

Invitation to Tender 2021

Broadway / Highway #9 Gateway Development

City of Yorkton
Engineering Department

Closing Date: May 19, 2021 2:00 CST

Part 1 General

1.1 BID CALL

.1 Bids will be received by the **City of Yorkton** (the "**City**"), addressed as follows:

City of Yorkton
City Clerk's Office - 2nd floor City Hall
37 – 3rd Avenue North,
Yorkton, SK, S3N 2W3

before **2:00 pm local time** on May 19, 2021, to perform work for the **Broadway/Highway #9 Gateway Development** as described in the Contract Documents.

- .2 The City's office hours for the purpose of receiving Bids are Monday to Friday, 8:00 a.m. to 4:00 p.m., excluding 12:00pm noon to 1:00pm and statutory holidays.
- .3 Bids submitted after above time will be returned to the Bidder unopened.
- .4 Bids will be opened privately after the time for receipt of Bids. A summary of bid results and recommendation for award will be disclosed at the first available council meeting.
- .5 No fax, oral, telephone, or e-mail Bids will be considered.

1.2 INTENT

- .1 The Intent of this Bid call is to obtain Quotations from interested vendors to construct the Broadway / Highway 9 Gateway Development. The Quotation will be to supply and install all materials and equipment necessary to complete the project. The contractor expectations are detailed below along with the scope of work.
- .2 The Consultant for this project is:

Scatliff + Miller + Murray Inc. Landscape architecture Services 100-4561 Parliment Ave Regina, SK

1.3 DEFINITIONS

- .1 In these Instructions to Bidders:
 - .1 Bid: A bid submitted to perform the work described in the Contract Documents.
 - .2 Bidder: Any person or firm submitting a Bid in response to this tender.
 - .3 Bid Documents: The Contract Documents Supplemented with the Instructions to Bidders and Bid Form.
 - .4 Contract Documents: As defined in CCDC 4Contract.

1.4 CONTRACT/BID DOCUMENTS

.1 The Contract/Bid Documents are identified as

City of Yorkton
Broadway /Highway #9 Gateway Development

1.5 DOCUMENT AVAILABILITY

- .1 Bid Documents may be viewed and obtained on-line at https://www.sasktenders.ca and https://www.yorkton.ca/tenders/.
- .2 Bid Documents are made available only for purpose of obtaining offers for this project. Their use does not confer license or grant for other purpose.

1.6 DOCUMENT EXAMINATION

- .1 Upon receipt of Bid Documents verify that documents are complete.
- .2 Immediately notify the City upon finding any error, omission, inconsistency or discrepancy in Bid Documents.

1.7 PROJECT CONTACT/QUERIES/ADDENDA

.1 Direct questions or request for clarifications in writing as follows:

Engineering Department
Email: jfawcett@yorkton.ca

Attn: Jeff Fawcett

Only email inquiries will be considered.

- .2 Questions or requests for clarifications must be submitted in writing no later than five (5) working days before the date set for receipt of Bids. Replies will be in the form of written addenda, copies of which will be forwarded to known Bidders no later than two (2) working days before the date set for receipt of Bids.
- .3 The City may make changes to the Bid Documents prior to the Bid submission deadline.
 Any changes will be in the form of written addenda, which will be posted on https://www.sasktenders.ca and https://www.yorkton.ca/tenders/
- .4 All addenda become part of the Bid Documents. It is the responsibility of each Bidder to ensure that all addenda have been received and acknowledged prior to submitting a Bid. Bidders are responsible for addressing all addenda in their Bids.

1.8 SITE ASSESSMENT

.1 All Bidders are strongly recommended to examine the site prior to submitting their Bids.

1.9 CONSTRUCTION TIME

.1 Bidder, in submitting a Bid, agrees to perform the work by the date indicated in the Contract Documents.

1.10 BID/CONTRACT SECURITY

- .1 Bid Security:
 - .1 Each Bidder shall include with its Bid the following Bid security:
 - .1 a properly executed bid bond, in form CCDC 220, in favor of the City for 10% of the Bid Price. Bid bonds should be issued by a bonding company Licenced in the Province of Saskatchewan to conduct the business of a surety, or
 - a signed, certified cheque in the amount of 10% of the Bid Price naming the City as payee.
 - .2 If no contract is awarded, all Bid security will be returned.
- .2 Performance Security
 - .1 The accepted Bidder will be required to provide a performance bond and a labour and materials payment bond, as specified in the Contract Documents.
 - .2 Bidders must include with their Bids a consent of surety, stating that the surety providing the bid bond is willing to supply the performance and labour and materials payment bonds required.
 - .3 Payment for performance and labour and materials payment bonds shall be included in the Bid Price.

1.11 BID COMPLETION

- .1 Complete the Bid Form, and all supplements and appendices attached to the Bid Form, in their entirety and in accordance with these Instructions to Bidders and any instructions indicated on the Bid Form or the supplements/appendices.
- .2 Complete the Bid Form with all portions fully filled out in ink or typewritten and with signatures in longhand. Complete Bids without delineation, alteration or erasures.
- .3 The Bid Form should be signed by an authorized representative of the Bidder.
- .4 Bids shall include the following:
 - One executed copy of the Bid Form, including all required supplements and appendices to the Bid Form;
 - .2 Unit Prices Form;
 - .3 Proposed Subcontractors Form;
 - .4 A completed copy of CCDC 11 (2016) Contractor's Qualification Statement;

- .5 Bid bond or certified cheque in the amount of 10% of the Bid price;
- .6 Consent of surety to provide the required performance bonds and labour and material payment bonds, or letter of irrevocable credit as specified in the Contract Documents;
- .7 Certificate of Recognition (COR) as issued by the Saskatchewan Construction Safety Association (SCSA) or another equivalent certifying organization;
- .8 Letter of good standing for the Bidder issued by the Saskatchewan Workers Compensation Board; and

.5 Bid Ineligibility

- .1 Bids that are unsigned, improperly signed or sealed, conditional, illegible, obscure, contain arithmetical errors, erasures, alterations, or irregularities of any kind may, at discretion of the City, be declared non-compliant.
- .2 Bids with Bid Forms and enclosures which are improperly prepared or missing may, at the discretion of the City, be declared non-compliant.
- .3 Bids that fail to satisfy bonding requirements may, at the discretion of the City, be declared non-compliant.
- .4 Notwithstanding the foregoing, the City may, in its sole discretion, retain for consideration Bids that are non-conforming because they fail to comply with these Instructions to Bidders with regard to content, form, submission process or any other matter. The City may waive any non-conformance, defects, informalities or irregularities in a Bid and accept a Bid which contains any such non-conformance, defects, irregularities or informalities. The City may, in its sole discretion, between the opening of Bids and the award, if any, provide Bidders with an opportunity to correct any defects, informalities or irregularities in their Bid.

1.12 BID SUBMISSION

.1 Bid Submission

- .1 Bidders are solely responsible for the delivery of their Bids in accordance with the instructions herein, in the manner and time prescribed.
- .2 Submit one (1) copy of the Bid together with the required enclosures in a sealed opaque envelope, clearly identified with Bidder's name and project name on outside.

.2 Bid Modification or Withdrawal

- .1 Amendments to, or withdrawal of Bids will be permitted if received in writing at the office designated in these Instructions to Bidders prior to Bid closing, and if signed by the same party or parties who signed the original Bid.
- .2 The onus is on Bidder to ensure timely receipt of Bid modifications.
- .3 Error on the part of Bidder in preparing the Bid confers no right to the withdrawal of the Bid after it has been opened.

1.13 DURATION OF OFFER

.1 Bids shall remain open to acceptance and shall be irrevocable for a period of thirty (30) days after the Bid submission deadline.

1.14 EVALUATION OF BIDS

- .1 Bids will be evaluated based on Bid Price and Bidder qualifications. In evaluating Bids, the City intends to select the qualified Bidder with the lowest Bid Price.
- .2 In assessing a Bidder's qualifications, the City may consider the information included within a Bidder's Bid (including in CCDC 11 (2016) Contractor's Qualification Statement), the City's past experience in working with a Bidder, and such other criteria as the City deems relevant.
- .3 Disputes and past performance:
 - .1 The City may consider disputes, including disputes requiring litigation, in evaluating a Bidder's qualifications, and/or the City may reject a Bid from a Bidder that currently is, or previously has been, involved in such a dispute with the City.
 - .2 The City may review its records with respect to prior performance by a Bidder on previous contracts with the City. The City may consider such prior performance in evaluating a Bidder's qualifications, and/or the City may reject a Bid from a Bidder if the City determines that a Bidder's performance of previous Contract with the City is unsatisfactory.
- .4 The City may, in its discretion, request clarification from a Bidder during the evaluation process. A request for clarification will not allow a Bidder to revise, amend or otherwise alter its Bid Price.
- .5 The City intends to evaluate Bids in the manner and based on the criteria set forth in these Instructions to Bidders, and the lowest or any Bid will not necessarily be accepted.

1.15 BID ACCEPTANCE

- .1 The City will notify the selected Bidder in writing that its Bid has been accepted. The City will then prepare the Contract Documents based on the selected Bid, and will deliver the Contract Documents to the selected Bidder for execution. The selected Bidder will be obligated to execute the Contract Documents and deliver the required performance bond and labour and material payment bond within five (5) working days after receipt of the Contract Documents for execution. Failure to do so will result in the forfeiture of the selected Bidder's Bid bond. Forfeiture of the Bid bond in such cases will not constitute waiver of any additional rights and remedies that the City may have against the Bidder.
- .2 The City intends to notify all unsuccessful Bidders promptly after execution of the Contract Documents. Unsuccessful Bidders may request a debriefing interview, to obtain feedback on their submission within 30 days after receiving notification of tender results.

.3 Bid bonds will be returned to all Bidders after the selected Bidder has executed the Contract Documents and delivered the required performance security, or after the City has elected not to proceed with a contract award under this tender.

