Invitation to Tender

For

Construction of Village Road

And Expansion/Rehabilitation of Parking Lot S

Invitation to Tender No.: **ITT DB18-13**

Issued: **January, 11, 2019**

Submission Deadline: **January, 31, 2019, at 3:00 p.m. local time**

Brock University

Construction of Village Road
and Expansion/Rehabilitation of Parking Lot S
Invitation to Tender No. ITT DB18-13

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NOTICE

This Invitation to Tender (the "ITT") is an invitation by Brock University ("the University") to prospective bidders to submit bids for **Construction of Village Road and Expansion/Rehabilitation of Parking Lot S.**

This contract utilizes the Niagara Peninsula Standard Contract Document (Revision 18). This document constitutes the specification for this project and must be utilized in preparing bids for tenders or quotations. The responsibility for obtaining or having access to the Document will rest with the bidder.

SPECIAL INSTRUCTIONS TO BIDDERS

Brock University

Construction of Village Road
And Expansion/Rehabilitation of Parking Lot S
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SPECIAL INSTRUCTIONS TO BIDDERS

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Brock University

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SPECIAL INSTRUCTIONS TO BIDDERS

1. Named Parties

For the purposes of this contract the following parties are identified:

Owner:	Brock University
Engineer:	WSP Canada Inc.
Project Manager:	Brock University
Contract Administrator:	WSP Canada Inc.
Contact for Enquiries:	David Barber Buyer, Procurement Services Brock University Email: dbarber@brocku.ca

2. Tender Procedure

a) Bid Submissions

Bidders shall be solely responsible for the delivery of their bids in the manner and time described.

b) Bids shall be sealed and submitted to:

Attn: David Barber
Procurement Services
Brock University
Central Utilities Building RECEPTION (2nd floor) Room # A200
1812 Sir Isaac Brock Way
St. Catharines, ON., L2S 3A1

By the following time:

Time: .....**Before 3:00:00 p.m. Local Standard Time**

Date:..... **Thursday, January 31, 2019**

Bids submitted after the Submission Deadline will be rejected.

c) Bids shall be delivered in two (2) sealed, opaque envelopes clearly marked as to their contents.

i) **Envelope One** shall contain a Bid Bond and Agreement to Bond duly signed and sealed (no copies or facsimiles will be accepted). **Clearly mark "BID BOND" and the Bidder's name on the exterior of Envelope 1.**

ii) **Envelope Two** to contain the "Form of Tender" (including addenda if applicable). No copies or facsimile will be accepted. **Clearly mark "FORM OF TENDER" and the Bidder's name on the exterior of Envelope 2.**

iii) Improper completed information, irregularities in security deposit, may be cause not to open the bid envelope and declare the bid invalid or informal.

d) Bid Security (Tender Deposit)

i) Bids shall be accompanied by a Bid Security as follows:

Bid Bond made out in favor of Brock University

Two Hundred Fifty-Thousand Dollars $250,000

ii) Endorse the Bid Bond in the name of Brock University as oblige, signed and sealed by the Principal (Contractor) and Surety Consent.

iii) Shall indicate that this tender as submitted will remain in effect for sixty (60) days from the date of receipt of bids without alteration or cancellation.

e) Agreement to Bond

Submit with the Form of Tender (Bid Form) and Bid Bond a Surety Consent that the Surety providing the Bid Bond is willing to supply the Performance and Labour and Materials Payment Bond, each in the amount of 50% of the Contract Price.

f) Bid Acceptance Period

The Bid Acceptance Period is defined as a period of up to, and including, thirty (30) days, commencing at the bid Closing Time, during which bids shall be irrevocable and open to acceptance by the Owner.

3. Tender Evaluation

The University will conduct the evaluation of bids in the following stages:

a) Stage I – Mandatory Submission Requirements

i) Stage I will consist of a review to determine which bids comply with all of the mandatory submission requirements. Bids that do not comply with all of the mandatory submission requirements as of the Submission Deadline will, subject to the express and implied rights of the University, be disqualified and not evaluated further.

ii) No Amendment to Forms

Other than inserting the information requested on the mandatory submission forms set out in the ITT, a bidder may not make any changes to any of the forms. Any bid containing any such changes, whether on the face of the form or elsewhere in the bid, may be disqualified.

b) Stage II – Pricing

i) Stage II will consist of a bid analysis and evaluation of the submitted pricing of each compliant bid. The evaluation of price will be undertaken after the evaluation of mandatory requirements has been completed.

4. Selection of the Lowest Compliant Bidder

For the purposes of evaluation, pricing will be evaluated based on the lowest stipulated sum. Subject to the University's reserved rights, the compliant bidder with the lowest pricing will be selected to enter into the Agreement in accordance with the following section. In the event of a tie to two (2) decimal places, the names of the tied bidders will be placed in a container and a name will be drawn.

5. Notice to Bidder and Execution of Agreement

a) Notice of selection by the University to the selected bidder shall be in writing. The selected bidder shall execute the Agreement in the form attached hereto as Form of Contract Agreement to this ITT and satisfy any other applicable conditions of this ITT, within fifteen (15) business days of notice of selection. For greater clarity, business days means all days the University is open for business. This provision is solely for the benefit of the University and may be waived by the University.

b) Failure to Enter into Agreement

In addition to all other remedies available to the University, if a selected bidder fails to execute the Agreement or satisfy any applicable conditions within fifteen (15) business days of notice of selection, the University may, without incurring any liability, withdraw the selection of that bidder and proceed with the selection of another bidder.

Where there is a conflict the Agreement will take precedence over Brock University Terms and Conditions of the ITT Process.

c) Withdrawing Bids

At any time throughout the ITT process, a proponent may withdraw a submitted proposal. To effect a withdrawal, a notice of withdrawal must be sent to the University Contact and must be signed by an authorized representative. The University is under no obligation to return withdrawn bids.

6. Holdbacks

This contract will be subject to a 10% statutory holdback in accordance with legislation and statutory regulations respecting holdback percentages (excluding HST).

In addition, the following maintenance holdback will apply to this contract:

2% of the Final Contract Value for a period of 12 months after Substantial Performance.

7. Work Schedule and Liquidated Damages

a) Tentatively, construction may commence, but is not guaranteed, by:

March 01, 2019

b) Refer to the Project Phasing Plan Drawing PH01 for the Phases and Stages of the project.
c) No work shall be performed on site during the "blackout" period of **April 1 to April 30, 2019**.
d) All works for Phase 1 shall be completed prior to **August 30, 2019**. (excluding Landscaping work which can continue into September/October 2019)
e) Phase 2 work shall commence no sooner than **May 1, 2020**.
f) All work for project shall be completed by **August 30, 2020**.
g) The liquidated damages for this contract shall be **Two Thousand Dollars ($2,000.00)** from date of completion for the Phase 1 works on **August 30, 2019**

h) Phase 1 work shall be considered to be at an acceptable standard of completion with the following main work items being complete;

i. Base asphalt;
ii. Sidewalks, raised crossings and curbs (except behind catchbasins) all safely accessible for pedestrians/AODA compliant with temporary asphalt ramps to match base course asphalt;
iii. Temporary pavement markings;
iv. Permanent signage;
v. Road appurtenances - MH covers, CB gratings, Utility access chamber covers, water valves etc. (set at basecourse elevation);
vi. Street lighting complete;
vii. All new drainage operational.

8. Additional Insured

The following parties are identified to be included as additional insured for this project:

Brock University
WSP

9. Tender Deposit

Tender deposits, with the exception of those from the two lowest Bidders will be returned within fifteen (15) days after the tenders are opened.

The Tender Deposit of the two lowest Bidders will be held until all necessary documentation has been provided by the successful Bidder (i.e. – Insurance, W.S.I.B. Certificate of Clearance, Bonding, etc.), the Agreement has been duly executed and the Bidder has provided evidence, satisfactory to Brock University, that all arrangements have been made for commencement of the services to be provided, on the Contract start date.

No interest will be paid for deposits retained and/or cashed by Brock University. Bidders are deemed to have made due allowances for this requirement in their total contract tender price, including contingency items and excluding HST.

10. Insurance Certificate

Immediately upon Award, the successful Bidder shall provide Brock University with a Certificate of Insurance acceptable to the University and, if requested by the University, certified copies of the insurance policies. The Certificate of Insurance must comply with the insurance requirements outlined in this ITT. If the Certificate of Insurance is provided in a non-original form (e.g. a facsimile, photocopy or scanned electronic copy), the Bidder acknowledges and agrees that the University is fully entitled to treat any such Certificate as an original and that the Bidder will be responsible for the accuracy and validity of the information contained therein.

11. Maintenance of Traffic

The successful Tender shall submit a construction schedule and Traffic Management Plan to the Contract Administrator within seven (7) days of the contract award. The schedule shall show in a clear critical path diagram the proposed progress of all activity for the main items and site development of the contract, including key milestones and completion of work within the specified time allowed. Construction will not be allowed to commence until these documents are received and accepted.

12. Construction Schedule

The successful Tenderer shall submit a construction schedule to the Contract Administrator within seven (7) days of the contract award. The schedule shall show in a clear critical path diagram the proposed progress of all activity for the main items and site development of the contract, including key milestones and completion of work within the specified time allowed.

13. Examination of Plans, Specifications, and Site of Work

Tenderers shall carefully examine and study all the Contract Specifications and the site of work in order to satisfy themselves by examination as to all conditions affecting the contract and as to the detailed requirements of the construction.

14. Geotechnical Investigation

A copy of the borehole logs as prepared by WSP is appended to these specifications. The full geotechnical report is available on MERX.

The borehole logs are provided for information only. The Owner does not take responsibility for the accuracy of the information and provides it for consideration by tenderers. Tenderers are to make further investigation as they deem necessary, and at their own expense, to accurately assess the subsurface conditions to be encountered.

15. Regulations for Contracted Services

a) All Brock University suppliers must comply with the Accessibility for Ontarians with Disabilities Act, 2005 (AODA, 2005) and the University's accessibility policies and guidelines. This includes ensuring that all suppliers' employees receive training about providing goods or services to persons with disabilities. For further information visit www.brocku.ca/finance/vendors/accessibility-aoda-compliance.

b) The contractor is required to sign a Confidentiality and Privacy Agreement if personal information is collected, used or disclosed to the successful bidder in order to meet the terms of the contract. Brock University's Confidentiality and Privacy Agreement meets the legal requirements of the Freedom of Information and Protection of Privacy Act (FIPPA).

c) Contractors and contractor's subcontractors who perform services on Campus must comply with the Institutions Discrimination, Harassment and Sexual Violence Policies and the Ontario Human Rights Code. If a Proponent or Proponent's subcontractors are found in violation of these Policies or the Ontario Human Rights Code, the violation will result in cancellation of the purchase order or debarment of the contract.

d) The Supplier shall be in compliance with the Occupational Health and Safety Act of Ontario and its regulations and ensure that operators and vehicles used for deliveries meet the legislated requirements for protective equipment, devices, clothing and other related items.

Contractors shall be responsible for notifying the Contract Administrator when planning/implementing a disruption to any transportation walkway, pathway, driveway, roadway, etc. It shall be the Contractor's responsibility to notify the Contract Administrator of any disruption to regular service; prior to the commencement of the disruption. In the case where construction activities will cause a disruption to normal service appropriate signage shall be installed. At the University's request, information relating to the disruption shall be supplied to allow for the posting of disruption notices on the University's web page of choice.

The posted signage shall, as a minimum, include the headings listed below (or format supplied by the University) and shall be filled out by the contractor and installed in advance of the service disruption.

NOTICE OF SERVICE DISRUPTION
Please be advised of a disruption to:
Reason for disruption:
This service will be unavailable for the period of:
Alternative facilities or services:
For more information or service accommodation, please contact:

WE APOLOGIZE FOR THE INCONVENIENCE.
THANK YOU

e) The Supplier shall warrant its work and/or products for a period of not less than one (1) year from completion, installation or supply against all defects and deficiencies in manufacture, workmanship and installation. The Supplier shall also promptly remedy or replace any defect or deficiency, in the goods or services as solely determined by the University, upon notice from the University to do so, and at no cost to the University.

f) Should the Supplier fail to remedy any defect or deficiency promptly with a reasonable time after notice to do so, the University may remedy the defect or deficiency, at the Supplier's cost.

16. Deadline for Questions and Issuing Addenda

The deadline for tender enquiries is **Wednesday, January 23, 2019 at noon**.

Prior to the Deadline for Questions, bidders may ask questions or seek additional information in relation to this ITT through the contact listed herein. Brock University will not accept any bidder's questions or requests for information by any other means, except as specifically stated in this ITT.

The Deadline for Issuing Addenda is **Friday, January 25, 2019 at noon**.

17. Insurance Requirements

Coverage:

All insurers shall have an "AM Best" rating (or equivalent) of A- or better and be licensed and admitted in Canada.
The Contractor(s) providing services to Brock University throughout the terms of this Contract is/are required to provide the Certificate Holder (Brock University) with proof of insurance, upon award of the contract. **All liability policies**, with the exception of Third Party Automobile and Non-Owned Automobile and Worker's Compensation policies **shall be endorsed** to name **Brock University, and its consultants** as additional insured.

The Contractor(s) providing services to Brock University throughout the terms of this Contract is/are required to carry the types and limits not less than those described below and as required by the terms of this contract, or as required by law, whichever is greater. Limits may be provided through a combination of primary and umbrella/excess policies.

a) **Commercial general liability insurance** with a limit of not less than **$5,000,000** each occurrence and shall provide coverage for:

i) Premises operations
ii) Products-completed operations for a period of not less than 24 months
iii) Broad form property damage,
iv) Cross liability and severability of interest
v) Contractual liability
vi) Employees and sub-contractors as additional insureds
vii) Sudden and accidental pollution coverage
viii) Non-owned automobile (this coverage can be provided under the owned automobile policy)
ix) 30 days' notice of cancellation
x) Deductible shall not exceed $25,000 for Bodily Injury and/or Property Damage
xi) Removal of Excavation, Collapse and Underpinning Exclusion

If such insurance contains an aggregate limit, it shall apply separately on a per job/per project basis.

b) **Third party automobile liability insurance** with a limit of not less than **$5,000,000** each accident. Such insurance shall cover liability arising out of any automobile including owned, leased, hired and non-owned automobiles.

c) **Pollution legal liability insurance** with limits of not less than **$5,000,000** providing coverage for bodily injury and property damage, including loss of use of damaged property or of property that has not been physically injured. This will be required if the work involves abatement, removal, repair, replacement, enclosure, encapsulation and/or disposal of any petroleum, petroleum product, hazardous material or substance, the Contractor shall maintain in full force and effect throughout the term hereof, Such policy shall provide coverage for actual, alleged or threatened emission, discharge, dispersal, seepage, release or escape of pollutants, including any loss, cost or expense incurred as a result of any cleanup of pollutants or in the investigation, settlement or defense of any claim, suit or proceedings against Brock arising from Contractors work.

1. If coverage is written on a claims-made policy, the Contractor warrants that any applicable retroactive date precedes the effective date of this Contract; and that continuous coverage will be maintained, or an extended discovery period exercised, for a period of not less than two years from the time work under this Contract is completed.

2. If the Contract includes disposal of materials from the job site, the Contractor must furnish to [Brock], evidence of pollution legal liability insurance in the amount of $2,000,000 maintained by the disposal site operator for losses arising from the disposal site accepting waste under this Contract.

3. If autos are used for transporting hazardous materials, the Contractor shall provide pollution liability broadened coverage for covered autos under an approved endorsement.

d) **Waiver of Subrogation**

Contractor shall cause to be included in each of its policies insuring against loss, damage or destruction by fire or other insured casualty a waiver of the insurer's right of subrogation against [Brock] its's employees and agents and others for whom the University is responsible in law.

INSTRUCTIONS TO BIDDERS

(Refer to Niagara Peninsula Standard Contract Documents)

INSTRUCTIONS TO BIDDERS

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1. **Return of Tender Deposits**

The tender deposits of all unsuccessful bidders will be returned as soon as the bids have been checked for errors and a recommendation has been made to award the contract. The tender deposit of the successful bidder will be returned as soon as the contract is executed by the Owner.

2. **Tender Deposits**

The tender deposit, shall serve as surety that, upon acceptance of the bid, a contract will be entered into for the proper performance of the work within fourteen (14) days of contract award.

The said tender deposit shall be forfeited and surrendered as the agreed amount of liquidated damages, in case of failure of the Contractor to enter into a contract as described above. The said tender deposit will be returned after the contract has been signed, and the required Bonds, Workers' Compensation Board Clearance Certificate, and Insurance Certificate(s) have been furnished and approved by the Owner.

3. **Withdrawal of Tenders**

A tenderer who has already submitted a tender may submit a further tender at any time up to the official closing time. The last tender received shall supersede and invalidate all tenders previously submitted by that Tenderer. A Tenderer may withdraw his tender at any time up to the official closing time by delivery of a letter bearing his signature and seal as in his tender, to the Owner. No other means of notification will be considered.

Where the Owner calls several tenders for opening on the same date and a tenderer submits tenders on all or more than one of the tenders, it is permissible, after the opening of tenders on one job, for a tenderer to withdraw tenders from further jobs, providing the tenderer is the low bidder on the tender call just opened and the further tenders have not been opened. Tenders withdrawn under this procedure cannot be reinstated.

4. **Acceptance or Rejection of Tenders**

The Owner reserves the right to reject any or all bids as the interests of the Owner may require, without stating reasons therefore, and the lowest or any tender will not necessarily be accepted.

Tenderers shall keep their tenders open for acceptance for forty five (45) days after the closing date. Withdrawal during this period will result in forfeiture of the tender deposit.

5. Unbalanced Tenders and Discrepancies

Tenders that contain prices which appear to be so unbalanced as likely to adversely affect the interests of the Owner may be rejected.

When in a tender the amount tendered for an item does not agree with the extension of the estimated quantity and the tendered unit price, the unit price shall govern and the amount of the total Tender Price shall be corrected accordingly.

In the case of an error in addition, the correct sum of the amounts shown for each tendered item shall be deemed to be the total tender price regardless of the amount submitted by the tenderer.

6. Informal Tenders

A tender shall be rejected as informal for any of the following reasons:

a) Late bid.

b) Incorrect tender form or envelope.

c) Bids completed in pencil.

d) Incomplete bids, including failure to include addendum.

e) Bids with qualifications.

f) Bid not signed and/or sealed.

g) Erasures, overwriting or strikeouts not initialed.

Tender award will be made on the basis of the specified items.

7. Omissions and Discrepancies

If a tenderer finds discrepancies in, or omissions from, the drawings, specifications or other tender documents, or if he is in doubt as to their meaning, he should advise the Contract Administrator immediately. A written addendum will be sent to all tenderers if, in the opinion of the Contract Administrator, it is required.

8. Quantities are Estimated

The quantities shown for the items in the Form of Tender are estimates only and are for the sole purpose of indicating to tenderers the general magnitude of the work. For any work done or materials supplied on the unit price basis, the Contractor will be paid for the actual measured quantities at the respective unit prices tendered.

9. Geotechnical Investigation

The geotechnical investigation and supporting data is provided for information only and represents the considered opinion and findings of the firm which undertook the work. The Owner does not take responsibility for the accuracy of the information and provides it for consideration by tenderers.

10. Examination of Site

Tenderers are required to satisfy themselves as to existing conditions of the site and make appropriate allowances in preparing the tender. The Owner assumes that the information provided is the best available at the time of tender advertising and that tenderers will use the available information as a basis for pricing in the tender. The tenderer shall allow for any conditions deemed reasonable and appropriate for the performance of the work as outlined in the tender documents and incorporate such reasonable allowances in the pricing of the tender.

11. Liability Insurance

Tenderers are required to provide liability insurance as defined in Special Provisions - General.

12. Safe Drinking Water Act

The Safe Drinking Water Act, 2002 (SDWA) requires Owners and Operating Authorities of drinking water systems to have an accredited Operating Authority. In order to become accredited, an Operating Authority must establish and maintain a Drinking Water Quality Management System (DWQMS). Bidders shall make themselves aware of the SDWA and DWQMS in place. If requested by owner of the drinking water system, bidders shall participate in relevant awareness/information sessions either before or after closing of the tenders. The successful bidder and its sub-contractors working on a drinking water system shall comply with all applicable regulations under the SDWA and also meet all the requirements of the DWQMS.

13. Accessibility Regulations for Contracted Services

Contracted employees, third party employees, agents and others that provide customer service on behalf of Owner are legally responsible to be in compliance with the provisions outlined in Section 6 of the Ontario Regulation 429/07 with respect to training under the Customer Service Standard of the *Accessibility for Ontarians with Disabilities Act (2005).* The Contractor shall ensure that such training includes, without limitation, a review of the purposes of the Act and the requirements of the Regulation, as well as instructions regarding all matters set out in Section 6 of the Regulation.

The bidder shall be in full compliance with this regulation. The successful bidder will be expected to complete the confirmation form, prior to the issue of the agreement or purchase order.

Contractors shall be responsible for notifying the general public when planning/implementing a disruption to any transportation walkway, pathway, driveway, roadway, etc. It shall be the Contractor's responsibility to notify the general public of any disruption to regular service; prior to the commencement of the disruption. In the case where construction activities will cause a disruption to normal service appropriate signage shall be installed. At the Owner's request, information relating to the disruption shall be supplied to allow for the posting of disruption notices on the Owner's web page of choice.

The posted signage shall – as a minimum - include the headings listed below (or format supplied by the Owner) and shall be filled out by the contractor and installed in advance of the service disruption.

NOTICE OF SERVICE DISRUPTION

Please be advised of a disruption to:

Reason for disruption:

This service will be unavailable for the period of:

Alternative facilities or services:

For more information or service accommodation, please contact:

WE APOLOGIZE FOR THE INCONVENIENCE.

