearance from the Workplace Safety and Insurance Board.

## 12.0 ENVIRONMENTAL PROTECTION

The Contractor shall clean all construction vehicles and equipment prior to entering the site in accordance with "Clean Equipment" protocols and checklists (for detailed information on this please refer to [https://www.ontarioinvasiveplants.ca/wp-content/uploads/2016/07/Clean-Equipment-Protocol\\_June2016\\_D3\\_WEB-1.pdf](https://www.ontarioinvasiveplants.ca/wp-content/uploads/2016/07/Clean-Equipment-Protocol_June2016_D3_WEB-1.pdf)), in order to prevent the introduction of any foreign soils and/or plant materials (including seeds, stems, roots, plant fragments, etc.), to reduce the risk of potentially spreading invasive species into the project worksite (e.g. *Phragmites australis*).

The Contractor shall maintain under this Contract any temporary erosion, sediment and pollution control features installed.

The Contractor shall control emissions from equipment and plant to local authorities' emission requirements.

The Contractor shall abide by local noise By-Laws for the duration of the Contract.

The Contractor shall not allow any debris, fill or other foreign matter to enter into the local drainage features (i.e. drains, ditches, swales, etc.).

The Contractor shall not bury rubbish and waste materials on site unless approved by the Owner and all applicable approving authorities. The site shall be maintained free of accumulated waste and rubbish. All waste materials should be disposed of in a legal manner at a site approved by all local approving

authorities and the Owner.

Spills of deleterious substances into waterways and on land shall be immediately contained by the Contractor and the Contractor shall cleanup in accordance with Provincial regulatory requirements. All spills shall be reported to the Ontario Spills Action Centre (1-800-268-6060), local authorities having jurisdiction and the Owner. To reduce the risk of fuel entering the waterway, refueling of machinery must take place a safe distance from the waterway. Any equipment working in or near the water must be free from any leaks of oil, grease or other contaminates prior to being brought to the site.

The Contractor shall note the Owner will not take any responsibility for spills, this shall be the sole responsibility of the Contractor.

### **13.0 WHMIS**

The Contractor shall comply with the requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage and disposal of hazardous materials and regarding labelling and the provision of material safety data sheets acceptable to Labour Canada.

### **14.0 DRAINAGE AND SEDIMENT CONTROL**

The Contractor shall not pump water containing suspended materials into waterways, sewers or drainage systems. The Contractor shall be solely responsible for the control, disposal or runoff of water containing suspended materials or other harmful substances in accordance with OPSS 805, and local authority requirements and shall prevent sediment from entering the watercourse to the maximum extent possible. The Contractor shall provide temporary drainage and pumping as necessary to keep excavations and site free from water.

The Contractor shall, at his own expense provide temporary measures as required to maintain the flow of all drains, ditches and water courses which may be encountered during the progress of the work.

### **15.0 PROTECTION OF VEGETATION**

The Contractor shall exercise the utmost caution to ensure that existing trees, shrubs and plants on-site and adjacent properties are not damaged or disturbed unless noted otherwise in this Contract. The Contractor shall restrict vegetation removal to areas indicated on the Contract Drawings and/or designated on-site by ERCA Biologist. No trees or shrubs shall be removed without the approval of the Owner.

### **16.0 TRAFFIC CONTROL**

The Contractor shall control traffic in accordance with the Ontario Traffic Manual (Book 7 - Temporary Conditions) as published by the Ministry of Transportation.

The Contractor, at his own expense, shall erect and maintain any signs required for the proper notification and protection of the public travelling the haul route or passing by the site access. The Contractor shall save harmless the Owner from any legal actions resulting from any negligence or carelessness on the part of the Contractor.

### **17.0 RESPONSIBILITY FOR DAMAGES TO UTILITIES**

The Contractor shall verify the existence and location of all underground utilities prior to commencing construction. It is the Contractor's sole responsibility to coordinate and obtain field locates for all utilities (if any).

The locations of any underground and overhead utilities shown on the Contract Drawings are for the Owner's use only and are not guaranteed by either the Owner or the Engineer. It is the Contractor's responsibility to contact Utility Companies for further information in regard to these utilities, and to exercise the necessary care in construction operations or take other precautions to safeguard the Utility Company from damage. The cost of all damages to utilities both overhead and underground caused by the Contractor's operations shall be borne solely by the Contractor.

# 217 MERSEA ROAD 19, LEAMINGTON WETLAND CONSTRUCTION

## SPECIAL PROVISIONS

### 1.0 GENERAL

The general intent of this project is to construct the new wetland and berm at the location and to the size and grades indicated in the Contract Drawings. The work to be completed includes but is not necessarily limited to the excavation of the wetland, berm and grading of the fill area(s).

The Contractor shall complete the works and supply all materials in accordance with the appropriate OPSS Standard Specifications, the Schedule of Items and Prices, the Contract Drawings and the following Special Provisions.

The Contractor shall take all necessary precautions to ensure that disturbance to the existing flora and fauna is minimized by restricting construction activity to the designated construction areas.

### 2.0 SCOPE OF WORK

#### 2.1 Silt Fence Barrier

This work shall consist of all labour, equipment and material required to supply, install and maintain a silt fence barrier around the perimeter of the working area prior to construction. The silt fence shall be installed on the south side of the excavation/fill areas, adjacent to Hillman Creek, as indicated on the contract drawings. The silt fence barrier shall be constructed in accordance with OPSD 219.110.

#### 2.2 Strip Topsoil

This work shall consist of all labour, equipment and material required to strip the topsoil from the area of the new wetland and berm construction and to stockpile the material on-site for reuse (see contract drawings for approximate area of new wetland and impoundment berm). The Contractor shall note that no topsoil be removed from the site unless directed by the Owner.

#### 2.3 Excavate New Wetland & Construct Berm

This work shall consist of all labour, equipment and materials required to excavate the new wetland and construct a berm (to be key trenched in with clay soil) at the location, and to the slopes and depths indicated in the attached drawings. This may also include small habitat features as directed by the ERCA Biologist on site (i.e. including “benching” and/or excavation of 2 to 3 “amphibian pockets” which are holes – roughly 1m x 1m – randomly scattered throughout bottom of wetland cell).

The Contractor shall note that any excess, excavated material which is not used in the impoundment berm construction is to remain on-site and shall be placed and graded into low, contoured berms (maximum height of approximately 1.5 m) near the wetland, and at location(s) designated for excess spoils placement, to be identified on-site by the ERCA Biologist, as necessary.

Additionally, any excess spoils shall be placed and graded such that surface drainage is permitted to flow towards and into the new wetland cell.

## Layout and Measurement

The location of the proposed wetland as indicated in the Contract Drawings is approximate. The location shall be flagged and confirmed on-site by ERCA staff prior to the start of construction.

It is the Contractor's full responsibility to construct the new wetland to the specified lines and grades. **The Contractor shall inform ERCA staff sufficiently in advance (minimum of 24 hours, during ERCA's regular business hours Monday to Friday 8:30am-4pm) to allow for measurement of the new wetland area before restoration works begin.** Any works not constructed to the specified lines and grades shall be corrected to the satisfaction of ERCA and at the expense of the Contractor.

### 2.4 Final Grade

This work shall include all labour, equipment and materials required to final grade and compact all soil excavated during the construction of the new wetland and berm in preparation for placement of topsoil. The Contractor shall note that this item includes shaping and grading of any excess spoils in preparation for placement of topsoil.

### 2.5 Place and Grade Topsoil

This work shall include all labour, equipment and materials required to place and final grade topsoil (from the on-site stockpile) over the newly constructed berm and fill areas and all other areas disturbed during construction. The Contractor shall note that the intent of this item is to final grade the topsoil so that it can be seeded by ERCA (i.e. no large chunks of soil must be left).

### 2.6 Plug Existing Field Tiles

This work shall consist of all labour, equipment and material required to plug all field drainage tiles encountered during the excavation of the new wetland (provisional item). The plug shall consist of concrete for a length of 300mm into the tile. All field tiles located within the wetland excavation area shall be dug back a minimum of 5 metres from the edges of the excavated wetland. The intent of this item is to prevent the existing tiles from draining the new wetland.

### 2.7 Restore Site Access

This work shall include all labour, equipment and materials required to restore the site access to its original condition including all areas disturbed and damaged during construction. The Contractor shall refer to Item 2.0 of the Information to Bidders regarding examination of site.

The Contractor shall note that the approved site access to the new wetland site is shown on the Site Access Map (Appendix 2). Entrance to the site by construction traffic from any point other than the approved access is prohibited. Any areas disturbed and damaged beyond the approved access shall be repaired by the Contractor at his own expense.

**At the commencement of the project the Contractor may not enter and/or mobilize equipment onto the project site without 24 hours notice** during regular business working hours (Monday to Friday between 8:30am-4:00pm), as **permissions for initial site access must be coordinated by ERCA with Caldwell First Nation staff.**

## **3.0 PAYMENT**

Payment shall be made at the unit price or lump sum bid indicated in the Schedule of Items and Prices submitted by the Contractor and shall be compensation in full for all labour, equipment and material required to carry out this work as outlined above and shown on the Contract Drawings.

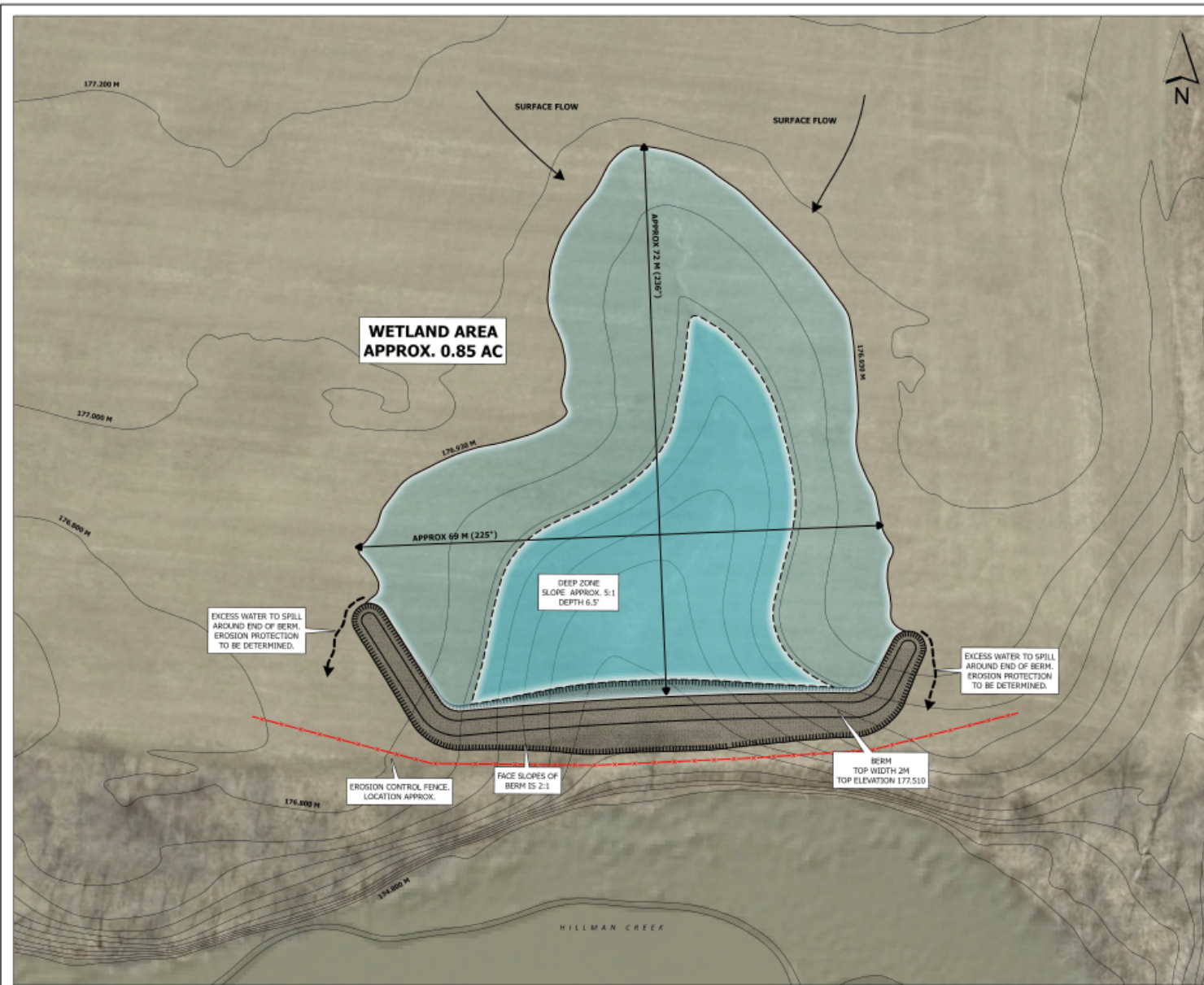
# **APPENDIX 1**

## **CONTRACT DRAWINGS**

**1.1 Wetland Design Drawing**

**1.2 Approved Site Access Map**

**1.3 Silt Fence Barrier Drawing (OPSD 219.110)**



**Proposed Wetland Concept  
Caldwell First Nation  
217 Mersea Rd 19, LEAMINGTON**

Legend	
	Boundary of Proposed Wetland
	Deep Zone Area Symbol
	Location of Proposed Berm
	Erosion Control Fence
	Area of Regulation

**WETLAND NOTES:**  
APPROX AREA OF WETLAND FEATURE 0.85 AC.  
APPROX ELEVATION OF WATER 176.94 M.

**DEEP ZONE NOTES:**  
APPROX AREA 0.33 AC.  
APPROX DEPTH 6.5'  
APPROX EQUAL SLOPE 5:1

**BERM NOTES:**  
BERM TOP WIDTH 2.0M  
BERM TOP ELEVATION 177.54 M. (2' FREEBOARD FROM WATERLEVEL)  
BERM FACE SLOPES 3:1  
VOLUME OF BERM MATERIAL APPROXIMATELY 500 CUBIC METRES.  
BERM TO BE KEY TRENCHED WITH HEAVY CLAY MATERIAL.

**OVERFLOW SPILLWAY NOTES:**  
EXCESS WATER TO SPILL AROUND END OF BERM. EROSION PROTECTION TO BE DETERMINED.

**CONTOUR NOTES:**  
CONTOUR INTERVAL 0.20 M.

**ELEVATION DATA NOTES:**  
VERTICAL DATUM CGVD88 2L.

CONTOURS AND ELEVATIONS GENERATED BY ERCA BASED ON CONVERTED HANCOCK COUNTY 1:50,000 DIGITAL TERRAIN MODEL (DTM) MODEL. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENSE - 2014/001.  
MAPSILLIAN DATA HAS PRODUCED TO MEET ACCURACY STANDARDS OF A VERIFIED VERTICAL ACCURACY OF +/- 14.1CM AT THE 90% PROBABILITY.