1.16 MISCELLANEOUS

- .1 If all qualified Bids exceed the amount that the City has budgeted for the work, or if the City otherwise determines, at its sole discretion, that not entering into a contract with any of the Bidders would be in its best interests, the City may:
 - .1 reject all Bids;
 - .2 cancel this tender;
 - issue a new tender or commence another procurement process, with or without adjusting the scope of work; and/or
 - .4 proceed in such other manner as the City deems appropriate.
- .2 Bidders are expected to keep confidential all documents, data, information and other materials of the City which are provided to or obtained or accessed by a Bidder in relation to this tender, other than documents which the City places in the public domain. Bidders are expected to refrain from making any public announcements or news releases regarding this tender or the entering into of a contract pursuant to this tender, without the prior written approval of the City.
- .3 Bidders are advised that the City is subject to the provisions of *The Local Authority Freedom of Information and Protection of Privacy Act* (Saskatchewan), which provides a right of access to information in records under the control of a municipality. Bidders are advised that pursuant to *The Local Authority Freedom of Information and Protection of Privacy Act* (Saskatchewan), the City may be required to disclose the Bid Documents and/or parts of any Bid received in response to this tender.

.4 Conflict of Interest:

- .1 Bidders are asked to disclose to the City in writing whether they have any actual, potential or perceived conflicts of interest relating to their participation in this tender or their provision of the requested services to the City, and if so, the nature of each conflict of interest. If the City receives disclosure of a conflict of interest from a Bidder, the City may in its sole discretion take one or more of the following steps:
 - .1 require the Bidder to address the conflict of interest to the satisfaction of the City;
 - .2 disqualify the Bidder from further participation in the tender; or
 - .3 such other steps as the City may deem appropriate.

- .2 Further, if the City learns that a Bidder has failed to identify a conflict of interest, the City may disqualify the Bidder from this tender or take such other steps as the City may deem appropriate.
- .3 For the purposes of this tender "conflict of interest" includes any situation or circumstance where, in relation to a City procurement competition, a Bidder has an unfair advantage, a perception of an unfair advantage or engages in conduct, directly or indirectly, that may give it an unfair advantage, including:
 - .1 any relationship between the Bidder (including its management) and the City, members of council, its management, or other City personnel involved in this tender, which may give rise to a conflict of interest;
 - .2 having, or having access to, information in the preparation of its Bid that is not available to other Bidders, but such does not include information a Bidder may have obtained in the past performance of a contract with the City that is not related to the creation, implementation or evaluation of this or a related procurement;
 - .3 communicating with any person with a view to influencing preferred treatment in the procurement competition (including but not limited to the lobbying of decision makers involved in the procurement competition); or
 - .4 engaging in conduct that compromises, or could be seen to compromise, the integrity of the open and competitive procurement competition or renders that competition non-competitive, less competitive, or unfair.
- .5 Bidders are advised that procurements issued by the City which fall within the scope of New West Partnership Trade Agreement or the Agreement on Internal Trade are subject to the applicable provisions of those trade agreements.
- .6 All costs and expenses incurred by a Bidder in connection with this tender are the responsibility of the Bidder. The City will not reimburse Bidders for any such costs or expenses.
- .7 Prior to the commencement of work, the successful Bidder must provide the Owner with a copy of the Bidder's City of Yorkton business Licence along with a completed City of Yorkton Demolition Permit application form.

END OF SECTION

Submit Bid To:	
Name:	City of Yorkton – 37 Third Ave. North, Yorkton SK., S3N 2W3
Attention:	City Clerk's Office
Contract Information:	
Owner:	<u>City of Yorkton</u>
Contract Title:	Broadway/Highway #9 Gateway Development
Location:	<u>City of Yorkton, SK</u>
Contractor's Declaration and	Information:
to provide all necessary mater with the Bid Documents for the be completed by October 30 th 2022 Submitted this da	sive, and having examined all conditions affecting the Work, hereby agrees ials, labour, and equipment to complete all Work set forth in accordance prices stated in the attached Unit Prices Form. The Walls and Signs must, 2021. Final earth work and finishes may be completed in the spring of, 2021 by an authorized representative of:
Address:	
City:	Province:
Postal Code:	
Phone:	Fax:
E-mail:	
Name (Print):	
Title:	
Signature:	

We enclose the following items with our Bid:

- 1. Unit Prices Form;
- 2. a completed copy of CCDC 11 (2016) Contractor's Qualification Statement;
- 3. bid bond or certified cheque in the amount of 10% of the Bid Price;
- 4. consent of surety to provide the required performance bonds and labour and material payment bonds, as specified in the Contract Documents;
- 5. Certificate of Recognition (COR) as issued by the Saskatchewan Construction Safety Association (SCSA) or another equivalent certifying organization;
- 6. Letter of good standing issued by the Saskatchewan Workers Compensation Board; and
- 7. A copy of our City of Yorkton business license.

END OF SECTION

Schedule A: General Requirements

Item #		Unit	Quantity	Unit Price	Amount
1.0 General Requirements					
1.1	Mobilization/Demobilization	l.s.	1		
				Sub-Total	

2.0 Bas	e Bid				
2.1	Rough Grading	m3	3200		
2.2	Topsoil Salvage, Stockpile and Redistribution	m2	6700		
2.3	Native Grass Revegetation	m2	6700		
2.4	Native Grass Seed Supply (by Consultant)	Allowance			\$2,000
2.5	Native Grass Commissioning / Maintenance	year	2		
2.6	Gabion Wall Design / Construction	m3	475		
2.7	"Yorkton Where Great Things Happen" Signage Shop Drawing Preparation /	Each	2		
2.8	Stainless Steel Lighting Strip Shop Drawing Preparation / Construction	lin. m.	60		
2.9	South West Corner Power Supply	Each	1		
2.10	South East Corner Power Supply	Each	1		
		1		Total Base Bid	
3.0 Sep	arate Price Items				
3.1	Coloured Stamped Concrete Pavement	m2	480		
3.2	Tamarack	Each	6		
3.3	Black Hills Spruce	Each	18		
3.4	Scots Pine	Each	11		
3.5	Trembling Aspen	Each	9		
3.6	Acute Willow	Each	7		
3.7	Brandon Ascending Elm	Each	7		

Contractor's Qualification Statement

CCDC 11 - 2016

This document is intended to provide information on the Contractor's capacity, skill, and experience. Information requested may be supplemented with additional sheets if required.

PROJECT Project

Title: Project Number: Location:

SUBMITTED TO

Name: Address : Phone: E-mail:

SUBMITTED BY

Name: Address : Phone: E-mail:

COMPANY INFORM ATION

1. Legal Structure

Year Established:

Corporation , Partnership , Joint Venture , Registered , Sole Proprietor , Other:

Names and Titles of Officers, Partners, Principal:

Name Title / Position

2. Financial Reference

Bank Name:

Address:

Contact Person(s):

Phone:

E-mail:

3. Contract Security Reference

Company Name:

Address:

Contact Person(s):

Phone:

E-mail:

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Contractor's Qualification Statement

CCDC 11 - 2016

4.	Insurances Refe Liability Insurance Insurance Compa Insurance Broker Address: Phone: E-mail:	e Limit: ny Name:	0 :		Deductible:		
	Property Insurance Insurance Compa Insurance Broker Address: Phone: E-mail:	ny Name:	e:		Deductible:		
5.	Workers` Comp Rating:	ensation					
	Annual value of Year Membership Aff Insert list	Value \$ \$			5) years alue	Year	Value \$
QU	JALIFICATIONS A	ND EXPERIENCE	OF PERS	ONNEL			
1.	Key office person Attach resume of Name			ce:	ncipal in Charge, Pı	roject Manage	r, Estimator, etc)
2.	Key site personn Attach resume of Name	qualifications an	-	ce:	ect manager, Superi	ntendent, For	eman, etc)

Standard Construction Document

Contractor's Qualification Statement

CCDC 11 - 2016

PROJECT EXPERIENCE

- 1. Major construction projects completed in the past five years (Appendix A).
- 2. Comparable construction projects completed (Appendix B).
- 3. Major construction projects underway as of the date of submission of Contractor's Qualification Statement (Appendix C).

I declare the information	in this form to be true and correct to the best of my knowledge
Signature of Co	ntract Person:
Name of Contac	et Person:
Title of Contact	Person:

CCDC 11 - 2016

APPENDIX A

Major construction projects completed in the past five years.

Project Title:

Location:

Date Project Substantially Completed:

Project Value at Award: \$

Project Manager:

Date Project Completed:

Project Value at Completion: \$

Project Superintendent:

Owner:

Contact Person(s):

Phone: E-mail:

Consultant:

Contact Person(s):

Phone: E-mail:

Contract Type:

Stipulated Sum , Construction Management , Design-Build

Prime Contractor , Trade Contractor

Description of Project and Scope of Services:

Contractor's Qualification Statement

CCDC 11 - 2016

APPENDIX B Comparable projects completed. (Similar type, size and complexity)

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Location:

Date Project Substantially Completed:

Project Value at Award: \$

Project Manager:

Date Project Completed:

Project Value at Completion: \$

Project Superintendent:

Owner:

Contact Person(s):

Phone: E-mail:

Consultant:

Contact Person(s):

Phone: E-mail:

Contract Type:

Stipulated Sum , Construction Management , Design-Build

Prime Contractor , Trade Contractor

Description of Project and Scope of Services:

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APPENDIX C

Major construction projects underway as of the date of submission of Contractor's Qualification Statement.

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	ıv	ᇆ	Ŀι		ILI	┖.

Location:

Scheduled Completion Date: Percent Completed: %

Project Value at Award: \$ Current Project Value: \$ Project Manager: Project Superintendent:

Owner:

Contact Person(s):

Phone: E-mail:

Consultant:

Contact Person(s):

Phone: E-mail:

Contract Type:

Stipulated Sum , Construction Management , Design-Build

Prime Contractor , Trade Contractor

Description of Project and Scope of Services:

END OF SECTION

CCDC 4

Unit Price Contract

2 0 1 1

[Name of Project]

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CANADIAN CONSTRUCTION ĐOCUMENTS COMMITTEE CANADIAN CONSTRUCTION ĐOCUMENTS COMMITTEE CANADIAN CONSTRUCTION ĐOCUMENTS COMMITTEE

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GC 9.4 Construction Sai

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CCDC 4 is the product of a consensus-building process aimed at balancing the interests of all parties on the construction project. It reflects recommended industry practices. CCDC 4 can have important consequences. The CCDC and its constituent member organizations do not accept any responsibility or liability for loss or damage which may be suffered as a result of the use or interpretation of CCDC 4.