THANK YOU

FORM OF TENDER

Brock University

Construction of Village Road
And Expansion/Rehabilitation of Parking Lot S
Invitation to Tender No. ITT DB18-13

FORM OF TENDER

We, the undersigned Contractor(s) have carefully examined the attached documents as herein listed and forming part of this tender.

DOCUMENTS INCLUDED IN CONTRACT

Special Provisions
Special Instructions to Bidders
Instructions to Bidders
General Conditions
Supplementary General Conditions
Standard Specifications (as noted)
Drawings (as noted)
Addenda (if applicable)

and have carefully examined the site and location of the work to be done under this contract. We, the undersigned Contractor(s), understand and accept the said drawings and contract documents, and, for the prices set forth in this Tender, hereby offer to furnish all machinery, labour, tools, apparatus and other means of construction, furnish all materials except as otherwise specified in the Contract, and to complete the work in strict accordance with the drawings and contract documents referred to

above, for the total tender price of _____dollars.

($ _____) *excluding H.S.T.*

ADDENDA

We acknowledge that we have received Addendum/Addenda No._____* to _____* inclusive, and that all changes specified in the Addendum/Addenda have been included in the prices submitted.

COMMENCEMENT AND COMPLETION

We agreed to commence work as specified, to proceed continuously to the completion and to complete all the Phase 1 work **on or before Aug, 30, 2019.**

We agreed to commence work as specified, to proceed continuously to the completion and to complete all the Phase 2 work **on or before Aug, 30, 2020.**

TENDER IS OPEN TO ACCEPTANCE & IRREVOCABLE

We agree that this tender is to continue open to acceptance and irrevocable until the formal contract has been executed by the successful tenderer for the said work, and the bond or bonds as specified have been executed by the approved surety or sureties, and that the Owner may, at any time, within **30 (thirty)** calendar days of closing date, accept this tender without notice, whether any tender has been previously accepted or not.

* to be filled in by Tenderer.

OFFERED ON BEHALF OF THE CONTRACTOR

Insert Workplace Safety & Insurance Board Account No.

Signature

Signature

Company Name

Address

Contactor's Seal

Witness

Date

Witness

NOTE:

(a) If the Tenderer is a Corporation, the Corporate seal must be affixed under the signature of a duly authorized officer or officers of the Corporation.

(b) If the Tenderer is not a Corporation or a Partnership, the Tenderer must sign in the presence of a witness who must also sign.

(c) If the Tenderer is a Partnership, each member of the Partnership must sign in the presence of a witness who must also sign.

Brock University

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SCHEDULE OF QUANTITIES

ITEM NO.	SPEC NO.	DESCRIPTION	EST'D QTY.	UNIT	UNIT PRICE	TOTAL PRICE

PHASE 1 - STAGE 1 - LOT S CARPARK & RING ROAD (STATION 270-720) - WORKS MAY 01 to be completed by AUG 30, 2019
PHASE 1 - STAGE 1A - LOT S EXTENDED CARPARK - WORKS MARCH 01 - MARCH 31, 2019
PHASE 1 - STAGE 2 - VILLAGE ROAD (STATION 0-270) - WORKS MID MAY to be completed by AUG 30, 2019
PHASE 2 - SURFACING WORKS TO VILLAGE ROAD/RING ROAD & LOT S CARPARK

SECTION '1A' - GENERAL

1.1	A1	BONDING	1	L.S.	$ _____	$ _____
1.2	A2	PRECONSTRUCTION SURVEY	1	L.S.	$ _____	$ _____
	C5 SPC 59	Flush and CCTV Inspect Sewers - Phase 1 - inspect condition of existing storm and sanitary sewers under Village Rd as record of existing condition and to identify any necessary repairs	300.0	m	$ _____	$ _____
1.3	A3, SPC1	SITE OFFICE - PHASE 1 (MARCH 01 - AUG 30 = 26 weeks)	1	L.S.	$ _____	$ _____
1.4	A4, SPC2	CONSTRUCTION LAYOUT including POST CONSTRUCTION STAGE 1 - AS BUILT SURVEY & AS CONSTRUCTED RECORD DRAWING MARK UP	1	L.S.	$ _____	$ _____
1.5	A7, SPC 4 - item 7.2	SILT CONTROL - FENCING /DAMS i) Silt control fence 600mm high (OPSD 219.110) Supply install maintain and remove - southern boundary of Lot S carpark	200.0	m	$ _____	$ _____
1.6		ii) Straw bale check dams (OPSD 219.180)	4.0	each	$ _____	$ _____
1.7		iii) MUD mats as Phasing Plan	200.0	m2	$ _____	$ _____
1.8	A8, SPC5	TRAFFIC CONTROL AND TRAFFIC MANAGEMENT PLAN	1	L.S.	$ _____	$ _____
1.9		TEMPORARY CONSTRUCTION FENCING - (1.8m Rigid Fence) Supply install maintain and remove temporary construction fencing	1000	m	$ _____	$ _____
1.10	SPTI - SP2	TREE PROTECTION Supply install maintain and remove temporary construction / tree protection fencing (1.2m high orange	705	m	$ _____	$ _____
1.11	SPWI - GEN	INSURANCES	1	LS	$ _____	$ _____
		Total Section '1A'				**$**

ITEM NO.	SPEC NO.	DESCRIPTION	EST'D QTY.	UNIT	UNIT PRICE	TOTAL PRICE
PHASE 1 - STAGE 1A - LOT S EXTENDED CARPARK - WORKS MARCH 01 - MARCH 31, 2019						
SECTION '1B' - GENERAL						
1.12	A7, SPC 4 - item 7.2	SILT CONTROL - FENCING /DAMS i) Silt control fence 600mm high (OPSD 219.110)	600.0	m	$ _____	$ _____
1.13	A8, SPC5	TRAFFIC CONTROL AND TRAFFIC MANAGEMENT PLAN - PHASE 1A	1	L.S.	$ _____	$ _____
1.14		TEMPORARY CONSTRUCTION FENCING - Stage 1A (1.2m high orange snow fence).Supply install maintain and remove temporary construction fencing MARCH 01-MARCH 31	600	m	$ _____	$ _____
1.15	SPTI - SP2	TREE PROTECTION Supply install maintain and remove temporary construction / tree protection fencing (1.2m high orange snow fence). Boundary with Woodlot	200	m	$ _____	$ _____
1.16		Gas relocations (by Enbridge) - Contractor to provide access and clearance to allow Enbridge Contractor to complete their gasmain relocation work on the Village Road between Stns 0 -140.	1	L.S.	$ _____	$ _____
1.17	SPWI - GEN	DEMOBILISATION/MOBILISATION (APRIL 01-APRIL 30)	1	LS	$	$
		Total Section '1B'				$

ITEM NO.	SPEC NO.	DESCRIPTION	EST'D QTY.	UNIT	UNIT PRICE	TOTAL PRICE
SECTION '2' - REMOVALS /EARTHWORKS - STAGE 1A						
PHASE 1 - STAGE 1A - LOT S EXTENDED CARPARK - WORKS MARCH 01 - MARCH 31, 2019						
		REMOVALS				
2.1	A5, SPC2	CLEARING & GRUBBING - STAGE 1A (allow for 300mm depth topsoil clearance and storage on site for reuse on Brock University site)	20000	m^2	$ _____	$ _____
2.2	A5, SPC2	Remove Woodlot trees & woody vegetation (Bird Nesting season March 01 to September 01, 2019 - Contractor to include for an Ecologist to check trees for nesting birds prior to clearance)	8500	m^2	$ _____	$ _____
2.3	A5, SPC2	Removal Specimen trees (as individually identified) spaded for relocation NB: this item covers tree removal/relocation over the whole project area. (Bird Nesting season March 01 to September 01, 2019 - Contractor to include for an Ecologist to check trees for nesting birds prior to clearance)	11	each	$ _____	$ _____
	B2, SPC 6	EARTH WORKS (STAGE 1A AREA) (all disposal of unsuitable native material will be on Brock University grounds)				
2.4		Excavation & Storage on site of unsuitable native material (Woodlot area up to 1000mm depth)	2500	m^3	$ _____	$ _____
2.5		Excavation & Storage on site of unsuitable native material (Lot S)	3500	m^3	$ _____	$ _____
2.6		Excavation and Storage for reuse suitable native material (Lot S)	3500	m^3	$ _____	$ _____
		Total Section '2'				**$**

ITEM NO.	SPEC NO.	DESCRIPTION	EST'D QTY.	UNIT	UNIT PRICE	TOTAL PRICE
SECTION '3' - SEWERS - PHASE 1 - STAGE 1 - MAY 01 - AUG 30 2019						
	B27, SPC 38	REMOVALS				
3.1		Remove Existing Catch Basins (all types)	2.0	each	$ _____	$ _____
3.2		Remove Existing CB Maintenance Holes (all types)	1.0	each	$ _____	$ _____
3.3		Remove existing Sewer Pipe (200-250 mm dia)	0.0	m	$ _____	$ _____
3.4		Remove existing Sewer Pipe (300 mm dia.)	55.0	m	$ _____	$ _____
3.5		Plug & Abandon Pipe existing connections to 1350mm dia sewer	2.0	each	$ _____	$ _____
3.6	SPTI -SP5	ROCK EXCAVATION - OGS 1	50	m^3	$ _____	$ _____
	C1, SPC 56	SEWERS				
3.7	C2 SPC 58	Supply and install 200 -250 mm PVC Pipe (SDR-35)				
		a) Ring Road	130.0	m	$ _____	$ _____
		b) Lot S	30.0	m	$ _____	$ _____
		c) Ring Road (IPEX 50 PSI) - ABOVE REGION WATERMAIN	23.0	m	$ _____	$ _____
3.8	C1, SPC 56	Supply and install 300 mm dia. PVC Pipe (SDR-35)				
		a) Ring Road	120.0	m	$ _____	$ _____
		b) Lot S	45.0	m	$ _____	$ _____
		c) Lot S (IPEX 50 PSI) - ABOVE REGION WATERMAIN	32.0	m	$ _____	$ _____
3.9	C1, SPC 56	Supply and install 375 mm dia. PVC Pipe (SDR-35)				
		a) Ring Road	50.0	m	$ _____	$ _____
		b) Lot S	50.0	m	$ _____	$ _____
3.10	C1, SPC 56	Supply and install 450 mm dia. PVC Pipe (SDR-35)				
		a) Ring Road	250.0	m	$ _____	$ _____
		b) Lot S	100.0	m	$ _____	$ _____
3.11	C1, SPC 56	Supply and install 600 mm dia. Concrete Pipe (65D)				
		a) Ring Road	35.0	m	$ _____	$ _____
		b) Lot S	50.0	m	$ _____	$ _____
3.12	C1, SPC 56	Supply and install 750 mm dia. Concrete Pipe (65D)				
		a) Ring Road	35.0	m	$ _____	$ _____
		b) Lot S	150.0	m	$ _____	$ _____
3.13	C1, SPC 56	Supply and install 900 mm dia. Concrete Pipe (65D)				
		a) Lot S	100.0	m	$ _____	$ _____
3.14	C6, SPC 57	OIL/GRIT SEPARATOR - Precast concrete including frames & covers				
		i) CDS PMSU4045_8 or approved equivalent (OGS-1)	1.0	each	$ _____	$ _____
		ii) CDS PMSU5640 or approved equivalent (OGS-2)	1.0	each	$ _____	$ _____
		Total Section '3'				$

ITEM NO.	SPEC NO.	DESCRIPTION	EST'D QTY.	UNIT	UNIT PRICE	TOTAL PRICE
SECTION '3' - SEWERS - PHASE 1 - STAGE 1 - MAY 01 - AUG 30 2019						
		MAINTENANCE HOLES - Precast concrete including frames & covers/grates				
3.15	C6, SPC 57	1200mm diameter (OPSD 701.010) including CBMH				
		a) Ring Road (CBMHs)	8.0	each	$ _____	$ _____
		a) Ring Road (Double CBMHs)	1.0	each	$ _____	$ _____
		b) Lot S	1.0	each	$ _____	$ _____
3.16	C6. SPC 57	1500mm diameter (OPSD 701.011)				
		a) Ring Road	3.0	each	$ _____	$ _____
		b) Lot S (CBMHs)	2.0	each	$ _____	$ _____
3.17	C6, SPC 57	1800mm diameter (OPSD 701.012)				
		a) Ring Road (CBMHs)	3.0	each	$ _____	$ _____
		b) Lot S	2.0	each	$ _____	$ _____
3.18	C6, SPC 57	1800mm diameter (OPSD 701.012)				
		a) Ring Road (with Orifice Control included)	1.0	each	$ _____	$ _____
3.19	C6, SPC 57	2400mm diameter (OPSD 701.013)				
		a) Ring Road	2.0	each	$ _____	$ _____
3.20	C6, SPC 57	CATCH BASINS - Precast concrete including frames & grates				
		i) CB (OPSD 705.010 & 400.020)	16.0	each	$ _____	$ _____
		ii) DCB (OPSD 705.020 & 400.020(2))	1.0	each	$ _____	$ _____
3.21	see dwg	Cored connection into existing Storm culvert for 675mm pipe as per Drawing Detail DET 01	1.0	each	$ _____	$ _____
3.22	C5 SPC 56	Flush and CCTV Inspect Sewers - Stage 1 post-completion	1000.0	m	$ _____	$ _____
		Total Section '3'				$

ITEM NO.	SPEC NO.	DESCRIPTION	EST'D QTY.	UNIT	UNIT PRICE	TOTAL PRICE
SECTION '3' - SEWERS - PHASE 1 - STAGE 2 - MID MAY - AUG 30 2019						
	B27, SPC 40	REMOVALS				
3.23		Catch Basins (all types)	10.0	each	$ _____	$ _____
3.24		Maintenance Holes (all types)	6.0	each	$ _____	$ _____
3.25		Remove Sewer Pipe (200-250 mm dia)	20.0	m	$ _____	$ _____
3.26		Remove Sewer Pipe (300 mm dia.)	20.0	m	$ _____	$ _____
3.27		Remove Sewer Pipe (375 mm dia.)	105.0	m	$ _____	$ _____
3.28		Remove Sewer Pipe (525 mm dia.) to facilitate OGS-2	10.0	m	$ _____	$ _____
3.29		Plug & Abandon Pipe (pipe dia. 200-300mm dia.)	6.0	each	$ _____	$ _____
3.30	SPTI -SP5	ROCK EXCAVATION - OGS 2	50	m^3	$ _____	$ _____
	C1, SPC 56	SEWERS				
3.31	C2 SPC 58	Supply and install 200 mm PVC (SDR-35) CB leads a) Ring Road	80.0	m	$ _____	$ _____
3.32	C1, SPC 56	Supply and install 300 mm dia. PVC (SDR-35) a) Ring Road	155.0	m	$ _____	$ _____
3.33	C1, SPC 56	Supply and install 375 mm dia. (SDR-35) PVC a) Ring Road	0.0	m	$ _____	$ _____
3.34	C1, SPC 56	Supply and install 450 mm PVC Pipe (IPEX 50 PSI) a) Ring Road	105.0	m	$ _____	$ _____
3.35	C1, SPC 56	Supply and install replacement 525 mm dia. (65D) CONC to facilitate OGS-2 a) Ring Road	10.0	m	$ _____	$ _____
3.36	C1, SPC 56	Connections - reconnect existing sewer leads a) Ring Road	5.0	each	$ _____	$ _____
3.37	C1, SPC 56	Connections - Coring into existing MH (include for 200-450 mm dia) to make new connections a) Ring Road	6.0	each	$ _____	$ _____
3.38	C1, SPC 56	Connections - Coring into existing 525mm dia. sewer (include for 200-375 mm dia) to make new connections a) Ring Road	2.0	each	$ _____	$ _____
3.39	C1, SPC 56	Connections - T section inserted into existing sewer (include for 200-375 mm dia) to make new connections include couplings a) Ring Road	1.0	each	$ _____	$ _____
		Total Section '3'				**$**

ITEM NO.	SPEC NO.	DESCRIPTION	EST'D QTY.	UNIT	UNIT PRICE	TOTAL PRICE
SECTION '3' - SEWERS - PHASE 1 - STAGE 2 - MID MAY - AUG 30 2019						
3.40	C6, SPC 59	MAINTENANCE HOLES - Precast concrete including frame & cover/grates 1200mm diameter (OPSD 701.010) including CBMH a) Ring Road (CBMHs) b) Ring Road (double CBMHs)	 6.0 1.0	 each each	 $ _____ $ _____	 $ _____ $ _____
3.41	C6, SPC 59	1500mm diameter (OPSD 701.011) a) Ring Road	 1.0	 each	 $ _____	 $ _____
3.42	C6, SPC 59	CATCH BASINS - Precast concrete including frame & grate a) CB (OPSD 705.010 & 400.020) b) DCB (OPSD 705.020 & 400.020(2))	 12.0 1.0	 each each	 $ _____ $ _____	 $ _____ $ _____
3.43	SPTI - SP10	Adjust structure/cover to new road grades for the existing MH for 525mm dia sewer	1.0	each	$ _____	$ _____
3.44	C1, SPC 56	Connections with couplings for 525 mm conc pipe (approx 3m depth) to allow construction of OGS 2 (Contractor to allow for dealing with groundwater within this item)	25.0	each	$ _____	$ _____
3.45	see dwg	Cored connections for new Catchbasin servcies (200-300mm dia.) into existing Storm MH and pipes (depth 2-3m BGL) (Contractor to allow for dealing with groundwater within this item)	3.0	each	$ _____	$ _____
3.46	C5 SPC 59	Flush and T.V. Inspect Sewers - Stage 2 post completion sewers	400.0	m	$ _____	$ _____
		Total Section '3'				**$**

ITEM NO.	SPEC NO.	DESCRIPTION	EST'D QTY.	UNIT	UNIT PRICE	TOTAL PRICE
SECTION '4' - WATERMAINS - PHASE 1 - STAGE 2 - MID MAY - AUG 30 2019						
	D1 SPC 60	WATERMAIN WORKS (Contractor shall comply with City of St Catharines, Brock University and Region standards and shall include all costs for removing, connecting, disinfection/testing, tracer wire and commissioning new/replacement sections of watermain- No additional costs shall be accepted.)				
4.1	D1 SPC 60	Region/Brock watermain chamber on Brock 200mm dia WM - reconstruct at STN 56m (the top of chamber is required to be lowered by up to 500mm, Contractor to include for removal/replacement of the existing concrete MH ring riser section with a new smaller riser section and new cover/access ladders and adjustment to existing valve stems etc)	1	Ea	$ _____	$ _____
4.2	D2 & D2 SPC 62	Fire Hydrant - removal and relocate to new position as dwgs - Contractor to include for new hydrant set/valving and watermain in accordance with OPSD 1105.010	2	Ea	$ _____	$ _____
4.3	D4 SPC 63	Brock watermain services lowering PVC/copper (25-50mm dia.)	30	m	$ _____	$ _____
4.4	D1 SPC 60	Brock watermain lowering PVC (50-100mm dia.)	10	m	$ _____	$ _____
4.5	D1 SPC 60	Brock watermain lowering PVC (100-200mm dia.)	10	m	$ _____	$ _____
4.6	D4 SPC 63	Brock watermain services relocation PVC/copper (25-50mm dia.)	50	m	$ _____	$ _____
4.7	D4 SPC 63	Brock watermain relocation PVC (100-200mm dia.)	50	m	$ _____	$ _____
4.8	SPTI -SP10	Water chamber cover adjustments/replacements	2	Ea	$ _____	$ _____
4.9	SPTI -SP10	Water valve cover adjustments	10	Ea	$ _____	$ _____
4.10	D4 SPC 63	Brock Irrigation system replacement PVC (25-50mm dia.)	600	m	$ _____	$ _____
		Total Section '4'				**$**

ITEM NO.	SPEC NO.	DESCRIPTION	EST'D QTY.	UNIT	UNIT PRICE	TOTAL PRICE
SECTION '5' - ROAD WORKS - PHASE 1 - STAGE 1 - MAY 01 - AUG 30 2019						
	B27, SPC 38	REMOVALS				
5.1		Existing Asphalt/ Granular Base (Existing Lot S carpark) pulverise	5000	m^2	$ _____	$ _____
5.2		Recover pulverised Asphalt/Granular carpark base (Existing Lot S carpark) for reuse as fill (include for storage of material)	1000	m^3	$ _____	$ _____
5.3		Concrete sidewalk (include for crushing and reuse as fill)	400	m^2	$ _____	$ _____
5.4		Concrete Curbs (all types - include for crushing and reuse as fill)	400	m	$ _____	$ _____
5.5		Signs	20	each	$ _____	$ _____
5.6	B11 SPC 10	Saw cutting pavement i) Existing Roads	100	m	$ _____	$ _____
5.7	B11 SPC 10	Asphalt Milling (50mm depth) i) Existing Road and access roads	400	m^2	$ _____	$ _____
5.8	B30 SPC 39	Base repairs i) Existing Roads (asphalt repairs to base)	300	m^2	$ _____	$ _____
5.9	B2, SPC 6	EARTH WORKS (all disposal of unsuitable native material will be on Brock University grounds) i) Excavation & Disposal (Ring Road)	2500	m^3	$ _____	$ _____
5.10	B3, SPC 7	GRANULAR MATERIAL - All granular A material for the project measured in this Section i) Granular 'A' Crushed Limestone (carparks, ring road, sewer bedding & cover)	45500	t	$ _____	$ _____
		ii) Granular 'A' Crushed Limestone - base repairs - to 250mm depth (PROVISONAL)	400	m2	$ _____	$ _____
		iv) 19mm Clearstone - sub drain bedding/cover	5000	t	$ _____	$ _____
		v) Filling - Recovered Asphalt/Granular (fill to make up Woodlot strip)	1000	m3	$ _____	$ _____
		vi) Filling - Granular B Type II under road/carpark - (to make up Woodlot strip)	4000	t	$ _____	$ _____
		Total Section '5 PHASE 1 - STAGE 1'				**$**