1:250

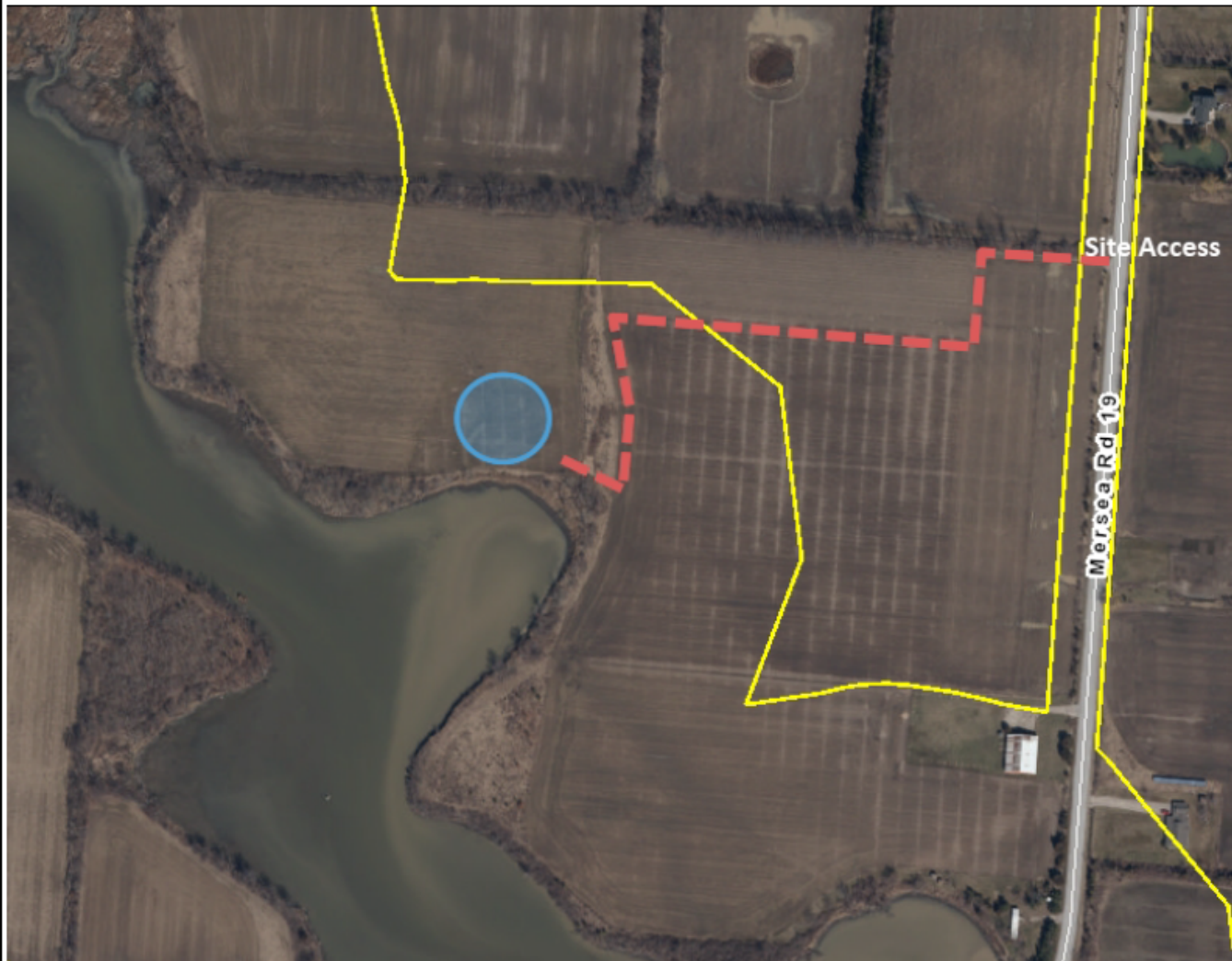


# Caldwell First Nation Wetland Project - Approved Site Access Map



## Legend

Limit of Regulated Area



## Location



## Notes

Notes

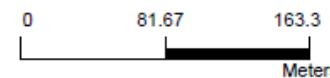


**THIS MAP IS INTENDED FOR INTERNAL USE ONLY.**

All data copyright 2024. Data provided by ERCA or its partners under license.

Data herein is provided on an 'as is' basis and is for visual reference only. Map not to be used for navigation or plan of survey.

Aerial photography copyright the City of Windsor/County of Essex/Ontario Ministry of Natural Resources and Forestry, Queen's Printer for Ontario/ERCA.

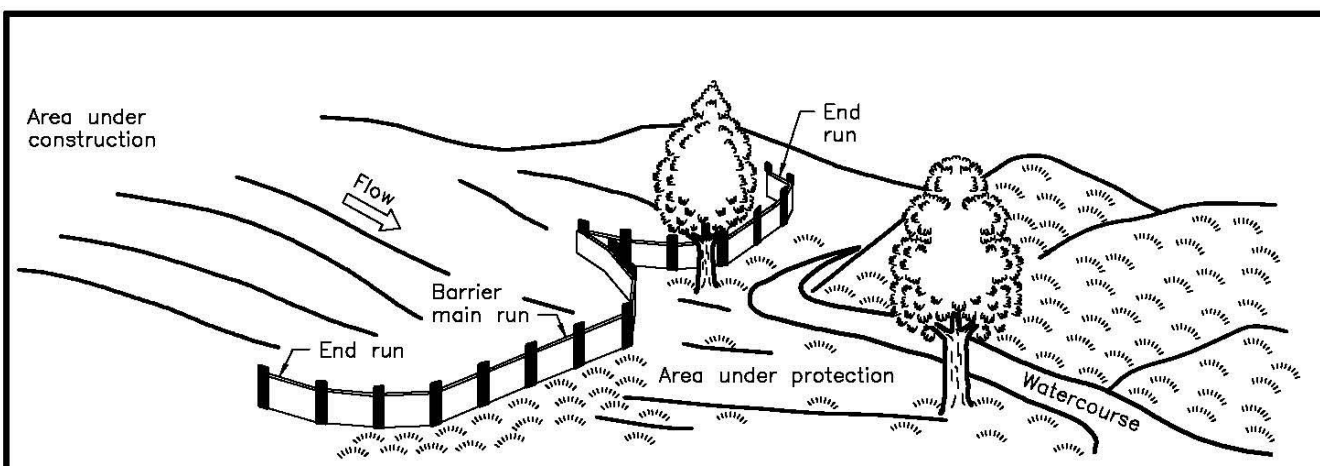


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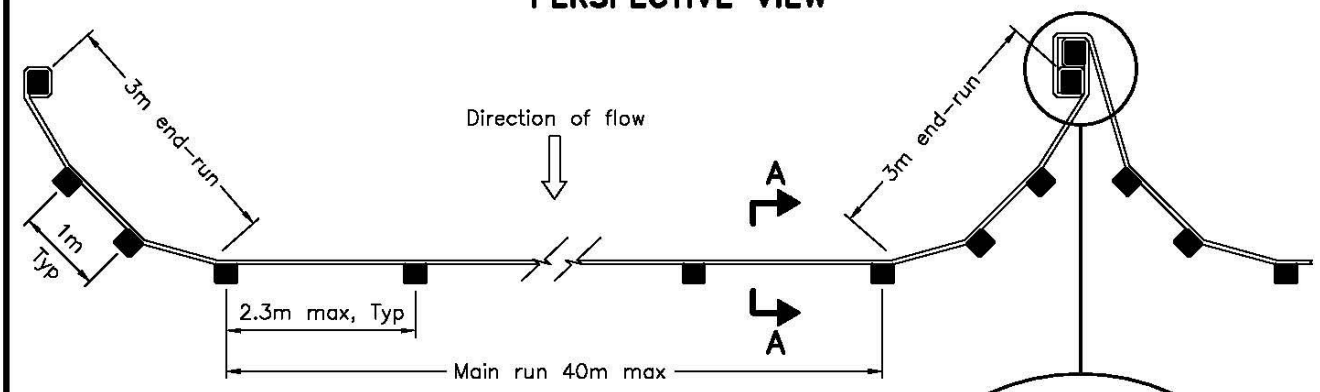


9/11/2024

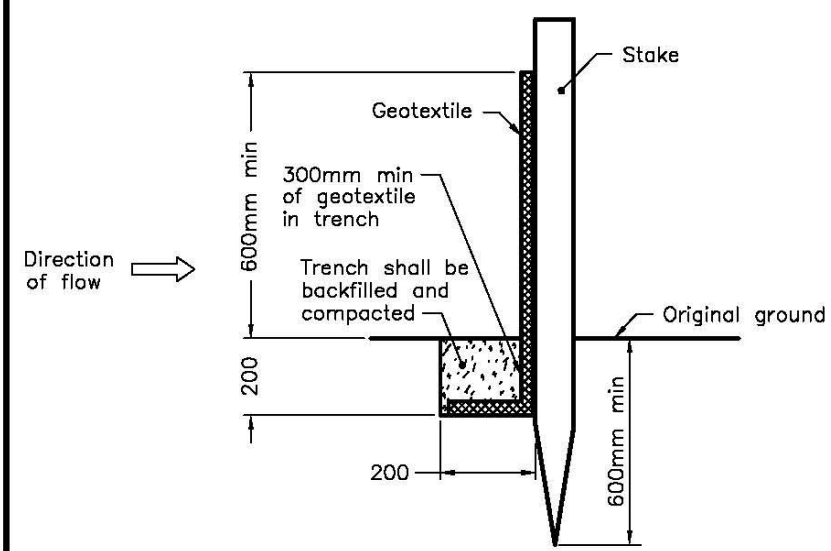




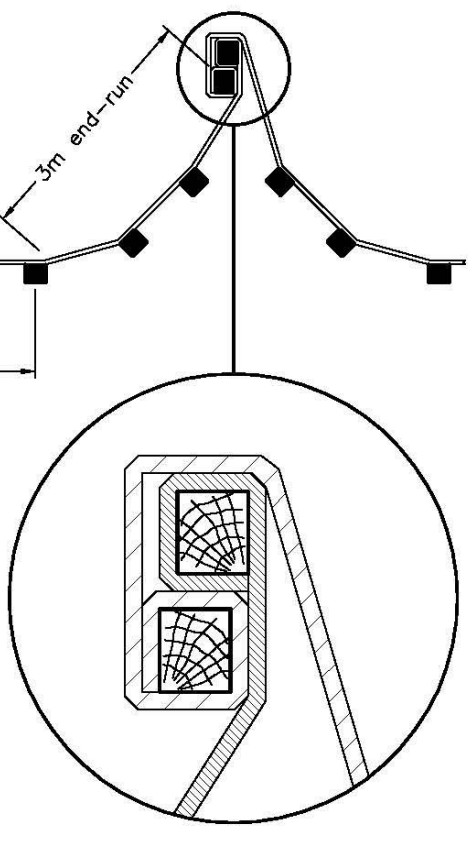
**PERSPECTIVE VIEW**



**PLAN**



**SECTION A-A**



**JOINT DETAIL**

**NOTE:**  
 A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2015	Rev 2	
<b>LIGHT-DUTY          SILT FENCE BARRIER</b>	_____ _____		
<b>OPSD 219.110</b>			

**SPECIFICATION  
FOR  
PARKING LOT COATING  
MAIDSTONE CONSERVATION AREA**

**PREPARED FOR:**

ESSEX REGION CONSERVATION AUTHORITY  
360 FAIRVIEW AVE W., ESSEX, ON

Project No. 224149  
September 10, 2024

**PREPARED BY:**



**CHALL. ENG. Corporation, Consulting Engineers  
12222 Tecumseh Road East, 2<sup>nd</sup> Floor  
Windsor, Ontario, N8N 1L9  
Tel.: (519) 979-7333  
Att.: Jennifer Di Domenico, P.Eng. and Troy Humber, B.Tech.**

**DIVISION 00 – BIDDING REQUIREMENTS, CONTRACT FORMS AND CONDITIONS  
OF THE CONTRACT**

Project No. 224149

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**DIVISION 00 – BIDDING REQUIREMENTS, CONTRACT FORMS AND CONDITIONS OF THE  
CONTRACT**

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00 21 13	Information to Bidders	1 of 12

**DIVISION 01 – GENERAL REQUIREMENTS**

01 11 00	Summary of Work	1 of 3
01 33 00	Submittal Procedures	1 of 3
01 56 00	Temporary Works	1 of 2

**DIVISION 31 – EARTHWORK**

31 23 00	Excavation and Fill	1 to 5
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**DIVISION 32 – EXTERIOR IMPROVEMENTS**

32 01 13.02	Flexible Pavement Surface Treatment – Multiple Application	1 to 7
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**LIST OF DRAWINGS**

Cover Sheet / Aerial Plan

S1	Existing Site Plan
S2	Proposed Site Plan and Profile
S3	Pavement Markings

**END OF SECTION**

**DIVISION 00 – BIDDING REQUIREMENTS, CONTRACT FORMS AND CONDITIONS OF THE CONTRACT**

Project No. 224149

SECTION 00 02 00 – FORM OF TENDER

Page 1 of 4

Submitted by Tenderer: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Contact's Phone No.: \_\_\_\_\_ email: \_\_\_\_\_

To (Owner): Essex Region Conservation Authority

For Project: Parking Lot Re-Coating  
Maidstone Conservation Area, Lakeshore, Ontario

Dated: September 10, 2024

General Statement: In accordance with the Contract Documents, including  
Technical Specifications and Drawings

Documents

Prepared by: Chall.Eng. Corporation, Consulting Engineers

No. of Addenda Received: \_\_\_\_\_

We hereby offer to furnish all equipment, labour and material necessary for the proper completion of the above named project, including all prime costs, allowances and Government Sales or other Taxes, as called for in the Technical Specifications, in accordance with the above-mentioned documents as follows:

<b>Tender Price Form – Base Bid</b>				
<b>Item No.</b>	<b>Description of Work</b>	<b>Estimated Quantities</b>		<b>Price</b>
<b>2</b>	<b>General</b>			
2.1	Mobilization, Access and Demobilization	N/A	Lump Sum	\$
2.2	Out of Town Costs	N/A	Lump Sum	\$
2.3	Protection of Property	N/A	Lump Sum	\$
2.4	Site Restoration and Cleaning	N/A	Lump Sum	\$
2.5	Bonding	N/A	Lump Sum	\$
<b>3</b>	<b>Parking Lot Works</b>			
3.1	Coating Works	N/A	Lump Sum	\$
Tender Price (Excluding HST):				
HST (13%):				
<b>TOTAL TENDER PRICE</b> (in lawful money of Canada):				
(Dollars)				
_____				
(cents)				
_____				
(Total Tender Price in Written Form)				

**DIVISION 00 – BIDDING REQUIREMENTS, CONTRACT FORMS AND CONDITIONS OF  
THE CONTRACT**

**2.2 OPTIONAL PRICES**

The Owner may accept any of the optional prices in any order or combination, including all or none,

- (a) the lowest bidder will be determined solely from the base bid, without considering any optional prices,
- (b) optional prices are open for acceptance by the Owner for the same period of time as the base bid price,
- (c) the Work of the Contract and the Contract Price will reflect the optional prices, if any, accepted by the Owner at the time of contract award, and
- (d) acceptance of any optional prices will not affect the base bid contract completion time, unless we have specifically indicated an increase or decrease time, in number of days, on account of a particular alternative.
- (e) Prices shall remain firm for a period of 12 months from bid acceptance.

Item No.	Description of Work	Estimated Quantities		Price
<b>3.2</b>	<b>Optional Price Items</b>			
3.2.1	Expand parking lot	N/A	Lump Sum	\$

**2.3 UNIT PRICES**

The following are Unit Prices for the work listed hereunder. The following prices shall include all labour, material, overhead and profit and taxes except for HST to carry out the work. The contractor agrees the following Unit Prices, which if accepted by the Owner will be Added to or Subtracted from the Stipulated Contract Price. The quantities listed in the Unit Prices are estimated and may vary. The extensions of unit prices and additions of unit price extensions will be checked by the Engineer and where arithmetical errors are discovered, the unit prices will be considered as representing our intentions and unit price extensions and the total amount entered for the unit price component of the Work will be corrected accordingly. Prices shall remain firm during the work.

Item No.	Description of Work	Estimated Quantities		Price
<b>3.3</b>	<b>Unit Price Items</b>			
3.3.1.1	Excavate and remove 1 additional cubic yard of soils	N/A	Lump Sum	\$
3.3.1.2	Supply and place 1 additional cubic yard of granular A material	N/A	Lump Sum	\$

In submitting this Tender, the Tenderer recognizes the right of the Owner to accept or reject any or all Tenders.

If this Tender is accepted and the Contract is awarded to us, we, the undersigned, hereby undertake to perform this Contract satisfactorily and guarantee the full performance of the Contract.

**DIVISION 00 – BIDDING REQUIREMENTS, CONTRACT FORMS AND CONDITIONS OF THE CONTRACT**

We further agree to leave this Tender open for acceptance, for a period of sixty (60) days from the closing date of this Tender.

The following labour rates shall be used for additions or deletions to the Contract Price. These labour rates do not include Harmonized Sales Tax (HST).

NO.	DESCRIPTION	LABOUR / MATERIAL RATE
1	Foreman	\$ /hr
2	Journeyman	\$ /hr
3	Labourer	\$ /hr
4	Project Manager	\$ /hr
5	Other	\$ /hr
7	Materials	20%

**SUBCONTRACTORS AND SUPPLIERS**

1. The undersigned agrees that the following Subcontractors and/or Suppliers will be employed on the project.
2. Following is a list of Subcontractors that we propose to use for the performance of the identified portions of the Work.
3. Only one (1) Subcontractor shall be listed for each identified portion of the Work. Work to be performed by Contractor is indicated by the words "BY OWN FORCES".
4. We agree that changes to this list will not be allowed without the express written permission of the Owner.
5. We acknowledge that Subcontractors on this list may be so notified by the Owner.