	EMENT BETWEEN OWN when unit prices are the primary ba			
This A	greement made on the	day of	in the year	
by and	between the parties			
				hereinafter called the Owner
and				
				hereinafter called the Contractor
The On	wner and the Contractor agree	as follows:		note indicate and a second delegation
ARTIC	CLE A-1 THE WORK			
The Co	ntractor shall:			
1.1	perform the Work required b	by the Contract Documents for		
	located at			insert above the name of the Work
	located at			
	for which the Agreement ha	is been signed by the parties, an	nd for which	insert above the Place of the Work
	is acting as and is hereinafte	er called the "Consultant" and		insert above the name of the Consultant
1.2	do and fulfill everything ind	licated by the Contract Docume	ents, and	
1.3	commence the <i>Work</i> by the adjustment in <i>Contract Time</i>		in the act Documents, attain Substantia	year and, subject to all Performance of the Work, by the

CCDC 4 - 2011

day of

1

in the year

ARTICLE A-2 AGREEMENTS AND AMENDMENTS

2.1	The Contract supersedes all prior negotiations, representations or agreements, either written or oral, relating in any manner
	to the Work, including the bidding documents that are not expressly listed in Article A-3 of the Agreement - CONTRACT
	DOCUMENTS.

2.2 The *Contract* may be amended only as provided in the *Contract Documents*.

ARTICLE A-3 CONTRACT DOCUMENTS

3.1

Agreement between <i>Owner</i> and <i>Contractor</i> Definitions			
The General Conditions of the Unit Price Contract			
The General Conditions of	n the Onit Trice Contract		

The following are the *Contract Documents* referred to in Article A-1 of the Agreement - THE WORK:

^{* (}Insert here, attaching additional pages if required, a list identifying all other Contract Documents e.g. supplementary conditions; information documents; specifications, giving a list of contents with section numbers and titles, number of pages and date; material finishing schedules; drawings, giving drawing number, title, date, revision date or mark; addenda, giving title, number, date)

ARTICLE A-4 CONTRACT PRICE

4.1 The *Schedule of Prices* forms the basis for determining the *Contract Price*. Quantities for *Unit Price* items in the *Schedule of Prices* are estimated.

	Schedule of Prices						
Item No.	Description of Work	* Unit of Measure	* Estimated Quantity (EQ)	Unit Price (UP)	Amount (EQ x UP)		
		Page Subtotal C	arried Forward fr	rom Page	\$		
				\$	\$ 0.00		
				\$	\$ 0.00		
				\$	\$ 0.00		
				\$	\$ 0.00		
				\$	\$ 0.00		
				\$	\$ 0.00		
				\$	\$ 0.00		
				\$	\$ 0.00		
				\$	\$ 0.00		
				\$	\$ 0.00		
				\$	\$ 0.00		
				Page Sub-total	\$		

* Lump sum items are denoted as lump sum (LS) as the unit of measure and have a quantity of one (1).

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	Schedule of Prices						
Item No.	Description of Work	* Unit of Measure	* Estimated Quantity (EQ)	Unit Price (UP)	Amount (EQ x UP)		
		Page Subtotal C	Carried Forward fi	rom Page	\$		
				\$	\$ 0.00		
				\$	\$ 0.00		
				\$	\$ 0.00		
				\$	\$ 0.00		
				\$	\$ 0.00		
				\$	\$ 0.00		
				\$	\$ 0.00		
				\$	\$ 0.00		
				\$	\$ 0.00		
				\$	\$ 0.00		
				\$	\$ 0.00		
	\$						

^{*}Lump sum items are denoted as lump sum (LS) as the unit of measure and have a quantity of one (1).

Page of

4.2	The estimated Contract Price, which is the total amount indicated in the Schedule of Prices, and which excludes Valu	ıe
	Added Taxes, is:	

/100 dollars \$

4.3 *Value Added Taxes* (of %) payable by the *Owner* to the Contractor, based on the estimated *Contract Price*, are:

/100 dollars \$

4.4 Total estimated amount payable by the *Owner* to the *Contractor* for the construction of the *Work* is:

/100 dollars \$

- 4.5 These amounts shall be subject to adjustments as provided in the *Contract Documents*.
- 4.6 All amounts are in Canadian funds.

ARTICLE A-5 PAYMENT

- - .1 make progress payments to the *Contractor* on account of the *Contract Price* when due in the amount certified by the *Consultant* together with such *Value Added Taxes* as may be applicable to such payments, and
 - .2 upon *Substantial Performance of the Work*, pay to the *Contractor* the unpaid balance of the holdback amount when due together with such *Value Added Taxes* as may be applicable to such payment, and
 - .3 upon the issuance of the final certificate for payment, pay to the *Contractor* the unpaid balance of the *Contract Price* when due together with such *Value Added Taxes* as may be applicable to such payment.
- 5.2 In the event of loss or damage occurring where payment becomes due under the property and boiler insurance policies, payments shall be made to the *Contractor* in accordance with the provisions of GC 11.1 INSURANCE.
- 5.3 Interest
 - .1 Should either party fail to make payments as they become due under the terms of the *Contract* or in an award by arbitration or court, interest at the following rates on such unpaid amounts shall also become due and payable until payment:
 - (1) 2% per annum above the prime rate for the first 60 days.
 - (2) 4% per annum above the prime rate after the first 60 days.

 Such interest shall be compounded on a monthly basis. The prime rate shall be the rate of interest quoted by

(Insert name of chartered lending institution whose prime rate is to be used)

for prime business loans as it may change from time to time.

Interest shall apply at the rate and in the manner prescribed by paragraph 5.3.1 of this Article on the settlement amount of any claim in dispute that is resolved either pursuant to Part 8 of the General Conditions – DISPUTE RESOLUTION or otherwise, from the date the amount would have been due and payable under the *Contract*, had it not been in dispute, until the date it is paid.

ARTICLE A-6 RECEIPT OF AND ADDRESSES FOR NOTICES IN WRITING

6.1 Notices in Writing will be addressed to the recipient at the address set out below. The delivery of a Notice in Writing will be by hand, by courier, by prepaid first class mail, or by facsimile or other form of electronic communication during the transmission of which no indication of failure of receipt is communicated to the sender. A Notice in Writing delivered by one party in accordance with this Contract will be deemed to have been received by the other party on the date of delivery if delivered by hand or courier, or if sent by mail it shall be deemed to have been received five calendar days after the date on which it was mailed, provided that if either such day is not a Working Day, then the Notice in Writing shall be deemed to have been received on the Working Day next following such day. A Notice in Writing sent by facsimile or other form of electronic communication shall be deemed to have been received on the date of its transmission provided that if such day is not a Working Day or if it is received after the end of normal business hours on the date of its transmission at the place of receipt, then it shall be deemed to have been received at the opening of business at the place of receipt on the first Working Day next following the transmission thereof. An address for a party may be changed by Notice in Writing to the other party setting out the new address in accordance with this Article.

Owner		
	name of Owner*	
	address	
	Facsimile number	e-mail address
Contractor		
	name of Contractor*	
	address	
	Facsimile number	e-mail address
Consultant		
	name of Consultant*	

address

Facsimile number

e-mail address

^{*} If it is intended that the notice must be received by a specific individual, that individual's name shall be indicated.

ARTICLE A-7 LANGUAGE OF THE CONTRACT

- 7.1 When the *Contract Documents* are prepared in both the English and French languages, it is agreed that in the event of any apparent discrepancy between the English and French versions, the English/French* language shall prevail.

 * Complete this statement by striking out inapplicable term.
- 7.2 This Agreement is drawn in English at the request of the parties hereto. La présente convention est rédigée en anglais à la demande des parties.

ARTICLE A-8 SUCCESSION

8.1 The *Contract* shall enure to the benefit of and be binding upon the parties hereto, their respective heirs, legal representatives, successors, and assigns.

In witness whereof the parties hereto have executed this Agreement by the hands of their duly authorized representatives.

SIGNED AND DELIVERED

in the presence of:

WITNESS	OWNER
	name of owner
signature	signature
name of person signing	name and title of person signing
signature	signature
name of person signing	name and title of person signing
WITNESS	CONTRACTOR
WITNESS	CONTRACTOR
WITNESS	
WITNESS	CONTRACTOR name of Contractor
WITNESS signature	
	name of Contractor
	name of Contractor
signature	name of Contractor signature
signature	name of Contractor signature

- N.B. Where legal jurisdiction, local practice or Owner or Contractor requirement calls for:
 - (a) proof of authority to execute this document, attach such proof of authority in the form of a certified copy of a resolution naming the representative(s) authorized to sign the Agreement for and on behalf of the corporation or partnership; or
 - (b) the affixing of a corporate seal, this Agreement should be properly sealed.

DEFINITIONS

The following Definitions shall apply to all Contract Documents.

Change Directive

A *Change Directive* is a written instruction prepared by the *Consultant* and signed by the *Owner* directing the *Contractor* to proceed with a change in the *Work* within the general scope of the *Contract Documents* prior to the *Owner* and the *Contractor* agreeing upon an adjustment in *Contract Price* and *Contract Time*.

Change Order

A *Change Order* is a written amendment to the *Contract* prepared by the *Consultant* and signed by the *Owner* and the *Contractor* stating their agreement upon:

- a change in the *Work*;
- the method of adjustment or the amount of the adjustment in the Contract Price, if any; and
- the extent of the adjustment in the *Contract Time*, if any.

Construction Equipment

Construction Equipment means all machinery and equipment, either operated or not operated, that is required for preparing, fabricating, conveying, erecting, or otherwise performing the Work but is not incorporated into the Work.

Consultant

The *Consultant* is the person or entity engaged by the *Owner* and identified as such in the Agreement. The *Consultant* is the Architect, the Engineer or entity licensed to practise in the province or territory of the *Place of the Work*. The term *Consultant* means the *Consultant* or the *Consultant*'s authorized representative.

Contract

The *Contract* is the undertaking by the parties to perform their respective duties, responsibilities and obligations as prescribed in the *Contract Documents* and represents the entire agreement between the parties.

Contract Documents

The *Contract Documents* consist of those documents listed in Article A-3 of the Agreement - CONTRACT DOCUMENTS and amendments agreed upon between the parties.

Contract Price

The *Contract Price* is the sum of the products of each *Unit Price* stated in the *Schedule of Prices* multiplied by the appropriate actual quantity of each *Unit Price* item that is incorporated in or made necessary by the *Work*, plus lump sums, if any, and allowances, if any, stated in the *Schedule of Prices*.