ITEM NO.	SPEC NO.	DESCRIPTION	EST'D QTY.	UNIT	UNIT PRICE	TOTAL PRICE
SECTION '5' - ROAD WORKS - PHASE 1 - STAGE 1 - MAY 01 - AUG 30 2019						
5.11	B6, SPC 8	SUBDRAIN - SUPPLY & INSTALL HDPE 150MM DIA. PERFORATED SUB-DRAIN C/W FILTER SOCK as OPSD 0216.0210 and outlet details	1200	m	$ _____	$ _____
5.12	B8, SPC 9	CONCRETE CURB & GUTTER				
		i) OPSD 600.040 - Standard curb & gutter	1800	m	$ _____	$ _____
		ii) OPSD 600.060 - Semi mountable with gutter	85	m	$ _____	$ _____
		iii) OPSD 600.110 - Barrier Curb	700	m	$ _____	$ _____
5.13	B9, SPC 9	CONCRETE SIDEWALK/CONCRETE PADS				
		i) 125mm thick	1500	m^2	$ _____	$ _____
		ii) 150mm thick	100	m^2	$ _____	$ _____
5.14		CONCRETE PADS 200mm thick reinforced with polyfibre reinforcement (Shed pad 6m x 6m)	36	m^2	$ _____	$ _____
5.15	B12, SPC 11	TACK COAT	25000	m^2	$ _____	$ _____
5.16	B13, SPC 12	ADJUSTMENT OF APPURTENANCE				
		i) Existing Manholes/Service covers	10.0	each	$ _____	$ _____
5.17	B14, SPC 14	HOT MIX ASPHALT				
		i) HL8 HS - Lot S - 50 mm depth	1750	t	$ _____	$ _____
		ii) HL8 HS Ring Road - 120mm depth (laid in two lifts)	1500	t	$ _____	$ _____
		iii) HL3 FINE - (PATHS, SIDEWALKS)	150	t	$ _____	$ _____
5.18	B15 SPC 28	ASPHALT MULTI-USE TRAIL	366	m^2	$ _____	$ _____
5.19	B16 SPC 29	DECORATIVE CONCRETE CROSSWALKS				
		i) Flush concrete curb (both sides of crosswalk)	50	m	$ _____	$ _____
		ii) Concrete walk, 200mm depth, stamped, coloured	65	m^2	$ _____	$ _____
5.20	B20 SPC 31	HAND LAID RIP RAP (OPSD 511) 100-200mm	100	m^2	$ _____	$ _____
5.21	B19 SPC 31	DITCHES/REGRADING (include new sections of ditching/swale)	100	m	$ _____	$ _____
5.22		SIGNS				
		i) New roadside signs, including post (50 x 50 mm square section) including No Parking sign and Fire Route sign on each post.	10	each	$ _____	$ _____
5.23	B34, SPC 54	TACTILE WARNING SURFACES - as Niagara Region specification/dwgs				
		i) Square (600x750mm)	8	each	$ _____	$ _____
		ii) Radial (refer to Niagara Region standard dwgs)	8	each	$ _____	$ _____
5.24		Decommission existing monitoring BOREHOLE WELLS - reinstated by certified WELL contractor	4	each	$ _____	$ _____
5.25	B21, B22 SPC 32	RESTORATION - See Dwg L400				
		i) Topsoil and Sod	3500	m^2	$ _____	$ _____
		ii) Topsoil and Naturalized Woodland Seed Mix (Terraseed)	2500	m^2	$ _____	$ _____
		iii) Topsoil and Ecolawn Seed Mix (Terraseed)	2000	m^2	$	$
		Total Section '5 PHASE 1 - STAGE 1'				$

ITEM NO.	SPEC NO.	DESCRIPTION	EST'D QTY.	UNIT	UNIT PRICE	TOTAL PRICE
SECTION '5' - ROAD WORKS - PHASE 1 - STAGE 2 - MID MAY- AUG 30 2019						
		REMOVALS				
5.26	A5, SPC2	CLEARING & GRUBBING - PHASE 2	2000	m2	$ _____	$ _____
5.27	A5, SPC2	Removal Specimen trees (as individually identified) spaded for relocation to locations specified (to be finalised with Brock Universiity)	8	each	$ _____	$ _____
5.28	B27, SPC 38	REMOVALS				
		i) Asphalt (Existing Village Rd)	2500	m^2	$ _____	$ _____
		ii) Concrete sidewalk	400	m^2	$ _____	$ _____
		iii) Curb (all types)	1000	m	$ _____	$ _____
		iv) Signs	5	each	$ _____	$ _____
		v) Signs (remove and salvage for reuse)	15	each	$ _____	$ _____
5.29	B11 SPC 10	Saw cutting Pavement (Base repairs & over banding)				
		i) Existing Roads	200	m	$ _____	$ _____
5.30	B11 SPC 10	Asphalt Milling (full depth)				
		i) Existing Road and access roads, Lowenburger Access	800	m^2	$ _____	$ _____
5.31	B11 SPC 10	Asphalt Milling (50mm depth)				
		i) Existing Road /Carpark Lot P	1500	m^2	$ _____	$ _____
5.32	B30 SPC 39	Base repairs				
		i) Existing Access Roads, Lowenburger Access, Lot P carpark (asphalt repairs to base)	1000	m^2	$ _____	$ _____
5.33	B2, SPC 6	EARTH WORKS				
		i) Excavation & Disposal (Ring Road)	2500	m^3	$ _____	$ _____
5.34	B6, SPC 8	SUBDRAIN - SUPPLY & INSTALL HDPE 150MM DIA. PERFORATED SUB-DRAIN C/W FILTER SOCK as OPSD 0216.0210 and outlet details	600	m	$ _____	$ _____
5.35	B8, SPC 9	CONCRETE CURB & GUTTER				
		i) OPSD 600.040 - Standard curb & gutter	700	m	$ _____	$ _____
		ii) OPSD 600.060 - Semi mountable with gutter	100	m	$ _____	$ _____
		iii) OPSD 600.110 - Barrier Curb	400	m	$ _____	$ _____
5.36	B9, SPC 9	CONCRETE SIDEWALK/CONCRETE PADS				
		i) 125mm thick	1150	m^2	$ _____	$ _____
		ii) 150mm thick	100	m^2	$ _____	$ _____
5.37	B12, SPC 11	TACK COAT	10000	m^2	$ _____	$ _____
5.38	B13, SPC 12	ADJUSTMENT OF APPURTENANCE				
		i) Existing Manholes/Service covers	20.0	each	$ _____	$ _____
		Total Section '5 PHASE 1 - STAGE 2'				**$**

ITEM NO.	SPEC NO.	DESCRIPTION	EST'D QTY.	UNIT	UNIT PRICE	TOTAL PRICE
SECTION '5' - ROAD WORKS - PHASE 1 - STAGE 2 - MID MAY- AUG 30 2019						
5.39	B14, SPC 14	HOT MIX ASPHALT				
		i) HL3-HS Lot P/Kenmore Centre Carpark & new carparking bays - 50 mm depth	240	t	$ _____	$ _____
		i) HL8-HS Kenmore Centre & carparking bays - 60 mm depth	300	t	$ _____	$ _____
		ii) HL8-HS Ring Road - 120mm depth (laid in two lifts)	1000	t	$ _____	$ _____
5.40	B15 SPC 28	ASPHALT DRIVEWAYS HL3-HS - Commercial Driveway - Lowenburger building and access roads to Courts	600	m^2	$ _____	$ _____
5.41	B16 SPC 29	DECORATIVE CONCRETE CROSSWALKS				
		i) Flush concrete curb (both sides of crosswalk)	50	m	$ _____	$ _____
		ii) Concrete walk, 200mm depth, stamped, coloured	65	m^2	$ _____	$ _____
5.42		CONCRETE PAD 200mm thick - reinforced with polyfibre reinforcement (Generator pad) - Contractor to allow for 4 Hydro ducts + 2 comms ducts to enter the slab and terminate at the edge of the generator foot print.	75	m^2	$ _____	$ _____
5.43	SP1	Generator compound - Perimeter 2.4m high fencing (hit and miss) and with 3.0m gate access and 1.8m x 0.9m wide Door within Gates . Contractor to design fencing/provide shop dwg for Brock University/Engineer approval.	1	each	$ _____	$ _____
5.44		SIGNS i) New roadside signs, including post 50 x 50mm square post including No Parking sign and Fire Route sign on each post.	15	each	$ _____	$ _____
5.45	B34, SPC 54	TACTILE WARNING SURFACES				
		i) Square (600x750mm)	18	each	$ _____	$ _____
		ii) Radial (Niagara Region standard dwgs)	16	each	$ _____	$ _____
5.46		Decommission existing monitoring BOREHOLE WELLS - reinstated by certified WELL contractor	4	each	$ _____	$ _____
5.47	Appendix D	TURFSTONE BY UNILOCK (or similar approved) permeable paving as Landscaping specification requirements in Appendix C	250	m^2	$ _____	$ _____
5.48	B21, B22 SPC 32	RESTORATION i) Topsoil and Sod	2000	m^2	$ _____	$ _____
		Total Section '5 PHASE 1 - STAGE 2'				**$**

ITEM NO.	SPEC NO.	DESCRIPTION	EST'D QTY.	UNIT	UNIT PRICE	TOTAL PRICE
SECTION 6 - PAVEMENT MARKINGS - TEMPORARY MARKINGS						
6.1	SPTI - SP13	PAVEMENT MARKINGS - RING ROAD				
		i) Solid yellow (10cm wide)	600	m	$ _____	$ _____
		ii) Solid white (10cm wide) Lot S carparks	15000	m	$ _____	$ _____
		iii) Solid white (20cm wide) Crossings on Ring Rd	150	m	$ _____	$ _____
		iv) Stop Bars - 60cm wide	30	m	$ _____	$ _____
		v) Pedestrian Crossings	9	each	$ _____	$ _____
6.2	SPTI - SP13	PAVEMENT MARKINGS - LOT S				
		Remove Existing white lines in carpark Lot P	1000	m	$ _____	$ _____
		i) Solid yellow (10cm wide)	300	m	$ _____	$ _____
		ii) Solid white (10cm wide)	1500	m	$ _____	$ _____
		iii) Stop Bars - 60cm wide	100	m	$ _____	$ _____
		iv) Pedestrian Crossings	3	each	$ _____	$ _____
		Total Section '6'				$

ITEM NO.	SPEC NO.	DESCRIPTION	EST'D QTY.	UNIT	UNIT PRICE	TOTAL PRICE
SECTION 7 - LANDSCAPING PHASE 1 - STAGE 1- SEPT-OCT 2019						
		See Landscaping specification on dwgs				
7.1		PLANTING SOIL PREPARATION	676	m^3	$	$
7.2		DECIDUOUS TREES, 60MM CAL, WB				
		a) Acer x freemanii 'Celebration' (Celebration Maple)	22	each		
		b) Celtis occidentalis (Common Hackberry)	35	each		
		c) Fagus grandifolia (American Beech)	25	each		
		d) Tilia cordata 'Corinthian' (Corinthian Linden)	19	each		
		e) Quercus rubra (Red Oak)	32	each		
7.3		CONIFEROUS TREES, 250CM TALL, WB				
		a) Picea glauca (White Spruce)	12	each		
		b) Pinus strobus (Wastern White Pine)	18	each		
7.4		SHRUBS, 3 GAL POTTED, 50CM TALL				
		a) Rhus aromatica 'Gro-low' (Dwarf Fragrant Sumac)	48	each		
		b) Rosa palustris (Swarmp Rose)	262	each		
		c) Sorbaria sorbifolia 'Sem' (Dwarf False Spirea)	242	each		
7.5		LIVE STAKES, BARE ROOT STOCK				
		a) Acer saccharum (Sugar Maple), 150cm tall	16	each		
		b) Cornus alternifolia (Pagoda Dogwood), 60cm tall	23	each		
		c) Rhus typhina (Staghorn Sumac), 60cm tall	22	each		
		d) Symphoricarpos albus (Snowberry), 60cm tall	34	each		
		e) Viburnum lentago (Nannyberry), 60cm tall	68	each		
7.6		MULCH, 75mm DEPTH	720	m^2		
7.7		WASTE CONTAINERS				
		a) Supply and install Earth Bin 5m3 Capacity (2 at each facility)	5	each		
		b) Concrete pads, 150mm depth for Waste containers	5	each		
		Total Section '7'				**$**

ITEM NO.	SPEC NO.	DESCRIPTION	EST'D QTY.	UNIT	UNIT PRICE	TOTAL PRICE
SECTION '8' - ELECTRICAL PHASE 1 - STAGE 1 - MAY 01 - AUG 30 2019						
		See Appendix B - Electrical Works specification				
8.1		PARKING LOT S DEMOLITION				
	26 05 00	A) Conduit (Assuming 80% of existing conduit to be abandoned)	61	m	$ _____	$ _____
	26 05 19	B) Wiring	610	m	$ _____	$ _____
	26 50 00	C) Fixture/Poles	11	each	$ _____	$ _____
	26 05 00	D) Excavation (Assuming 80% of existing conduit to be abandoned)	61	m	$ _____	$ _____
8.2		PARKING LOT S NEW				
	26 05 00	A) Conduit	1630	m	$ _____	$ _____
	26 05 19	B) Wiring	6731	m	$ _____	$ _____
	26 50 00	C) Fixture w/ Pole	21	each	$ _____	$ _____
	26 50 00	D) Fixture	20	each	$ _____	$ _____
	26 05 00	E) Excavation	814	m	$ _____	$ _____
	26 05 00	F) Backfill	814	m	$ _____	$ _____
		H) Emergency Call Station + CCTV Security Camera	1	lump	$ _____	$ _____
8.3		RING ROAD NEW				
	26 05 00	A) Conduit	428	m	$ _____	$ _____
	26 05 19	B) Wiring	2028	m	$ _____	$ _____
	26 50 00	C) Fixture/Poles	16	each	$ _____	$ _____
	26 05 00	E) Excavation	428	m	$ _____	$ _____
	26 05 00	F) Backfill	428	m	$ _____	$ _____
8.4		BELL cable - relocation (by approved Bell Contractor)	150	m	$ _____	$ _____
SECTION '8' - ELECTRICAL PHASE 1 - STAGE 2 - MID MAY - AUG 30 2019						
		See Appendix B - Electrical Works specification				
8.5		VILLAGE ROAD DEMOLITION				
	26 05 00	A) Conduit (Assuming 80% of existing conduit to be abandoned)	49	m	$ _____	$ _____
	26 05 19	B) Wiring	488	m	$ _____	$ _____
	26 50 00	C) Fixture/Poles				
	26 05 31		16	each	$ _____	$ _____
	26 05 00	D) Excavation (Assuming 80% of existing conduit to be abandoned)	49	m	$ _____	$ _____
		E) Transformer Removal	5	each	$ _____	$ _____
	26 05 13	F) Primary Cable Removal	300	m	$ _____	$ _____
8.6		VILLAGE ROAD NEW				
	26 05 00	A) Conduit	1319	m	$ _____	$ _____
	26 05 19	B) Wiring	5946	m	$ _____	$ _____
	26 50 00	C) Fixture/Poles				
	26 05 31		15	each	$ _____	$ _____
	26 05 00	E) Excavation	572	m	$ _____	$ _____
	26 05 00	F) Backfill	572	m	$ _____	$ _____
		G) Transformer Relocations	5	each	$ _____	$ _____
	26 05 13	H) Install New Primary Cables	300	m	$ _____	$ _____
	26 20 00	I) Distribution Equipment (Panels, Transformers)				
	26 24 17		1		$ _____	$ _____
		Total Section '8'				**$**

ITEM NO.	SPEC NO.	DESCRIPTION	EST'D QTY.	UNIT	UNIT PRICE	TOTAL PRICE
SECTION '9' - ELECTRICAL PHASE 1 - STAGE 2 - MID MAY - AUG 30 2019						
		PROVISIONAL ITEMS				
		HYDRO CABLES RELOCATION/PROTECTION				
9.1	SPTI- SP20	Unshrinkable Fill - Protection to existing Hydro ducts/cable crossing the works - Contractor to provide concrete protection as instructed by Engineer/Brock (allow for up to 4 ducts in parallel)	300	m3	$ _____	$ _____
9.2		Relocation/lowering to existing Hydro HV duct/cable	50	m	$ _____	$ _____
		PROVISIONAL ITEMS				
		COMMUNICATIONS CABLES RELOCATION/PROTECTION				
9.3	SPTI- SP20	Unshrinkable Fill Protection to existing Communication ducts/cable crossing the works - Contractor to provide concrete protection as instructed by Engineer/Brock (allow for up to 2 ducts in parallel)	150	m3	$ _____	$ _____
9.4		Relocation/lowering to existing Brock communications ducts/cables during the works	200	m	$ _____	$ _____
		Total Section '10'				**$**

ITEM NO.	SPEC NO.	DESCRIPTION	EST'D QTY.	UNIT	UNIT PRICE	TOTAL PRICE
SECTION '10' - PROVISIONAL ITEMS						
10.1	B1, SPC 6	TEST PITS				
		i) Maximum depth 2.0m (Utility location - hand dig/VAC exposure)	50	each	$ _____	$ _____
		ii) Maximum depth 3.0m	5	each	$ _____	$ _____
		ii) Greater than 3.0m deep	5	each	$ _____	$ _____
10.1	B35 SPC54	DISPOSAL OF CONTAMINATED MATERIALS (all material to stay on Brock University Lands)	200	t	$ _____	$ _____
10.3		DISPOSAL OF EC/SAR MATERIALS (all material to stay on Brock University Lands)	500	t	$ _____	$ _____
10.4		STONE CHIPPING - SEWER BEDDING	1300	t	$ _____	$ _____
10.5	SPTI -SP20	UNSHRINKABLE FILL	50	m^3	$ _____	$ _____
10.6	SPTI -SP21	TRENCH SUB-EXCAVATION	40	m^3	$ _____	$ _____
10.7	SPTI -SP22	SHORING & BRACING LEFT IN PLACE	50	m^2	$ _____	$ _____
10.8	B23 SPC 32	CALCIUM CHLORIDE FLAKE	2	t	$ _____	$ _____
10.9	B24 SPC 33	WATER - for Dust Control	4000	m^3	$ _____	$ _____
10.10	SPTI -SP5	ROCK EXCAVATION	100	m^3	$ _____	$ _____
10.11	B25 -SPC 33	COLD MIX ASPHALT	50	t	$ _____	$ _____
10.12		TEMPORARY PUMPING	8	days	$ _____	$ _____
		Total Section '10'				**$**

ITEM NO.	SPEC NO.	DESCRIPTION	EST'D QTY.	UNIT	UNIT PRICE	TOTAL PRICE
		SUMMARY - PHASE 1				
		SECTION '1' - GENERAL				$
		SECTION '2' - REMOVALS				$
		SECTION '3' - SEWERS				$
		SECTION '4' - WATERMAINS				$
		SECTION '5' - ROAD WORKS				$
		SECTION '6' - PAVEMENT MARKINGS				$
		SECTION '7' - LANDSCAPING				$
		SECTION '8' - ELECTRICAL				$
		SECTION '9' - ELECTRICAL - PROVISIONAL ITEMS				$
		SECTION '10' - PROVISIONAL ITEMS				$
		PHASE 1 - TOTAL SECTIONS '1' TO '10' (Excluding H.S.T.)				$

ITEM NO.	SPEC NO.	DESCRIPTION	EST'D QTY.	UNIT	UNIT PRICE	TOTAL PRICE
PHASE 2 - MAY 01, 2020 to AUG 30, 2020 (18 WEEKS)						
SECTION '1' - GENERAL						
1.1	SPWI - GEN	MOBILISATION/DEMOBILISATION PHASE 2	1	LS	$ _____	$ _____
1.2	SPWI - GEN	INSURANCES - PHASE 2	1	LS	$ _____	$ _____
1.3	A8, SPC 5	TRAFFIC CONTROL AND TRAFFIC MANAGEMENT PLAN FOR PHASE 2	1	L.S.	$ _____	$ _____
1.4		TEMPORARY CONSTRUCTION FENCING (1.8m Rigid Fence) Supply install maintain and remove temporary construction fencing	800	m	$ _____	$ _____
		Total Section '1'				**$**

ITEM NO.	SPEC NO.	DESCRIPTION	EST'D QTY.	UNIT	UNIT PRICE	TOTAL PRICE
SECTION '2' - ROAD WORKS - PHASE 2 - MAY 01 - AUG 30 2020						
2.1		Removal of all temporary crossing and curb ramps and preparation for final lift asphalt	1	L.S	$ _____	$ _____
2.2	B13, SPC 12	ADJUSTMENT OF APPURTENANCE i) Adjustments to all new and existing catchbasins, manholes in roadway/carparking areas to final asphalt lift elevations	70	Ea	$ _____	$ _____
2.3	B13, SPC 12	ADJUSTMENT OF APPURTENANCE ii) Utilties service covers (COMMS, GAS	10.0	each	$ _____	$ _____
2.4	B12, SPC 11	TACK COAT	25000	m^2	$ _____	$ _____
2.5		i) HL3 - HS - Lot S - 50 mm depth	1750	t	$ _____	$ _____
2.6		ii) HL3 - HS - Ring Road - 50mm depth	750	t	$ _____	$ _____
		Phase 2 Total Section '2'				**$**

ITEM NO.	SPEC NO.	DESCRIPTION	EST'D QTY.	UNIT	UNIT PRICE	TOTAL PRICE
SECTION '3' - PAVEMENT MARKINGS						
SECTION '3' - PAVEMENT MARKINGS - PHASE 2						
3.1	SPTI - SP13	PAVEMENT MARKINGS				
		i) Solid yellow (10cm wide)	600	m	$ _____	$ _____
		ii) Solid white (10cm wide) Lot S carparks	15000	m	$ _____	$ _____
		iii) Solid white (20cm wide) Crossings on Ring Rd	150	m	$ _____	$ _____
		iv) Stop Bars - 60cm wide	30	m	$ _____	$ _____
		v) Pedestrian Crossings	9	each	$ _____	$ _____
3.2	SPTI - SP13	PAVEMENT MARKINGS				
		i) Solid yellow (10cm wide)	300	m	$ _____	$ _____
		ii) Solid white (10cm wide)	1500	m	$ _____	$ _____
		iii) Stop Bars - 60cm wide	100	m	$ _____	$ _____
		iv) Pedestrian Crossings	3	each	$ _____	$ _____
		Phase 2 Total Section '3'				$

ITEM NO.	SPEC NO.	DESCRIPTION	EST'D QTY.	UNIT	UNIT PRICE	TOTAL PRICE

SUMMARY - PHASE 2

SECTION '1' - GENERAL $

SECTION '2' - ROADWORKS $

SECTION '3' - PAVEMENT MARKINGS $

TOTAL PHASE 2 SECTIONS '1' TO '3' (Excluding H.S.T.) **$**

PHASE 1 TOTAL **$ -**
PHASE 2 TOTAL **$ -**

PHASES 1 AND 2 - GRAND TOTAL **GRAND TOTAL** **$ -**

Brock University

Construction of Village Road
And Expansion/Rehabilitation of Parking Lot S
Invitation to Tender No. ITT DB18-13

TENDER SUMMARY

Phase 1 - Total	
Phase 2 - Total	
TOTAL TENDER (exclusive HST)	
HST – 13%	
TOTAL TENDER	

Brock University

Construction of Village Road
And Expansion/Rehabilitation of Parking Lot S
Invitation to Tender No. ITT DB18-13

STATEMENT 'A'

LIST OF SUB-CONTRACTORS

The bidders shall list hereunder the names of all sub-contractors intended to be used in the execution of this work subject to the approval of the Contract Administrator.