Excavation:

Coating Supplier:

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**DIVISION 00 – BIDDING REQUIREMENTS, CONTRACT FORMS AND CONDITIONS OF THE CONTRACT**

Project No. 224149

SECTION 00 02 00 – FORM OF TENDER

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**ACCEPTANCE AND CONTRACT**

If awarded the contract for this work within Sixty (60) calendar days or less of the date set for receipt of Tenders, the undersigned agrees:

To commence the work by: \_\_\_\_\_

To complete the work by: \_\_\_\_\_

No. of full time Site Personnel: \_\_\_\_\_

Forman Name / Years of Experience: \_\_\_\_\_

**LEGAL NAME OF COMPANY:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

**POSTAL CODE:** \_\_\_\_\_

**TELEPHONE:** \_\_\_\_\_

**FAX NUMBER:** \_\_\_\_\_

**EMAIL ADDRESS:** \_\_\_\_\_

**SIGNATURE OF AUTHOURIZED OFFICER(S):** \_\_\_\_\_

**NAME AND POSITION OF SIGNING OFFICER(S):** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

In the case of a Limited Company, the Company seal shall be affixed to their Tender where the signature of the Signing Officer(s) of the Company appears, as well as the legal and registered name of the company.

**END OF SECTION**

**General****1.1 RELATED SECTIONS**

- .1 Section 00 02 00 – Form of Tender

**1.2 OWNER**

- .1 Owner shall mean the Essex Region Conservation Authority (ERCA).

**1.3 ENGINEER**

- .1 Engineer shall mean Chall.Eng. Corporation, Consulting Engineers (CEC).

**1.4 CONTRACTOR (OR TENDERER)**

- .1 Contractor (or Tenderer) shall mean the Corporation as noted on the Form of Tender.

**1.5 PROJECT DESCRIPTION**

- .1 The Work is identified as Parking Lot Coating, located at Maidstone Conservation Area, Lakeshore, Ontario, also known as Project Number 224149, as prepared by Chall.Eng. Corporation, Consulting Engineers.
- .2 In general, the scope of work includes, but is not limited to, application of chip seal coating.

**1.6 TENDER DOCUMENTS**

- .1 The Tender Documents for this project shall include all Technical Specifications and Drawings as listed in Section 00 00 00 Table of Contents.
- .2 In the event of any inconsistency or conflict in the provisions of the Technical Specifications and the Drawings, the Technical Specifications, then the Drawings shall take precedence.
- .3 The Owner does not assume any responsibility for the correctness, accuracy or completeness of the Drawings with respect to the location of existing concealed conditions or other objects (man-made or natural), and should the Drawings be found to be incorrect or incomplete, the Contractor shall not have any claim on this account prior to commencing with the work. Prior to commencing with the work, the Contractor shall confirm the information and dimensions as shown on the Drawings and as noted in the Scope of Work. Notify the Engineer immediately of any discrepancies or errors.

**1.7 GENERAL REQUIREMENTS**

- .1 The Contractor shall furnish all access, labour, equipment and materials necessary to complete all work as specified herein.
- .2 All labour shall be performed by competent works and to reasonable standards of workmanship.
- .3 All materials furnished under this Contract shall be new and undamaged, and must satisfy all Codes or Regulations.
- .4 Substitute materials shall only be used if approved by the Owner and Engineer, and Tenderers shall not base their Tenders on substitute materials unless noted in an Addendum. The submission process for substitutions is noted in Section 3.2.



## DIVISION 01 – GENERAL

- .5 This Tender is for a Stipulated Price Contract CCDC No. 2 (Latest Edition).

### Tender Submission

#### 1.8 REQUIREMENTS

- .1 Tenders shall be submitted in accordance with Table 1 – Summary of Submission Requirements.

*Table 1 – Summary of Submission Requirements*

Item	Requirements
Submission items:	Upload one (1) digital copy in Adobe PDF readable format of the following: <ol style="list-style-type: none"><li>Item 2.3 Mandatory Requirements;</li><li>Section 00 02 00 Form of Tender</li></ol>
Submission deadline:	<b>September 24, 2024, until 3:00:00 p.m., local time</b>
Submission location:	Email responses to: <ol style="list-style-type: none"><li>Engineer: Ms. Jennifer Di Domenico, of Chall.Eng. Corporation at <a href="mailto:jdidomenico@cec14.com">jdidomenico@cec14.com</a>; and</li><li>Owner's Representative: Mr. Kevin Money, of ERCA at <a href="mailto:kmoney@erca.org">kmoney@erca.org</a>.</li></ol>

- .2 Failure to comply with the above noted submission requirements may result, at the sole discretion of the Owner, in disqualification of the Tender Submission.
- .3 Late Tenders, or Tenders submitted to the location other than that specified, will not be accepted.
- .4 By submitting a Tender, the Tenderer agrees to every term, provision and condition set out in these Instructions to Bidders.

#### 1.9 AMENDMENTS/WITHDRAWAL OF TENDER SUBMISSIONS

- .1 At any time prior to the Submission Deadline, a Contractor may withdraw and amend its Tender Submission. A Contractor wishing to amend its Tender Submission shall withdraw its initial Tender Submission and replace it with a complete, revised Tender Submission prior to the Submission Deadline. Should a Contractor submit more than one amendment for the same purpose, the one bearing the later date/time confirmation will be evaluated unless it is received after the Submission Deadline.
- .2 A Tenderer may withdraw its Tender at any time prior to the official closing time by submitting a letter rejecting its bid and bearing its signature, to the place of closing specified.

#### 1.10 MANDATORY REQUIREMENTS

- .1 The Owner reserves the right to determine if each Contractor meets the mandatory requirements.
- .2 Each Tender shall include a completed Form of Tender, an Agreement to Bond, WSIB Clearance and Insurances.
- .1 Form of Tender
- .1 The prices as tendered shall include the supply of all access, labour, materials and equipment, including all incidentals such as insurances, to complete the works in this Tender to the satisfaction of the Owner.

**DIVISION 01 – GENERAL**

- .2 If a Tenderer has omitted to enter a price for an item of work set out in the Form of Tender, the Tenderer shall, unless specifically stated otherwise in the Tender, be deemed to have allowed elsewhere in the Form of Tender for the cost of said item of work and, unless otherwise agreed to by the Owner, no increase shall be made in the Form of Tender on account of such omission.
- .3 All Provincial sales taxes and import duties shall be included in the Total Tender Price.
- .4 The cost of any works, equipment and/or labour not specifically noted in the Scope of Work that are required to complete the works properly, and the cost of all incidentals, such as insurances, overhead, profit, coordination, etc. that are noted in these Technical Specifications and on the Drawings, shall be included in the Total Tender Price. There will be no additional payment for incidentals.
- .2 Agreement to Bond
  - .1 The Contractor shall submit an Agreement to Bond issued by a bonding company licensed in the Province of Ontario, in a form acceptable to the Owner, obliging the bonding company to issue Performance and Labour and Material Payment Bonds.
  - .2 The cost of the bonds shall be included in the Form of Tender.
- .3 WSIB Clearance
  - .1 The Contractor shall submit written evidence to the Owner that they are covered under the Worker's Compensation Act.
- .4 Insurances
  - .1 The Contractor shall submit written evidence to the Owner that they carry liability and property damages of Five Million Dollars (\$5,000,000) insurance.
  - .2 The Owner, the Engineer, and all parties listed in Section 5.2.2 are to be named as additionally insured.
  - .3 The insurance policy shall include a Cross Liability clause.
  - .4 Standard Non-Owned and Owner's Form Automobile Liability Insurance shall have a minimum of \$2,000,000 PLPD.
  - .5 All Risks Builder's Insurance, Liability and Fire Insurance coverage shall be for the full value of the Total Tender Price.
  - .6 The policy shall not exclude any peril that can reasonably be expected in completing the proposed work.

**1.11 BONDS**

- .1 Performance Bond
  - .1 A Performance Bond in the amount of Fifty Percent (50%) of the Total Tender Price shall be provided by the successful Contractor.
  - .2 The Performance Bond issued by the Surety of the Tenderer's choice shall become part of the Agreement or Contract before the Contract is awarded.
- .2 Labour and Material Payment Bond
  - .1 A Labour and Material Payment Bond in the amount of Fifty Percent (50%) of the Total Tender Price shall be provided by the successful Contractor.

## DIVISION 01 – GENERAL

- .2 A Labour and Material Payment Bond issued by the Surety of the Tenderer's choice shall become part of the Agreement or Contract before the Contract is awarded.

### Access and Inquiries

#### 1.12 PRE TENDER MEETING

- .1 A brief Non-Mandatory Pre Tender Site Meeting will be held on September 17, 2024, at 1:00 pm. Contractors are requested to park in the parking lot at Maidstone Conservation Area, Lakeshore, Windsor.
- .2 Before submitting its Tender, each Tenderer shall be held responsible to have examined the premises and satisfied themselves as to the existing conditions under which they will be obliged to operating in performing the work. No extras will be allowed for the failure to make the examination.

#### 1.13 SUBSTITUTIONS

- .1 The Tender Price shall be based upon materials and equipment specified or approved equivalents.
- .2 Contractors and suppliers wishing to obtain approval for equipment and/or material items as equivalent to those specified shall submit a minimum of five (5) days prior to the Tender Closing Date, complete with the following:
  - .1 Product name and manufacturer's name, address, telephone numbers, and web site.
  - .2 Reason(s) for proposing the substitution.
  - .3 A statement verifying that the substitution will not affect the Contract Price and Contract Time.
  - .4 A statement verifying that the substitution will not affect the performance or warranty of other parts of the Work.
  - .5 Manufacturer's product literature for the substitution, including material descriptions, compliance with applicable codes and reference standards, performance and test data, compatibility with contiguous materials and systems, and environmental considerations.
  - .6 A summarized comparison of the physical properties and performance characteristics of the specified product and the substitution, with any significant variations clearly highlighted.
- .3 Contractors will be notified of acceptable substitutions via email, a minimum of two (2) days prior to the Tender Closing Date.
- .4 Deviations from Specifications must be stated in writing at the time of submission.

#### 1.14 QUESTIONS

- .1 It is the responsibility of the Tenderer to clarify any details in question and not mentioned in this Tender or shown on the accompanying drawings before submitting their Tender. No allowance will be made for the Tenderer not being familiar with this Tender.
- .2 Any inquiries or questions concerning this project should be directed, by email, to Ms. Jennifer Di Domenico, of Chall.Eng. Corporation, Consulting Engineers, by email at [jdidomenico@cec14.com](mailto:jdidomenico@cec14.com). Telephone inquiries will not be accepted.
- .3 If the Engineer considers a question to be relevant to all Contractors, the Engineer will provide both the question and the answer in the form of an addendum.

**DIVISION 01 – GENERAL**

- .4 Any oral or written response provided by anyone other than the Engineer in connection with this Tender will neither be binding on the Owner, nor will it change, modify, amend or waive the requirements of this Tender in any way.
- .5 The last day for questions is September 19, 2024, at 12:00 pm. Any questions submitted after this time will not be answered.

**1.15 ADDENDA**

- .1 All addenda will be issued by email only and circulated to all Tenderers.
- .2 If any addenda are issued, the Tenderer shall indicate the number of addenda that the Tenderer received in the appropriate blank space on the Form of Tender. If no addenda are received, the Tenderer shall indicate zero.
- .3 The Owner reserves the right to reject any Tender Submission that fails to identify addenda issued against the Tender Documents.
- .4 Addenda items shall govern and supersede any items in the Technical Specifications and the Drawings.
- .5 The last addendum will be issued no later than September 20, 2024, at 2:00 pm.

**Tender Award**

**1.16 ACCEPTANCE/REJECTION OF TENDERS**

- .1 Tenders shall remain open for acceptance for a period of sixty (60) calendar days commencing on and including the day on which the Tenders are received.
- .2 The Owner reserves the right to accept or reject any or all Tenders and to waive or not waive any informalities as it may deem advantageous.
- .3 The lowest or any Tender may not be accepted.
- .4 The Form of Tender and any Mandatory Requirements shall be legible in ink or typewritten.
- .5 Tender Submissions which are unsigned, improperly signed or sealed, incomplete, unbalanced, conditional or obscure, or which contain erasures or alterations not properly initialed, or irregularities of any kind, may be rejected.
- .6 The Owner may, as permitted by the Tender Documents, or with the agreement of any party with whom it has entered into, or proposes to enter into, a Contract, delete, add or change items in the Technical Specifications and Drawings at any time before or after Tender acceptance.
- .7 A Tender is considered as accepted by the Owner upon receipt of a Letter of Authorization, with a CCDC No. 2 Stipulated Sum Contract to follow to the Tenderer.

**Pre-Construction**

**1.17 BUILDING PERMITS AND INSPECTIONS**

- .1 A Building Permit is not required to be obtained for these works.

## DIVISION 01 – GENERAL

- .2 The Contractor shall secure and pay for all permits, inspections, indemnity fees and certifications of Work as required by the laws and regulations in effect in the locality in which the Work is to be performed.
- .3 The Contractor shall deliver to the Engineer and Owner, a copy of the Certificates of Inspection.

### 1.18 COMMENCEMENT AND COMPLETION

- .1 The Contractor shall commence the Work by September 30, 2024 and be substantially complete by November 15, 2024.
- .2 Prior to commencing the Works, the Contractor shall submit and obtain approval from the Owner for the following documents:
  - .1 Notice of Project – Ministry of Labour;
  - .2 Insurances, which name the Essex Region Conservation Authority as insured, and Chall.Eng. Corporation, Consulting Engineers, as additionally insured;
  - .3 Bonds – Performance, Labour and Material Payment Bonds;
  - .4 Project Schedule;
  - .5 WSIB Certificate of Clearance;
  - .6 CCDC No. 2 Contract signed and sealed;
  - .7 Schedule of Values; and
  - .8 Manufacturer's Technical Information as noted in the Technical Specifications or on the Drawings.
- .3 Should the Contractor not complete the Works within the time frame as specified, the Owner may proceed with the work using its own forces or hire or employ such labour, firms, materials, and/or equipment as is necessary to complete the work and charge all costs so incurred in excess of the Contract Price, against the Contractor or recover in a court of competent jurisdiction as a debt due to the Owner.

### Contract Modification

### 1.19 CHANGE ORDER PROCEDURES

- .1 Upon issuance by the Engineer to the Contractor of a proposed change in the Work, and unless otherwise requested in the proposed change or unless otherwise agreed:
  - .1 Submit to the Engineer a fixed price quotation for the proposed change in the Work within 5 days after receipt of the proposed change in the Work.
  - .2 Include in the quotation the increase or decrease to the Contract Time, if any, for the proposed change, stated in number of days.
  - .3 Include in the quotation the number of days for which the quotation is valid.
- .2 The quotation will be evaluated by the Engineer and the Owner and, if accepted by the Owner, be documented in the form of a signed Change Order.
- .3 Where there is to be a valuation of changes in the work and lump sum or units prices cannot be agreed upon, the cost and percentages fee will be determined as the total of the following:

## DIVISION 01 – GENERAL

- .1 Actual cost of labour, including such items as Work Place and Insurance Board Clearance Certificate and Unemployment Insurance or labour cost based on agreed upon schedule of rates;
- .2 Actual cost of materials to be incorporated into the Work, including such items as freight and taxes;
- .3 For Work done by the Contractor, an amount equal to 10% of the totals from subsections (.1) and (.2) above, which shall constitute overhead (5%) and profit (5%) of the Contractor, unless subsection (.1) is based on the schedule of rates in which case no surcharge will apply on the latter;
- .4 For Work done by Sub-Contractors, an amount equal to 15% of the totals from subsections (.1) and (.2) above, which shall constitute overhead (5%) and profit (5% Contractor / 5% Subcontractor) of the Contractor and Sub-Contractors, unless subsection (.1) is based on the schedule of rates or Lump Sum changed by Sub-Contractor in which case only 15% will apply to the latter;
- .5 Rental of equipment and plant having a new value of greater than \$300; and
- .6 Reports shall be submitted daily in writing indicating the total chargeable quantities of labour, material and equipment for certification by the Engineer.

### 1.20 CHANGE DIRECTIVE PROCEDURES

- .1 When proceeding with a change in the Work under a Change Directive, keep accurate records of daily time sheets for labour and construction equipment, and invoices for product and construction equipment costs. Submit such records to the Engineer weekly, until the Change Order superseding the Change Directive is issued.

### 1.21 SUPPLEMENTAL INSTRUCTIONS

- .1 The Engineer may issue Supplemental Instructions to provide clarifications to the Contract Documents, provide additional information, or make minor variations in the Work not involving adjustment in the Contract Price or Contract Time.
- .2 If the Contractor considers a Supplemental Instruction to require an adjustment in Contract Price or Contract Time, the Contractor shall promptly notify the Engineer and the Owner in writing and shall not proceed with any work related to the Supplemental Instruction pending receipt of a Change Order, a Change Directive, or, in accordance with the dispute resolution provisions of the General Conditions of Contract, a Notice in Writing of a dispute and instructions to proceed.