Contract Time

The Contract Time is the time stipulated in paragraph 1.3 of Article A-1 of the Agreement - THE WORK from commencement of the Work to Substantial Performance of the Work.

Contractor

The *Contractor* is the person or entity identified as such in the Agreement. The term *Contractor* means the *Contractor* or the *Contractor*'s authorized representative as designated to the *Owner* in writing.

Drawings

The *Drawings* are the graphic and pictorial portions of the *Contract Documents*, wherever located and whenever issued, showing the design, location and dimensions of the *Work*, generally including plans, elevations, sections, details, and diagrams.

Notice in Writing

A *Notice in Writing*, where identified in the *Contract Documents*, is a written communication between the parties or between them and the *Consultant* that is transmitted in accordance with the provisions of Article A-6 of the Agreement – RECEIPT OF AND ADDRESSES FOR NOTICES IN WRITING.

Owner

The *Owner* is the person or entity identified as such in the Agreement. The term *Owner* means the *Owner* or the *Owner*'s authorized agent or representative as designated to the *Contractor* in writing, but does not include the *Consultant*.

Place of the Work

The *Place of the Work* is the designated site or location of the *Work* identified in the *Contract Documents*.

Product

Product or Products means material, machinery, equipment, and fixtures forming the Work, but does not include Construction Equipment.

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Project

The *Project* means the total construction contemplated of which the *Work* may be the whole or a part.

Provide

Provide means to supply and install.

Schedule of Prices

The Schedule of Prices is the schedule included in Article A-4 - CONTRACT PRICE and, subject to adjustments as provided in the Contract Documents, identifies:

- the items of work;
- the units of measure, estimated quantity, and *Unit Price* for each *Unit Price* item;
- the price for each lump sum item, if any; and
- allowances, if any.

Shop Drawings

Shop Drawings are drawings, diagrams, illustrations, schedules, performance charts, brochures, *Product* data, and other data which the *Contractor* provides to illustrate details of portions of the Work.

Specifications

The *Specifications* are that portion of the *Contract Documents*, wherever located and whenever issued, consisting of the written requirements and standards for *Products*, systems, workmanship, quality, and the services necessary for the performance of the *Work*.

Subcontractor

A Subcontractor is a person or entity having a direct contract with the Contractor to perform a part or parts of the Work at the Place of the Work.

Substantial Performance of the Work

Substantial Performance of the Work is as defined in the lien legislation applicable to the Place of the Work. If such legislation is not in force or does not contain such definition, or if the Work is governed by the Civil Code of Quebec, Substantial Performance of the Work shall have been reached when the Work is ready for use or is being used for the purpose intended and is so certified by the Consultant.

Supplemental Instruction

A Supplemental Instruction is an instruction, not involving adjustment in the Contract Price or Contract Time, in the form of Specifications, Drawings, schedules, samples, models or written instructions, consistent with the intent of the Contract Documents. It is to be issued by the Consultant to supplement the Contract Documents as required for the performance of the Work.

Supplier

A Supplier is a person or entity having a direct contract with the Contractor to supply Products.

Temporary Work

Temporary Work means temporary supports, structures, facilities, services, and other temporary items, excluding Construction Equipment, required for the execution of the Work but not incorporated into the Work.

Unit Price

A *Unit Price* is the amount payable for a single *Unit Price* item as stated in the *Schedule of Prices*.

Value Added Taxes

Value Added Taxes means such sum as shall be levied upon the *Contract Price* by the Federal or any Provincial or Territorial Government and is computed as a percentage of the *Contract Price* and includes the Goods and Services Tax, the Quebec Sales Tax, the Harmonized Sales Tax, and any similar tax, the collection and payment of which, have been imposed on the *Contractor* by the tax legislation.

Work

The Work means the total construction and related services required by the Contract Documents.

Working Day

Working Day means a day other than a Saturday, Sunday, statutory holiday or statutory vacation day that is observed by the construction industry in the area of the Place of the Work.

GENERAL CONDITIONS OF THE UNIT PRICE CONTRACT

PART 1 GENERAL PROVISIONS

GC 1.1 CONTRACT DOCUMENTS

- 1.1.1 The intent of the *Contract Documents* is to include the labour, *Products* and services necessary for the performance of the *Work* by the *Contractor* in accordance with these documents. It is not intended, however, that the *Contractor* shall supply products or perform work not consistent with, not covered by, or not properly inferable from the *Contract Documents*.
- 1.1.2 Nothing contained in the *Contract Documents* shall create any contractual relationship between:
 - .1 the *Owner* and a *Subcontractor*, a *Supplier*, or their agent, employee, or other person performing any portion of the *Work*.
 - .2 the *Consultant* and the *Contractor*, a *Subcontractor*, a *Supplier*, or their agent, employee, or other person performing any portion of the *Work*.
- 1.1.3 The Contract Documents are complementary, and what is required by any one shall be as binding as if required by all.
- 1.1.4 Words and abbreviations which have well known technical or trade meanings are used in the *Contract Documents* in accordance with such recognized meanings.
- 1.1.5 References in the *Contract Documents* to the singular shall be considered to include the plural as the context requires.
- 1.1.6 Neither the organization of the *Specifications* nor the arrangement of *Drawings* shall control the *Contractor* in dividing the work among *Subcontractors* and *Suppliers*.
- 1.1.7 If there is a conflict within the *Contract Documents*:
 - .1 the order of priority of documents, from highest to lowest, shall be
 - the Agreement between the *Owner* and the *Contractor*,
 - the Definitions,
 - Supplementary Conditions,
 - the General Conditions.
 - Division 1 of the *Specifications*,
 - technical Specifications,
 - material and finishing schedules,
 - the *Drawings*.
 - .2 Drawings of larger scale shall govern over those of smaller scale of the same date.
 - .3 dimensions shown on *Drawings* shall govern over dimensions scaled from *Drawings*.
 - .4 later dated documents shall govern over earlier documents of the same type.
- 1.1.8 The Owner shall provide the Contractor, without charge, sufficient copies of the Contract Documents to perform the Work.
- 1.1.9 Specifications, Drawings, models, and copies thereof furnished by the Consultant are and shall remain the Consultant's property, with the exception of the signed Contract sets, which shall belong to each party to the Contract. All Specifications, Drawings and models furnished by the Consultant are to be used only with respect to the Work and are not to be used on other work. These Specifications, Drawings and models are not to be copied or altered in any manner without the written authorization of the Consultant.
- 1.1.10 Models furnished by the *Contractor* at the *Owner*'s expense are the property of the *Owner*.

GC 1.2 LAW OF THE CONTRACT

1.2.1 The law of the *Place of the Work* shall govern the interpretation of the *Contract*.

GC 1.3 RIGHTS AND REMEDIES

1.3.1 Except as expressly provided in the *Contract Documents*, the duties and obligations imposed by the *Contract Documents* and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights, and remedies otherwise imposed or available by law.

1.3.2 No action or failure to act by the *Owner*, *Consultant* or *Contractor* shall constitute a waiver of any right or duty afforded any of them under the *Contract*, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

GC 1.4 ASSIGNMENT

1.4.1 Neither party to the *Contract* shall assign the *Contract* or a portion thereof without the written consent of the other, which consent shall not be unreasonably withheld.

PART 2 ADMINISTRATION OF THE CONTRACT

GC 2.1 AUTHORITY OF THE CONSULTANT

- 2.1.1 The *Consultant* will have authority to act on behalf of the *Owner* only to the extent provided in the *Contract Documents*, unless otherwise modified by written agreement as provided in paragraph 2.1.2.
- 2.1.2 The duties, responsibilities and limitations of authority of the *Consultant* as set forth in the *Contract Documents* shall be modified or extended only with the written consent of the *Owner*, the *Contractor* and the *Consultant*.
- 2.1.3 If the *Consultant*'s employment is terminated, the *Owner* shall immediately appoint or reappoint a *Consultant* against whom the *Contractor* makes no reasonable objection and whose status under the *Contract Documents* shall be that of the former *Consultant*.

GC 2.2 ROLE OF THE CONSULTANT

- 2.2.1 The *Consultant* will provide administration of the *Contract* as described in the *Contract Documents*.
- 2.2.2 The *Consultant* will visit the *Place of the Work* at intervals appropriate to the progress of construction to become familiar with the progress and quality of the work and to determine if the *Work* is proceeding in general conformity with the *Contract Documents*.
- 2.2.3 If the *Owner* and the *Consultant* agree, the *Consultant* will provide at the *Place of the Work*, one or more project representatives to assist in carrying out the *Consultant*'s responsibilities. The duties, responsibilities and limitations of authority of such project representatives shall be as set forth in writing to the *Contractor*.
- 2.2.4 The *Consultant* will promptly inform the *Owner* of the date of receipt of the *Contractor*'s applications for payment as provided in paragraph 5.3.1.1 of GC 5.3 PROGRESS PAYMENT.
- 2.2.5 Based on the *Consultant*'s observations and review of the *Contractor*'s applications for payment, the *Consultant* will determine the amounts owing to the *Contractor* under the *Contract* and will issue certificates for payment as provided in Article A-5 of the Agreement PAYMENT, GC 5.3 PROGRESS PAYMENT and GC 5.7 FINAL PAYMENT.
- 2.2.6 The *Consultant* will not be responsible for and will not have control, charge or supervision of construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs required in connection with the *Work* in accordance with the applicable construction safety legislation, other regulations or general construction practice. The *Consultant* will not be responsible for the *Contractor's* failure to carry out the *Work* in accordance with the *Contract Documents*. The *Consultant* will not have control over, charge of or be responsible for the acts or omissions of the *Contractor, Subcontractors, Suppliers*, or their agents, employees or any other persons performing portions of the *Work*.
- 2.2.7 Except with respect to GC 5.1 FINANCING INFORMATION REQUIRED OF THE OWNER, the *Consultant* will be, in the first instance, the interpreter of the requirements of the *Contract Documents*.
- 2.2.8 Matters in question relating to the performance of the *Work* or the interpretation of the *Contract Documents* shall be initially referred in writing to the *Consultant* by the party raising the question for interpretations and findings and copied to the other party.
- 2.2.9 Interpretations and findings of the *Consultant* shall be consistent with the intent of the *Contract Documents*. In making such interpretations and findings the *Consultant* will not show partiality to either the *Owner* or the *Contractor*.
- 2.2.10 The Consultant's interpretations and findings will be given in writing to the parties within a reasonable time.
- 2.2.11 With respect to claims for a change in *Contract Price*, the *Consultant* will make findings as set out in GC 6.6 CLAIMS FOR A CHANGE IN CONTRACT PRICE.