All work not performed directly by the Contractor's forces shall be included in this list. Unless this list is properly completed, the Tender may be disqualified. All changes to this list must be approved by the Contract Administrator.

SUB-TRADE	NAME OF SUB-CONTRACTOR	ADDRESS OF SUB-CONTRACTOR

Brock University

Construction of Village Road
And Expansion/Rehabilitation of Parking Lot S
Invitation to Tender No. ITT DB18-13

STATEMENT 'B'

TENDERER'S EXPERIENCE IN SIMILAR WORK

UNLESS THIS LIST IS PROPERLY COMPLETED, THE TENDER MAY BE DISQUALIFIED

YEAR COMPLETED	DESCRIPTION OF WORK	FOR WHOM WORK PERFORMED	VALUE

Brock University

Construction of Village Road
And Expansion/Rehabilitation of Parking Lot S
Invitation to Tender No. ITT DB18-13

STATEMENT 'C'

LIST OF LABOUR AND RATES

CONTRACTORS STAFF THAT WILL BE WORKING ON THIS PROJECT	LABOUR RATES INCLUDING ALL APPLICABLE MARKUPS

Brock University

Construction of Village Road
And Expansion/Rehabilitation of Parking Lot S
Invitation to Tender No. ITT DB18-13

STATEMENT 'D'

LIST OF EQUIPMENT AND RATES

ALL EQUIPMENT TO BE USED ON THIS PROJECT	EQUIPMENT RATES OR RENTAL RATES (IF APPLICABLE) INCLUDING ALL APPLICABLE MARKUPS

Brock University

Construction of Village Road
And Expansion/Rehabilitation of Parking Lot S
Invitation to Tender No. ITT DB18-13

STATEMENT 'E'

(a) Harmonized Sales Tax:

The Contractor shall **NOT** include any amount in his tender price for the Harmonized Sales Tax (H.S.T.). Any amount to be levied with respect to the H.S.T. will be included as a separate item on the payment certificate. The appropriate H.S.T. levy will be paid to the Contractor in addition to the amount approved by the Contract Administrator for work performed under the contract and will, therefore, not affect the amount of the contract. The contractor will be required to make the appropriate remittance to Revenue Canada in accordance with the legislation.

i) Total Tender Price.....$_____

ii) Estimated Cost of Harmonized Sales Tax .....$_____

iii) Total Contract Amount [(i) + (ii)].....$_____

iv) H.S.T. Registration Number: _____

_____ _____
Company Name Contractor's Signature(s)

_____ _____
Address Contractor's Seal

Witnesses: _____

_____

TERMS AND CONDITIONS OF THE ITT PROCESS

Brock University

Construction of Village Road
And Expansion/Rehabilitation of Parking Lot S
Invitation to Tender No. DB18-13

Terms and Conditions of the ITT Process

No.	Description	Page
1.	General Information and Instructions	TC - 1
2.	Communication after Issuance of ITT	TC - 2
3.	Notification and Debriefing	TC - 3
4.	Conflict of Interest and Prohibited Conduct	TC - 3
5.	Confidential Information	TC - 5
6.	Reserved Rights and Limitation of Liability	TC - 6
7.	Governing Law and Interpretation	TC - 7

Brock University

Construction of Village Road
And Expansion/Rehabilitation of Parking Lot S
Invitation to Tender No. DB13-18

Terms and Conditions of the ITT Process

1. General Information and Instructions

a) ITT Incorporated into Bid
All of the provisions of this ITT are deemed to be accepted by each bidder and incorporated into each bidder's bid. A bidder who submits conditions, options, variations or contingent statements to the terms as set out in this ITT, including the terms of the Agreement in Appendix A, either as part of its bid or after receiving notice of selection, may be disqualified. If a bidder is not disqualified despite such changes or qualifications, the provisions of this ITT, including the Agreement set out in Appendix A, will prevail over any such changes or qualifications in the bid.

b) Bidders to Follow Instructions
Bidders should structure their bids in accordance with the instructions in this ITT. Where information is requested in this ITT, any response made in a bid should reference the applicable section numbers of this ITT.

c) Bids in English
All proposals are to be in English only.

d) No Incorporation by Reference
The entire content of the bidder's bid should be submitted in a fixed form, and the content of websites or other external documents referred to in the bidder's bid but not attached will not be considered to form part of its bid.

e) References and Past Performance
In the evaluation process, the University may include information provided by the bidder's references and may also consider the bidder's past performance or conduct on previous contracts with the University's participating agencies or other institutions.

f) Information in ITT Only an Estimate
The University and its advisers make no representation, warranty or guarantee as to the accuracy of the information contained in this ITT or issued by way of addenda. Any quantities shown, or data contained in this ITT or provided by way of addenda are estimates only, and are for the sole

purpose of indicating to bidders the general scale and scope of the Deliverables. It is the bidder's responsibility to obtain all the information necessary to prepare a bid in response to this ITT.

g) Bidders to Bear Their Own Costs
The bidder will bear all costs associated with or incurred in the preparation and presentation of its bid, including, if applicable, costs incurred for interviews or demonstrations.

h) Bid to be Retained by Brock University
The University will not return the bid, or any accompanying documentation submitted by a bidder.

i) No Guarantee of Volume of Work or Exclusivity of Contract
The University makes no guarantee of the value or volume of work to be assigned to the successful bidder. The Agreement will not be an exclusive contract for the provision of the described Deliverables. The University may contract with others for goods and services the same as or similar to the Deliverables or may obtain such goods and services internally.

2. Communication after Issuance of ITT

a) Bidders to Review ITT

Bidders shall promptly examine all the documents comprising this ITT, and

(i) shall report any errors, omissions or ambiguities; and
(ii) may direct questions or seek additional information in writing by email to the ITT Contact on or before the Deadline for Questions. All questions or comments submitted by bidders by email to the ITT Contact shall be deemed to be received once the email has entered into the ITT Contact's email inbox. No such communications are to be directed to anyone other than the ITT Contact, and the University shall not be responsible for any information provided by or obtained from any source other than the ITT Contact. The University is under no obligation to provide additional information. It is the responsibility of the bidder to seek clarification from the ITT Contact on any matter it considers to be unclear. The University shall not be responsible for any misunderstanding on the part of the bidder concerning this ITT or its process.

b) All New Information to Bidders by Way of Addenda
This ITT may be amended only by addendum in accordance with this section. If the University, for any reason, determines that it is necessary to provide additional information relating to this ITT, such information will be communicated to all bidders by addenda. Each addendum forms an integral part of this ITT and may contain important information, including significant

changes to this ITT. Bidders are responsible for obtaining all addenda issued by the University. In the Submission Form (Appendix B), bidders should confirm their receipt of all addenda by setting out the number of each addendum in the space provided.

c) Post-Deadline Addenda and Extension of Submission Deadline
If the University determines that it is necessary to issue an addendum after the Deadline for Issuing Addenda, the University may extend the Submission Deadline for a reasonable period of time.

d) Verify, Clarify and Supplement
When evaluating bids, the University may request further information from the bidder or third parties in order to verify, clarify or supplement the information provided in the bidder's bid. The response received by the University shall, if accepted by the University, form an integral part of the bidder's bid.

3. Notification and Debriefing

a) Notification to Other Bidders
Once the Agreement is executed by the University and a bidder, the other bidders shall be notified by public posting, in the same manner that this ITT was originally posted, of the outcome of the procurement process.

b) Debriefing
Bidders may request a debriefing after receipt of a notification of the outcome of the procurement process. All requests must be in writing to the ITT Contact and must be made within sixty (60) days of such notification.

c) Dispute Resolution Process
If a bidder wishes to challenge the ITT process, it should provide written notice to the ITT Contact in accordance with the University's dispute resolution process and any applicable trade agreement or other applicable bid protest procedures. The notice must provide a detailed explanation of the bidder's concerns with the procurement process or its outcome.

4. Conflict of Interest and Prohibited Conduct

a) Conflict of Interest
For the purposes of this ITT, the term "Conflict of Interest" includes, but is not limited to, any situation or circumstance where:

(i) in relation to the ITT process, the bidder has an unfair advantage or engages in conduct, directly or indirectly, that may give it an unfair advantage, including but not limited to (i) having, or having access to, confidential information of the University in the preparation of its bid

that is not available to other bidders, (ii) communicating with any person with a view to influencing preferred treatment in the ITT process (including but not limited to the lobbying of decision makers involved in the ITT process), or (iii) engaging in conduct that compromises, or could be seen to compromise, the integrity of the open and competitive ITT process or render that process non-competitive or unfair; or

(ii) in relation to the performance of its contractual obligations contemplated under a contract for the Deliverables, the bidder's other commitments, relationships or financial interests (i) could, or could be seen to, exercise an improper influence over the objective, unbiased and impartial exercise of its independent judgement, or (ii) could, or could be seen to, compromise, impair or be incompatible with the effective performance of its contractual obligations.

(iii) for further clarity, without limiting the generality of the paragraph, the Education Act states that goods or services must not be purchased from a Teacher, Supervisory Officer, other Employee of the participating agencies or an employee of the Ministry of Education and Training. This also applies to firms owned directly or indirectly by an employee of the participating agencies. This is outlined in Chapter E.2, Section 217, of the Education Act, RSO 1990 (latest revision).

b) Disqualification for Conflict of Interest

The University may disqualify a bidder for any conduct, situation or circumstances, determined by the University, in its sole and absolute discretion, to constitute a Conflict of Interest as defined above.

c) Disqualification for Prohibited Conduct

The University may disqualify a bidder, rescind a notification of selection or terminate a contract subsequently entered into if the University determines that the bidder has engaged in any conduct prohibited by this ITT.

d) Prohibited Bidder Communications

Bidders must not engage in any communications that could constitute a Conflict of Interest and should take note of the Conflict of Interest declaration set out in the Submission Form (Appendix B).

e) Bidder Not to Communicate with Media

Bidders must not at any time directly or indirectly communicate with the media in relation to this ITT or any agreement entered into pursuant to this ITT without first obtaining the written permission of the ITT Contact.

f) No Lobbying

Bidders must not, in relation to this ITT or the evaluation and selection process, engage directly or indirectly in any form of political or other lobbying whatsoever to influence the selection of the successful bidder(s).

g) Illegal or Unethical Conduct

Bidders must not engage in any illegal business practices, including activities such as bid-rigging, price-fixing, bribery, fraud, coercion or collusion. Bidders must not engage in any unethical conduct, including lobbying, as described above, or other inappropriate communications; offering gifts to any employees, officers, agents, elected or appointed officials or other representatives of the University; deceitfulness; submitting bids containing misrepresentations or other misleading or inaccurate information; or any other conduct that compromises or may be seen to compromise the competitive process provided for in this ITT.

h) Past Performance or Past Conduct

The University may prohibit a supplier from participating in a procurement process based on past performance or based on inappropriate conduct in a prior procurement process, including but not limited to the following:

(i) illegal or unethical conduct as described above;
(ii) the refusal of the supplier to honor submitted pricing or other commitments; or
(iii) any conduct, situation or circumstance determined by the University, in its sole and absolute discretion, to have constituted a Conflict of Interest.

5. Confidential Information

a) Confidential Information of Brock University

All information provided by or obtained from the University in any form in connection with this ITT either before or after the issuance of this ITT

(i) is the sole property of the University and must be treated as confidential;
(ii) is not to be used for any purpose other than replying to this ITT and the performance of the Agreement;
(iii) must not be disclosed without prior written authorization from the University; and
(iv) must be returned or otherwise disposed of by the bidder to the University immediately upon the request of the University.

b) Confidential Information of Bidder

A bidder should identify any information in its bid or any accompanying documentation supplied in confidence for which confidentiality is to be maintained by the University. The confidentiality of such information will be maintained by the University, except as otherwise required by law or by order of a court or tribunal. Bidders are advised that their bids will, as necessary, be disclosed, on a confidential basis, to advisers retained by the University to advise or assist with the ITT process, including the evaluation

of bids. If a bidder has any questions about the collection and use of personal information pursuant to this ITT, questions are to be submitted to the ITT Contact.

6. Reserved Rights and Limitation of Liability

a) Reserved Rights of Brock University
The University reserves the right to

(i) make public the names of any or all bidders;
(ii) make changes, including substantial changes, to this ITT provided that those changes are issued by way of addendum in the manner set out in this ITT;
(iii) request written clarification or the submission of supplementary written information in relation to the clarification request from any bidder and incorporate a bidder's response to that request for clarification into the bidder's bid;
(iv) assess a bidder's bid on the basis of: (i) a financial analysis determining the actual cost of the bid when considering factors including quality, service, price and transition costs arising from the replacement of existing goods, services, practices, methodologies and infrastructure (howsoever originally established); and (ii) in addition to any other evaluation criteria or considerations set out in this ITT, consider any other relevant information that arises during this ITT process;
(v) waive formalities and accept bids that substantially comply with the requirements of this ITT;
(vi) verify with any bidder or with a third party any information set out in a bid;
(vii) check references other than those provided by any bidder;
(viii) disqualify a bidder, rescind a notice of selection or terminate a contract subsequently entered into if the bidder has engaged in any conduct that breaches the process rules or otherwise compromises or may be seen to compromise the competitive process;
(ix) cancel this ITT process at any stage;
(x) cancel this ITT process at any stage and issue a new ITT for the same or similar deliverables;
(xi) reject any or all bids;

and these reserved rights are in addition to any other express rights or any other rights that may be implied in the circumstances.

b) Limitation of Liability
By submitting a bid, each bidder agrees that

(i) neither the University nor any of it employees, officers, agents, elected or appointed officials, advisors or representatives will be liable, under any circumstances, for any claim arising out of this ITT process including but not limited to costs of preparation of the bid, loss of profits, loss of opportunity or for any other claim; and

(ii) the bidder waives any right to or claim for any compensation of any kind whatsoever, including claims for costs of preparation of the bid, loss of profit or loss of opportunity by reason of the University's decision not to accept the bid submitted by the bidder, to enter into an agreement with any other bidder or to cancel this bidding process, and the bidder shall be deemed to have agreed to waive such right or claim.

7. Governing Law and Interpretation

These Terms and Conditions of the ITT Process

a) are intended to be interpreted broadly and independently (with no particular provision intended to limit the scope of any other provision);

b) are non-exhaustive and shall not be construed as intending to limit the pre-existing rights of the University; and

c) are to be governed by and construed in accordance with the laws of the province of Ontario and the federal laws of Canada applicable therein.

FORM OF CONTRACT AGREEMENT

THIS AGREEMENT made in quadruplicate the ____ day of _____, A.D. **20____**.

B E T W E E N:

_____

Hereinafter called the **"Contractor",**

of the **FIRST PART;**

- and -

Brock University _____

Hereinafter called the **"Owner",**

of the **SECOND PART.**

WHEREAS the Owner has awarded to the Contractor the contract for the Construction of Village Road and Expansion/Rehabilitation of Parking Lot S, Brock University in accordance with the drawings, specifications, general conditions of the contract and other documents and papers listed in paragraph 4 of this agreement (all of such drawings, specifications, general conditions of the contract and other documents and papers herein referred to as the "contract documents"), copies of which are hereto attached, the Contractor having put in a tender therefor, a copy of which is hereto annexed, which said tender has been accepted by the Owner;

NOW THEREFORE THIS AGREEMENT WITNESSETH that the Contractor and the Owner hereby mutually covenant and agree each with the other with respect to the said work as follows:

1. The Contractor covenants and agrees with the Owner to execute and perform the whole of the work and furnish all the labour, tools, appliances, transportation and materials for the Construction of Village Road and Expansion/Rehabilitation of Parking Lot S, Brock University together with all other works and appurtenances as specified in the contract documents and tender with due expedition and in a thoroughly workmanlike manner in strict accordance with the provisions of this agreement and the said contract documents and tender and thereafter to maintain the work for a period of one year after the date of completion of the contract in accordance with the Contract Documents and that in the execution and performance of the said work the Contractor will carry out, perform, observe,

fulfil and abide by all the covenants, agreements, stipulations, provisos and conditions mentioned and contained in the said contract documents and tender to be carried out, performed, observed and fulfilled by the Contractor to the same extent and as fully as if each of them was set out and specifically repeated in this agreement.

2. The Contractor further covenants and agrees with the Owner as follows:

(a) The said contract documents and tender are intended to cover and provide for first class completed work in all respects and everything necessary to carry out this intent and which may reasonably be implied from the said contract documents and tender shall be done by the Contractor although not particularly referred to therein;

(b) To commence work within 14 days.

(c) That the Contractor has examined the site of the work and has satisfied themselves as to the working conditions, the nature and kind of work to be done, the special risks associated therewith and as to any and all matters which may be necessary in order to form a proper conception of the conditions under which the work will require to be performed;

(d) To provide a performance bond for the full and due performance of the work provided for herein at the unit prices as specified and for the maintenance of the said work for a period of one year after acceptance thereof, payable to the Owner for 100% of the tender price;

(e) To provide a labour and material payment bond for 100% of the tender price on all labour and material purchased by the Contractor and used in the performance of the work;

(f) To deliver to the Owner on or before the execution of this agreement the policies of insurance in accordance with the following provisions in the contract documents:

(g) To provide evidence that all the Contractor's employees are covered by the provisions of the Workplace Safety and Insurance Act and to pay all assessments in

respect thereof;

(h) To indemnify and keep indemnified and save harmless the Owner and each of its officers, servants and agents from and against all actions, suits, claims, executions and demands which may be brought against or made upon the Owner, its officers, servants and agents, and from all loss, costs, charges, damages, liens and expenses which may be paid, sustained or incurred by the Owner, its officers, servants and agents by reason of or on account or in consequence of the execution and performance of the said work or of the non-execution or imperfect execution thereof or of the supply or non-supply of plant or material therefore;

(i) To pay to the Owner, and to such officer, servant, or agent thereof, on demand, any loss, costs, damages or expenses which may be paid, sustained or incurred by the Owner or any of its officers, servants or agents in consequence of any such action, suit, claim, lien, execution or demand, and any moneys paid or payable by the Owner or any of its officers, servants, or agents in settlement or in discharge thereof, or on account thereof, and that in default of such payment all such loss, costs, damages and expenses, and any moneys so paid or payable by the Owner, its officers, servants or agents, and also any moneys payable by the Contractor under any of the terms and conditions of this contract may be deducted from any moneys of the Contractor then remaining in the possession of the Corporation on account of this or any other contract or may be recovered from the Contractor or the Surety or Sureties named in the said Bonds in any court of competent jurisdiction as moneys paid at their request;

(j) And the Contractor hereby authorizes and empowers the Owner or its Solicitor for the time being, to defend, settle or compromise any of such actions, suits, claims, liens, executions or demands as the Owner or its said Solicitor may deem expedient, and also hereby agrees to ratify and confirm all the acts of the Owner or its Solicitor

in that behalf, and to pay to the Owner on demand all reasonable costs of defending, settling, or compromising any such actions, suits, claims, liens, executions or demands as the Owner may deem it expedient to defend, settle or compromise, and that in default of such payment the same may be deducted from any moneys payable by the Owner to the Contractor on any account whatever. Provided, however, that the Contractor may at the expense of the Contractor, take charge of and conduct the defence in the name of the Owner to any such action, claim or suit.

3. The Owner covenants and agrees with the Contractor to make payments for the due and proper execution of the work at the times and in the manner, but subject to the holdbacks, deductions and liquidated damages, specified in the following provisions of the contract documents:

4. It is mutually understood and agreed between the parties hereto as follows:

(a) That the documents and papers set forth below shall form part of this agreement, namely:

all of the above herein referred to as the "contract documents, and Tender/Bid Form of the Contractor dated _____

(b) That the work as hereinbefore set forth shall be performed and completed to the satisfaction of the Engineer for the Owner;

(c) That this agreement shall extend to and be binding upon and ensure to the benefit of the heirs, executors, administrators, successors and assigns of the Contractor and the successors and assigns of the Owner; and

(d) That the word "Contractor" wherever used in this agreement and the documents listed in clause (a) hereof, shall, where the context or the party or parties hereto so require, be construed as if the plural had been used and the rest of the sentence shall be construed as if all other changes thereby rendered necessary had been made.