### Construction Period

#### 1.22 GENERAL

- .1 The Contractor shall note that the Owner will not be responsible for any loss or damage to the site between the time of the calling of the Tenders and the date work is completed. Should there be any substantial or significant changes, the Contractor shall submit a request in writing for any changes to the Contract's work and/or price.
- .2 A competent Foreman, Supervisor or Company Representative shall be on site at all times during the course of the work.

**1.23 MAINTAIN LIFE SAFETY SYSTEMS IN OCCUPIED FACILITIES**

- .1 In an emergency affecting the safety of life or property, the Contractor, without special instruction or authority from the Owner, shall be required to act with speed and remove all of the Contractor's equipment and materials from the path of the emergency.
- .2 Maintain operational life safety systems and public access to exits in occupied areas during all stages of the Work.
- .3 Be responsible for costs incurred by Owner on account of false fire alarms activated as a result of the execution of the Work without adequate precautions.

**1.24 CONSTRUCTION SAFETY**

- .1 The Contractor's attention is direction to the Occupational Health and Safety Act (OHSA) for Construction Projects. All Work shall be carried out in conformance with these Regulations.
- .2 The Contractor shall obtain a Notice of Project from the Ministry of Labour and submit a copy to the Owner, prior to commencing the Work on this site. The Contractor shall be the "Constructor" as defined by the OHSA.

**1.25 WORK RESTRICTIONS**

- .1 The Contractor shall complete work in an orderly manner so as not to interfere with the Owner's and other Contractor's and Owner's Client's use and occupancy of the premises, except for the work area specified.
- .2 The Contractor is advised to co-ordinate their works with the Owner's Representative.
- .3 Comply with smoking / vaping restrictions. Smoking or vaping is not permitted within the work area.
- .4 Ensure building envelope affected by the work is made water-tight prior to adverse weather, and at the end of each day, to prevent interior leakage and damage. Be responsible for damages should they occur in a timely manner.

**1.26 PROTECTION OF WORK AND ACCESS TO THE PROPERTY**

- .1 The Contractor shall continuously maintain adequate protection and security, such as temporary and permanent fencing and barricades, around all work to prevent access to the work area and shall protect the Owner's property from damage or loss arising in connection with the Contractor's work.
- .2 Facilitate maintenance of the grass and landscaping through-out the course of the work, with the Owner's forces.

**1.27 CLEANING AND WASTE MANAGEMENT**

- .1 Comply with applicable regulatory requirements when disposing of waste materials.
- .2 Obtain permits from authorities having jurisdiction and pay disposal fees where required for disposal of waste materials and recyclables. Cost of disposal fees to be included in the Total Tender Price.
- .3 Maintain the work area in an organized manner, clean site of debris daily and dispose to a suitable location off site on a weekly basis.

**1.28 HOURS OF WORK**

- .1 Work may be performed during Monday to Friday between the hours of 8:00 a.m. to 5:00 p.m., with some quiet work being permitted before 8:00 am and until 6:00 p.m., and with some exceptions for additional quiet work.
- .2 Schedule noisy work to avoid disturbance to building occupants between the hours of 9:00 am and 4:30 pm.
- .3 Use power actuated devices only with the Engineer's written permission.
- .4 Provide seventy-two (72) hours written notice to the Engineer and the Owner for work to be performed outside of the designated times, for Owner approval.
- .5 Saturday work may be permitted by the Owner upon request and will be reviewed on an as needed basis, however permission may not necessarily be granted.
- .6 Work will not be permitted on statutory or government / bank holidays.
- .7 Allow for hours of work restrictions in the construction schedule.

**1.29 WORK SEQUENCE**

- .1 The Conservation Area will be closed for the duration of the works. Schedule works to reduce the downtime.

**1.30 EXAMINATION AND PREPARATION**

- .1 Before commencing excavation, drilling or other earthwork, establish or confirm location and extent of all existing underground / embedded utilities and structures in work area and promptly notify Engineer if underground / embedded utilities, structures, or their locations differ from those indicated in the original building drawings.
- .2 Protect, relocate or maintain existing active services. When services are encountered, cap off / protect in a manor approved by authority having jurisdiction. Mark and record locations of capped off / protected services.
- .3 Where work specified in any Technical Specification Section is dependent on the work of another Technical Specification Section or Technical Specification Sections having been properly completed, verify that work is complete and in a condition suitable to receive the subsequent work. Commencement of work of a Technical Specification Section that is dependent on the work of another Technical Specification Section or Technical Specification Sections having been properly completed, means acceptance of the existing conditions.
- .4 Verify that ambient conditions are suitable before commencing the work of any Technical Specification Section and will remain suitable for as long as required for proper setting, curing, or drying of Products used.
- .5 Ensure that substrate surfaces are clean, dimensionally stable, cured and free of contaminants.
- .6 Notify Engineer in writing of unacceptable conditions.



**1.31 MOCK-UPS**

- .1 Prepare mock-ups of Work as specified in the Technical Specifications. If a mock-up location is not indicated in the Technical Specifications or Drawings, locate where directed by Engineer.
- .2 Modify mock-up as required until Engineer approval is obtained.
- .3 Approved mock-ups establish an acceptable standard for the Work.
- .4 Protect mock-ups from damage until the Work they represent is complete.
- .5 Unless otherwise specified in the Technical Specifications, approved mock-ups forming part of the Work may remain as part of the Work.
- .6 Remove mock-ups only when the Work they represent is complete or when otherwise directed by Engineer.

**1.32 EXECUTION**

- .1 Install, erect, or apply Products in strict accordance with manufacturer's instructions.
- .2 Notify Engineer, in writing, of conflicts between Contract Documents and manufacturer's instructions where, in Contractor's opinion, conformance with Contract Documents instead of the manufacturer's instructions may be detrimental to the Work or may jeopardize the manufacturer's warranty.
- .3 Provide manufacturer's representatives with access to the Work at all times. Render assistance and facilities for such access so that manufacturer's representatives may properly perform their responsibilities.
- .4 Consider location of fixtures, outlets, and devices indicated on Drawings as approximate.
- .5 Promptly notify Engineer in writing of conflicting installation requirements for fixtures, outlets, and devices. If requested, indicate proposed locations and obtain approval for actual locations.
- .6 Adequately protect parts of the Work completed and in progress from any kind of damage.

**1.33 REMOVAL OF PARTS/MATERIALS**

- .1 The Contractor shall not remove or relocate any parts/materials on site without the permission of the Owner.
- .2 The Contractor shall be given space for the storage of their materials and equipment on site, but the Owner is not responsible for any loss, damage, and/or theft to the Contractor's equipment and materials.
- .3 Items identified for removal/demolition become the property of the Contractor. The Contractor shall be responsible to clean-up, remove and properly dispose of any excess materials and/or debris related to the Contractor's works to a suitable and proper location off site.

**1.34 DEFICIENCIES**

- .1 At the completion of the Works, conduct an inspection with the Engineer to identify defective, deficient, or incomplete work.
- .2 Prepare a comprehensive and detailed list of deficiencies to be completed or corrected, with an anticipated schedule for completion or correction.

## DIVISION 01 – GENERAL

- .3 Identify the dollar amount associated with each deficiency, with this dollar amount being held back until the deficiency has been completed or corrected to the satisfaction of the Engineer. If the completion or correction of the deficiencies is prolonged, the itemized dollar amount will be subtracted from the Total Tender Price and the Owner will take over in completing the unfinished works.

### 1.35 CLOSE OUT PROCEDURES

- .1 Prior to final payment, undertake the following:
  - .1 Complete or correct all deficiencies.
  - .2 Remove all remaining surplus products, construction equipment, and temporary work.
  - .3 Return all elements and materials of the site that were part of the work area to their pre-construction state and cleanliness following the work. Ensure all walls, roof areas and landscaping are adequately cleaned and/or returned to their pre-construction state or better.
  - .4 Submit all manuals, warranty documentation, and extra materials as required.

### Payment and Holdback

- .2 The Contractor shall submit an invoice monthly, based on the value of the materials supplied and the works completed during that month (HST included) inclusive of the value of any extra works completed and approved in writing, and less the value of any incomplete or deficient works, works deleted and Statutory Holdback of 10%.
- .3 Each proper invoice for payment submitted by the Contractor must be accompanied by the following documents:
  - .1 Schedule of Values, indicating the values, to the date of application for payment, of work performed and products delivered to place of the work;
  - .2 Updated Project Schedule;
  - .3 Current Workplace Safety and Insurance Board Clearance Certificate; and
  - .4 Statutory Declaration for the second and subsequent applications and as prescribed for the holdback release.
- .4 The Owner and Engineer will review the Work to determine a payment amount.
- .5 Payments will be made by the Owner after certification by the Engineer directly to the Contractor within 30 days of the Contractor's submission.
- .6 The payment of the 10% Holdback of the Contract value shall be made in accordance with the Construction Lien Act.
- .7 A payment for the incomplete or deficient works shall be made upon the successful completion of these works to the Owner's satisfaction.

### Warranty

- .8 Unless noted otherwise in the Technical Specifications, the Contractor agrees to warranty the work for a period of two (2) years from the date of acceptance (Substantial Completion) thereof from deficiencies that, in the opinion of the Owner, were caused by faulty workmanship or materials. The Contractor, at his own expense, make good and repair deficiencies and every part thereof, all to the satisfaction of the Owner. Should the Contractor for any cause fail to do so, the Owner may employ

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- such other person or persons as it may be deemed to make such repairs or do such work, as the whole costs, charges and expenses so incurred may be deducted from any amount due to the Contractor or may be collected otherwise by the Owner from the Contractor.
- .9 The decision of the Owner shall be final as to the necessity of repairs of any work required to be done under the provisions of this clause or clauses, in the amounts expended therefore.

***END OF SECTION***

**Scope of Work**

**1.36 SCOPE OF WORK**

- .1 The Work as specified below and as noted on Drawings S1 to S3 shall form the basis of this Contract to carry out the placement of chip seal on the parking lot and drive lane at Maidstone Conservation Area, Lakeshore.

**General**

**1.37 MOBILIZATION, ACCESS, AND DEMOBILIZATION:**

- .1 The Contractor is to provide and undertake the following:
  - .1 Mobilize to the site and provide all access, materials, tools, and equipment necessary to facilitate and carry out works.
  - .2 Maintain the work area in an organized manner, clean site of debris daily and dispose to a suitable location off site on a weekly basis.
  - .3 Provide notice to the Owner two (2) weeks prior to mobilization to facilitate notice to public users of the Conservation Area.
  - .4 Provide access to the Owner and Engineer to inspect the work area prior to work, through-out progress and upon completion.
  - .5 Maintain a full copy of all project documents on site at all times.
  - .6 Provide portable washroom facilities at the site for use by the Contractor's forces at no additional cost to the Owner.
- .2 Payment of this item will be released in equal amounts with the first and last payment.

**1.38 OUT OF TOWN COSTS:**

- .1 Should the Contractor not have an office / shop located within 100 km of Windsor Essex County, the Contractor is to include a breakout of their out of town costs, including labour housing, meals, and travel.
- .2 Payment of this item will be released in equal payments, based on the anticipated schedule and the Contract Value.

**1.39 PROTECTION OF PROPERTY:**

- .1 The Contractor is to provide and undertake the following:
  - .1 Take all measures to protect the site and existing site finishes from damage by the Contractor's work.
  - .2 Erect and maintain fencing, hoarding, dust barriers and construction signage at the perimeter of the work / staging areas as required to undertake the work in accordance with Technical Specification Section 01 56 00 Temporary Works.
  - .3 Post traffic signs and barriers which may include, but are not limited to, snow fencing, plywood, barrels, plastic sheeting and supports, saw horses and caution tape.
  - .4 Advise Owner / Engineer of proposed barriers.

- .2 Payment of this item will be released in equal payments, based on the anticipated schedule and the Contract Value.

**1.40 SITE RESTORATION AND CLEANING:**

- .1 The Contractor is to provide and undertake the following:
  - .1 Prior to mobilization to the site, document site conditions.
  - .2 Take preconstruction photographs and distribute copies to the Owner.
  - .3 Protect adjacent surfaces during construction operations, including equipment and storage of materials.
  - .4 Take all measures possible to protect the existing site features during the construction.
  - .5 Restore the site features to their preconstruction condition or better prior to demobilizing from each suite.
- .2 Payment of this item will be released with the final application for payment.

**1.41 BONDING**

- .1 Arrange, obtain and submit bonds specified in Technical Specification Section 00 21 13 to the Engineer.
- .2 Payment of this item will be released with the first invoice following submission of specified bonds.

**Parking Lot Works**

**1.42 COATING WORKS**

- .1 Provide all access, labour, materials, equipment, site safety, and supervision to place a double layer of chip seal including, but not limited to, the following:
  - .1 Relocate the existing portable washroom to an Owner approved location prior to the start of the works and return the existing portable washroom to its existing location after the coating work is complete.
  - .2 Remove existing bollard at location as shown on Drawing S1 and dispose of to a suitable location offsite.
  - .3 Carefully remove existing parking bumpers and store on site at an Owner approved location prior to the start of the works and reinstall existing parking bumpers at locations shown on Drawing S2 after the coating work is complete. Supply and install two (2) additional concrete parking bumpers to match existing.
  - .4 Excavate soils at locations as shown on Drawing S2 to a depth of 200 mm (8 inches) below the proposed grade to widen the drive lane. Dispose of excavated soils to an Owner approved location on site.
  - .5 Supply, place and compact 200 mm (8 inches) of granular A material in all excavations in accordance with Technical Specification Section 31 23 00. Granular materials to be compacted to 98% SPMDD.
  - .6 Supply and place two (2) layers of chip seal in accordance with Technical Specification Section 32 01 13.02.

- .7 Paint new parking lot lines at locations shown on Drawing S3.
- .8 Supply and install one (1) accessible parking sign.
- .2 Payment will be released monthly based on percentage of work completed at the end of the month.

**1.43 OPTIONAL PRICE ITEMS**

- .1 The following items are at the option of the Owner, and are not included in the calculation of the base price Scope of Work:
  - .1 Expand parking lot area (approximately 2100 sf) at the location shown on Drawing S2. This work includes but is not limited to the following:
    - .1 Excavate the existing soils to a depth of 200 mm (8 inches) below the proposed grades and supplying and installing 200 mm (8 inches) of granular A material, compacted to 98% SPMD in accordance with Technical Specification Section 31 23 00. Excavated soils to remain on site and be placed at a location as directed by the Owner.
    - .2 Supply and place two (2) layers of chip seal in accordance with Technical Specification Section 32 01 13.02.
    - .3 Paint new parking lot lines at locations shown on Drawing S3.
    - .4 Supply and install five (5) concrete parking bumpers at locations shown on Drawing S3.

**1.44 UNIT PRICE ITEMS**

- .1 The following items are dependent upon site conditions, are at the direction of the Engineer, and are not included in the calculation of the base price Scope of Work:
  - .1 Excavate and remove 1 additional cubic yard of soil material and dispose of material to a suitable location onsite in accordance with Technical Specification Section 31 23 00. This unit price applies to removal of additional soil at the Engineer's direction and not to widen the drive lane or the parking lot.
  - .2 Supply and place 1 additional cubic yard of granular A material in accordance with Technical Specification Section 31 23 00. This unit price applies to placement of new granular material to replace removed failed base at the Engineer's direction and not to adjust existing elevations to proposed elevations.

**END OF SECTION**

**Procedures**

**1.45 ADMINISTRATIVE**

- .1 Submit specified submittals to Engineer for review. Submit with reasonable promptness and in orderly sequence so as to not cause delay in the Work. Failure to submit in ample time is not considered sufficient reason for an extension of Contract Time or for product substitutions or other deviations from the Drawings and Specifications.
- .2 Where required by authorities having jurisdiction, provide submittals to such authorities for review and approval.
- .3 Do not proceed with Work affected by a submittal until review is complete.
- .4 Present shop drawings, product data, and samples in SI metric units. Where items or information is not produced in SI metric units, converted values are acceptable.
- .5 Review submittals, provide verified field measurements where applicable, and affix Contractor's review stamp prior to submission to Engineer. Contractor's review stamp represents that necessary requirements have been determined and verified, and that the submittal has been checked and coordinated with requirements of the Work and Contract Documents.
- .6 Verify field measurements and that affected adjacent work is coordinated.
- .7 Submittals not meeting specified requirements will be returned with comments.
- .8 Reproduction of construction drawings to serve as background for shop drawings is not permitted.
- .9 Do not propose substitutions or deviations from Contract Documents via shop drawing, product data or sample submittals.