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- 2.2.12 The *Consultant* will have authority to reject work which in the *Consultant*'s opinion does not conform to the requirements of the *Contract Documents*. Whenever the *Consultant* considers it necessary or advisable, the *Consultant* will have authority to require inspection or testing of work, whether or not such work is fabricated, installed or completed. However, neither the authority of the *Consultant* to act nor any decision either to exercise or not to exercise such authority shall give rise to any duty or responsibility of the *Consultant* to the *Contractor*, *Subcontractors*, *Suppliers*, or their agents, employees or other persons performing any of the *Work*.
- 2.2.13 During the progress of the *Work* the *Consultant* will furnish *Supplemental Instructions* to the *Contractor* with reasonable promptness or in accordance with a schedule for such instructions agreed to by the *Consultant* and the *Contractor*.
- 2.2.14 The *Consultant* will review and take appropriate action upon *Shop Drawings*, samples and other *Contractor*'s submittals, in accordance with the *Contract Documents*.
- 2.2.15 The *Consultant* will prepare *Change Orders* and *Change Directives* as provided in GC 6.2 CHANGE ORDER and GC 6.3 CHANGE DIRECTIVE.
- 2.2.16 The *Consultant* will conduct reviews of the *Work* to determine the date of *Substantial Performance of the Work* as provided in GC 5.4 SUBSTANTIAL PERFORMANCE OF THE WORK.
- 2.2.17 All certificates issued by the *Consultant* will be to the best of the *Consultant*'s knowledge, information and belief. By issuing any certificate, the *Consultant* does not guarantee the *Work* is correct or complete.
- 2.2.18 The *Consultant* will receive and review written warranties and related documents required by the *Contract* and provided by the *Contractor* and will forward such warranties and documents to the *Owner* for the *Owner*'s acceptance.

GC 2.3 REVIEW AND INSPECTION OF THE WORK

- 2.3.1 The *Owner* and the *Consultant* shall have access to the *Work* at all times. The *Contractor* shall provide sufficient, safe and proper facilities at all times for the review of the *Work* by the *Consultant* and the inspection of the *Work* by authorized agencies. If parts of the *Work* are in preparation at locations other than the *Place of the Work*, the *Owner* and the *Consultant* shall be given access to such work whenever it is in progress.
- 2.3.2 If work is designated for measurement for payment, tests, inspections or approvals in the *Contract Documents*, or by the *Consultant*'s instructions, or by the laws or ordinances of the *Place of the Work*, the *Contractor* shall give the *Consultant* reasonable notification of when the work will be ready for measurements, tests, inspections and approvals. The *Contractor* shall arrange for and shall give the *Consultant* reasonable notification of the date and time of inspections by other authorities.
- 2.3.3 The *Contractor* shall furnish promptly to the *Consultant* two copies of certificates and inspection reports relating to the *Work*
- 2.3.4 If the *Contractor* covers, or permits to be covered, work that has been designated for measurement for payment, tests, inspections or approvals before such measurements, tests, inspections or approvals are made, given or completed, the *Contractor* shall, if so directed, uncover such work, have the measurements, tests, inspections, or approvals satisfactorily completed, and make good covering work at the *Contractor*'s expense.
- 2.3.5 The *Consultant* may order any portion or portions of the *Work* to be examined to confirm that such work is in accordance with the requirements of the *Contract Documents*. If the work is not in accordance with the requirements of the *Contract Documents*, the *Contractor* shall correct the work and pay the cost of examination and correction. If the work is in accordance with the requirements of the *Contract Documents*, the *Owner* shall pay the cost of examination and restoration.
- 2.3.6 The *Contractor* shall pay the cost of making any test or inspection, including the cost of samples required for such test or inspection, if such test or inspection is designated in the *Contract Documents* to be performed by the *Contractor* or is designated by the laws or ordinances applicable to the *Place of the Work*.
- 2.3.7 The *Contractor* shall pay the cost of samples required for any test or inspection to be performed by the *Consultant* or the *Owner* if such test or inspection is designated in the *Contract Documents*.

GC 2.4 DEFECTIVE WORK

- 2.4.1 The *Contractor* shall promptly correct defective work that has been rejected by the *Consultant* as failing to conform to the *Contract Documents* whether or not the defective work has been incorporated in the *Work* and whether or not the defect is the result of poor workmanship, use of defective products or damage through carelessness or other act or omission of the *Contractor*.
- 2.4.2 The *Contractor* shall make good promptly other contractors' work destroyed or damaged by such removals or replacements at the *Contractor*'s expense.

2.4.3 If, in the opinion of the *Consultant*, it is not expedient to correct defective work or work not performed as provided in the *Contract Documents*, the *Owner* may deduct from the amount otherwise due to the *Contractor* the difference in value between the work as performed and that called for by the *Contract Documents*. If the *Owner* and the *Contractor* do not agree on the difference in value, they shall refer the matter to the *Consultant* for a determination.

PART 3 EXECUTION OF THE WORK

GC 3.1 CONTROL OF THE WORK

- 3.1.1 The *Contractor* shall have total control of the *Work* and shall effectively direct and supervise the *Work* so as to ensure conformity with the *Contract Documents*.
- 3.1.2 The *Contractor* shall be solely responsible for construction means, methods, techniques, sequences, and procedures and for co-ordinating the various parts of the *Work* under the *Contract*.

GC 3.2 CONSTRUCTION BY OWNER OR OTHER CONTRACTORS

- 3.2.1 The *Owner* reserves the right to award separate contracts in connection with other parts of the *Project* to other contractors and to perform work with own forces.
- 3.2.2 When separate contracts are awarded for other parts of the *Project*, or when work is performed by the *Owner*'s own forces, the *Owner* shall:
 - .1 provide for the co-ordination of the activities and work of other contractors and *Owner*'s own forces with the *Work* of the *Contract*:
 - .2 assume overall responsibility for compliance with the applicable health and construction safety legislation at the *Place of the Work*;
 - .3 enter into separate contracts with other contractors under conditions of contract which are compatible with the conditions of the *Contract*;
 - .4 ensure that insurance coverage is provided to the same requirements as are called for in GC 11.1 INSURANCE and coordinate such insurance with the insurance coverage of the *Contractor* as it affects the *Work*; and
 - .5 take all reasonable precautions to avoid labour disputes or other disputes on the *Project* arising from the work of other contractors or the *Owner*'s own forces.
- 3.2.3 When separate contracts are awarded for other parts of the *Project*, or when work is performed by the *Owner*'s own forces, the *Contractor* shall:
 - .1 afford the *Owner* and other contractors reasonable opportunity to store their products and execute their work;
 - .2 cooperate with other contractors and the *Owner* in reviewing their construction schedules; and
 - .3 promptly report to the *Consultant* in writing any apparent deficiencies in the work of other contractors or of the *Owner*'s own forces, where such work affects the proper execution of any portion of the *Work*, prior to proceeding with that portion of the *Work*.
- 3.2.4 Where the *Contract Documents* identify work to be performed by other contractors or the *Owner*'s own forces, the *Contractor* shall co-ordinate and schedule the *Work* with the work of other contractors and the *Owner*'s own forces as specified in the *Contract Documents*.
- 3.2.5 Where a change in the *Work* is required as a result of the co-ordination and integration of the work of other contractors or *Owner*'s own forces with the *Work*, the changes shall be authorized and valued as provided in GC 6.1 OWNER'S RIGHT TO MAKE CHANGES, GC 6.2 CHANGE ORDER and GC 6.3 CHANGE DIRECTIVE.
- 3.2.6 Disputes and other matters in question between the *Contractor* and other contractors shall be dealt with as provided in Part 8 of the General Conditions DISPUTE RESOLUTION provided the other contractors have reciprocal obligations. The *Contractor* shall be deemed to have consented to arbitration of any dispute with any other contractor whose contract with the *Owner* contains a similar agreement to arbitrate.

GC 3.3 TEMPORARY WORK

- 3.3.1 The *Contractor* shall have the sole responsibility for the design, erection, operation, maintenance, and removal of *Temporary Work*.
- 3.3.2 The *Contractor* shall engage and pay for registered professional engineering personnel skilled in the appropriate disciplines to perform those functions referred to in paragraph 3.3.1 where required by law or by the *Contract Documents* and in all cases where such *Temporary Work* is of such a nature that professional engineering skill is required to produce safe and satisfactory results.

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3.3.3 Notwithstanding the provisions of GC 3.1 - CONTROL OF THE WORK, paragraph 3.3.1 and paragraph 3.3.2 or provisions to the contrary elsewhere in the *Contract Documents* where such *Contract Documents* include designs for *Temporary Work* or specify a method of construction in whole or in part, such designs or methods of construction shall be considered to be part of the design of the *Work* and the *Contractor* shall not be held responsible for that part of the design or specified method of construction. The *Contractor* shall, however, be responsible for the execution of such design or specified method of construction in the same manner as for the execution of the *Work*.

GC 3.4 DOCUMENT REVIEW

3.4.1 The *Contractor* shall review the *Contract Documents* and shall report promptly to the *Consultant* any error, inconsistency or omission the *Contractor* may discover. Such review by the *Contractor* shall be to the best of the *Contractor's* knowledge, information and belief and in making such review the *Contractor* does not assume any responsibility to the *Owner* or the *Consultant* for the accuracy of the review. The *Contractor* shall not be liable for damage or costs resulting from such errors, inconsistencies or omissions in the *Contract Documents*, which the *Contractor* did not discover. If the *Contractor* does discover any error, inconsistency or omission in the *Contract Documents*, the *Contractor* shall not proceed with the work affected until the *Contractor* has received corrected or missing information from the *Consultant*.

GC 3.5 CONSTRUCTION SCHEDULE

- 3.5.1 The *Contractor* shall:
 - .1 prepare and submit to the *Owner* and the *Consultant* prior to the first application for payment, a construction schedule that indicates the timing of the major activities of the *Work* and provides sufficient detail of the critical events and their inter-relationship to demonstrate the *Work* will be performed in conformity with the *Contract Time*;
 - .2 monitor the progress of the *Work* relative to the construction schedule and update the schedule on a monthly basis or as stipulated by the *Contract Documents*; and
 - .3 advise the *Consultant* of any revisions required to the schedule as the result of extensions of the *Contract Time* as provided in Part 6 of the General Conditions CHANGES IN THE WORK.