IN WITNESS WHEREOF the parties hereto have hereunto affixed their corporate seals duly attested by the hands of the proper signing officers in that behalf and the said signing officers certify that they have authority to bind their corporation.

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) Name: _____
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) **Brock University**
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) Name: _____
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) Title: _____

SPECIAL PROVISIONS - GENERAL

(Refer to Niagara Peninsula Standard Contract Documents)

SPECIAL PROVISION - CONTRACT ITEMS

(Refer to Niagara Peninsula Standard Contract Documents)

SPECIAL PROVISIONS -
SUPPLEMENTARY SPECIAL PROVISIONS

SPECIAL PROVISIONS

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1. SCOPE OF WORK

.1 The work in this Contract comprises of the construction of a new parking lot and Ring Road and the reconstruction of the existing Lot S parking lot and the associated servicing and landscaping works as well as the reconstruction and realignment of the existing Village Road as shown in the project Drawings.

.2 These Special Provisions apply and are part of the Contract and take precedence over all Contract Drawings, Standard Specifications, General Conditions and Supplementary General Conditions pertaining to the Contract.

.3 Provide all labour, Equipment, Material and supervision necessary to complete the work as specified and shown in the Contract Documents.

.4 All requirements of the Contract Documents shall be performed by the Contractor unless specifically noted otherwise.

.5 Include in Contract prices bid all costs to perform all work as required by the Contract Documents except that work explicitly noted as being performed by others.

.6 All documents referenced in the Special Provisions or on the Contract Drawings shall be considered to be part of the Contract Documents and all information, recommendations and requirements in such referenced documents shall be considered in the Contract prices. Referenced documents are intended to supplement the Special Provisions and Contract Drawings and therefore where a conflict exists between a referenced document and either the Special Provisions or the Contract Drawings, then the Special Provisions and Contract Drawings shall take precedence in interpreting the requirements of the contract.

2. STANDARD SPECIFICATIONS AND DRAWINGS

.1 The Niagara Peninsula Standard Contract Document, Special Provisions – General Rev. 17, 2016-04 and Niagara Peninsula Standard Contract Document, Special Provisions, Contract Items Rev. 19, 2018-03 shall apply to this contract

.2 All specifications in Volume 1 - Division 1 - General Specifications of the Ontario Provincial Standard Specifications shall apply to this contract.

.3 The municipal and provincial common specifications and drawings in OPS Volumes 1 to 4 and the municipal-oriented specifications (OPSS.MUNI) in OPS Volumes 7 and 8 apply to this Contract. Unless specified in the Contract Documents, OPS Volumes 5 and 6 (provincial-oriented specifications) shall not apply to this contract. Applicable specified OPS Specifications and Drawings shall be their latest revisions as of the time of the issuance of this ITT.

.4 Where a conflict exists between the Niagara Peninsula Standard Contract Document and OPSS, the Niagara Peninsula Standard Contract Document shall take precedence.

.5 The Regional Municipality of Niagara Standard Drawings shall apply to this contract.

.6 The Ontario Provincial Standard Specifications (OPSS), latest revision as of the issuance of this ITT, shall apply to this contract.

.7 The Ontario Provincial Standard Drawings (OPSD), latest revision as of the issuance of this ITT, shall apply to this contract.

3. APPROVED PRODUCTS

.1 Install only products listed on the Brock University Approved Manufacturers' Products List (MPL).

.2 Base tendered prices on the most current MPL at the time of tender closing. Products added to the MPL after the tender closing date may also be used. Do not use products which were removed from the MPL after the tender closing date, but substitute other approved products.

4. CONSTRUCTION SCHEDULE

.1 OVERALL SCHEDULE AND PHASING

i) With the exception of the placement of surface course asphalt and final landscaping works, all works associated with the construction/reconstruction of existing Lot S, extended Lot S, Ring Road and Village Road shall be completed by August 30, 2019. (PHASE 1)

ii) NO site work shall be performed during the "blackout" period from April 1 to April 30, 2019.

iii) Surface course asphalt placement for Lot S, Ring Road and Village Road shall be completed between May 01, 2020 and August 30, 2020. (PHASE 2)

.2 PHASE 1A – MARCH 1, 2019 to MARCH 30, 2019

i) Site work is anticipated to commence with mobilization, tree and vegetation removal and earthworks in the southern area of the extended parking Lot S and Ring Road. All tree removal shall be completed in accordance with Environmental requirements for bird nesting and any other wildlife and environmental constraints/restrictions.

.3 PHASE 1B – MAY 1, 2019 to AUGUST 30, 2019

i) Commence utility (Enbridge Gas) relocations along Village Road. Contractor to allow for attendance to Enbridge Gas Contractor but not commence any work between STN 0 – 300 until relocation work is completed in mid May 2019.

ii) Commence reconstruction of existing Lot S and continue construction of new Lot S, and Ring Road.

iii) Commence construction/reconstruction of Village Road upon completion of Enbridge Gas relocations.

iv) There is HV electrical relocation work to be completed in accordance with Brock University's requirements as set out in the Electrical drawings and specification in Appendix C. The scheduling of this HV work shall be discussed with Brock University Campus Management Team to ensure power supply is maintained to various residences as set out in the Electrical Specification.

v) With the exception of surface asphalt placement and final landscaping, complete all site works for the construction/reconstruction of Lot S, Ring Road and Village Road by August 30, 2019. Apply paint markings as necessary on base asphalt. All parking areas, driveways, roadways, sidewalk and walkways to be fully open and accessible to vehicles and pedestrians on August 31, 2019.

.4 PHASE 2 – MAY 2020 to **no later** than AUGUST 14, 2020

i) Complete any remedial work necessary in previously completed base asphalt paved areas, remove temporary conditions (ramps), adjust catchbasins, manholes valve boxes etc, prepare joints and limits as required and complete surface course asphalt paving in all work areas. Apply all paint markings as required. All parking areas, driveways, roadways, sidewalk and walkways to be fully open and accessible to vehicles and pedestrians by August 15, 2020.

5. EXAMINATION OF SITE

.1 Inspect site and verify with Brock University, items designated for removal and items to be preserved. The Contractor will be held accountable to have examined the site and property, and to have satisfied themselves as to the condition of the work site. Contractor shall confirm the means of access, nature and quantity of work required before delivery of the tender. No allowance will be made to Contractor by reason of any error, omission or neglect on their part in this respect. Contractor shall make their own determination of the magnitude of work, conditions and difficulties to be encountered.

.2 The Contractor shall satisfy themselves that the existing site as shown on the plans are accurate and properly reflect the existing conditions of the site. Any discrepancies shall be reported to Brock University prior to start of any work. The Contractor is instructed to make special not of the requirements with respect to the conditions to be encountered on the site. The Contractor might encounter soft, boggy, spongy or wet areas in the execution of the work. The lump sum quoted prices shall include all work required as a result of the existing site conditions, as well as those encountered during the clearing operation. No additional compensation shall be forthcoming to the Contractor in the event that they are required to allow excavated material to dry sufficiently prior to removal and disposal in order to meet the required regulations. Furthermore, the Contractor recognizes that any inherent delay brought on by these above specified site conditions shall be incorporated into their schedule for the work. An extension of time will be considered by Brock University only to accommodate the impacts of inclement weather.

.3 EXISTING SITE INFORMATION

GEOTECHNICAL INVESTIGATION

A Geotechnical investigation was undertaken and the Geotechnical Report is available on MERX. The borehole logs and site plan are included in Appendix A of this ITT.

Groundwater conditions (see boreholes). The groundwater in the site area has been recently observed (April 2018) to be higher than the observations in the boreholes. The Contractor shall make allowance across the whole site for working in groundwater at 1m below ground elevation.

This may include local dewatering to construct drainage and Utility relocations.

.4 OFFSITE DISPOSAL OF EXCAVATED MATERIAL

This project will require the disposal/relocation of excavated materials. Brock University has identified (an) on campus location(s) for this excavated soil material.

6. EXISTING UTILITIES AND RELOCATIONS

.1 The existing Utilities records within the existing project area have been obtained from the following service providers.

Utility Provider/address	Contact person/title	Telephone Number	Email address
Sanitary, storm water and building water main connections, Hydro and Comms Brock Facilities Management Dept	Leo Lupul	905 688 5550 ext. 6144	leo.lupul@brocku.ca
Water/Wastewater Public Works Niagara Region 3501 Schmon Parkway, Thorold, ON	Greg Epp Supervisor Asset Information, Jeff Carl	905 685 4225 ext. 3269 905 684 5353	greg.epp@niagararegion.ca jeff.carl@niagararegion.ca
Enbridge Gas Distribution 3401 Schmon Parkway Thorold ON L2V 4Y6	Rob D'Onofrio C.Tech - Planning & Design	905 641 4876	robert.donofrio@enbridge.com
Bell Canada (Niagara) 63 King St. Floor 2 St. Catharines, ON L2R 6S9	Teresa, Mullen Chickowski, Co-ordinator Access Network provisioning	905 988 9476	teresa.mullen_chickowski@bell.ca
Cogeco 7170 McLeod Road Niagara Falls, ON L2G 3H2	Randy Leppert Planning Lead Hand Niagara, Network Evolution	289 296 6228 905 351 3771	randy.leppert@cogeco.com
Niagara Regional Broadband Network 623 South Service Road Unit 5, Grimsby, ON, L3M 4E8	Jeremy Smith Construction Coordinator	289 241 4031	jeremy.smith@nrbn.ca

Niagara Region – (600mm dia. and 900mm dia. water main)

.2 The existing corridor contains underground hydro, telephone and COMMS/Fibre to the Brock buildings. Existing Enbridge Gas and Bell are located underground with some underground crossings. Discussions with Brock University and the Utility companies has taken place as part of the design process to identify underground utilities which need to be relocated or are at risk of damage during construction. As a result of these discussions and test pit investigations, preliminary relocation designs have been completed.

.3 The Contractor shall undertake the relocations and protection works (except Enbridge Gas/Bell). Enbridge Gas and Bell shall be engaged and paid directly by Brock University for their required relocation work. As such, Enbridge Gas/Bell relocation work costs shall not be included in the Contractor's work, however Enbridge Gas/Bell relocation work shall be administered and co-ordinated by the Contractor, therefore any administration/co-ordination costs shall be included in the Contractor's costs for the project.

.4 A number of test pits investigations have been undertaken to confirm the underground Utility services locations and depths. This Utility test pit investigation information is provided in Appendix D Information from Brock University.

Utility Conflicts

UTILITY AFFECTED	LOCATION	LOCATIONS	COMMENT/ISSUE
Brock Hydro Power and comms cables	Dwg PP01 STN 25 to 80	8	Trenching during sewer works will encounter crossing below existing hydro and comms cables. Road excavation may require unshrinkable fill protection for the existing Utilities crossings
Enbridge Gas supplies	Dwg PP01 STN 55 and STN 105	2	Trenching during sewer works will encounter crossing below existing Enbridge gasmains
Brock Hydro Power and comms cables	Dwg PP01 STN 100 to 120	3	Trenching during sewer works will encounter crossing below existing hydro and comms cables
Brock Hydro Power and comms cables and Brock 200mm dia. watermain	Dwg PP02 STN 185	1	For install of CBMH 26.2 Contractor will have to work around existing Utilities
Brock Hydro Power and comms cables	Dwg PP02 STN 215	1	For install of relocated Fire Hydrant and connection watermain/valve works will encounter existing cables
Brock Hydro Power and comms cables	Dwg PP03 STN 280	1	Road excavation may require unshrinkable fill protection for the existing Utilities crossings
Brock Hydro Power and comms cables	Dwg PP03 STN 285	1	Road excavation may require lowering of the existing Utilities crossings
Brock Hydro Power and comms cables	Dwg PP03 STN 260-300	1	Road excavation may require unshrinkable fill protection for the existing HV/Comms Utilities running alongside the road
Bell cable	Dwg PP05-06 STN 500-650	1	Contractor to relocate this cable during Phase 1A works.
Brock Hydro Power and comms cables	Dwg PP06 STN 690-700	1	Road excavation may require unshrinkable fill protection for the existing Utilities crossings
Brock Hydro Power and comms cables	Dwg PP08 STN 1+130	1	Trenching during sewer works will encounter crossing below existing hydro and comms cables
Enbridge Gas supplies	Dwg PP08 STN 1+140	1	Construction of CBMH18/Trenching during sewer works will encounter existing Enbridge gasmains No relocation required

.5 All Utility work to be completed in accordance with Ministry of Labour (MOL) Health and Safety Regulations.

.6 The Contractor shall liaise with Brock University and co-ordinate the relocation work for the affected Utility.

.7 For this purpose (except Enbridge Gas and Bell), the Contractor shall be the defined as the Constructor in accordance with the Act. The Contractor shall undertake the Utility relocations in conjunction with Brock University and be responsible for complying with all Brock University's requirements.

.8 The Contractor shall be responsible for:

- Protecting, isolating and/or relocating Utilities as required to carry out the work, including coordinating the work with Utility owners;
- Maintaining separation from primary power lines as specified by Utility owners;
- Coordinating and scheduling the physical relocation of all Utilities.

.9 The relocation works shall be scheduled with Enbridge Gas and Bell and carried out such that proper separation from the construction work is provided to avoid any Constructor issues.

7. WORK IN THE VICINITY OF UTILITIES

1 Comply with "Guideline for Excavation in the Vicinity of Utility Lines" from ESA/TSSA dated December 2008, "Third Party Requirements In the Vicinity of Natural Gas Facilities" from Enbridge Gas Distribution dated 2015, and "Guidelines for Safe Excavation in the Vicinity of the Bell Network" from Bell Canada dated January 2011.

.2 Expose all buried utilities prior to excavating or boring in the vicinity of the utility.

.3 When required by the utility owner, Brock University shall enter into an agreement with the utility owner for relocation works and make payments directly to the utility owner for their services.

8. TRAFFIC CONTROL AND SAFETY

.1 Lane Restrictions

Road closures are not permitted. Maintain all streets open to traffic for the duration of the Contract. The contractor shall maintain at least one lane accessible at all times except when impractical due to the nature of work being performed.

.2 Submit a traffic control and staging plan as required in instructions to bidders.

.3 Submit detailed Traffic Control and Staging Plan, Traffic Protection Plan and the name of the specialist(s)/subject matter expert(s) (SME) or trained employee(s) no later than **one week** prior to the commencement of construction activities and material deliveries.

.4 Implement a Traffic Protection Plan for worker safety as required by Section 67 (4) of the Ontario Regulation for Construction Projects, O. Reg. 213/91. The Traffic Protection Plan may be an integral or separate part of the Traffic Control and Staging Plan. Should the traffic protection setup be altered from the Traffic Protection Plan, immediately revise the Traffic Protection Plan to suit the alteration. The revised Traffic Protection Plan shall be signed by a person of authority on behalf of the Contractor.

9. SURFACE RESTORATION

Reference:

OPSS 310, 405, 492, 802, 1150, 1840 & 1860 and OPSS.PROV 308 and
OPSS.MUNI 804 & 1004
OPSD 216.021 & 802.010

.1 Restore all disturbed areas to at least a condition equivalent to that which existed prior to commencement of construction as determined by the Contract Administrator.

.2 Include all costs associated with temporary restoration in the tendered items. No additional or separate payment shall be made for any temporary restoration work.

.3 Where the Contractor is required to re-excavate in an area previously restored to correct defective work, restore all disturbed areas at the Contractor's expense.

.4 Restore all road crossings and excavations within the travelled portion of the roadway, or along the shoulder, according to Contract Drawings. Granular base and asphalt depths indicated on Contract Drawings are minimum compacted depths.

.5 Restore all disturbed gravel driveways as per the Contract Drawings or, if not shown, with the following as a minimum:

150 mm of Granular A or 19 mm Crusher Run Limestone, compacted to100% Standard Proctor Dry Density

.6 Restore all disturbed grassed areas not presently maintained or not scheduled for maintenance with 150 mm compacted depth of topsoil, seed and mulch according to OPSS 802 and OPSS.MUNI 804, as amended. Seed shall be Standard Roadside Mix or as per contract drawings. Mulch shall be hydraulic mulch or as noted in the contract drawings.

.7 Replace all shrubs, trees, rockeries and guide posts damaged during construction except where marked for removal.

.8 Replace all fences removed to permit construction.

.9 **Take extreme caution not to damage any trees not marked for removal.** Trim all tree

limbs and roots damaged during construction. Where the Contractor causes damage to significant tree limbs, as determined solely by the Contract Administrator, the Contractor may be ordered to provide the services of a Subcontractor specializing in tree trimming and maintenance. Such specialist Subcontractor shall have an on-staff certified arborist and the services of such Subcontractor shall be entirely at the Contractor's expense.

.10 Brock University reserves the right to withhold sufficient funds from any or all Contractors' payments to cover restoration costs for all areas not permanently restored regardless of the bid unit price for such restoration.

10. GENERAL

Include the following, where applicable, in all unit prices bid:

.1 Environmental considerations including protection of existing trees according to OPSS 801.

.2 This work involves working in an open space environment and prior to starting any work the Contractor must perform a site survey to ensure there are no migratory bird nests in the area for site staging.

.3 Protection and temporary/permanent support of all in-ground and above ground services and utilities. Reference Special Provisions – General Requirements, Clause 7 - Work in the Vicinity of Utilities.

.4 Saw cutting of existing asphalt in parallel straight lines according to Special Provisions - General Requirements, G13 and Special Provisions Contract Items B10

.5 Maintenance of existing ditch flows, sewage flows and building water supply.

.6 All water ordered by the Contract Administrator for dust control.

11. PROVISIONAL ITEMS

.1 Tender items noted as being "Provisional" may or may not be required in the performance of the Work. The Contractor shall not be entitled to payment of any quantity under such "Provisional" tender items except for the actual quantity used, if any, and only where prior approval for such work and use of such tender items is explicitly given by the Contract Administrator in advance of such work.

SPECIAL PROVISIONS - REVISIONS TO STANDARD SPECIFICATIONS

1. QUALITY CONTROL

.1 CCTV Inspection

.1 All CCTV inspections of new sewer pipelines shall be performed by the Contractor.

.2 Coordinate the timing of CCTV camera inspection with Brock University/ Contract Administrator.

.3 Allow a minimum of one week for completion of CCTV camera inspection by the CCTV inspection contractor and provide adequate time and space separation from the Contractor's operations while the CCTV inspection contractor is on site performing the CCTV inspection.

.4 All costs for the further CCTV inspections due to deficiencies in the Contractor's work shall be borne by the Contractor.

2. OPSS.MUNI 180 - MANAGEMENT OF EXCESS MATERIALS

.1 Excess soils from the works areas are intended to remain on Brock lands. However, should the disposal of excess materials off site be required, the contractor shall make all necessary arrangements with receiving site.

.2 The second paragraph of Subsection 180.04.01.01 of OPSS.MUNI 180 is deleted and replaced with the following:

> At the completion of such work, the Contractor shall obtain a written release from the respective private property owners and shall provide two copies of each release to the Contract Administrator.

3. OPSS.MUNI 410 – PIPE SEWER INSTALLATION IN OPEN CUT

.1 The fifth paragraph of Subsection 410.07.12.01 of OPSS.MUNI 410 is deleted and replaced with the following:

> When the Owner raises or lowers the invert of a pipe sewer by 300 mm or less, it shall not constitute a Change in the Work and no adjustment shall be made to the payment. When the invert of a pipe sewer is raised or lowered by more than 300 mm, it shall constitute a Change in the Work for the full extent of the change from the original grade.

4. OPSS 802 - TOPSOIL

.1 Subsection 802.07.03 of OPSS 802 is deleted in its entirety and replaced with the following:

Prior to placement of topsoil, a Pre-Placement Meeting shall be held to discuss the condition of the subgrade upon which topsoil and seed are to be placed. Other items to be discussed include quality of materials and placement procedures (topsoil, fertilizer, watering, and maintenance). As a minimum, attendance at the Pre-Placement Meeting shall include the Contractor's representative; a representative of the Contractor's sodding subcontractor, and the Contract Administrator. The Pre-Placement Meeting shall be held at the regular site meeting preceding the date that the Contractor proposes to begin placing topsoil.

Topsoil shall be spread on prepared subgrade to a uniform, minimum compacted depth of 150 mm.

Topsoil shall be compacted by means of a mechanical compactor. The top 25 mm shall be loosened and levelled with a rake, prior to the placement of sod.

.2 Section 802.09 of OPSS 802 is deleted in its entirety.

.3 Subsections 802.10.01, 802.10.02 and 802.10.03 of OPSS 802 are deleted and replaced with the following:

802.10.01 Topsoil from Stockpiles and Imported

Payment at the Contract price for the appropriate tender items for sod or seed and mulch shall be full compensation for all labour, Equipment, and Material to do the work.

5. OPSS.MUNI 804 - SEED AND COVER

.1 Subsection 804.08.03 of OPSS.MUNI 804 is deleted in its entirety. The Contract Administrator's decision as to whether or not the seeded areas meet the specified Performance Measure at the 90-Day inspection shall be final.

.2 Subsection 804.10.01 of OPSS.MUNI 804 is amended by the addition of the following:

Progress payments for seed and mulch shall be made as follows:

a) 50% upon successful supply and placement
b) 25% upon meeting the 60-Day Performance Measure
c) 25% upon meeting the 90-Day Performance Measure

.3 Subsection 804.09 of OPSS.MUNI 804 is deleted in its entirety.

804.10.01 Seed and Mulch

Payment at the Contract price for the appropriate tender items for trench restoration shall be full compensation for all Labour, Equipment, and Material to do the work.

6. OPSS.MUNI 1010 - AGGREGATES - BASE, SUBBASE, SELECT SUBGRADE, AND BACKFILL MATERIAL

.1 Subsection 1010.08.01 of OPSS.MUNI 1010 is amended by addition of the following:

The Contractor shall only supply granular materials from pre-approved sources and stockpiles. If unapproved materials are delivered to the site, the Contractor shall immediately remove such materials from the site at the Contractor's expense.