**1.46 SHOP DRAWINGS AND PRODUCT DATA**

- .1 Indicate products, methods of construction, attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for completion of the Work.
- .2 Where products attach or connect to other products, indicate that such items have been coordinated, regardless of Section under which adjacent items will be supplied and installed. Indicate cross-references to drawings, specifications and other already reviewed shop drawings.
- .3 Shop drawing submittals shall include:
  - .1 Date and revision dates.
  - .2 Project title and number.
  - .3 Name and address of:
    - .1 Subcontractor.
    - .2 Supplier.
    - .3 Manufacturer.
- .4 Product data submittals shall include material safety data sheets for all controlled products.
- .5 Submit an electronic copy of shop drawings where specified in the Technical Specifications.
- .6 Submit electronic copy of product data sheets or brochures where specified in the technical specifications.

- .7 Where a submittal includes information not applicable to the work, clearly identify applicable information and strike out non-applicable information.
- .8 Supplement standard information to include details for the project.
- .9 If upon Engineer's review, no errors or omissions are discovered, or if only minor corrections are required as indicated, submittal will be returned and fabrication or installation of the Work may proceed.
- .10 If upon Engineer's review significant errors or omissions are discovered, a so noted copy will be returned for correction and resubmission. Do not commence with fabrication or installation.
- .11 Engineer's notations on submittals are intended to ensure compliance with the Contract Documents and are not intended to constitute a change in the Work required change to the Contract Price or Contract Time. If the Contractor considers any Engineer's notation to be a change in the Work, promptly notify the Engineer in writing before proceeding with the Work.
- .12 Resubmit corrected submittals through the same procedure indicated above, before fabrication or installation of the Work proceeds. When resubmitting, notify Engineer in writing of any revisions other than those requested by the Engineer.

**1.47****SAMPLES**

- .1 Submit samples for Engineer's review in duplicate where specified in the Technical Specifications. Label samples as to origin, Project name, and intended use.
- .2 Deliver samples prepaid to the site office.
- .3 Notify Engineer in writing of any deviations in samples from requirements of Contract Documents.
- .4 Where a required colour, pattern or texture has not been specified, submit full range of available products meeting other specified requirements.
- .5 Engineer selection from samples is not intended to change the Contract Price or Contract Time. If a selection would affect the Contract Price or Contract Time, notify Engineer in writing prior to proceeding with the Work.
- .6 Resubmit samples as required by Engineer to comply with Contract Documents.
- .7 Reviewed and accepted samples will establish the standard against which installed Work will be reviewed.

**END OF SECTION**



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**Barriers and Enclosures**

**1.48 GENERAL**

- .1 Provide temporary barriers and enclosures as necessary to protect the public and building occupants and to secure the place of the Work during performance of the Work.
- .2 Comply with applicable regulatory requirements.
- .3 Maintain temporary barriers and enclosures in good condition for the duration of the Work.
- .4 Remove temporary barriers and enclosures from the place of the Work when no longer required.

**1.49 FENCING**

- .1 Erect temporary security and safety site fencing, a minimum 1.8 m (6 ft) high, using chain link fencing or self-supporting wire fence sections enclosing the entire site.
- .2 Maintain site fencing in good repair until removed.
- .3 Provide lockable access gates as required to facilitate construction access.

**1.50 WEATHER ENCLOSURES**

- .1 Provide weather tight enclosures to unfinished door and window openings, tops of shafts and other openings in floors and roofs.
- .2 Provide weather enclosures to protect floor areas where walls are not finished and to enclose Work areas that require temporary heating.
- .3 Design weather enclosures to withstand wind pressure and snow loading requirements.

**1.51 DUST TIGHT PARTITIONS**

- .1 Provide dust tight polyethylene screens framed with wood studs framing to prevent dust from travelling outside of the area of Work.
- .2 Erect, maintain, and relocate partitions as required to facilitate construction operations and Owner's operational requirements.

**1.52 PROTECTION OF BUILDING/SITE FINISHES**

- .1 Provide necessary temporary barriers and enclosures to protect existing and completed or partially completed finished surfaces from damage during performance of the Work.

**Controls**

**1.53 GENERAL**

- .1 Provide temporary controls as necessary for performance of the Work and in compliance with applicable regulatory requirements.
- .2 Maintain temporary controls in good condition for the duration of the Work.
- .3 Remove temporary controls and construction equipment used to provide temporary controls from the place of the Work when no longer required.

**1.54 PLANT PROTECTION**

- .1 Protect trees and other plant material.

**1.55 DUST AND PARTICULATE CONTROL**

- .1 Implement and maintain dust and particulate control measures in accordance with applicable regulatory requirements.
- .2 Execute Work by methods that minimize production of dust from construction operations and spreading of dust on site or to adjacent properties.
- .3 Provide temporary enclosures to prevent extraneous materials resulting from sandblasting or similar operations from contaminating air beyond the immediate Work area.
- .4 Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads.

**END OF SECTION**

**General**

**1.56 SECTION INCLUDES**

- .1 This Section specifies excavation, backfilling and grading materials, and methods for sub-grade materials.

**1.57 RELATED SECTIONS**

- .1 Section 01 11 00 – Summary of Work
- .2 Section 32 01 13.02 – Flexible Paving Surface Treatment – Multiple Application

**1.58 REFERENCES**

- .1 All references to be latest edition.
- .2 American Society for Testing and Materials (ASTM):
  - .1 ASTM C136: Standard Test Method for Sieve Analysis of Fine and Course Aggregates
  - .2 ASTM D422: Standard Test Method for Particle Size Analysis of Soils
- .3 Canadian General Standards Board (CGSB):
  - .1 CAN/CGSB-8.1: Sieves, Testing, Woven Wire, Inch Series
  - .2 CAN/CGSB-8.2: Sieves, Testing, Woven Wire, Metric
- .4 Canadian Standards Association (CSA):
  - .1 CAN/CSA-23.1: Concrete Materials and Methods of Concrete Construction
  - .2 CAN/CSA-A3000: Cementitious Materials Compendium
- .5 Ontario Provincial Standard Specification (OPSS):
  - .1 OPSS 1010: Material Specification for Aggregates

**1.59 SUBMITTALS**

- .1 Submittals to be in accordance with Technical Specification Section 01 33 00 Submittal Procedures.
- .2 Inform Engineer at least one week prior to commencing Work, of proposed source of till and un-shrinkable fill materials.
- .3 Provide Engineer with:
  - .1 Designs of engineered fill and mix designs for un-shrinkable fill.
  - .2 Gradations of all granular materials specified herein used in the work.
- .4 Submit duplicate samples of each type of material and colour.

**1.60 QUALITY ASSURANCE**

- .1 Submit designs and supporting data at least 2 weeks prior to commencing Work.
- .2 Design and supporting data submitted shall bear stamp and signature of Professional Engineer licensed in the place of the work.

## DIVISION 31 – EARTHWORK

- .3 Keep design and supporting data on site.
- .4 Excavation and fill work shall be done only by skilled workmen, with suitable machinery, supervised by foremen experienced in the Work of this Section.
- .5 Installer Qualifications: Company specializing in performing the Work of this section with minimum five (5) years documented experience.

### 1.61 WARRANTY

- .1 Correct defective Work, including settlement causing ponding, cracking, break down of the surface or other defects in material or workmanship, within a thirty (30) day period after Date of Substantial Completion.
- .2 Provide warranty for this Work for a period of two (2) years from the date of completion and final acceptance by the Owner, including supplying all requisite labour, equipment and materials, at no additional cost to the Owner, to correct defective Works.

### 1.62 SITE EXAMINATION

- .1 Verify all site conditions which may affect the performance or Works in this Section.
- .2 Report in writing all conditions which may adversely affect the Work in this Section.

### 1.63 FIELD MEASUREMENTS

- .1 Measurements shown on drawings are estimates only. Verify actual measurements prior to placement of fill.

### 1.64 PROTECTION

- .1 Protect building and site features in accordance with Technical Specification Section 01 56 00 Temporary Works.
- .2 Be responsible for the protection of all buildings and landscaped areas.
- .3 Be responsible for the protection of all materials, and features, including waterproofing membranes and protection board on structural slab.
- .4 Existing buried utilities and structures:
  - .1 Prior to commencing excavation work, notify applicable Owner or authorities having jurisdiction.
  - .2 Establish location and state of use of buried utilities and structures.
  - .3 Confirm locations and buried utilities by careful test excavations.
  - .4 Maintain and protect from damage water, sewer, gas, electric, telephone and other utilities and structures encountered.
- .5 Excavate by hand at locations near existing buried utilities and structures, where required to protect these buried utilities and structures.
- .6 Existing building and surface features:

## DIVISION 31 – EARTHWORK

- .1 Conduct a condition survey of existing buildings, trees and other plants, lawns, fencing, service poles, wires, pavement, and survey and benchmarks which may be affected by the work.
- .2 Protect existing buildings and surface features from damage. In the event of damage, immediately make repair to approval of the Engineer.
- .3 Where required for excavation, cut roots or branches as approved by Engineer.
- .7 Repair and make good to a condition equal to or better than existing at no additional cost to the Owner all damages to the site and its materials and features caused by the Contractor's Work.

### 1.65 WASTE MANAGEMENT AND DISPOSAL

- .1 Do not dispose of any liquids into the sewer system, streams, lakes, onto the ground or in other locations where it will pose a health or environmental hazard. Dispose of liquids to a proper and suitable facility.
- .2 Remove from site and dispose of packaging materials at appropriate recycling facilities.

### Products

### 1.66 GRANULAR MATERIALS

- .1 Soil Fill: Clean, natural sod material, free from organic matter, rocks larger than 50 mm (2 inches) in diameter, foreign or building material debris and other deleterious materials.
- .2 Granular Fill: Granular A as determined by OPSS.
- .3 Unshrinkable Fill: Proportioned and mixed to provide the following:
  - .1 Maximum compressive strength of 0.5 MPa (72 psi) at 28 days.
  - .2 Maximum Portland cement content (25 kg/m<sup>3</sup> with 40% fly ash replacement) to CAN/CSA A3000 A5, Type 10.
  - .3 Concrete aggregates to CAN/CSA A23.1
  - .4 Portland Cement: Type 10
  - .5 Slump: 160 mm to 200 mm (6 ¼ inches to 7 7/8 inches)

### Execution

### 1.67 PREPARATION

- .1 Protect installed work of other trades from staining or contamination.
- .2 Remove obstructions, ice, and snow from surfaces to be excavated.
- .3 Cut pavement and/or curbs and sidewalk neatly along limits of proposed excavation in order than surface may break evenly and cleanly.

### 1.68 DEWATERING AND DRAINAGE

- .1 Protect open excavations against flooding and damage due to surface run-off.
- .2 Submit details of proposed dewatering or heave prevention methods, such as does, well points and sheet pile cut-offs.

## DIVISION 31 – EARTHWORK

- .3 Avoid excavation below groundwater table if quick condition or heave is likely to occur.
- .4 Prevent piping or bottom heave of excavations by ground water lowering, sheet pile cut-outs or other means.
- .5 Dispose of water in a manner not detrimental to public and private property, or any other portion of work completed or under construction.

### 1.69 EXCAVATION

- .1 Advise Engineer at least one (1) week in advance of excavation operations.
- .2 Excavation for pads shall be to neat lines as required for work to be carried out or as noted on Drawings.
- .3 The bottom of the excavation shall not be disturbed. If disturbed due to improper protection or premature excavation, the disturbed portion shall be removed and replaced with material as per Engineer's direction at no cost to the Owner.
- .4 In soft conditions, construction shall commence immediately after the removal of material to level required.
- .5 Do not disturb soils within branch spread of trees or shrubs that are to remain. If excavating through roots, excavate by hand and cut roots with sharp axe or saw.
- .6 Keep excavated and stockpiled materials a safe distance away from the edge of the trench.
- .7 Restrict vehicle operations directly adjacent to open trenches.
- .8 Dispose of surplus and unsuitable excavated material to a location on site to be confirmed by the Owner.
- .9 Do not obstruct the flow of surface drainage or natural watercourses.
- .10 Earth bottoms of excavations to be undisturbed soil, level, free from loose, soft or organic matter. Remove unsuitable material from trench bottom to extent and depth as directed by the Engineer.
- .11 Over excavated areas shall be restored to the required level at no cost to the Owner by filling under bearing surfaces and footings with concrete specified for footings, engineered fill or un-shrinkable fill concrete no less than the allowable bearing or existing undisturbed soil.
- .12 Hand trim, make firm and remove loose material and debris from excavations where material at bottom of excavation is disturbed. Compact foundation soil to density at least equal to undisturbed soil.

### 1.70 BACKFILLING

- .1 Areas to be backfilled to be free from debris, snow, ice and water.
- .2 Do not use backfill material which is frozen or contains ice, snow or debris.
- .3 Place backfill material in uniform layers not exceeding 200 mm (8 inches) thickness up to grades indicated or to match existing. Compact each layer before placing succeeding layer.
- .4 Backfilling around installations:
  - .1 Place bedding and surround material as specified elsewhere.

## DIVISION 31 – EARTHWORK

- .2 Do not backfill around or over cast-in-place concrete within 24 hours after placing of concrete.
- .3 Place layers simultaneously on both sides of installed work to equalize loading.
- .5 Where temporary unbalanced earth pressures are liable to develop on walls or other structures:
  - .1 Concrete to cure for minimum 14 days or until it has sufficient strength to withstand earth and compaction pressure as directed by Engineer.
  - .2 If approved by Engineer, erect bracing or shoring to counteract unbalance, and leave in place until removal is approved by Engineer.
- .6 Place un-shrinkable fill in areas as indicated. Consolidate and level un-shrinkable fill with internal vibrators.
- .7 Install drainage system in backfill as indicated.

### 1.71 ROUGH GRADING AND SUBGRADE PREPARATION

- .1 Rough grade work area to suit required backfill depths. Proof roll the exposed subgrade to identify areas of unsuitable material.
- .2 Subgrade below proposed new structures shall be undisturbed and/or stable material, having a minimum 98% of the maximum dry density, as determined by M.T.O. LS-706, at optimum moisture content. Compact and adjust the moisture content to the top 300 mm (12 inches) of the exposed subgrade where required to achieve these limits.
- .3 If unsatisfactory material is encountered in the subgrade, remove this material at a 45 degree slope (1:1) beneath and away from the base elevation of the proposed structure. Unsatisfactory material includes any man-made fill that was not controlled during placement or contains unacceptable constituents. Once unsatisfactory fill material is completely removed, it is to be replaced with an approved import fill material. Place in maximum 200 mm (8 inch) lifts. Each lift shall be compacted to obtain 98% of the maximum dry density, as determined by M.T.O. LS-706, at optimum moisture content, before proceeding to apply a subsequent layer.

### 1.72 RESTORATION

- .1 Upon completion of Work, remove waste materials and debris *off* site at local landfill and/or recycling facility.
- .2 Trim slopes, and correct defects as directed by the Engineer.
- .3 Clean and reinstate areas affected by work.
- .4 Use temporary plating to support traffic loads over un-shrinkable fill for initial 24 hours.

## DIVISION 32 – EXTERIOR IMPROVEMENTS

### General

#### 1.73 SECTION INCLUDES

- .1 This Section specifies the requirements for the use of double chip seal.

#### 1.74 RELATED SECTIONS

- .1 Section 01 11 00 – Summary of Work
- .2 Section 31 23 00– Excavation and Fill

#### 1.75 REFERENCES

- .1 All references to be latest edition.
- .2 European Standards (EN):
  - .1 EN12272-3: Determination of Binder Aggregate Adhesivity by the Vialit Plate Shock Test Method
- .3 Ontario Ministry of Transportation (MTO):
  - .1 MTO Laboratory Testing Manual
- .4 Ontario Provincial Standard Specification (OPSS):
  - .1 OPSS 1006: Aggregates – Surface Treatment
  - .2 OPSS 1103: Emulsified Asphalt
- .5 Ontario Traffic Manual (OTM):
  - .1 OTM Book 7: Temporary Conditions

#### 1.76 SUBMITTALS

- .1 Submittals to be in accordance with Technical Specification Section 01 33 00 Submittal Procedures.
- .2 Provide Engineer with:
  - .1 Chip seal design.