GC 3.6 SUPERVISION

- 3.6.1 The *Contractor* shall provide all necessary supervision and appoint a competent representative who shall be in attendance at the *Place of the Work* while work is being performed. The appointed representative shall not be changed except for valid reason.
- 3.6.2 The appointed representative shall represent the *Contractor* at the *Place of the Work*. Information and instructions provided by the *Consultant* to the *Contractor*'s appointed representative shall be deemed to have been received by the *Contractor*, except with respect to Article A-6 of the Agreement RECEIPT OF AND ADDRESSES FOR NOTICES IN WRITING.

GC 3.7 SUBCONTRACTORS AND SUPPLIERS

- 3.7.1 The *Contractor* shall preserve and protect the rights of the parties under the *Contract* with respect to work to be performed under subcontract, and shall:
 - .1 enter into contracts or written agreements with *Subcontractors* and *Suppliers* to require them to perform their work as provided in the *Contract Documents*;
 - .2 incorporate the terms and conditions of the *Contract Documents* into all contracts or written agreements with *Subcontractors* and *Suppliers*; and
 - .3 be as fully responsible to the *Owner* for acts and omissions of *Subcontractors*, *Suppliers* and of persons directly or indirectly employed by them as for acts and omissions of persons directly employed by the *Contractor*.
- 3.7.2 The *Contractor* shall indicate in writing, if requested by the *Owner*, those *Subcontractors* or *Suppliers* whose bids have been received by the *Contractor* which the *Contractor* would be prepared to accept for the performance of a portion of the *Work*. Should the *Owner* not object before signing the *Contractot*, the *Contractor* shall employ those *Subcontractors* or *Suppliers* so identified by the *Contractor* in writing for the performance of that portion of the *Work* to which their bid applies.
- 3.7.3 The *Owner* may, for reasonable cause, at any time before the *Owner* has signed the *Contract*, object to the use of a proposed *Subcontractor* or *Supplier* and require the *Contractor* to employ one of the other subcontract bidders.
- 3.7.4 If the *Owner* requires the *Contractor* to change a proposed *Subcontractor* or *Supplier*, the *Contract Price* and *Contract Time* shall be adjusted by the differences occasioned by such required change.
- 3.7.5 The *Contractor* shall not be required to employ as a *Subcontractor* or *Supplier*, a person or firm to which the *Contractor* may reasonably object.

3.7.6 The *Owner*, through the *Consultant*, may provide to a *Subcontractor* or *Supplier* information as to the percentage of the *Subcontractor*'s or *Supplier*'s work which has been certified for payment.

GC 3.8 LABOUR AND PRODUCTS

- 3.8.1 The *Contractor* shall provide and pay for labour, *Products*, tools, *Construction Equipment*, water, heat, light, power, transportation, and other facilities and services necessary for the performance of the *Work* in accordance with the *Contract*.
- 3.8.2 Unless otherwise specified in the *Contract Documents*, *Products* provided shall be new. *Products* which are not specified shall be of a quality consistent with those specified and their use acceptable to the *Consultant*.
- 3.8.3 The *Contractor* shall maintain good order and discipline among the *Contractor*'s employees engaged on the *Work* and shall not employ on the *Work* anyone not skilled in the tasks assigned.

GC 3.9 DOCUMENTS AT THE SITE

3.9.1 The *Contractor* shall keep one copy of current *Contract Documents*, submittals, reports, and records of meetings at the *Place of the Work*, in good order and available to the *Owner* and the *Consultant*.

GC 3.10 SHOP DRAWINGS

- 3.10.1 The Contractor shall provide Shop Drawings as required in the Contract Documents.
- 3.10.2 The *Contractor* shall provide *Shop Drawings* to the *Consultant* to review in orderly sequence and sufficiently in advance so as to cause no delay in the *Work* or in the work of other contractors.
- 3.10.3 Upon request of the *Contractor* or the Consultant, they shall jointly prepare a schedule of the dates for provision, review and return of *Shop Drawings*.
- 3.10.4 The *Contractor* shall provide *Shop Drawings* in the form specified, or if not specified, as directed by the *Consultant*.
- 3.10.5 *Shop Drawings* provided by the *Contractor* to the *Consultant* shall indicate by stamp, date and signature of the person responsible for the review that the *Contractor* has reviewed each one of them.
- 3.10.6 The *Consultant's* review is for conformity to the design concept and for general arrangement only.
- 3.10.7 *Shop Drawings* which require approval of any legally constituted authority having jurisdiction shall be provided to such authority by the *Contractor* for approval.
- 3.10.8 The *Contractor* shall review all *Shop Drawings* before providing them to the *Consultant*. The *Contractor* represents by this review that:
 - .1 the *Contractor* has determined and verified all applicable field measurements, field construction conditions, *Product* requirements, catalogue numbers and similar data, or will do so, and
 - .2 the *Contractor* has checked and co-ordinated each *Shop Drawing* with the requirements of the *Work* and of the *Contract Documents*.
- 3.10.9 At the time of providing *Shop Drawings*, the *Contractor* shall expressly advise the *Consultant* in writing of any deviations in a *Shop Drawing* from the requirements of the *Contract Documents*. The *Consultant* shall indicate the acceptance or rejection of such deviation expressly in writing.
- 3.10.10 The *Consultant's* review shall not relieve the *Contractor* of responsibility for errors or omissions in the *Shop Drawings* or for meeting all requirements of the *Contract Documents*.
- 3.10.11 The *Contractor* shall provide revised *Shop Drawings* to correct those which the *Consultant* rejects as inconsistent with the *Contract Documents*, unless otherwise directed by the *Consultant*. The *Contractor* shall notify the *Consultant* in writing of any revisions to the *Shop Drawings* other than those requested by the *Consultant*.
- 3.10.12 The *Consultant* will review and return *Shop Drawings* in accordance with the schedule agreed upon, or, in the absence of such schedule, with reasonable promptness so as to cause no delay in the performance of the *Work*.

GC 3.11 USE OF THE WORK

- 3.11.1 The *Contractor* shall confine *Construction Equipment*, *Temporary Work*, storage of *Products*, waste products and debris, and operations of employees and *Subcontractors* to limits indicated by laws, ordinances, permits, or the *Contract Documents* and shall not unreasonably encumber the *Place of the Work*.
- 3.11.2 The *Contractor* shall not load or permit to be loaded any part of the *Work* with a weight or force that will endanger the safety of the *Work*.

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GC 3.12 CUTTING AND REMEDIAL WORK

- 3.12.1 The *Contractor* shall perform the cutting and remedial work required to make the affected parts of the *Work* come together properly.
- 3.12.2 The *Contractor* shall co-ordinate the *Work* to ensure that the cutting and remedial work is kept to a minimum.
- 3.12.3 Should the *Owner*, the *Consultant*, other contractors or anyone employed by them be responsible for ill-timed work necessitating cutting or remedial work to be performed, the cost of such cutting or remedial work shall be valued as provided in GC 6.1 OWNER'S RIGHT TO MAKE CHANGES, GC 6.2 CHANGE ORDER and GC 6.3 CHANGE DIRECTIVE.
- 3.12.4 Cutting and remedial work shall be performed by specialists familiar with the *Products* affected and shall be performed in a manner to neither damage nor endanger the *Work*.

GC 3.13 CLEANUP

- 3.13.1 The *Contractor* shall maintain the *Work* in a safe and tidy condition and free from the accumulation of waste products and debris, other than that caused by the *Owner*, other contractors or their employees.
- 3.13.2 Before applying for *Substantial Performance of the Work* as provided in GC 5.4 SUBSTANTIAL PERFORMANCE OF THE WORK, the *Contractor* shall remove waste products and debris, other than that resulting from the work of the *Owner*, other contractors or their employees, and shall leave the *Place of the Work* clean and suitable for use or occupancy by the *Owner*. The *Contractor* shall remove products, tools, *Construction Equipment*, and *Temporary Work* not required for the performance of the remaining work.
- 3.13.3 Prior to application for the final payment, the *Contractor* shall remove any remaining products, tools, *Construction Equipment*, *Temporary Work*, and waste products and debris, other than those resulting from the work of the *Owner*, other contractors or their employees.

PART 4 ALLOWANCES

GC 4.1 CASH ALLOWANCES

- 4.1.1 The *Contract Price* includes the cash allowances, if any, stated in the *Contract Documents*. The scope of work or costs included in such cash allowances shall be as described in the *Contract Documents*.
- 4.1.2 The *Contract Price*, and not the cash allowances, includes the *Contractor*'s overhead and profit in connection with such cash allowances.
- 4.1.3 Expenditures under cash allowances shall be authorized by the *Owner* through the *Consultant*.
- 4.1.4 Where the actual cost of the Work under any cash allowance exceeds the amount of the allowance, the *Contractor* shall be compensated for the excess incurred and substantiated plus an amount for overhead and profit on the excess as set out in the *Contract Documents*. Where the actual cost of the Work under any cash allowance is less than the amount of the allowance, the *Owner* shall be credited for the unexpended portion of the cash allowance, but not for the *Contractor*'s overhead and profit on such amount. Multiple cash allowances shall not be combined for the purpose of calculating the foregoing.
- 4.1.5 The *Contract Price* shall be adjusted by *Change Order* to provide for any difference between the amount of each cash allowance and the actual cost of the work under that cash allowance.
- 4.1.6 The value of the work performed under a cash allowance is eligible to be included in progress payments.
- 4.1.7 The *Contractor* and the *Consultant* shall jointly prepare a schedule that shows when the *Consultant* and *Owner* must authorize ordering of items called for under cash allowances to avoid delaying the progress of the *Work*.

GC 4.2 CONTINGENCY ALLOWANCE

- 4.2.1 The *Contract Price* includes the contingency allowance, if any, stated in the *Contract Documents*.
- 4.2.2 The contingency allowance includes the *Contractor*'s overhead and profit in connection with such contingency allowance.
- 4.2.3 Expenditures under the contingency allowance shall be authorized and valued as provided in GC 6.1 OWNER'S RIGHT TO MAKE CHANGES, GC 6.2 CHANGE ORDER and GC 6.3 CHANGE DIRECTIVE.
- 4.2.4 The *Contract Price* shall be adjusted by *Change Order* to provide for any difference between the expenditures authorized under paragraph 4.2.3 and the contingency allowance.