Stockpile samples passing an initial testing shall not be taken as final acceptance of materials for incorporation into the Work. Sampling and test results from these tests shall only determine acceptability of materials for delivery to the site. **Final testing of delivered materials shall be the determining factor for acceptance of materials into the Work.**

.2 The "duplicate samples" required according to Subsection 1010.08.03 of OPSS.MUNI 1010 shall both be given to the Contract Administrator. One sample shall be used for QA testing by the Contract Administrator as specified in the Contract Documents and the second sample shall be reserved for referee testing if the Contractor chooses to invoke their right under Subsection 1010.08.06.

.3 Table 1 of OPSS.MUNI 1010 is revised as follows:

i) Note 3 is deleted and replaced with the following:

Granular A, B Type I (Modified), B Type III or M shall not contain any crushed glass or ceramic material. Granular A, B Type I (Modified), B Type II, B Type III, M, O, S and SSM shall not contain any deleterious material (wood, clay brick, clay tile, gypsum, gypsum wall board and plaster).

.4 Table 2 of OPSS.MUNI 1010 is revised as follows:

For Granular B Type I (Modified), Type II and Type III, percent passing the 26.5 mm sieve is revised to 100.

.5 Note 3 on Form 1010-D of OPSS.MUNI 1010 is deleted and replaced with the following:

Granular A, B Type I (Modified), B Type III or M shall not contain any crushed glass or ceramic material. Granular A, B Type I (Modified), B Type II, B Type III, M, O, S and SSM shall not contain any deleterious material (wood, clay brick, clay tile, gypsum, gypsum wall board and plaster)

SECTION 1 – GENERAL ITEMS – PHASES 1 & 2

ITEM 1.1 – BONDS

Reference: Supplementary General Conditions of Contract
General Conditions of Contract

Include:
.1 Provide 50% Performance Bond
.2 Provide 50% Labour and Material Payment Bond.

Note:
.1 Payment of this item shall be made on the first Progress Payment Certificate following acceptable proof of bonding.

ITEM 1.11 – INSURANCE (PHASE 1)
ITEM 1.2 – INSURANCE (PHASE 2)

Reference: Supplementary General Conditions of Contract
General Conditions of Contract

Include:
.1 Provide Liability Insurance as per Special Provisions, Information for Bidders, Supplementary General Conditions and General Conditions. Note that Brock University, Regional Municipality of Niagara, the City of St Catharines and WSP Canada Inc. shall be added as additional insured under this policy.

Note:
.1 Payment of this item shall be made on the first Progress Payment Certificate of each Phase.

Basis of Payment:
.1 Payment at the Contract price for the above tender item shall be full compensation for all labour, Equipment and Material to do the work.

ITEM 1.17 – MOBILIZATION AND DEMOBILIZATION (PHASE 1)
ITEM 1.1 – MOBILIZATION AND DEMOBILIZATION (PHASE 2)

Also include:
.1 Provide and apply water as required to control dust until project is completed.

Basis of Payment:
.1 Payment at the Contract price for the above tender item shall be full compensation for all labour, Equipment and Material to do the work.
.2 Progress payments shall be made as follows:
- 50% of the lump sum stated in the Tender Form for this Item shall be paid on the first Progress Payment Certificate; and,
- the 50% balance shall be paid on the issuance of the Completion Payment Certificate.

SECTION 2 – REMOVALS/EARTHWORKS

ITEM 2.1 – CLEARING AND GRUBBING

Reference: OPSS 201 and OPSS.MUNI 510

Subsection 201.07.01 of OPSS 201 is amended by the addition of the following:

The Contractor shall not commence clearing operations until approval is received from the Contract Administrator.

All trees that interfere with the laydown area shall be trimmed according to OPSS 801. Trees to be cleared for construction must be marked for removal and approved by the contract administrator before trimming or removal can commence.

Subsection 201.10.01 of OPSS 201 is amended by the addition of the following:

Clearing and Grubbing – Item

Reference: OPSS.MUNI 206, 501 & 510

Also include:

.1 Remove and dispose off-site all boulders, rock slabs and concrete up to and including one (1) cubic metre in size.
.2 Remove and dispose off-site of all wood, abandoned services and utilities and other debris.
.3 Haul all clean materials to be retained on-site to designated location(s) and all material not otherwise retained or incorporated into the project to appropriate off-site disposal location.
.4 Removal and disposal of subdrains and field tile drains up to 200 mm dia.
.5 Erosion control devices (silt fences, rock check dams etc.) must be placed prior to excavation, where directed by Contract administrator, and prior to discharging water into surface drainage areas. Discharge of water into drainage areas is subject to the approval of the Contract administrator.
.6 Excavation and grading.
.7 Stripping, stockpiling, hauling, placement and grading of topsoil.
.8 Stockpiling, hauling, placement and grading of required earth fill.

Note:

.1 Base of excavation shall be inspected by Contract Administrator to confirm suitability of base for road construction. Contractor to remove unsuitable material from the base as directed by the Contract Administrator.

ITEM 2.7 – ADDITIONAL EARTH EXCAVATION IN WOODED AREA AND REPLACEMENT WITH PULVERISED ASPHALT/GRANULAR MATERIAL FROM EXISTING LOT S CARPARK

Reference: Special Provisions - Revisions to Standard Specifications, Clause 6 - Revision to OPSS.MUNI 212
OPSS.MUNI 206, 212, 501 & 1010

Also include:

.1 Excavate, remove and dispose of additional unsuitable excavated materials from below proposed subgrade.

.2 Supply and place select native material in 300mm loose lifts and compact to 98% Standard Proctor Density to proposed subgrade.

Measurement for Payment:

.1 Measurement of additional excavation shall be by volume in cubic metres, calculated by the end area method, measured in place.

SECTION 3 – SEWERS

Reference: .1 Construct all sewers and appurtenances according to Niagara Region Specifications.

.2 Contract Drawings and Standard Details.

.3 Reference Special Provisions - General Requirements.

SECTION 2 ITEMS (INCLUSIVE) – SEWER PIPE

Reference: Special Provisions – General Requirements, Clause 7
Special Provisions - Revisions to Standard Specifications, Clause 2
Special Provisions - Revisions to Standard Specifications, Clause 8 - Revision to OPSS 410
OPSS 410
Contract Drawings

Note:

.1 All notations in the Form of Tender indicating size of pipe and depth of bury are for information only. Where there is any discrepancy between the Form of Tender and the Contract Drawings, the Contract Drawings shall be taken as correct. The Contract price for all sewer sections shall be based on the pipe material, size and depth of bury indicated on the Contract Drawings.

.2 Reference Niagara Region Approved Manufacturers' Products List for acceptable pipe products. The List states limitations for the use of certain pipe materials based on application and size.

.3 Where concrete pipe is used, minimum concrete pipe class shall be as follows:
i. For 300 mm to 450 mm dia. pipe, Class 140D
ii. For 525 mm to 900 mm dia. pipe, Class 65D
iii. For 975 mm to 3600 mm dia. pipe, Class 50D

.4 Where an existing pipe sewer was constructed using concrete sewer pipe, the Contractor shall use concrete pipe for any pipe repairs and extensions of such pipe including cut-in tees. For pipe sewers extending from cut-in concrete tees, the Contractor may use other approved materials.

.5 Pipe bedding and cover shall be according to OPSD.

.6 Remove and dispose of any surplus materials associated with sewer installation.

Basis of Payment:

.1 Payment at the Contract price for these tender items shall be full compensation for all labour, Equipment and Material to do the work including trench restoration.

.2 Payment for breaking into and re-benching existing maintenance holes and structures shall be made under Item 2.13.

.3 These items shall not include those concrete pipe plugs requiring separate excavation to facilitate pipe removal and plug installation.

ITEMS 3.37, 3.38, 3.45 (PHASE 1) – BREAKING INTO SEWER, MAINTENANCE HOLE OR STRUCTURES AND REBENCH AS PER OPSD 701.021

Reference: OPSS 407 & 410
OPSD 701.021

Also include:

.1 Break into the existing pipe, structure and remove and dispose of concrete and reinforcing steel.

.2 Rebench maintenance hole including:

a) Remove existing benching completely and dispose of off-site.

b) Thorough clean-out of the structure.

c) Supply concrete and form new benching in maintenance hole according to OPSD 701.021.

.3 Provide temporary pumping and/or by-pass arrangements required for existing sewage flows, to allow for benching in maintenance holes to be completed.

Note:

.1 Payment for connection to sewer/maintenance hole and restoration of sewer/structure to be included in Contract price for this item.

SECTION 5 – ROADWORKS

ITEM 5.10 – GRANULAR MATERIALS

Reference: Special Provisions - Revisions to Standard Specifications, Clause 4 - Revision to OPSS 102
Special Provisions - Revisions to Standard Specifications, Clause 17 - Revision to OPSS.MUNI 1010
OPSS 102, 506 & 1001 and OPSS.MUNI 314 & 1010 (including Appendices 1010-D and 1010-E)
OPSD 200.010

Also include:
.1 Supply, place, grade and compact all Granular A for road base and driveways.
.2 Supply, place, grade and compact all Granular B, Type II (Modified) for road base and driveways.
.3 Supply all water for dust control and compaction according to OPSS 506.
.4 Provide bar-coded weigh tickets according to OPSS 102 and the Standard Revision to OPSS 102.

Measurement for Payment:
.1 Measurement of granular materials shall be according to 314.09.01.01.01 of OPSS.MUNI 314.
.2 Weight tickets shall be received on site for all Granular applications.

ITEM 5.20 – RIP-RAP (100 - 200 mm DIA.), RANDOMLY PLACED (PROVISIONAL)

Reference: OPSS 511 & OPSS.MUNI 1004
OPSD 810.010 Type B

Clause 511.07.02.02 of OPSS 511 is amended by the addition of the following:

.1 Rip-rap shall be placed such that the surface of the finished rip-rap shall be evenly distributed and have a uniform appearance.

The second sentence of Clause 1004.05.05.01 of OPSS.MUNI 1004 is deleted. Reclaimed Portland cement concrete shall not be permitted for rip-rap.

Clause 1004.05.05.02 of OPSS.MUNI 1004 is amended by the addition of the following:

.1 Rip-rap shall consist of crushed limestone having a minimum size of 100 mm in the largest dimension and a maximum size of 200 mm in the largest dimension.

.2 Depth of Rip Rap shall be 300mm.

SECTION 6 – PAVEMENT MARKING ITEMS

4 General

.1 The Contractor shall supply pavement markings in accordance with OPSS 710, 1712, 1713, 1714, 1716, the Manual of Uniform Traffic Control Devices and special provision SP13 PAVEMENT MARKINGS .

4.1 Material

.1 Water-Borne Traffic Paint (OPSS 1716) shall be used between May 1 and October 15 where the pavement temperature is 10° C and above. Paint temperature shall be between 40° and 70° C.

.2 Organic Solvent Based Traffic Paint (OPSS 1712) shall be used where the pavement surface temperature is below 10° C.

Durable pavement markings (OPSS 1713 and 1714) shall be used for:

(1) all directional arrow symbols,
(2) all 1-1 lane skips,
(3) all standard cross-walks,
(4) all stop bars,
(5) ladder style pedestrian cross-walks including bars and outside lines,
(6) all bicycle facility symbols and longitudinal lines, bicycle lane symbols, shared use lane symbols, diamond symbols, buffer hatching, coloured longitudinal lines, coloured areas (example: bike boxes), all cross ride markings including elephant's feet, arrows, pedestrian and bike symbols),
(7) all wording (example: 'STOP'),
(8) 'Yield to Pedestrian' lines (i.e. shark teeth),

4.2 Traffic Control

.1 **Roadways shall not be left without temporary lane delineation (TC-54 barrels or temp pavement markings etc. or final markings. Traffic control shall be provided at all times during painting operations as per the Ontario Traffic Manual Book 7. Lane closures shall be used to minimize paint tracking and allow sufficient drying time.**

.2 The Contractor will be required to use traffic cones or barricades when applying all transverse pavement markings.

.3 The Contractor will be responsible for the permanent repair to the line damaged if a vehicle drives over a wet line and will be responsible for the removal of all tracking.

4.3 Quality Control - Paint

.1 All traffic paint shall conform to OPSS 1712, 1716, 1750 and the following:

.2 All layout and line painting accuracy is to be +/- 0. 1.

4.4 Removal of Existing Pavement Markings

.1 Where removal of existing pavement markings is required, the Contractor is responsible to remove and properly and legally dispose of all debris and surplus material accumulated at the site.

.2 The method of removal must not cause any of the following conditions;

- permanent scarring of the road surface;
- any dishing or gouging;
- not remove large aggregates and fines;
- affect structural integrity of top asphalt layer.

.3 Work shall include all clean-up. Existing pavement markings may consist of paint and/or various forms of thermoplastic.

.4 The method of removal shall be pressurized spray. Grinding, etching, or other non-pressurized spray methods is not permitted. For pressurized spray, no specific media is required.

.5 Contractor shall maintain vehicular traffic in all directions on roads where removals are taking place. Full road closures shall not be permitted to facilitate line removal.

4.5 Payment

4.5.1 Measurement for Payment- Linear Metre

.1 Measurement for payment shall be based on a horizontal linear measurement in metres, excluding gaps. Measurements will be to the nearest 1 metre for transverse markings and the nearest 5m for longitudinal markings.

SECTION 7 – LANDSCAPING & RESTORATIONS

See Landscaping drawings for specification details

SECTION 8 – ELECTRICAL ITEM

See Appendix C for Electrical works specifications

SECTION 10 – PROVISION WORK ITEMS

ITEM 10.1 – REMOVAL AND DISPOSAL OF CONTAMINATED SOIL (PROVISIONAL)

Reference: OPSS.MUNI 206 & 510
Special Provisions - General Requirements
Geotechnical Investigation Report

Also include:
.1 Test the contaminated soils.
.2 Dispose of contaminated materials on a designated location on site at Brock University.
.3 Apply for and obtain approval of an Industrial Hygiene plan.
.4 Implement the Industrial Hygiene plan.

Note:
.1 Should the Contractor find designated substances within the area of work, the Contractor shall immediately notify the Ministry of Environment and Climate Change (MOECC), the Ministry of Labour (MOL) and the Contract Administrator of the findings. The Contractor shall strictly follow the cleanup guidelines as outlined by the MOECC and MOL, including all testing of the contaminated soils; disposal of the materials by a licensed hauler to an approved dump site; and application, approval and implementation of an Industrial Hygiene plan.

Measurement for Payment:
.1 Measurement of removed and disposed contaminated soil shall be by actual volume in tonne, by truck box measurement of contaminated material excavated and disposed off site.

SPECIAL PROVISIONS - TENDER ITEMS

This section involves any special provisions that are not included in the Special Provisions - General, or Special Provisions - Contract Items, as identified in the Niagara Peninsula Standard Contract Document. The supplementary special provision may be in the form of any alteration, an amendment to an existing special provision or Ontario Standard Provincial Specification, or may be an entirely new special provision.

The following Supplementary Special Provisions shall apply to this contract:

SP1 SHOP DRAWINGS AND PRODUCT DATA

Shop Drawings are defined as drawings, diagrams, illustrations, schedules, performance charts, brochures and other data that is to be provided by the Contractor to illustrate details of a portion of the work.

The following shall apply to the submission of shop drawings:

(a) Shop drawings shall indicate materials, methods of construction, attachment or anchorage, erection diagrams, connection, explanatory notes and any other information necessary for the completion of the work;

(b) Detailed information to be included on shop drawings shall include but not be limited to all pipe dimensions and details, maximum external loadings, pipe class details, elevations, bends, tees and other connections, restraining joint details and thrust blocks when required.

(c) The Contractor shall review shop drawings prior to submission to ensure coordination with the requirements of the work and Contract Documents, and to verify relevant field measurements. The General Contractor shall initial and date shop drawings to indicate compliance with these requirements;

(d) Work affected by the submittal shall not proceed until a review by the Contract Administrator has been completed;

(e) The Contractor shall submit 7 copies of shop drawings for each requirement requested in the specifications or Special Provisions and as the Contract Administrator may reasonably request;

(f) Where shop drawing will not be prepared due to standardized manufacture of product, the Contractor shall submit 7 copies of product data sheets or brochures for requirements requested in the specifications or Special Provisions and as the Contract Administrator may reasonably request;

(g) Adjustments made to the shop drawings by the Contact Administrator shall not change the Contract Price unless such adjustments significantly alter the design for which the shop drawings were originally submitted;

(h) The Contractor shall make changes to the shop drawings as required by the Contract Administrator;

(i) Submissions shall be made in advance (minimum two (2) weeks prior to ordering) to allow for review without causing any delay in the work. Requests for extras due to "down-time" shall not be entertained if the "down-time is a direct result of delays in submitting shop drawings for review;

Shop drawing review is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean that the Contract Administrator approves the detailed design inherent in the shop drawings, responsibility for which shall remain with the Contractor submitting same, and such review shall not relieve the Contractor of his responsibility for errors or omissions in the shop drawings or Contract Documents. The Contractor is responsible for the dimensions to be confirmed and correlated at the jobsite, for information that pertains solely to the fabrication process or techniques of construction and installation and for coordination of the work of all sub-trades.

This is a non-pay item, and should be included in the appropriate items.

SP2 TREE PROTECTION

The provisions of OPSS 565 and Special Provision-General G23 shall apply except as amended or extended herein.

Protective barrier fencing shall be orange construction fencing and shall be placed as per OPSD 220.010, as indicated on the Contract Drawings or as directed by the Contract Administrator.

Where work is required within the dripline of a tree or trees which are designated not to be removed, operation of equipment within that dripline area shall be kept to a minimum necessary to perform the work required.

In order to minimize root loss, the Contractor will be required to use vertical walls on all excavations with appropriate wall support systems when excavating within the dripline of trees. All exposed roots over 25mm in diameter shall be cut back cleanly to the soil surface within 5 calendar days.

If root damage or loss is extensive, portions of the tree shall be pruned. All pruning will be carried out by a qualified and experienced landscape contractor using approved arboricultural techniques and practices. The pruning of trees and shrubs will be carried out in such a manner as to retain as much as possible of the plant's natural form. The Contractor will be responsible for disposing of cut limbs and roots in an approved manner off site. In addition, the remaining root system shall be watered and fertilized by a qualified and experienced landscape contractor.

No additional payment will be made to the Contractor for vertical excavations and trench supports, pruning branches and roots, or watering and fertilizing trees when work is required within the dripline.

Measurement for Payment

Measurement for payment will be as per OPSS 565.09.

Basis of Payment

Basis for payment will be as per OPSS 565.10.

SP3 OIL/GRIT SEPARATORS

The provisions OPSS 407 and Special Provision – Contract Item C6 shall apply except as amended or extended herein.

The unit price bid for this item shall be full compensation for all labour, equipment and materials necessary to supply and install the new oil/grit separator for the storm sewer, including frame and grate.

Cover and frame is to be to OPSD 401.010 Type B.

SP4 EARTH EXCAVATION

The provisions of OPSS 206, 351, 353 and 1350, and Special Provision – Contract Item B2 shall apply except as amended or extended herein.

The estimated quantity is for the Contractor's information for tendering. After award of the Contract, The Contractor shall verify with the Contract Administrator his agreement to the estimated quantities. Any disagreement with the tendered quantities shall be brought to the attention of the Contract Administrator, in writing, prior to the pre-construction meeting.

The unit price bid may be used for additional payment for other excavations as directed by the Contract Administrator.

The unit price bid shall also include provision of the following

- All labour, equipment and materials necessary to complete the excavation to cross-sections as shown on the construction drawings.
- Excavation, stockpiling and replacement of on-site recycled asphalt and granular materials will be paid for under the appropriate item.
- Removal of concrete curb and gutter and sidewalk will be paid for under the appropriate item.
- Earth excavation for sidewalk and driveway construction shall be paid under this item.

  Following rough grading, the exposed subgrade shall be proof rolled. Any soft or excessively wet zones that become evident shall be excavated and replaced with granular material. Payment at the contract price shall be full compensation for all labour, equipment and materials required to complete the proof rolling and excavation and

granular placement operation.

Upon completion of the disposal operations and prior to the release of the construction lien holdback by Brock University, the Contractor shall submit to Brock University letters of release from the owners of the disposal sites.

- No additional payment will be made for the removal of abandoned utility plant during excavation.

- All costs associated with disposal of excavated material will be the responsibility of the Contractor.

The Contractor should note that live and abandoned utility plant may run adjacent and parallel at various locations. It will be the responsibility of the Contractor to confirm the status of utility plant prior to removal.

SP5 ROCK EXCAVATION

The provisions of OPSS 206 and Special Provisions – General G12 shall apply except as amended or extended herein.

Definitions

Broken Rock: Rock material that can be removed using standard excavation equipment equipped with rock teeth. In this specification, standard excavation equipment shall be Caterpillar 345CL Hydraulic Excavator or equal with 257 kW power and 1.9m^3 bucket capacity.

Bedrock: Rock material that cannot be removed using excavation equipment equipped with rock teeth and requires breaking up using Hoe Ram or other mechanical breaking equipment.

General

The work shall consist of the breaking by mechanical means, excavating to the lines and grades indicated on the contract drawings, and removal from site to an approved disposal site of all bedrock encountered during the excavation operation.

The Contractor is required to obtain agreement from the Contract Administrator that refusal to excavation has occurred.

Measurement for Payment

Measurement shall be by volume in cubic metres measured in its original position and based on cross-sections taken prior to grubbing.

Basis of Payment

Payment for removal of broken rock shall be made under the earthworks item.

There shall be no payment for the over excavation of rock.

Payment for bedrock removal at the contract price shall be full compensation for all labour, equipment, and material to do the work.

SP6 GRANULAR MATERIAL

The provisions of OPSS 314, 501 and 514; and Special provision – Contract Item B3 apply except as amended or extended herein.