#### 1.77 QUALITY ASSURANCE

- .1 Submit designs and supporting data at least 2 weeks prior to commencing Work.
- .2 Design and supporting data submitted shall bear stamp and signature of Professional Engineer licensed in the place of the work.
- .3 Keep design and supporting data on site.
- .4 Application of chip seal work shall be done only by skilled workmen, with suitable machinery, supervised by foremen experienced in the Work of this Section.
- .5 Installer Qualifications: Company specializing in performing the Work of this section with minimum five (5) years documented experience.



## DIVISION 32 – EXTERIOR IMPROVEMENTS

- .6 The Contractor shall conduct such quality control procedures, including sampling and testing, as is necessary to ensure that all aggregates and all asphalt binder to be used in the work conform to the requirements of the Contract.

### 1.78 ENVIRONMENTAL RESTRICTIONS

- .1 Chip seal shall not be applied with the pavement is moist, or when the weather is, or may be, detrimental.
- .2 No chip seal shall be applied when the pavement is below 15.5°C (60°F) and falling.
- .3 The work shall not be carried out when the ambient temperature is less than 10°C (50°F) or when climatic or site conditions preclude the curing of the binder.
- .4 The application of binder and aggregate shall terminate 1 hour before sunset.

### 1.79 WARRANTY

- .1 Correct defective Work, including settlement causing ponding, cracking, break down of the surface or other defects in material or workmanship, within a thirty (30) day period after Date of Substantial Completion.
- .2 Provide warranty for this Work for a period of two (2) years from the date of completion and final acceptance by the Owner, including supplying all requisite labour, equipment and materials, at no additional cost to the Owner, to correct defective Works.

### 1.80 SITE EXAMINATION

- .1 Verify all site conditions which may affect the performance or Works in this Section.
- .2 Report in writing all conditions which may adversely affect the Work in this Section.

### 1.81 FIELD MEASUREMENTS

- .1 Measurements shown on drawings are estimates only. Verify actual measurements prior to placement of fill.

### 1.82 PROTECTION

- .1 Protect site features in accordance with Technical Specification Section 01 56 00 Temporary Works.
- .2 Be responsible for the protection of all buildings and landscaped areas.
- .3 Existing buried utilities and structures:
  - .1 Prior to commencing excavation work, notify applicable Owner or authorities having jurisdiction.
  - .2 Establish location and state of use of buried utilities and structures.
  - .3 Confirm locations and buried utilities by careful test excavations.
  - .4 Maintain and protect from damage water, sewer, gas, electric, telephone and other utilities and structures encountered.

## DIVISION 32 – EXTERIOR IMPROVEMENTS

- .4 Excavate by hand at locations near existing buried utilities and structures, where required to protect these buried utilities and structures.
- .5 Existing building and surface features:
  - .1 Conduct a condition survey of existing buildings, trees and other plants, lawns, fencing, service poles, wires, pavement, and survey and benchmarks which may be affected by the work.
  - .2 Protect existing buildings and surface features from damage. In the event of damage, immediately make repair to approval of the Engineer.
  - .3 Where required for excavation, cut roots or branches as approved by Engineer.
- .6 Repair and make good to a condition equal to or better than existing at no additional cost to the Owner all damages to the site and its materials and features caused by the Contractor's Work.

### 1.83 WASTE MANAGEMENT AND DISPOSAL

- .1 Do not dispose of any liquids into the sewer system, streams, lakes, onto the ground or in other locations where it will pose a health or environmental hazard. Dispose of liquids to a proper and suitable facility.
- .2 Remove from site and dispose of packaging materials at appropriate recycling facilities.

### Products

### 1.84 ASPHALT BINDER

- .1 Rapid setting polymer modified emulsified asphalt according to OPSS 1103.

### 1.85 AGGREGATES

- .1 General
  - .1 Aggregates for both applications of the chip seal shall be of the same geological parent produced from the same source.
  - .2 Aggregates shall be obtained from a source listed on the MTO's Designated Sources List for coarse aggregates for HL1 or Superpave 12.5 FC1 hot mix.
  - .3 Aggregates containing slag are not permitted for use in a chip seal application.
- .2 Physical Requirements
  - .1 The physical requirements of the aggregates for the first application of chip seal shall be according to those of a Class I aggregate according to OPSS 1006.
- .3 Gradation Requirements
  - .1 First Application
    - .1 Aggregate shall be no finer than the gradation of a Class 1 aggregate according to OPSS 1006.
    - .2 Maximum median size shall be 13.6 mm (17/32 inches).
  - .2 Second Application

## DIVISION 32 – EXTERIOR IMPROVEMENTS

- .1 The gradation of the aggregate should be 100% passing the 9.5 mm (3/8 inches) sieve and a maximum 1% passing the 75 µm sieve.
- .2 The median size of the aggregate shall be 40 to 55% of the median size of the aggregates used in the first application.

### 1.86 COMPATIBILITY OF ASPHALT BINDER AND AGGREGATE

- .1 Adhesivity values of % aggregate retentions of the selected binder-aggregate combination determined by the mechanical adhesivity test in EN12272-3 shall be minimum 90%.

### Equipment

#### 1.87 ASPHALT DISTRIBUTOR

- .1 Self powered and capable of providing a uniform application rate of asphalt binder varying from 0.23 – 4.5 litres/m<sup>2</sup> (0.05 – 1.00 gal/yd<sup>2</sup>) over a variable width up to 6 m (20 feet) in a single pass.
- .2 Uniformity of the distributor shall not vary by more than 0.09 liters/m<sup>2</sup> (0.02 gal/yd<sup>2</sup>).
- .3 Distributor shall be equipped with a variable power unit for the pump and full circulation spray bars, adjustable both laterally and vertically.
- .4 Nozzle angle and bar height shall be set to provide 100 percent of double coverage in a single pass.
- .5 Where multiple passes are required to complete the full width, the 10 cm (4 inches) adjacent to the second pass may be left with 50 percent coverage so that the next pass will complete the full application rate specified.

#### 1.88 CHIP SPREADER

- .1 Specifically designed and manufactured to apply various types of aggregate.
- .2 Self-propelled and supported by at least 4 tires on 2 axles capable of providing a uniform application rate of aggregate from 2.7 – 27 kg/m<sup>2</sup> (5 – 50lbs/yd<sup>2</sup>) over a variable width.
- .3 Designed to convey aggregate materials from a rear receiving hopper to a front spread hopper.
- .4 Front spread hopper to be fixed width or variable width.
- .5 Chip spreader shall be capable of applying aggregate in a uniform pattern across the entire width of the spread hopper regardless of spreading widths.
- .6 Chip spreader shall be capable of maintaining consistent application rates regardless of the speed of the machine of changing spread widths.

#### 1.89 PNEUMATIC ROLLERS

- .1 Minimum of 2 self-propelled pneumatic tired rollers shall be used unless otherwise noted.
- .2 Rubber tired rollers shall have a gross load adjustable to apply 1379 – 1724 kPa (200 -250 psi) of rolling width.

## DIVISION 32 – EXTERIOR IMPROVEMENTS

- .3 Tire pressure shall be specified for the pneumatic tire rollers and shall not vary more than plus or minus 34.5 kPa (5.0 psi).
- .4 Rollers shall travel no more than 16 km/hour (10 miles/hour).

### 1.90 SWEEPERS

- .1 Self-propelled 4 wheeled rotary mechanical brooms and or vacuum brooms capable of operating in both forward and reverse.

### Execution

#### 1.91 PREPARATION

- .1 Immediately prior to applying chip seal, the surface shall be cleared of all loose material, silt spots, vegetation, and other objectionable material.
- .2 Manholes, valve boxes, drop inlets and other service entrances shall be protected from the chip seal by a suitable method.
- .3 If water is used to prepare the surface, cracks shall be allowed to dry thoroughly before applying the chip seal.
- .4 Cracks in pavement greater than 0.64 cm (0.25 inches) shall be treated with an approved crack sealer prior to application of chip seal.
- .5 All failed pavement sections shall be removed and patched. The perimeter of excavated areas should be milled or sawcut to for a neat vertical face.
- .6 Unstable areas of sub-grade should be backfilled with well graded and compacted aggregate.

#### 1.92 APPLICATION OF ASPHALT BINDER

- .1 Asphalt binder shall be applied by means of a pressure distributor.
- .2 Application shall be a uniform, continuous, full coverage spread, and under such pressure as to thoroughly coat the surface at the specified rate.
- .3 The forward speed of the distributor truck shall be synchronized with the application of the cover coat aggregate.

#### 1.93 APPLICATION OF COVER COAT MATERIAL

- .1 The cover coat should be applied immediately following the asphalt binder application.
- .2 The Contractor shall calibrate the aggregate spreader to achieve the design application rate of the cover coat aggregate.
- .3 Spreading shall be accomplished in such a manner that the tires of the trucks and aggregate spreader never contact the newly applied asphalt binder.
- .4 The width of the aggregate spreader shall be equal to the width of the asphalt binder coverage, except where additional passes are required.

**DIVISION 32 – EXTERIOR IMPROVEMENTS**

- .5 Areas which are deficient in aggregate shall be covered immediately with additional cover coat.

**1.94 ROLLING**

- .1 Initial rolling shall begin immediately after the application of the cover coat aggregate.
- .2 Rollers shall work in tandem and complete a minimum of three passes with a sufficient overlap.
- .3 Should the rolling be delayed, the aggregate and asphalt binder application shall be halted until the operation regains proper sequencing and timing.
- .4 Maximum speed of the rolling operations shall be 16 km/hr (10 miles/hr).

**1.95 SWEEPING**

- .1 Within 24 hours of curing, excess aggregate shall be swept or picked up from the roadway and adjacent areas.

**1.96 FOG SEALING**

- .1 After the initial sweeping, an optional application of fog seal may be applied to all areas chip sealed.
- .2 The polymer modified fog seal or approved equal emulsion shall be diluted 40% with water.
- .3 The application rate shall be between 0.04 – 0.065 liters/m<sup>2</sup> (0.08 – 0.12 gal/yd<sup>2</sup>).

**1.97 APPLICATION RATES**

- .1 Application rates as per the following table, with exact design determined using factors such as surface temperature, traffic volume, existing road condition and time of year.

Material	Type I Chip Seal	Type II Chip Seal	Type III Chip Seal
Asphalt	0.9 – 1.1 l/m <sup>2</sup> (0.2 – 2.4 gal/yd <sup>2</sup> )	1.1 – 1.27 l/m <sup>2</sup> (0.24 – 0.28 gal/yd <sup>2</sup> )	1.18 – 1.45 l/m <sup>2</sup> (0.26 – 0.32 gal/yd <sup>2</sup> )
Emulsified Asphalt	1.27 – 1.54 l/m <sup>2</sup> (0.28 – 0.34 gal/yd <sup>2</sup> )	1.54 – 1.81 l/m <sup>2</sup> (0.34 – 0.4 gal/yd <sup>2</sup> )	1.72 – 2.08 l/m <sup>2</sup> (0.38 – 0.46 gal/yd <sup>2</sup> )
Fog Seal	0.36 l/m <sup>2</sup> (0.08 gal/yd <sup>2</sup> ) minimum	0.49 l/m <sup>2</sup> (0.11 gal/yd <sup>2</sup> ) minimum	0.54 l/m <sup>2</sup> (0.12 gal/yd <sup>2</sup> ) minimum
Cover Coat Aggregate	9.8 kg/m <sup>2</sup> (18 lbs/yd <sup>2</sup> ) minimum	11.9 kg/m <sup>2</sup> (22 lbs/yd <sup>2</sup> ) minimum	13.6 kg/m <sup>2</sup> (25 lbs/yd <sup>2</sup> ) minimum

**DIVISION 32 – EXTERIOR IMPROVEMENTS**

**1.98 RESTORATION**

- .1 Upon completion of Work, remove waste materials and debris *off* site at local landfill and/or recycling facility.
- .2 Trim slopes, and correct defects as directed by the Engineer.
- .3 Clean and reinstate areas affected by work.
- .4 Use temporary plating to support traffic loads over un-shrinkable fill for initial 24 hours.

**END OF SECTION**

# PARKING LOT COATING ESSEX REGION CONSERVATION AUTHORITY MAIDSTONE CONSERVATION AREA

1561 LAKESHORE ROAD 209, ESSEX, ONTARIO N8M 2X7  
ISSUED FOR TENDER: SEPTEMBER 6, 2024  
CHALL.ENG. PROJECT NO. 224149



**Essex Region  
Conservation  
Authority**

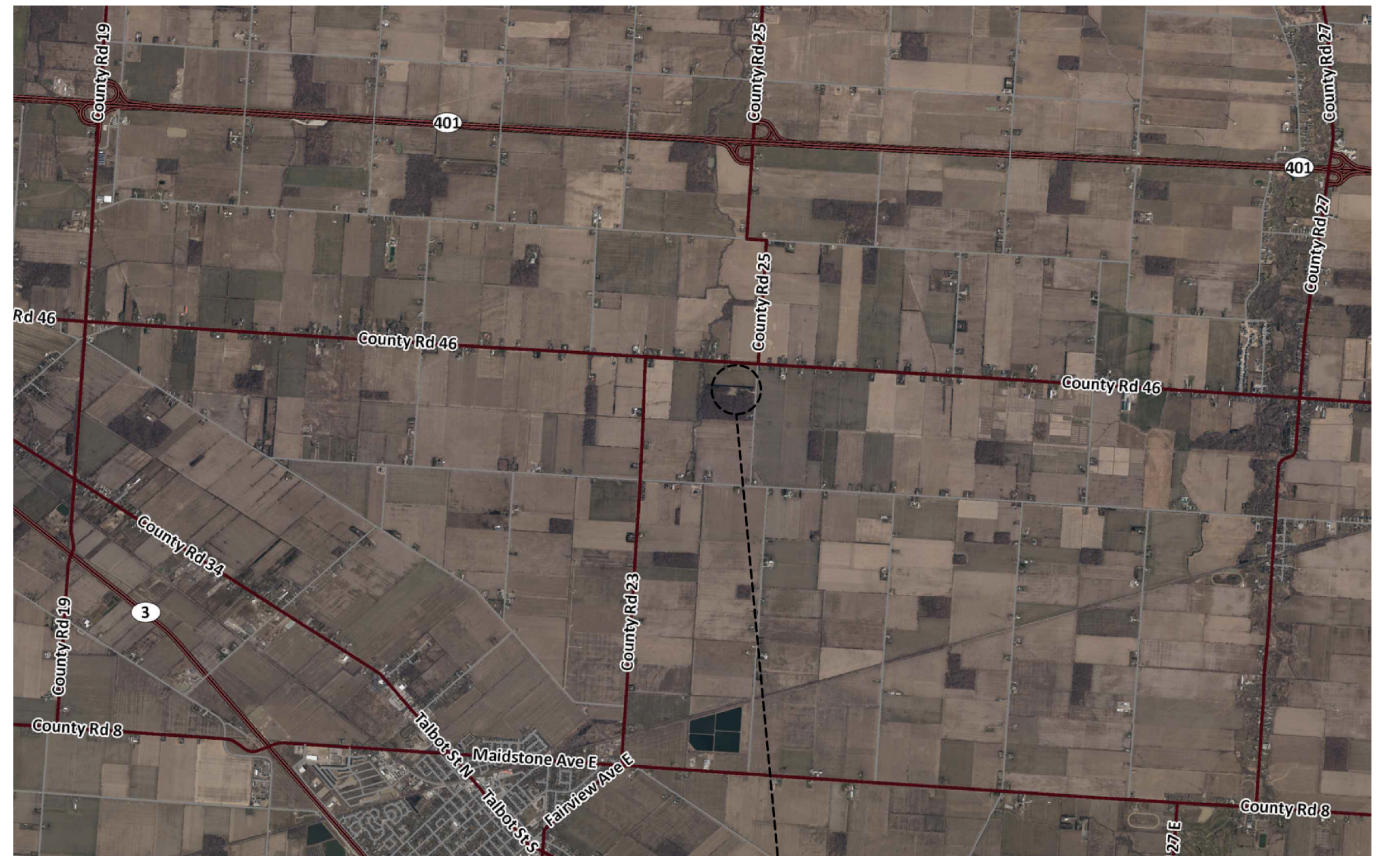


SUITE 342  
13300 TECUMSEH ROAD EAST  
WINDSOR, ONTARIO  
N8N 4R8  
Phone: 519-979-7333  
Fax: 519-979-7331  
CEC@CEC14.COM  
WWW.CEC14.COM

## DRAWING LIST:

### COVER SHEET

- S1 EXISTING SITE PLAN
- S2 PROPOSED SITE PLAN
- S3 PAVEMENT MARKING LAYOUT



AERIAL N.T.S.