GC 5.1 FINANCING INFORMATION REQUIRED OF THE OWNER

- 5.1.1 The *Owner* shall, at the request of the *Contractor*, before signing the *Contract*, and promptly from time to time thereafter, furnish to the *Contractor* reasonable evidence that financial arrangements have been made to fulfill the *Owner*'s obligations under the *Contract*.
- 5.1.2 The *Owner* shall give the *Contractor Notice in Writing* of any material change in the *Owner*'s financial arrangements to fulfill the *Owner*'s obligations under the *Contract* during the performance of the *Contract*.

GC 5.2 APPLICATIONS FOR PROGRESS PAYMENT

- 5.2.1 Applications for payment on account as provided in Article A-5 of the Agreement PAYMENT may be made monthly as the *Work* progresses.
- 5.2.2 Applications for payment shall be dated the last day of each payment period, which is the last day of the month or an alternative day of the month agreed in writing by the parties.
- 5.2.3 As of the last day of the payment period, the amount claimed shall be:
 - 1. the value of *Unit Price* work performed, being the sum of the products of each *Unit Price* stated in the *Schedule of Prices* multiplied by the appropriate actual quantity of each *Unit Price* item that is incorporated in or made necessary by the *Work*; plus
 - 2. the value of lump sum work performed, proportionate to the amount of the lump sum item, plus
 - 3. the value of *Products* delivered to the *Place of the Work* .
- 5.2.4 The *Contractor* shall submit to the *Consultant*, at least 15 calendar days before the first application for payment, a schedule of values for the lump sum items of work, aggregating the total amount of each lump sum item, so as to facilitate evaluation of applications for payment.
- 5.2.5 The schedule of values for lump sum items of work shall be made out in such form and supported by such evidence as the *Consultant* may reasonably direct and when accepted by the *Consultant*, shall be used as the basis for applications for payment for lump sum items, unless it is found to be in error.
- 5.2.6 The *Contractor* shall include with each application for payment:
 - 1. a statement based on the schedule of values for the lump sum items of work; and
 - 2. quantity measurements and other evidence as requested by the Consultant for each Unit Price item.
- 5.2.7 Applications for payment for *Products* delivered to the *Place of the Work* but not yet incorporated into the *Work* shall be supported by such evidence as the *Consultant* may reasonably require to establish the value and delivery of the *Products*.

GC 5.3 PROGRESS PAYMENT

- 5.3.1 After receipt by the *Consultant* of an application for payment submitted by the *Contractor* in accordance with GC 5.2 APPLICATIONS FOR PROGRESS PAYMENT:
 - .1 the Consultant will promptly inform the Owner of the date of receipt of the Contractor's application for payment,
 - 2 the *Consultant* will issue to the *Owner* and copy to the *Contractor*, no later than 10 calendar days after the receipt of the application for payment, a certificate for payment in the amount applied for, or in such other amount as the *Consultant* determines to be properly due. If the *Consultant* amends the application, the *Consultant* will promptly advise the *Contractor* in writing giving reasons for the amendment,
 - .3 the *Owner* shall make payment to the *Contractor* on account as provided in Article A-5 of the Agreement PAYMENT on or before 20 calendar days after the later of:
 - receipt by the *Consultant* of the application for payment, or
 - the last day of the monthly payment period for which the application for payment is made.
- 5.3.2 Where the basis of payment for an item is by *Unit Price*, quantities in progress payments shall be considered approximate until all work required by that *Unit Price* item is complete.

GC 5.4 SUBSTANTIAL PERFORMANCE OF THE WORK

- 5.4.1 When the *Contractor* considers that the *Work* is substantially performed, or if permitted by the lien legislation applicable to the *Place of the Work* a designated portion thereof which the *Owner* agrees to accept separately is substantially performed, the *Contractor* shall, within one Working Day, deliver to the *Consultant* and to the Owner a comprehensive list of items to be completed or corrected, together with a written application for a review by the *Consultant* to establish *Substantial Performance of the Work* or substantial performance of the designated portion of the *Work*. Failure to include an item on the list does not alter the responsibility of the *Contractor* to complete the *Contract*.
- 5.4.2 The *Consultant* will review the *Work* to verify the validity of the application and shall promptly, and in any event, no later than 20 calendar days after receipt of the *Contractor*'s list and application:
 - .1 advise the *Contractor* in writing that the *Work* or the designated portion of the *Work* is not substantially performed and give reasons why, or
 - .2 state the date of *Substantial Performance of the Work* or a designated portion of the *Work* in a certificate and issue a copy of that certificate to each of the *Owner* and the *Contractor*.
- 5.4.3 Immediately following the issuance of the certificate of *Substantial Performance of the Work*, the *Contractor*, in consultation with the *Consultant*, shall establish a reasonable date for finishing the *Work*.

GC 5.5 PAYMENT OF HOLDBACK UPON SUBSTANTIAL PERFORMANCE OF THE WORK

- 5.5.1 After the issuance of the certificate of Substantial Performance of the Work, the Contractor shall:
 - .1 submit an application for payment of the holdback amount,
 - 2.2 submit CCDC 9A 'Statutory Declaration' to state that all accounts for labour, subcontracts, *Products*, *Construction Equipment*, and other indebtedness which may have been incurred by the *Contractor* in the *Substantial Performance of the Work* and for which the *Owner* might in any way be held responsible have been paid in full, except for amounts properly retained as a holdback or as an identified amount in dispute.
- 5.5.2 After the receipt of an application for payment from the *Contractor* and the statement as provided in paragraph 5.5.1, the *Consultant* will issue a certificate for payment of the holdback amount.
- 5.5.3 Where the holdback amount required by the applicable lien legislation has not been placed in a separate holdback account, the *Owner* shall, 10 calendar days prior to the expiry of the holdback period stipulated in the lien legislation applicable to the *Place of the Work*, place the holdback amount in a bank account in the joint names of the *Owner* and the *Contractor*.
- 5.5.4 In the common law jurisdictions, the holdback amount authorized by the certificate for payment of the holdback amount is due and payable on the calendar day following the expiration of the holdback period stipulated in the lien legislation applicable to the *Place of the Work*. Where lien legislation does not exist or apply, the holdback amount shall be due and payable in accordance with other legislation, industry practice or provisions which may be agreed to between the parties. The *Owner* may retain out of the holdback amount any sums required by law to satisfy any liens against the *Work* or, if permitted by the lien legislation applicable to the *Place of the Work*, other third party monetary claims against the *Contractor* which are enforceable against the *Owner*.
- 5.5.5 In the Province of Quebec, the holdback amount authorized by the certificate for payment of the holdback amount is due and payable 30 calendar days after the issuance of the certificate. The *Owner* may retain out of the holdback amount any sums required to satisfy any legal hypothecs that have been taken, or could be taken, against the *Work* or other third party monetary claims against the *Contractor* which are enforceable against the *Owner*.

GC 5.6 PROGRESSIVE RELEASE OF HOLDBACK

5.6.1 In the common law jurisdictions, where legislation permits and where, upon application by the *Contractor*, the *Consultant* has certified that the work of a *Subcontractor* or *Supplier* has been performed prior to *Substantial Performance of the Work*, the *Owner* shall pay the *Contractor* the holdback amount retained for such subcontract work, or the *Products* supplied by such *Supplier*, on the first calendar day following the expiration of the holdback period for such work stipulated in the lien legislation applicable to the *Place of the Work*. The *Owner* may retain out of the holdback amount any sums required by law to satisfy any liens against the *Work* or, if permitted by the lien legislation applicable to the *Place of the Work*, other third party monetary claims against the *Contractor* which are enforceable against the *Owner*.

- 5.6.2 In the Province of Quebec, where, upon application by the *Contractor*, the *Consultant* has certified that the work of a *Subcontractor* or *Supplier* has been performed prior to *Substantial Performance of the Work*, the *Owner* shall pay the *Contractor* the holdback amount retained for such subcontract work, or the *Products* supplied by such *Supplier*, no later than 30 calendar days after such certification by the *Consultant*. The *Owner* may retain out of the holdback amount any sums required to satisfy any legal hypothecs that have been taken, or could be taken, against the *Work* or other third party monetary claims against the *Contractor* which are enforceable against the *Owner*.
- 5.6.3 Notwithstanding the provisions of the preceding paragraphs, and notwithstanding the wording of such certificates, the *Contractor* shall ensure that such subcontract work or *Products* are protected pending the issuance of a final certificate for payment and be responsible for the correction of defects or work not performed regardless of whether or not such was apparent when such certificates were issued.

GC 5.7 FINAL PAYMENT

- 5.7.1 When the *Contractor* considers that the *Work* is completed, the *Contractor* shall submit an application for final payment.
- 5.7.2 The *Consultant* will, no later than 10 calendar days after the receipt of an application from the *Contractor* for final payment, review the *Work* to verify the validity of the application and advise the *Contractor* in writing that the application is valid or give reasons why it is not valid.
- 5.7.3 When the *Consultant* finds the *Contractor*'s application for final payment valid, the *Consultant* will promptly issue a final certificate for payment.
- 5.7.4 Subject to the provision of paragraph 10.4.1 of GC 10.4 WORKERS' COMPENSATION, and any lien legislation applicable to the *Place of the Work*, the *Owner* shall, no later than 5 calendar days after the issuance of a final certificate for payment, pay the *Contractor* as provided in Article A-5 of the Agreement PAYMENT.

GC 5.8 WITHHOLDING OF PAYMENT

5.8.1 If because of climatic or other conditions reasonably beyond the control of the *Contractor*, there are items of work that cannot be performed, payment in full for that portion of the *Work* which has been performed as certified by the *Consultant* shall not be withheld or delayed by the *Owner* on account thereof, but the *Owner* may withhold, until the remaining portion of the *Work* is finished, only such an amount that the *Consultant* determines is sufficient and reasonable to cover the cost of performing such remaining work.

GC 5.9 NON-CONFORMING WORK

5.9.1 No payment by the *Owner* under the *Contract* nor partial or entire use or occupancy of the *Work* by the *Owner* shall constitute an acceptance of any portion of the *Work* or *Products* which are not in accordance with the requirements of the *Contract Documents*.