Granular 'A' crushed limestone is to be used as pipe bedding and cover as specified in OPSD 802.010 and the granular road base. With approval from the Contract Administrator, recycled Granular may be used as trench backfill and as the initial material in the granular road base.

The granular base must be kept in a well-graded condition for the safety of the traffic; any potholes must be promptly eliminated. Contaminated materials must be removed prior to fine grading and placement of the HL8 HS base course. The unit price bid shall be deemed to have made due allowance for all of these requirements specified.

The work shall also include the supply, placement and compaction of granular material in frost tapers and subdrain trenches.

Restriction of access to driveways during the placement of granular road base will not be permitted.

SP7 SUBDRAIN

The provisions of OPSS 405 and Special Provision– Contract Item B6 apply except as amended or extended herein.

Materials

The subdrain shall be 150 mm diameter CL 300 (BIG 'O'-BOSS 2000) perforated rigid high density corrugated polyethylene pipe with geotextile sock meeting Class 324430C and ASTM D3350, with connectors.

Construction

The work under this item includes: elevation and alignment adjustment in the event of conflict with utility plant; supply and installation of all fitting connections; construction of subdrain outlet.

The unit price bid shall also include all fitting connections to install the subdrain in its proper location and connection to catch basin outlets. The Contractor shall note that the subdrain location shall be directly behind the concrete curb and gutter, and shall be connected to the nearest downstream catchbasin or as directed.

In the event that elevation adjustment is required, this adjustment will be continued to outlet.

Measurement for Payment

Measurement for payment shall be as per OPSS 405.09.01.01

Basis of Payment

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

SP8 ASPHALT MILLING

The provisions of Special Provision – Contract Item B11 shall apply except as amended or extended herein.

This item includes milling of the road within the limits and depth as shown on the drawings prior to placement of surface asphalt. Surface asphalt to be machine laid.

SP9 TACK COAT

The provisions of OPSS 310 and Special Provision – Contract Item B9 shall apply except as amended or extended herein.

Equipment

For main lane paving, tack coat shall be applied using self-propelled or tow-along pressure distributors capable of applying the product at the specified rate and in a continuous and uniform manner both longitudinally and transversely for the full lane width. The distributors shall be equipped with a volume-determining device of sufficient sensitivity to measure the quantity of tack coat dispensed, measurable to four or five litres.

The use of a hand held pressure wand is acceptable for tack coating small irregularly shaped areas such as tapers, driveways, end limits, concrete or asphalt edges, etc.

Construction

The work under this item shall include the supply and application of tack coat to all base course asphalt or milled asphalt surfaces prior to the placement of surface course asphalt.

Surfaces to be tack coated shall be free of standing water and contamination, such as mud, loose aggregate or debris. Protection Board shall be dry and clean when the tack coat is applied. Tack coat shall be limited to one lane at a time and shall extend to but not beyond the edge of the proposed pavement surface. The length of lane tack coated will be limited to the required for a one-half day paving operation. The Contractor shall prevent any unnecessary passage of traffic upon the area tack coated until a lift of bituminous pavement has been placed thereon.

The diluted emulsion shall be applied at the rate of 0.35 kg/m^2 to all existing pavement surfaces, milled pavement surfaces, expanded asphalt surfaces and the surface of any binder course that has been left open to traffic over at least one winter. For cold-in-place recycled surfaces and new surfaces that have been paved in the same calendar year, the rate of application shall be 0.20 kg/m^2.

Tack coat shall not be applied when air temperature is less than 5°C or when rain is forecast within two (2) hours.

Avoid applying tack coat to surfaces that will be visible when paving is completed.

Tack shall be placed sufficiently ahead of the paving operation to allow for curing. Paving equipment shall not be permitted upon the tack coat until it has fully cured.

Measurement for Payment

Measurement for payment shall be as per OPSS 310.09.01.02

Basis of Payment

Payment at the contract price for the above item shall be full compensation for all labour, equipment and material to do the work.

SP10 ADJUSTMENT OF APPURTENANCES

The provisions OPSS 408 apply except as amended or extended herein.

The unit price bid shall include all labour, equipment and materials for the adjustment of existing manhole and catch basin frames and covers/grates. The adjustments paid shall be to final design elevation. All labour, equipment and materials for rotating the top of existing sanitary sewer manholes so that the manhole lid is out of the proposed curbline shall also be included in the unit price bid.

SP11 HOT MIX ASPHALT

Payment to the Contractor will be adjusted based on changes to the Ministry of Transportation's performance graded asphalt cement price index unless the Contractor opts out by notifying Brock University in writing within five business days of the award of the contract. Once the Contractor has opted out of payment adjustments based on the index, the Contractor will not be permitted to opt back in. The price index will be published monthly in the MTO Contract Bulletin and displayed on the OHMPA (www.ohmpa.org) and MTO website (www.rags.mto.gov.on.ca). The price index will be used to calculate the amount of the payment adjustment per tonne of new asphalt cement accepted into the Work.

The price index will be based on the price, excluding taxes, FOB the depots in the Toronto area, of asphalt cement grade PG 58-28 or equivalent. One index will be used to establish and calculate the payment adjustment for all grades. The price index for each month will reflect the previous month's prices.

A payment adjustment per tonne of new asphalt cement will be established for each month in which paving occurs when the price index for the month differs by more than $15.00/tonne from the price index for the month in which the tender was awarded. When the price index differential is less than $15.00/tonne, there will be no payment adjustment for that month. Payment adjustments due to changes in the price index are independent of any other payment adjustments made to the hot mix tender items.

The payment adjustment per tonne will apply to the quantity of new asphalt cement in the hot mix accepted into the Work during the month for which it is established. The payment adjustment for the month will be calculat4d by the following means:

1. When AC Prices are Rising by more than a $15.00/tonne difference: the payment adjustment to be paid to the Contractor is the result of subtracting the price index in effect when the tender was awarded from the price index in effect when paving took place, minus the $15.00 float, multiplied by the number of tonnes of PGAC incorporated in the mix(s) as determined by the job mix formula. If the answer is negative, no adjustment is made.
2. When AC Prices are Falling by more than $15.00/tonne difference: the payment adjustment made in favour of the Owner is the result of subtracting the price index in effect when paving took place, plus $15.00 from the price index when the tender was awarded, multiplied by the number of tonnes of PGAC incorporated in the mix(s) as determined by the job mix formula.

The quantity of new asphalt cement includes all grades of asphalt cement supplied by the Contractor with and without polymer modifiers. For each month in which a payment adjustment has been established, the quantity will be calculated using the hot mix quantity accepted into the Work and its corresponding asphalt cement content as required by the job mix formula except for mixes which contain reclaimed asphalt pavement.

For mixes which contain reclaimed asphalt pavement, the quantity of new asphalt cement will be determined from the difference between the asphalt cement content required by the job mix formula and the asphalt cement content of the reclaimed asphalt pavement incorporated into the hot mix, as calculated by the Contract Administrator.

Example 1 – AC Prices Increasing

- PGAC 64-28 specified, 3,000 tonnes of HL3 @ 5.2% AC (156.0 tonnes AC)
- Price index on April 5th, 2003 on tender closing $330/tonne (PG 58-28)
- Price index on August 17th – 24th, 2003 actual paving dates - $365/tonne (PG58-28)
- Payment adjustment to be paid to the Contractor:

  (365 - $15) - $330 x 156 tonnes AC = $20 x 156 tonnes AC = $3,120.00

- PGAC 58-28 specified, 4,500 tonnes of HL8 @ 4.6% AC (207.0 tonnes AC)
- Price index on April 5th, 2003 on tender closing $330/tonne (PG 58-28)
- Price index on October 11th – October 18th, 2003 actual paving dates - $285/tonne (PG 58-28)
- Payment for hot mix items reduced by:

  $330 – ($285 + $15) x 207 tonnes AC = $30 x 207 tonnes AC = $6,210.00

Notes:

- Contractors should bid the hot mix asphalt item using the cost of the PGAC specified. The AC Price Index is only a tool for qualifying hot mix prices and is not intended as a standard AC price to be incorporated into the contract bid.

- The payment adjustment calculated using this formula is full compensation for any and all PGAC grades specified.
- If the AC index has not changed more than $15.00 per tonne up or down, no adjustment is required. Only the amount that is greater than $15.00 is used to calculate payment adjustments.
- Prior to placement of hot mix asphalt the Contractor shall provide final adjusted manhole and valve box rim elevations for review. Top course asphalt shall not be placed until elevations are approved by the Engineer.
- All asphalt to be machine placed.

SP12 RESTORATION OF GRASSED AREAS

All the provisions of OPSS.570, 571 and 572 and Special Provision – Contract Item B21 and B22 shall apply to this item except as amended or extended herein.

This item is to be used only for the placement of new sod or seed and the restoration of the grassed areas damaged during construction. The Contractor will be responsible for the restoration of any additional areas damaged beyond the limits established by the Contract Administrator.

Topsoil

Topsoil shall be a PREMIUM BLEND with a pH of 6.5 to 7.5, weed free, and naturally sterilized through composting. The blend shall consist of 50% Triple Mix (a 30% mixture of topsoil, sands, and shredded wood mulch; a 30% mixture of black organic compost and manure; and a 30% mixture of peat loam) and 50% Premium Topsoil (a 50% mixture of topsoil, sands, and shredded wood mulch; a 25% mixture of black organic compost; and a 25% mixture of composted cow manure). In general, the resulting topsoil mix should meet the following parameters:

- PH: 6.5 – 7.5
- Potassium 100 – 120 ppm
- Phosphorous 15 – 30 ppm
- Magnesium 100 – 120 ppm
- Organic Matter $\geq$ 3%

Unless otherwise specified, the minimum depth of applied Premium Blend Topsoil shall be 100 mm.

Topsoil Testing

Prior to commencement of the project, the contractor shall supply two samples of topsoil from each stockpile to be used to the contractor administrator. Additionally, the contract administrator may randomly sample topsoil arriving on-site. The samples will be tested by Agri-Food Laboratories (AFL) using the AFL Base III test package plus % sand, % silt, and % clay. These tests will rate soil in accordance with AFL and Ontario Ministry of Agriculture and Food (OMAF) recommendations. Topsoil with tests resulting in "low, very high, or excessive" ratings for the carious parameters will be rejected.

Preparation and Timing

As soon as practically possible after the main construction is completed, the contractor shall rough grade and level; all of the affected areas to the sub-grade elevation. The contractor must ensure that all granular and foreign material is removed from areas adjacent to any driveway or sidewalk and from behind new curbs prior to the placement of topsoil. If the areas are lower than the required depth, the contractor may use suitable native fill material properly compacted to prevent undo settlement.

All "cut-in" areas adjacent to the existing sod shall be squared off and removed by means of a mechanical sod cutter. An additional 25mm of existing topsoil shall be removed to accommodate a 25mm dressing thickness of Premium Blend Topsoil to ensure new sod growth at abutting sod areas.

In the event of inclement or hot weather conditions, the contract administrator may delay the placement of sod until more appropriate weather conditions prevail. Nevertheless, the contractor shall still prepare and apply the topsoil to all of the affected areas as soon as construction is completed to tidy up the construction zone and reduce the possibility of weed infestation.

Sod

Sod is to be placed in all areas requiring restoration within the "urban" limits. As well, a 0.3m strip of sod shall be placed in accordance with OPSS 571.07 at the bottom of all ditches.

Sodded areas shall be rolled with a light roller to ensure a good bond between the sod and topsoil and to remove minor depressions and irregularities. Heavy rolling to correct irregularities in grade will not be permitted.

Initial watering of all sod shall be completed within 12 hours after placement and shall be sufficient to penetrate the root zone of the sod and wet the surface of the topsoil. The contractor shall apply all water required during the 30-day maintenance period to ensure growth. The contractor shall distribute an information door hanger to each affected residence outlining turf care information. The door hanger shall be supplied to the owner.

The maintenance period shall be 30 consecutive days and shall commence once all the sod has been placed. The 30 consecutive days will not include the winter dormant period for Southern Ontario (November 1st to April 30th, inclusive). At the end of the 30-day maintenance period, the contractor shall arrange a suitable time with the contract administrator to inspect all of the sod that has been placed. Deficient areas shall be resodded as outlined in OPSS 571.08.

Hydraulic Mulch

Hydraulic Mulch shall be placed in accordance with OPSS 572.07.

The seed mix shall meet the requirements of the "Road Side Mix" outlined in Table 1 of OPSS 572.

Hydraulic Mulch is to be applied to all disturbed ditches and will not be permitted in areas of manicured lawns.

Fertilizer

A granular starter fertilizer of 0-20-0 shall be applied at a rate of 2.0 kg per $100m^2$ spread on the topsoil immediately prior to sodding. In addition, an application of 20-20-20 water-soluble fertilizer shall be applied 21 days after the sod is laid.

Measurement for Payment

Topsoil

No measurement will be made for topsoil placed in preparation for the placement of sod or hydraulic mulch.

Sod

Measurement for sod shall be in square metres, following the contours of the ground

Hydraulic Mulch

Seeding and mulch measurement shall be in square metres following the contours of the ground with no allowance for overlap.

Basis of Payment

Topsoil

No payment will be made for topsoil placed in preparation for the placement of sod or hydraulic mulch.

Sod

Payment at the contract price for the above item shall be full compensation for all labour, equipment, and material to do the work.

If the placement of sod has been delayed due to weather, yet the area to be sodded has been prepared and topsoiled as specified, payment at 50% of the unit price bid for topsoil and sod will be made. The balance will be paid upon satisfactory completion of the sodding.

Hydraulic Mulch

Payment at the contract price for the above item shall be full compensation for all labour, equipment, and material to do the work.

If the placement of mulch has been delayed due to weather, yet the area has been prepared and top soiled as specified, payment at 50% of the unit price bid for topsoil and mulch will be made. The balance will be paid upon satisfactory completion of the work.

SP13 PAVEMENT MARKINGS

The provisions of OPSS 532 shall apply except as amended herein.

Line painting shall be applied to conform to the provisions of Ontario Traffic Manual – Book 11 by the Ministry of Transportation Ontario.

The paint used shall be yellow and white organic solvent based non-coning, high temperature traffic paint or approval equal.

The unit price bid shall include all labour, equipment and materials for removal of existing pavement markings and placement of temporary and permanent markings.

Pavement pre-marking shall be undertaken by the Contractor once approved by the Owner prior to the application of permanent markings. The unit price bid shall be deemed to have made allowance for pavement pre-marking and co-ordination of pavement pre-marking with the owner. The Contractor shall contact the following to coordinate the pavement pre-marking.

Contact: Brock University - Facilities Management

Measurement for Payment

Measurement for payment shall be as per OPSS 532.09.01

Basis of Payment

Basis of payment shall be as per OPSS 532.10

SP14 PROTECTION OF EXISTING APPURTENANCES

During excavation, the contractor shall take due precautions to protect existing manhole frames and covers, manholes, valve chambers, valve boxes, and curb stops within the right-of-ways. Any of the aforesaid appurtenances if damaged direct or indirectly by the contractor's operation shall be replaced by the contractor. The unit price bid shall be deemed to have made due allowance for this contingency.
This is a non-pay item, and should be included in the appropriate items.

SP15 PROTECTION OF EXISTING UNDERGROUND PLANTS

Brock University utilities shall remain in their existing location unless indicated for relocation on the Contract drawings. These utilities shall be protected during the works.
The Contractor shall note that every effort has been made to reduce conflicts with utility underground plants however some conflicts may still exist. The Contractor shall exercise caution while excavating in areas of all underground utilities in order to avoid damage to the plant. No additional payment will be made for the repair of damaged underground utility plants or any associated down time where the damage to properly located underground utility plants is caused by the Contractor's operations.
This is a non-pay item, and should be included in the appropriate items.

SP16 SITE MAINTENANCE

The provisions of OPS General Conditions of Contract GC 7.05 shall apply except as amended or extended herein.

The Contractor shall be responsible for maintaining all disturbed areas within the limits of the contract to a satisfactory condition so as to avoid damage or injury to property and the public. This shall include any utility cuts within the contract limits.

The Contractor shall maintain these areas on a weekly basis or as directed by the Contract Administrator. Until acceptance of the entire project, the Contractor shall be responsible for maintenance and upkeep to the Owner's satisfaction.

This is a non-pay item and shall be included as part of the total contract price.

SP17 UTILITY COORDINATION

The Contractor shall coordinate with the appropriate Utility Companies for the relocation of utilities as required for the project. Enbridge Gas relocations are proposed be to completed along the existing Village Road and Bell communications line relocation is proposed along the southeast portion of the ring road. The Contractor shall coordinate the required utility work and/or coordinate with the Utility performing relocation work at no extra cost.

This is a non-pay item and shall be included as part of the total contract price.

SP18 TEST PITS (PROVISIONAL)

The provisions of Special Provision – Contract Item B1 shall apply except as amended or extended herein.

The Contractor shall provide all necessary labour, materials and equipment to excavate and backfill exploratory test holes at locations and depths as directed by the Engineer. The complete backfilling with Granular 'A', compacted to 100% Proctor Density, and the disposal of all excavated material shall be in accordance with the specifications as further outlined in this Contract. The cost to supply and place the Granular 'A' shall be paid for under a separate unit price item.

The purpose of these test holes shall be to verify existing infrastructure where a design change may be required due to possible conflicts during construction OR for completing leachate testing to determine the levels of hydrocarbons within the soil OR for any other reason required by the Engineer.

The Contract Administrator must approve all test pits.

The unit price for both depths shall be based on an excavation of approximately 2.5m long by 2.5m wide.

SP19 DISPOSAL OF EXCAVATED MATERIAL (PROVISIONAL)

The Contractor is advised to review the geotechnical report and its findings. If any contamination is encountered during construction, leachate testing may be required on-site to determine more accurate limits of the contaminated material. It is anticipated that these circumstances will be limited and it will be the responsibility of the Contractor to work around any such areas to maintain the project schedule. **No additional compensation will be considered for these circumstances.** Any material that is deemed as contaminated must be disposed of accordingly.

This material shall be used as native backfill material where appropriate. Disposal of the remainder excavated or unsuitable material shall be disposed of by the Contractor on the Brock University site.

All vehicles transporting excavated material off-site must cover their loads at all times during the trip to prevent materials from blowing off the truck

SP20 UNSHRINKABLE BACKFILL (PROVISIONAL)

The provisions of OPSS 514 and 1359 shall apply except as amended or extended herein.

The unit price bid for this item shall include all labour equipment and materials necessary to supply and place unshrinkable backfill fill material.

Unshrinkable backfill is to be used in areas where conventional backfilling and compaction methods cannot be carried out or may cause damage to adjacent utilities and services. The Contract Administrator shall approve the use of all unshrinkable backfill.

Measurement for payment will be in cubic metres.

Payment shall be for the actual volume of unshrinkable backfill material placed based on bills.

SP21 TRENCH SUB-EXCAVATION (PROVISIONAL)

The provision of OPSS 314 shall apply except as amended or extended herein.

The unit price bid shall include all sub-excavation below the required trench bottom or unsuitable sub-grade material, any additional sheathing and shoring required, disposal of excavated material. The supply and placement of 50mm crusher run stone in the trench or sub-grade compacted to 100% Proctor Density is also included in the price indicated.

SP22 SHORING & BRACING LEFT IN PLACE (PROVISIONAL)

The provision of OPSS 538 shall apply except as amended or extended herein.
Shoring and bracing construction shall conform to OPSS 538. Unit price bid shall be made only for "shoring and bracing left in place" by order of the Engineer.