--- LOCATION OF WORK



BASE PLAN BY THE COUNTY OF ESSEX GIS MAPPING, 2023 AERIAL PHOTO

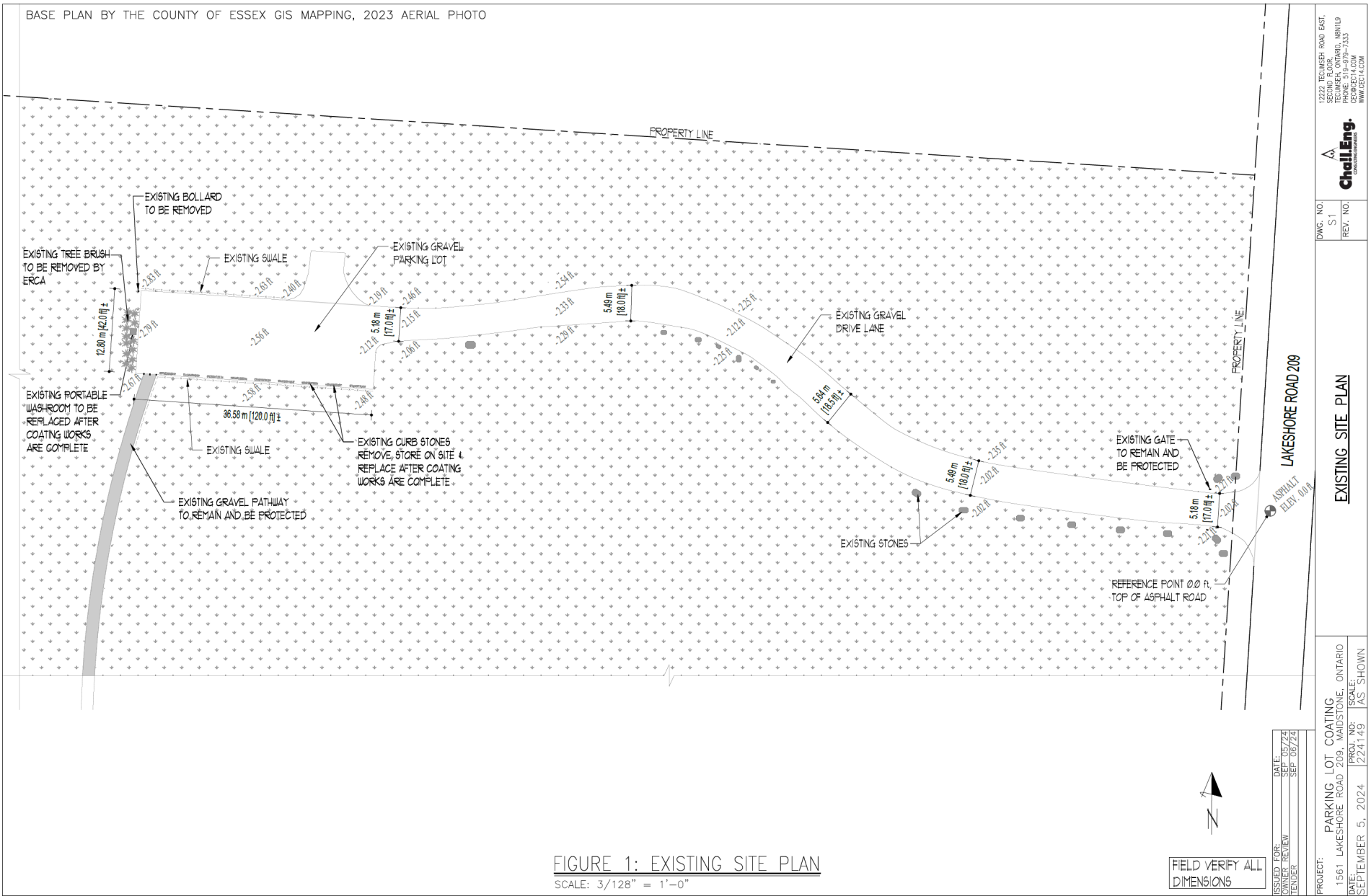


FIGURE 1: EXISTING SITE PLAN

SCALE: 3/128" = 1'-0"

FIELD VERIFY ALL DIMENSIONS

ISSUED FOR: REVIEW  
 DATE: 07/24  
 REVISION: SEP 07/24

PROJECT: PARKING LOT COATING  
 1561 LAKESHORE ROAD, 209, MAIDSTONE, ONTARIO  
 DATE: SEPTEMBER 5, 2024  
 PROJ. NO: 2224149  
 SCALE: AS SHOWN

EXISTING SITE PLAN

DWG. NO: S1  
 REV. NO:

**Chail Eng.**  
 CONSULTANTS

12747 TELLINGER ROAD EAST,  
 SECOND FLOOR  
 TELMORH, ONTARIO, N8N1L9  
 PHONE: 519-379-7333  
 WWW.CE14.COM



BASE PLAN BY THE COUNTY OF ESSEX GIS MAPPING, 2023 AERIAL PHOTO

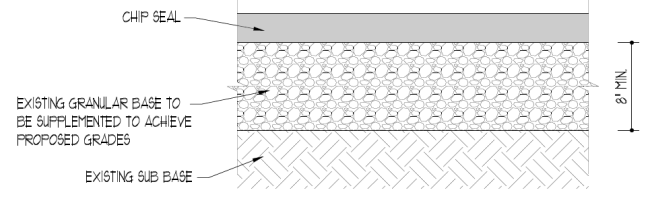
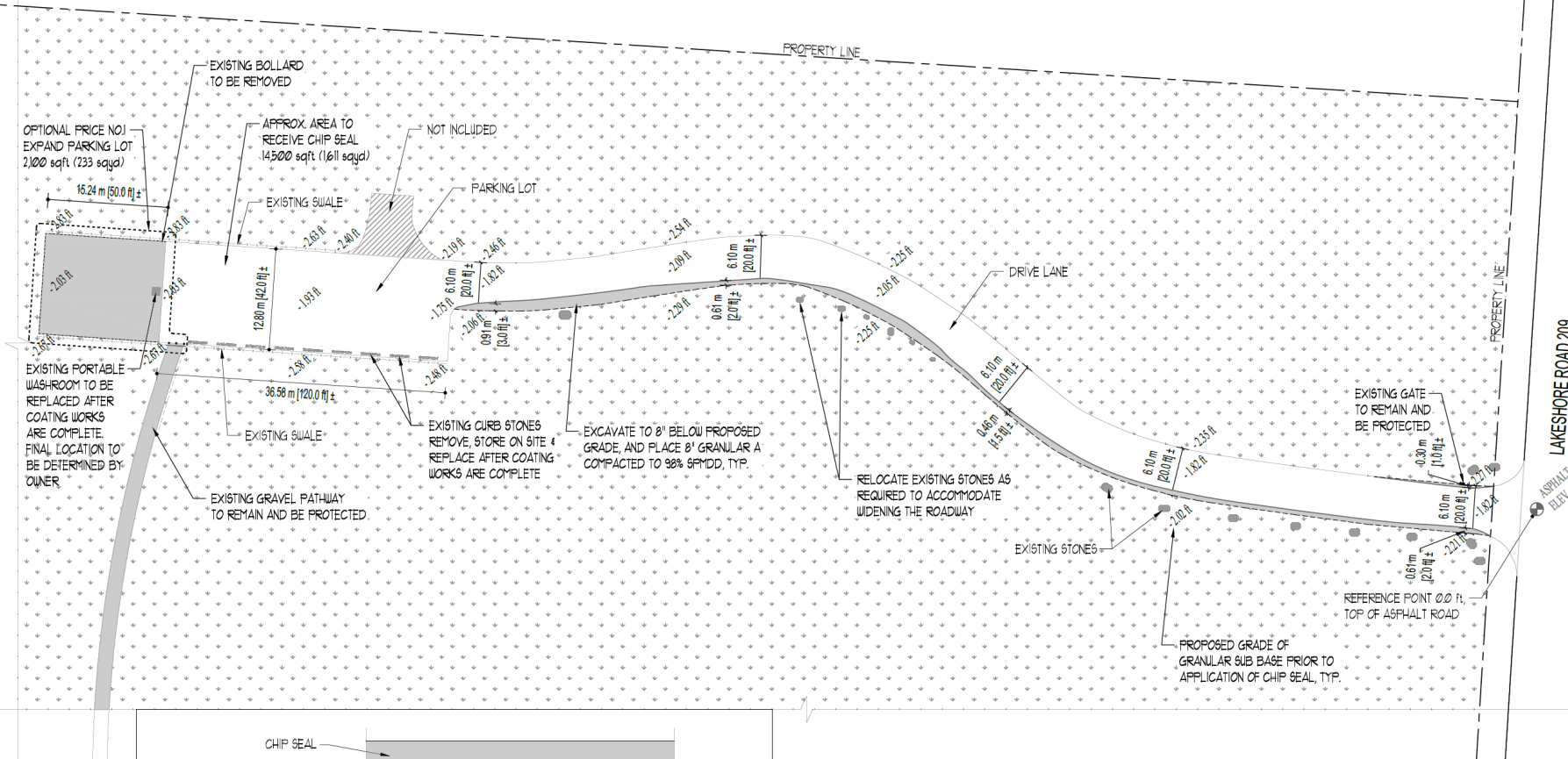


FIGURE 2A: PROPOSED SECTION  
SCALE: N. T. S.

FIGURE 2: PROPOSED SITE PLAN  
SCALE: 3/128" = 1'-0"

FIELD VERIFY ALL DIMENSIONS

DATE: SEP 05/24  
DRAWN: [Name]  
CHECKED: [Name]  
TENDER: [Name]

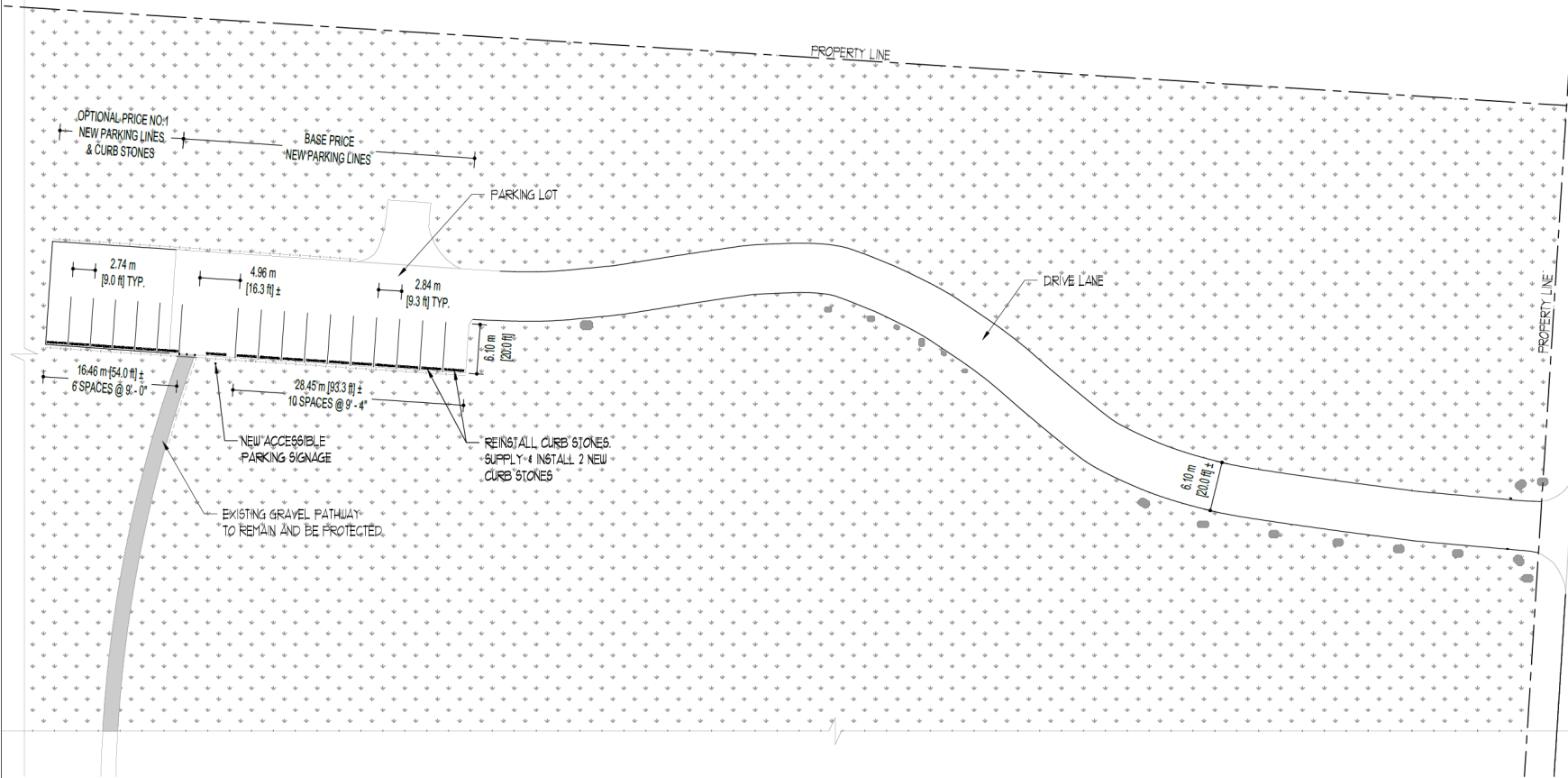
PROJECT: PARKING LOT COATING  
1561 LAKESHORE ROAD 209, MADSTONE, ONTARIO  
DATE: 2024  
SCALE: AS SHOWN

DWG. NO. S2  
REV. NO. [Number]

Chall Eng.  
Engineering

12703 TENNESSEE ROAD EAST,  
SECOND FLOOR,  
TENNESSEE, ONTARIO, N8B1L9  
416-291-7333  
WWW.CE11.COM

BASE PLAN BY THE COUNTY OF ESSEX GIS MAPPING, 2023 AERIAL PHOTO



FIELD VERIFY ALL DIMENSIONS

FIGURE 3: PAVEMENT MARKING LAYOUT

SCALE: 3/128" = 1'-0"

12709 TENCHER ROAD EAST,  
SECOND FLOOR  
TENCHER, ONTARIO, N8B1L9  
TEL: 519-791-7333  
WWW.CE14.COM



DWG. NO. S3  
REV. NO.

PAVEMENT MARKING LAYOUT

LAKESHORE ROAD 209

ISSUED FOR: TENDER  
DATE: 08/24  
REVIEW: SEP 05/24

PROJECT: PARKING LOT COATING  
1561 LAKESHORE ROAD 209, MADSTONE, ONTARIO  
DATE: SEPTEMBER 5, 2024  
PROJ. NO: 224149  
SCALE: AS SHOWN



## Request For Proposal - Services

### Project Name:

Herbicide application for the invasive aquatic plant, Hydrilla (*Hydrilla verticillata*)

### RFP Closing Date:

September 24, 2024, 4:00pm EST

### Submission Requirements:

The submission is to include:

- Proof of Exterminator Licence:
  - Copy of valid Pesticide Operators License issued by Ministry of Environment, Conservation and Parks (MECP) in the name of the Supplier.
  - Proof that all persons who will be handling, mixing, loading and/or applying pesticides hold a valid of exterminator licence for the class of Aquatic Vegetation issued by the Director pursuant to Section 35 of Ontario Regulation 63/09 or be exempt from being required to have such a licence in accordance with such Regulation.
- Proof of insurance in the amount of \$5,000,000.00
- A Project Plan that indicates:
  - The Supplier's proposed approaches to treatment.
  - Project timing.
  - Equipment to be used for the treatment of the project areas based on water depth, including effective minimum operating depth.
  - Proposed approach for safe and effective implementation of herbicide treatment.
- Detailed description of Supplier's qualifications and experience including:
  - A description of the Supplier's previous experience with treating Hydrilla, or a similar aquatic plant – must have at least 3 years of experience in aquatic herbicide application.
  - A description of the Supplier's ability to meet the required timeframes described in schedule of work below.
- Price, including all materials, labour, delivery, travel, accommodation, insurance and any other overhead or other costs and applicable duties and taxes with the exception of Harmonized Sales Tax ("HST"), if applicable, to perform and provide services described in this SoW, broken down as follows:
  - Unit Price (of Herbicide application services) per hectare (Cdn. funds); and
  - Harmonized Sales Tax (HST), if applicable, as a separate item.



Quotations received after the above-referenced date and time may not be considered.

**For further information, please contact:**

Kevin Money, *Director of Conservation Services*  
 kmoney@erca.org  
 519-776-5209 x 351

Responses to all questions will be shared with all suppliers

**Location:**

Hillman Marsh Conservation Area – West Cell  
 Leamington, Ontario

**Description of services required:**

Please refer to the Statement of Work at Annex "A"

**Payment schedule:**

ERCA will make progress payments in accordance with the payment provisions of the service contract (see schedule below) for cost incurred in the performance of the Work.

Task Description	Percentage of Payment	Date
Spray application Completion	60%	Upon invoice receipt after Completion
Provision of report on volume of herbicide applied and digital file of GNSS/GPS tracking application pathway and areas sprayed Post Treatment Efficacy Site Assessment	40%	November 30 <sup>th</sup> , 2024

A quotation must comply with all requirements of the request for proposal to be declared responsive. The responsive quotation with the lowest evaluated price will be recommended for award of a service contract (contract). ERCA reserves the right to reject any and all proposals received, regardless of price.

The service must be provided between September 30th and October 16th, 2024 (refer Project Schedule below) unless extensions are agreed to by ERCA.



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## Statement of Work

Herbicide application for the invasive aquatic plant, Hydrilla (*Hydrilla verticillata*)

### Background

The aquatic invasive plant, Hydrilla, has been detected for the first time in Ontario and Canada in the West Cell at Hillman Marsh Conservation Area located in Leamington, Ontario. Hydrilla is a prohibited invasive species under Ontario's Invasive Species Act 2015.

Hydrilla (*Hydrilla verticillata*) can grow up to 2.5 centimeters per day and to lengths of 7.5 metres. Hydrilla rapidly grows in thick, dense beds and dramatically degrades water quality, causing it to choke out native species by blocking sunlight, decreasing oxygen levels, raising pH levels, and raising water temperature. This species also clogs water intake pipes and boat motors, and impedes other recreational activities, like swimming and paddling. Unlike many native species, Hydrilla is highly adaptable. It can thrive in still and flowing waters, fresh and brackish waters, and low-light conditions – giving it a head start on photosynthesis.

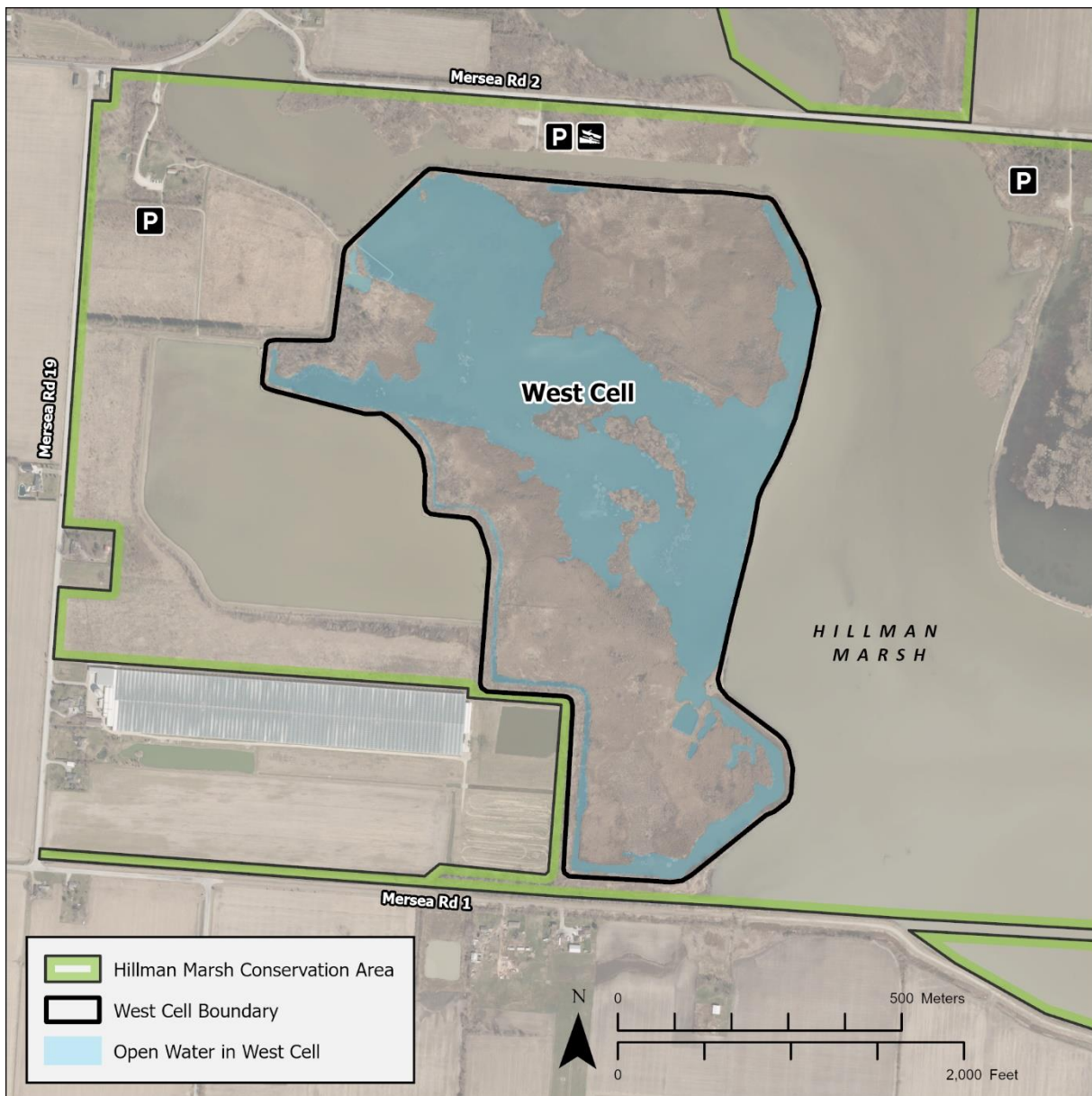
When Hydrilla was first discovered in Hillman Marsh, a rapid response team was assembled and surveyed the rest of the marsh to ensure the invasive species had not spread. Currently, Hydrilla is contained in the West Cell, which is not directly connected to Lake Erie. Hydrilla is easily spread by fragments of the plant, making this eradication effort extremely important and time sensitive.



## Project Areas

As part of this project, application of the herbicide ProcellaCOR is proposed for the fall season of 2024 in order to control Hydrilla populations throughout the infestation area.

Based on monitoring and preliminary results, the Hydrilla infestation in the West Cell is estimated to be approximately 15-30 hectares, with a maximum treatment area of 30Ha. Suppliers are encouraged to visit the site to confirm the extent of work and logistics prior to submitting a proposal.





## 2024 Control Scope

The Supplier will provide complete herbicide application services (ProcellaCOR Aquatic Herbicide) for Hydrilla for a minimum of 15 hectares up to a maximum of 30 hectares in the Hillman Marsh West Cell in the Fall of 2024.

Dosage and treatment rates should follow the outline on the product label. The ProcellaCOR aquatic herbicide required for this treatment will be supplied by the applicator company.

In order for the aquatic herbicide treatment to be most effective and selective, an application will occur in the fall while the Hydrilla is still active. To ensure an effective dose of herbicide is applied, the Supplier must be able to treat an entire plot in a short periods of time.

While most herbicide treatments area are accessible by water, some areas may be easier to access by land. This assessment should be made when developing the treatment plan.

## Operating Expectations

The Supplier will have submitted a project plan with its bid submission (the "Project Plan") based on mapping and this Statement of Work. The Project Plan shall provide an indication of the Supplier's approaches, timing and equipment to be used for the treatment of the Project Areas based on water depth. This Project Plan will form the basis of the technical review of bid packages.

Prior to implementation the Supplier will be required to provide an additional map delineating treatment approaches based on finalized mapping of Hydrilla colonies. The Project Plan may require refinement by the Supplier based on the finalized mapping. The Supplier will be responsible for managing all aspects of the operations. ERCA will be providing only incidental advice. The Supplier shall ensure that a dedicated site supervisor is present during operations. This individual must be identified by the Supplier to ERCA prior to the implementation of the operation. The Supplier shall implement and comply with the provisions of the Project Plan in providing the Services.

The Supplier will be responsible for daily updates to ERCA related to success of application for that day, including confirmation of application rates and GNSS/GPS tracking. This will help adaptive management and effective treatment as the project progresses. The Supplier will outline the methods of delivery of these daily updates in their proposal.

## Equipment and Labour

The Supplier is responsible for the following:

- All equipment, materials, personnel, and services required for the treatment of the Project Areas. The Supplier will ensure that vessel(s) are equipped with all appropriate Herbicide application



equipment necessary for the project. The Submission will include a list of equipment to be used, the effective minimum operating depth for the watercraft, and how it will be used and calibrated in the Project Plan.

- Safe transport, storage of the herbicide and disposal of empty containers.
- Posting signage of herbicide application at appropriate locations (as well as removal at the appropriate time post-application)
- Complying with the following requirements:
  - Each vessel that applies Herbicide must be equipped with a GNSS/GPS receiver to enable logging of application swaths. Hardware and software technical support must be present at each base of operations. The Supplier must deliver an electronic copy of the digital record of the application (on an adequately sized memory stick) containing the spray record. Submitted digital record will have a horizontal accuracy of sub-metre. Loading and downloading data on the GNSS/GPS unit, and operating any post-processing software as required in accordance with the requirements of this Agreement.
  - The Supplier shall provide GIS generated maps and associated datasets (e.g. shapefiles or geodatabase) of each spray block to ERCA prior to the treatment. The data should be in UTM NAD83 datum.
  - The boat navigational guidance equipment must be capable of accurately guiding the watercraft along parallel lines (swaths), equal to the assigned swath width of the application watercraft, in the blocks designated by ERCA. The system shall be sufficiently sensitive to provide deviation indications and sufficiently accurate to keep the watercraft on the desired path.
  - Capability to identify no-spray or exclusion blocks inside a spray block. Capability to mark a position during application and return to exact point application stopped.
  - Capability to select any swath line(s) number for re-spray.
  - Full logged daily spray records includes position, time, speed, track, application on/off, boat captain name, and boat number.
  - The Supplier shall work co-operatively with ERCA's assigned Geomatics Technician to ensure seamless transfer of the digital spatial (i.e. GIS) information.
  - Calibration - The spray watercraft must arrive on site properly calibrated for the Herbicide and rate of application specified.
  - Suppliers are responsible for ensuring compliance with all legislation, including the Ontario Invasive Species Act. Please include information in your proposal to demonstrate how your company will be abiding by regulations pertaining to the transportation of vessels and equipment between water bodies.





## Quality Standards

The Supplier shall conduct the Herbicide applications with appropriate herbicide application equipment, herbicide handling and storage systems, and qualified and licensed personnel.

The Supplier must hold a valid Pesticide Operator License issued by MECP. Proof of insurance is to be provided prior to the contract being awarded. All persons who will be handling, mixing, loading and/or applying the Herbicide shall be the holder of a valid exterminator license for the class of Aquatic Vegetation issued by the Director pursuant to Section 35 of Ontario Regulation 63/09 or be exempt from being required to have such a license in accordance with such Regulation.

## Pesticides Permit

The Supplier is responsible for applying for a Permit to Perform a Water Extermination to the appropriate MECP Regional Office. The Supplier will ensure the Pesticide Permit is in place prior to conducting any extermination for which a permit is required. The Supplier is responsible for complying with all conditions and requirements of the approved permit.

## Required Schedule with Milestones

The service must be provided between September 30th and October 16th, 2024 (refer Project Schedule below) unless extensions are agreed to by ERCA in order for the aquatic Herbicide treatment to be most effective.

The Supplier will work with ERCA and the project team to determine the application schedule. The Supplier will work with ERCA and the project team to coordinate pre-treatment arrangements, and to obtain the permits/approvals required.

The Supplier will provide all labour, equipment, supplies, materials, and quality control necessary to perform the treatment of the Project Areas. Based on the efficacy of the Herbicide, it is important to treat all of a Project Area at once, where possible. Sufficient labour will be required to complete the work within as short a time period as possible within the scheduled treatment period, to provide adequate exposure time of the Herbicide. The Project Plan shall indicate the Supplier's proposed schedule for treatment of the Project Areas.

The Supplier will have all watercraft and spray equipment at the base of operations (1862 Mersea Road 2, Leamington, ON) in the Project Area(s) at least 12 hours ahead of the anticipated start of spraying for calibration and equipment checks.

The Supplier will participate in one post-treatment meeting (remotely or in person) with ERCA to support the assessment of the efficacy of the Herbicide application. These meetings will occur shortly after treatment in fall 2024.



## Pesticide Handling Requirements

The Supplier is responsible for ensuring staff are properly trained, licensed and supervised to handle, apply and store the Herbicide in accordance with the Pesticides Act.

The Supplier will provide all necessary equipment for the safe and approved storage, handling, loading, application of the Herbicide and any clean-up of residues or spills. The Supplier is also responsible for adhering to conditions of the permits from the MECP and ERCA.

## Reporting Requirements

The Supplier will provide ERCA with the following information for inclusion in the post-treatment assessment report:

- Shape files created from data automatically recorded at the time of pesticide application showing the exact locations and application rate of all pesticide use;
- Type and performance of equipment that was used, total litres of Herbicide applied, total number of hectares of Hydrilla treated;
- Start and end times of actual treatment in the wetland cell;
- Any other information specifically required as per the permits from MECP and ERCA; and
- Identify potential areas for improved treatment methods (lessons learned).

A short report with all data will be submitted electronically to ERCA by November 30, 2024. The Supplier will also participate in one post treatment meeting (either in person or through remote participation) in fall 2024 to support ERCA's field assessment of the efficacy of the Herbicide application.

## Occupational Health and Safety Requirements

It is the responsibility of the Supplier to develop a comprehensive safety plan (the "Safety Plan") as part of the Project Plan. The objective of the Safety Plan is to ensure that all operations are conducted in a safe manner and the Supplier adheres to all applicable laws, regulations and procedures. During the delivery of the project, ERCA may choose to verify and audit the requirements identified in the Safety Plan. ERCA and MECP must be notified immediately in all cases of spills and emergencies.

## Security

The Supplier shall ensure sufficient security measures are taken which meet or exceed all requirements of the Pesticides Act and Ontario Regulation 63/09. ERCA shall not be responsible for the Herbicide, the suppliers equipment or its security.



## Weather Parameters and Conditions

Information supplied by the Supplier's ground observers will be used in making the decision on whether spraying goes ahead, along with official weather forecasts and reports, and in accordance with the pesticide label.

The Supplier will consult with ERCA to determine when weather conditions are acceptable for spraying operations to be conducted, taking into consideration wind velocity, wind direction, temperature inversion, water flow rates, and application equipment and sprayer settings used for the application. The Supplier must be flexible with respect to timing the application based on appropriate weather parameters and water conditions. In addition to the requirements of the product label and MECP Pesticide Permit (if any), the Supplier shall follow these best practices:

- Inclement Weather -The Supplier will be responsible for monitoring weather conditions to ensure that spray treatments can be fully completed once underway. Spraying should not occur when inclement weather is forecasted, such as strong winds, lightning storms, or other conditions that may create turbulent waters and impact the efficacy of the Herbicide treatment or compromise the health and safety of workers involved in the application.

## Project Schedule

September 24<sup>th</sup>, 2024 – Submit application for Permit to Perform a Water Extermination

September 30<sup>th</sup> to October 11<sup>th</sup>, 2024 – Herbicide application initiates (days should be selected based on weather, flow information and aquatic vegetation conditions as stated above), daily treatments briefings (confirming data collection, volume rates applied, identifying unforeseen challenges/issues)

November 30<sup>th</sup>, 2024 – Reporting of volume of herbicide applied and digital file provided from GNSS/GPS tracking application pathway and areas sprayed

## Quoted Price

Price, including all delivery, travel, accommodation, materials, labour, insurance and any other overhead or other costs and applicable duties and taxes with the exception of Harmonized Sales Tax ("HST") if applicable, to perform and provide described services, broken down as follows:

- Unit Price (of Herbicide application services) per hectare (Cdn. funds) based on a minimum guaranteed treatment area of 15 hectares, up to a total treatment area of 30 hectares
- Harmonized Sales Tax (HST), if applicable, as a separate item.

I have read and understood the deliverables set out above, and hereby agree to provide them according to the schedule and quoted price above.