SCHEDULE OF DRAWINGS

Brock University

Construction of Village Road and Expansion/Rehabilitation of Parking Lot S Invitation to Tender No. DB 18-13

SCHEDULE OF DRAWINGS

1. CONTRACT DRAWINGS

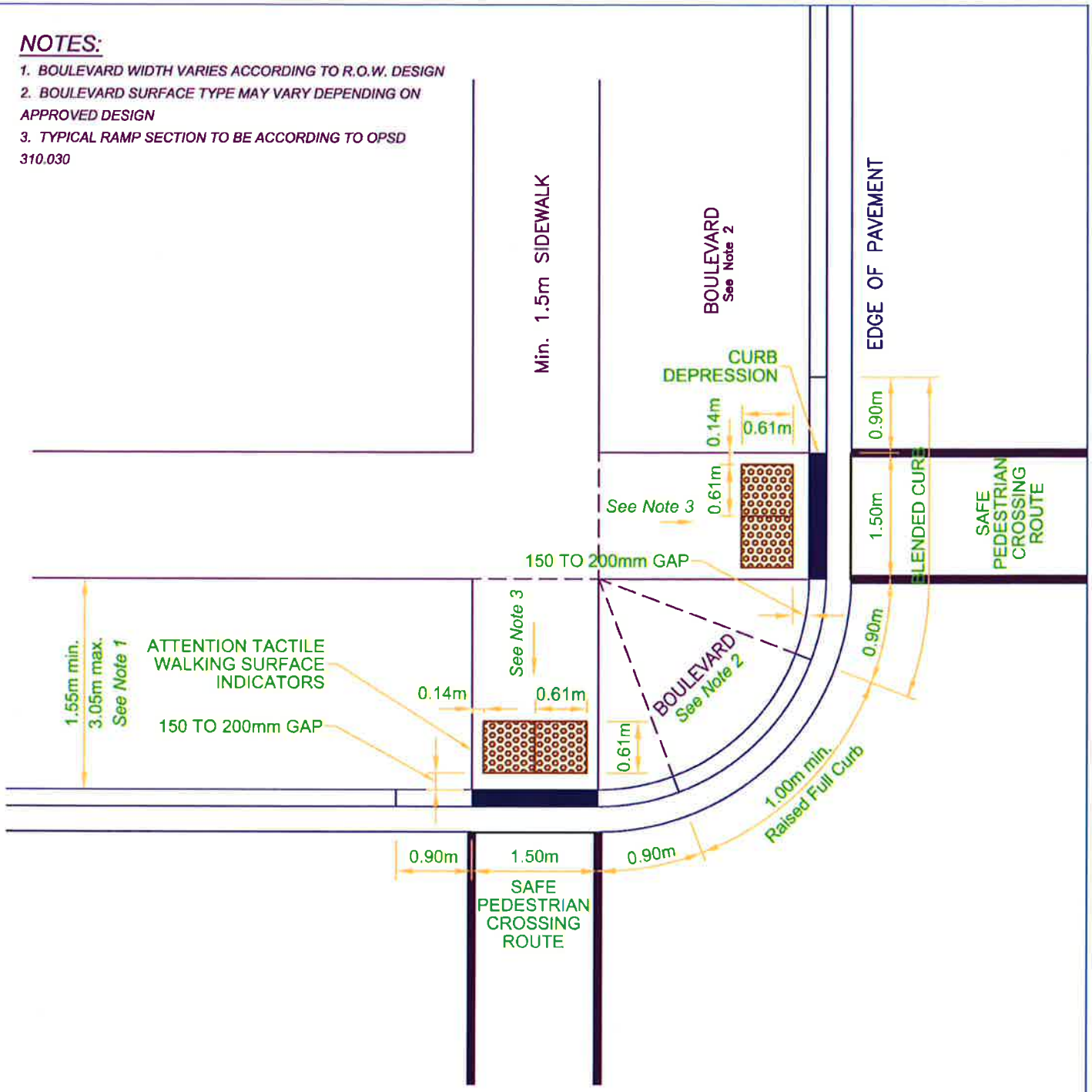
DESCRIPTION	DRAWING No.
Cover	
Legend	LGD
Civil General Notes	NOTES
Project Key Plan (for the Plan and Profile drawings)	KP01
Project Phasing Plan	PS01
Parking Area – Site Services Plan	SS01
Parking Area – Surface Works Plan	SW01
Parking Area – Surface Works Plan	SW02
Project Alignment Plan	AL01
Removal plan – Village Road – Phase 2	REM 1
Removals plan – Proposed Parking Lot – Phase 1	REM 2
Removals plan – Existing Parking Lot – Phase 1A	REM 3
Removals plan – Intersection of North Parking Access – Phase 1	REM 4
Plan and Profile – Village Road Stn 0+000 to Stn 0+130 – Phase 2	PP01
Plan and Profile – Village Road Stn 0+130 to Stn 0+240 – Phase 2	PP02
Plan and Profile – Village Road Stn 0+240 to Stn 0+360 – Phase 1/2	PP03
Plan and Profile – Village Road Stn 0+360 to Stn 0+480 – Phase 1	PP04
Plan and Profile – Village Road Stn 0+480 to Stn 0+600 – Phase 1	PP05
Plan and Profile – Village Road Stn 0+600 to Stn 0+740 – Phase 1	PP06
Plan and Profile – Parking Access Road Stn 1+000 to Stn 1+070 – Phase 1	PP07
Plan and Profile – Parking Access Road Stn 1+070 to Stn 1+140 – Phase 1	PP08
Pavement Markings and Signage Plan	PM01
Irrigation Plan	IP01
Typical X-Sections	TXS01
Cross Sections Village Road	XS01
Cross Sections Village Road	XS02
Cross Sections Village Road	XS03
Cross Sections Village Road	XS04
Civil Details	DET01
Surfacing Details	DET02
Surfacing Details	DET03
Surfacing Details	DET04
Furnishing Details	DET05
Landscape Planting Notes	TM-100
Landscape Planting Plan	L-400
Electrical Legends Schedules Details and Single Line Diagram	E1
Electrical Trenching Details	E2
Electrical Revised Electrical Site Plan - Power	E3-1
Electrical Revised Electrical Site Plan - Communications	E3-2
Electrical Revised Electrical Site Plan – Lighting	E3-3
Electrical – Site Plan Photometrics	E4
Electrical – Demolition Site Plan	ED1

STANDARD DRAWINGS

(Refer to Niagara Peninsula Standard Contract Documents)

NOTES:

1. BOULEVARD WIDTH VARIES ACCORDING TO R.O.W. DESIGN
2. BOULEVARD SURFACE TYPE MAY VARY DEPENDING ON APPROVED DESIGN
3. TYPICAL RAMP SECTION TO BE ACCORDING TO OPSD 310.030



PRELIMINARY

ADAPTED FROM NIAGARA REGION DRAWING NRS 3002

NEW SIDEWALK CONSTRUCTION

NIAGARA PENINSULA STANDARD CONTRACT DOCUMENTS

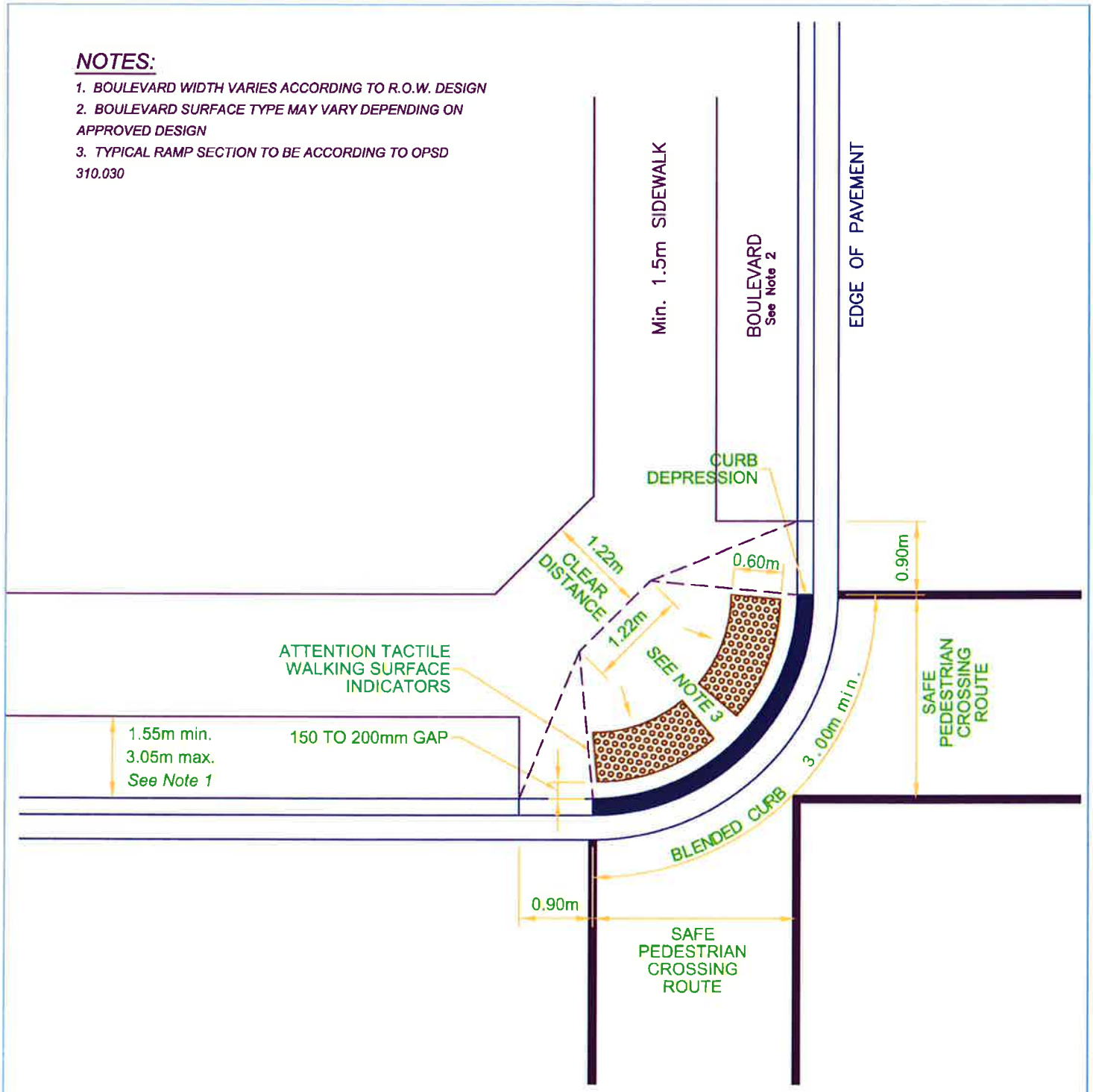
ATTENTION TACTILE WALKING SURFACE INDICATORS

BLENDED CURBS @ 4-WAY INTERSECTIONS – TYPICAL DETAIL

SCALE			PROJECT No.	DWG. No.
N.T.S.	DESIGNED	B.M.	------	201A
	CHECKED	J.V.		
	DRAWN	B.M.	DATE 20/01/2014	REV No:

NOTES:

1. BOULEVARD WIDTH VARIES ACCORDING TO R.O.W. DESIGN
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PRELIMINARY

ADAPTED FROM NIAGARA REGION DRAWING NRS 3002

NEW SIDEWALK CONSTRUCTION

NIAGARA PENINSULA STANDARD CONTRACT DOCUMENTS

ATTENTION TACTILE WALKING SURFACE INDICATORS

WRAPAROUND BLENDED CURB – TYPICAL DETAIL

SCALE	DESIGNED	B.M.	PROJECT No.		DWG. No.
N.T.S.	CHECKED	J.V.	-----		201B
	DRAWN	B.M.	DATE	20/01/2014	REV No:

SCHEDULE OF OPSS & OPSD

Brock University

Construction of Village Road
And Expansion/Rehabilitation of Parking Lot S
Invitation to Tender No. DB 18-13

SCHEDULE OF OPSS

Only the municipal and provincial common standards in OPS Volumes 1 to 4 and the municipal-oriented specifications in OPS Volumes 7 and 8 apply to this Contract, unless specified otherwise in the Contract Documents.

Where the specification number for a tender item in the Form of Tender is preceded by the letters OPSS, it refers to Ontario Provincial Standard Specifications (OPSS) which are current at the time of tendering. The following OPSS shall be applicable to this contract:

Description	Date
OPSS. MUNI 100	
OPSS. MUNI 106	
102 - Weighing of Materials	Oct 1992
106 - Electrical Work	Nov 2004
127 - Schedule of Rental Rates for Construction Equipment	Apr 2011
128 - Supply of Pre-Qualified Material and Products	Apr 2006
180 - Management of Excess Material	Nov 2005
182 - Environmental Protection for Construction in Waterbodies and on Waterbody Banks	Nov 2000
201 - Clearing, Close Cut Clearing, Grubbing and Removal of Boulders	Nov 2007
206 - Grading	Nov 2009
212 - Borrow	Nov 2008
310 - Hot Mix Asphalt	Apr 2011
311 - Asphalt Sidewalk, Driveway and Boulevard and for Sidewalk Resurfacing	Nov 2009
312 - Asphalt Curb and Gutter Systems	Nov 2009
314 - Untreated Granular Subbase, Base, Surface Shoulder, and Stockpiling	Nov 2004
330 - In-Place, Full Depth Reclamation of Bituminous Pavement and Underlying Granular	May 1994
350 - Concrete Pavement and Concrete Base	Mar 1998
351 - Concrete Sidewalk	Nov 2010
352 - Concrete Steps	Nov 2000
353 - Concrete Curb and Gutter Systems	Nov 2006
355 - Installation of Interlocking Concrete Pavers	Nov 2006
401 - Trenching, Backfilling and Compacting	Nov 2010
402 - Excavating, Backfilling & Compacting for Maintenance Holes, Catchbasins, Ditch Inlets & Valve Chambers	Nov 2010

403 - Rock Excavation for Pipelines, Utilities and Associated Structures in Open Cut	Nov 2010
404 - Support Systems	Nov 2010
405 - Pipe Subdrains	Nov 2008
407 - Maintenance Hole, Catchbasin, Ditch Inlet and Valve Chamber Installation	Nov 2007
408 - Adjusting or Rebuilding Maintenance Holes, Catchbasins, Ditch Inlets & Valve Chambers	Nov 2007
409 - Closed Circuit Television Inspection of Piplines	Nov 2009
410 - Pipe Sewer Installation in Open Cut	Apr 2008
412 - Sewage Forcemain Installation in Open Cut	Nov 2009
416 - Pipeline and Utility Installation by Jacking and Boring	Nov 2008
421 - Pipe Culvert Installation in Open Cut	Apr 2008
422 - Precast Reinforced Concrete Box Culverts and Box Sewers in Open Cut	Apr 2004
441 - Watermain Installation in Open Cut	Nov 2010
442 - Cathodic Protection of New and Existing Watermains	Nov 2010
450 - Pipeline and Utility Installation in Soil by Horizontal Directional Drilling	Nov 2007
460 - Pipeline Rehabilitation by Cured-in-Place Pipe	Nov 2009
462 - Cement Mortar Lining of Watermains	Nov 2009
463 - Pipeline and Conduit Installation by Pipe Bursting	Nov 2009
490 - Site Preparation for Pipelines, Utilities and Associated Structures	Nov 2010
491 - Preservation, Protection and Reconstruction of Existing Facilities	Nov 2010
492 - Site Restoration following Installation of Pipelines, Utilities and Associated Structures	Nov 2010
501 - Compacting	Nov 2010
506 - Dust Suppressants	Nov 2005
510 - Removal	Apr 2010
511 - Rip-Rap, Rock Protection and Granular Sheeting	Apr 2011
517 - Dewatering of Pipeline, Utility and Associated Structure Excavation	Nov 2010
518 - Control of Water from Dewatering Operations	Nov 2006
539 - Temporary Protection Systems	Nov 2009
602 - Installation of Electrical Chambers	Nov 2008
603 - Installation of Ducts	Apr 2010
604 - Installation of Cable	Nov 2010
609 - Grounding	Nov 2008
610 - Removal of Electrical Equipment and Materials	Nov 2008
614 - Installation of Power Supply Equipment	Nov 2008
615 - Erection of Poles	Nov 2008
616 - Footings and Pads for Electrical Equipment	Nov 2008
617 - Installation of Roadway Luminaires	Nov 2008
620 - Traffic Signal Equipment and Electrical Traffic Control Devices	Nov 2007
624 - Traffic Signal Interconnection Equipment	Nov 2007
706 - Traffic Control Signing	Nov 2010
721 - Steel Beam Guide Rail and Cable Guide Rail	Nov 2010
772 - Chain Link Fence	Nov 2010

801 - Protection of Trees	Nov 2010
802 - Topsoil	Nov 2010
803 - Sodding	Nov 2010
804 - Seed and Cover	Nov 2010
805 - Temporary Erosion and Sediment Control Measures	Nov 2010

and any other related specifications referred to in the above listed specifications.

N.B. Contractors are advised that the Brock University has adopted the Ontario Provincial Standard Specifications and Drawings for Road and Parking Lot Projects.

Copies of the relevant specifications **ARE NOT** included in this contract, therefore, it is necessary for contractors to obtain their own set of the Ontario Provincial Standard Specifications and Ontario Provincial Standard Drawings (OPSD).

SCHEDULE OF OPSD
(Not Included in Contract Documents)

Description	OPSD#	Date
Subdrain Pipe Connections and Outlet, Open Graded Drainage Layer	207.044	Nov 2008
Subdrain Pipe Connection and Outlet, Urban	216.021	Nov 2008
Access to Hydrant Across Ditch	217.050	Nov 2006
Light-Duty Silt Fence Barrier	219.110	Nov 2006
Rock Flow Check Dam, Flat Bottom Ditch	219.211	Nov 2006
Concrete Sidewalk	310.010	Nov 2005
Concrete Sidewalk Adjacent to Curb and Gutter	310.020	Nov 2005
Concrete Sidewalk Ramps at Intersections	310.030	Oct 1993
Utility Isolation in Concrete Sidewalks	310.040	Nov 2005
Concrete Sidewalk Driveway Entrance Details	310.050	Nov 2005
Urban, Industrial, Commercial and Apartment Entrances	350.010	Nov 2009
Cast Iron, Square Frame with Square Flat Grate for Catchbasins, Herring Bone Openings	400.020	Nov 2007
Cast Iron, Square Frame with Circular Closed or Open Cover for Maintenance Holes	401.010	Nov 2007
Aluminum Safety Platform for Circular Maintenance Holes	404.020	Nov 2008
Aluminum Safety Platform for 1500 mm Diameter Circular Maintenance Holes with Drop Pipe	404.021	Nov 2008
Aluminum Safety Platform for 1800 mm Diameter Circular Maintenance Hole with Drop Pipe	404.022	Nov 2008
Maintenance Hole Steps, Hollow	405.010	Nov 2008
Maintenance Hole Steps, Solid	405.020	Nov 2008
Pavement Reinstatement for Utility Cuts	509.010	Nov 2006
Concrete Steps, Slab on Grade with Footings	512.010	Nov 2000
Concrete Steps, Slab on Grade	512.011	Nov 2000
Interlocking Concrete Pavers on Granular Base	561.010	Nov 2006
Interlocking Concrete Pavers on Concrete or Asphalt Base	561.020	Nov 2006
Concrete Barrier Curb With Standard Gutter	600.040	Nov 2006
Concrete Mountable Curb with Narrow Gutter	600.100	Nov 2006
Concrete Barrier Curb	600.110	Nov 2006
Precast Concrete Curb	603.020	Nov 2006
45° Concrete Outlet for Concrete Curb with Gutter at End of Run	605.030	Nov 2006
Method of Termination for Concrete Curb with Gutter	608.010	Nov 2006
Catchbasin Frame with Grate Installation at Curb and Gutter	610.010	Nov 2009
Precast Concrete Maintenance Hole, 1200 mm Diameter	701.010	Nov 2009
Precast Concrete Maintenance Hole, 1500 mm Diameter	701.011	Nov 2009
Precast Concrete Maintenance Hole, 1800 mm Diameter	701.012	Nov 2009
Maintenance Hole Benching and Pipe Opening Alternatives	701.021	Nov 2009
Precast Concrete Maintenance Hole Components, 1200 mm	701.030	Nov 2009

Diameter, Tapered Top & Flat Cap		
Precast Concrete Maintenance Hole Components, 1200 mm Diameter, Riser & Monolithic Base	701.031	Nov 2009
Precast Concrete Maintenance Hole Components, 1200 mm Diameter, Base Slab	701.032	Nov 2009
Precast Concrete Maintenance Hole Components, 1500 mm Diameter, Transition Cone & Slabs	701.040	Nov 2009
Precast Concrete Maintenance Hole Components, 1500 mm Diameter, Riser and Bases	701.041	Nov 2009
Precast Concrete Maintenance Hole Components, 1800 mm Diameter, Transition Slabs	701.050	Nov 2009
Precast Concrete Maintenance Hole Components, 1800 mm Diameter, Riser & Base Slab	701.051	Nov 2009
Precast Concrete Adjustment Units for Maintenance Holes, Catchbasins & Valve Chambers	704.010	Nov 2009
High Density Polyethylene Adjustment Units for Maintenance Holes, Catchbasins & Valve Chambers	704.011	Nov 2008
Precast Concrete Catchbasin 600 mm x 600 mm	705.010	Nov 2009
Precast Concrete Twin Inlet Catchbasin 600 mm x 1450 mm	705.020	Nov 2009
Catchbasin Connection for Rigid Main Pipe Sewer	708.010	Nov 2006
Support for Pipe at Catchbasin or Maintenance Hole	708.020	Nov 2006
Catchbasin Connection for Flexible Main Pipe Sewer	708.030	Nov 2006
Flexible Pipe Embedment and Backfill Earth Excavation	802.010	Nov 2010
Flexible Pipe Embedment and Backfill Rock Excavation	802.013	Nov 2010
Rigid Pipe Bedding, Cover and Backfill Type 1 or 2 Soil - Earth Excavation	802.030	Nov 2010
Rigid Pipe Bedding, Cover and Backfill Type 3 Soil - Earth Excavation	802.031	Nov 2010
Rigid Pipe Bedding, Cover and Backfill Type 4 Soil - Earth Excavation	802.032	Nov 2010
Rigid Pipe Bedding, Cover and Backfill Rock Excavation	802.033	Nov 2010
Rip-Rap Treatment for Sewer and Culvert Outlets	810.010	Nov 2007
Internal Drop Structure for Existing Maintenance Holes	1003.030	Nov 2008
Internal Drop Structure for New Maintenance Holes	1003.031	Nov 2008
Sewer Service Connections for Rigid Main Pipe Sewer	1006.010	Nov 2005
Sewer Service Connections for Flexible Main Pipe Sewer	1006.020	Nov 2005
Valve Operator	1101.020	Nov 2006
Concrete Thrust Blocks for Tees, Plugs and Horizontal Bends	1103.010	Nov 2006
Concrete Thrust Blocks for Vertical Bends	1103.020	Nov 2006
Water Service Connection, 19 mm and 25 mm Diameter Sizes	1104.010	Nov 2006
Water Service Connection, 32 mm, 38 mm and 50 mm Diameter Sizes	1104.020	Nov 2006
Hydrant Installation	1105.010	Nov 2006
Cathodic Protection for Metallic Watermain Systems	1109.010	Nov 2008
Cathodic Protection for PVC Watermain Systems	1109.011	Nov 2008

SUPPLEMENTARY GENERAL CONDITIONS OF CONTRACT

(Refer to Niagara Peninsula Standard Contract Documents)

OPS GENERAL CONDITIONS OF CONTRACT

(Refer to Niagara Peninsula Standard Contract Documents)

APPENDIX A

Geotechnical Investigation
(BOREHOLES ONLY)
WSP

APPENDIX B

UTILITIES INVESTIGATION - ADDITIONAL INFORMATION

APPENDIX C

ELECTRICAL SPECIFICATION

APPENDIX D

LANDSCAPING SPECIFICATION

APPENDIX E

CITY OF ST. CATHARINES WATERMAIN INSPECTION, TESTING AND COMMISSIONING REQUIREMENTS