PART 6 CHANGES IN THE WORK

GC 6.1 OWNER'S RIGHT TO MAKE CHANGES

- 6.1.1 The *Owner*, through the *Consultant*, without invalidating the *Contract*, may make:
 - .1 changes in the *Work* consisting of additions, deletions or other revisions to the *Work* by *Change Order* or *Change Directive*, and
 - .2 changes to the *Contract Time* for the *Work*, or any part thereof, by *Change Order*.
- 6.1.2 The *Contractor* shall not perform a change in the *Work* without a *Change Order* or a *Change Directive*.

GC 6.2 CHANGE ORDER

6.2.1 When a change in the *Work* is proposed or required, the *Consultant* will provide the *Contractor* with a written description of the proposed change in the *Work*. The *Contractor* shall promptly present, in a form acceptable to the *Consultant*, a method of adjustment or an amount of adjustment for the *Contract Price*, if any, and the adjustment in the *Contract Time*, if any, for the proposed change in the *Work*.

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- 6.2.2 The method of adjustment or the amount of adjustment to the *Contract Price* presented by the *Contractor* may be one of or a combination of the following:
 - .1 Change to the estimated quantities for *Unit Price* items listed in the *Schedule of Prices* that are applicable to the change in the *Work*;
 - .2 Lump sum quotation for the change in the *Work*;
 - .3 *Unit Price* quotation for the change in the *Work*;
 - .4 Cost of the *Contractor's* actual expenditures attributable to the change plus a fee for the Contractor's overhead and profit as agreed by the parties;
 - .5 Cost of the *Contractor's* actual savings attributable to the change.
- 6.2.3 When the *Owner* and *Contractor* agree to the adjustments in the *Contract Price* and *Contract Time* or to the method to be used to determine the adjustments, such agreement shall be effective immediately and shall be recorded in a *Change Order*. The value of the work performed as the result of a *Change Order* shall be included in the application for progress payment.

GC 6.3 CHANGE DIRECTIVE

- 6.3.1 If the *Owner* requires the *Contractor* to proceed with a change in the *Work* prior to the *Owner* and the *Contractor* agreeing upon the corresponding adjustment in *Contract Price* and *Contract Time*, the *Owner*, through the *Consultant*, shall issue a *Change Directive*.
- 6.3.2 A *Change Directive* shall only be used to direct a change in the *Work* which is within the general scope of the *Contract Documents*.
- 6.3.3 A Change Directive shall not be used to direct a change in the Contract Time only.
- 6.3.4 Upon receipt of a *Change Directive*, the *Contractor* shall proceed promptly with the change in the *Work*.
- 6.3.5 For the purpose of valuing *Change Directives*, changes in the *Work* that are not substitutions or otherwise related to each other shall not be grouped together in the same *Change Directive*.
- 6.3.6 The adjustment in the *Contract Price* for a change carried out by way of a *Change Directive* shall be determined on the basis of the cost of the *Contractor*'s actual expenditures and savings attributable to the *Change Directive*, valued in accordance with paragraph 6.3.7 and as follows:
 - .1 If the change results in a net increase in the *Contractor*'s cost, the *Contract Price* shall be increased by the amount of the net increase in the *Contractor*'s cost, plus the *Contractor*'s percentage fee on such net increase.
 - .2 If the change results in a net decrease in the *Contractor*'s cost, the *Contract Price* shall be decreased by the amount of the net decrease in the *Contractor*'s cost, without adjustment for the *Contractor*'s percentage fee.
 - .3 The Contractor's fee shall be as specified in the Contract Documents or as otherwise agreed by the parties.
- 6.3.7 The cost of performing the work attributable to the *Change Directive* shall be limited to the actual cost of the following:
 - salaries, wages and benefits paid to personnel in the direct employ of the *Contractor* under a salary or wage schedule agreed upon by the *Owner* and the *Contractor*, or in the absence of such a schedule, actual salaries, wages and benefits paid under applicable bargaining agreement, and in the absence of a salary or wage schedule and bargaining agreement, actual salaries, wages and benefits paid by the *Contractor*, for personnel
 - (1) stationed at the *Contractor*'s field office, in whatever capacity employed;
 - (2) engaged in expediting the production or transportation of material or equipment, at shops or on the road;
 - (3) engaged in the preparation or review of Shop Drawings, fabrication drawings, and coordination drawings; or
 - (4) engaged in the processing of changes in the Work.
 - .2 contributions, assessments or taxes incurred for such items as employment insurance, provincial or territorial health insurance, workers' compensation, and Canada or Quebec Pension Plan, insofar as such cost is based on wages, salaries or other remuneration paid to employees of the *Contractor* and included in the cost of the work as provided in paragraphs 6.3.7.1;
 - 3 travel and subsistence expenses of the *Contractor*'s personnel described in paragraphs 6.3.7.1;
 - 4 all *Products* including cost of transportation thereof;
 - 5 materials, supplies, *Construction Equipment*, *Temporary Work*, and hand tools not owned by the workers, including transportation and maintenance thereof, which are consumed in the performance of the *Work*; and cost less salvage value on such items used but not consumed, which remain the property of the *Contractor*;
 - .6 all tools and *Construction Equipment*, exclusive of hand tools used in the performance of the *Work*, whether rented from or provided by the *Contractor* or others, including installation, minor repairs and replacements, dismantling, removal, transportation, and delivery cost thereof;
 - .7 all equipment and services required for the *Contractor*'s field office;
 - .8 deposits lost;

- .9 the amounts of all subcontracts;
- .10 quality assurance such as independent inspection and testing services;
- .11 charges levied by authorities having jurisdiction at the *Place of the Work*;
- .12 royalties, patent licence fees and damages for infringement of patents and cost of defending suits therefor subject always to the *Contractor*'s obligations to indemnify the *Owner* as provided in paragraph 10.3.1 of GC 10.3 PATENT FEES;
- .13 any adjustment in premiums for all bonds and insurance which the *Contractor* is required, by the *Contract Documents*, to purchase and maintain;
- .14 any adjustment in taxes, other than Value Added Taxes, and duties for which the Contractor is liable;
- .15 charges for long distance telephone and facsimile communications, courier services, expressage, and petty cash items incurred in relation to the performance of the *Work*;
- .16 removal and disposal of waste products and debris; and
- .17 safety measures and requirements.
- 6.3.8 Notwithstanding any other provisions contained in the General Conditions of the *Contract*, it is the intention of the parties that the cost of any item under any cost element referred to in paragraph 6.3.7 shall cover and include any and all costs or liabilities attributable to the *Change Directive* other than those which are the result of or occasioned by any failure on the part of the *Contractor* to exercise reasonable care and diligence in the *Contractor*'s attention to the *Work*. Any cost due to failure on the part of the *Contractor* to exercise reasonable care and diligence in the *Contractor*'s attention to the *Work* shall be borne by the *Contractor*.
- 6.3.9 The *Contractor* shall keep full and detailed accounts and records necessary for the documentation of the cost of performing the work attributable to the *Change Directive* and shall provide the *Consultant* with copies thereof when requested.
- 6.3.10 For the purpose of valuing *Change Directives*, the *Owner* shall be afforded reasonable access to all of the *Contractor*'s pertinent documents related to the cost of performing the work attributable to the *Change Directive*.
- 6.3.11 Pending determination of the final amount of a *Change Directive*, the undisputed value of the work performed as the result of a *Change Directive* is eligible to be included in progress payments.
- 6.3.12 If the *Owner* and *Contractor* do not agree on the proposed adjustment in the *Contract Time* attributable to the change in the *Work*, or the method of determining it, the adjustment shall be referred to the *Consultant* for determination.
- 6.3.13 When the *Owner* and the *Contractor* reach agreement on the adjustment to the *Contract Price* and to the *Contract Time*, this agreement shall be recorded in a *Change Order*.

GC 6.4 CONCEALED OR UNKNOWN CONDITIONS

- 6.4.1 If the *Owner* or the *Contractor* discover conditions at the *Place of the Work* which are:
 - .1 subsurface or otherwise concealed physical conditions which existed before the commencement of the *Work* which differ materially from those indicated in the *Contract Documents*; or
 - .2 physical conditions, other than conditions due to weather, that are of a nature which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the *Contract Documents*,
 - then the observing party shall give *Notice in Writing* to the other party of such conditions before they are disturbed and in no event later than 5 *Working Days* after first observance of the conditions.
- 6.4.2 The *Consultant* will promptly investigate such conditions and make a finding. If the finding is that the conditions differ materially and this would cause an increase or decrease in the *Contractor*'s cost or time to perform the *Work*, the *Consultant*, with the *Owner*'s approval, will issue appropriate instructions for a change in the *Work* as provided in GC 6.2 CHANGE ORDER or GC 6.3 CHANGE DIRECTIVE.
- 6.4.3 If the *Consultant* finds that the conditions at the *Place of the Work* are not materially different or that no change in the *Contract Price* or the *Contract Time* is justified, the *Consultant* will report the reasons for this finding to the *Owner* and the *Contractor* in writing.
- 6.4.4 If such concealed or unknown conditions relate to toxic and hazardous substances and materials, artifacts and fossils, or mould, the parties will be governed by the provisions of GC 9.2 TOXIC AND HAZARDOUS SUBSTANCES AND MATERIALS, GC 9.3 ARTIFACTS AND FOSSILS and GC 9.5 MOULD.

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GC 6.5 DELAYS

- 6.5.1 If the *Contractor* is delayed in the performance of the *Work* by an action or omission of the *Owner*, *Consultant* or anyone employed or engaged by them directly or indirectly, contrary to the provisions of the *Contract Documents*, then the *Contract Time* shall be extended for such reasonable time as the *Consultant* may recommend in consultation with the *Contractor*. The *Contractor* shall be reimbursed by the *Owner* for reasonable costs incurred by the *Contractor* as the result of such delay.
- 6.5.2 If the *Contractor* is delayed in the performance of the *Work* by a stop work order issued by a court or other public authority and providing that such order was not issued as the result of an act or fault of the *Contractor* or any person employed or engaged by the *Contractor* directly or indirectly, then the *Contract Time* shall be extended for such reasonable time as the *Consultant* may recommend in consultation with the *Contractor*. The *Contractor* shall be reimbursed by the *Owner* for reasonable costs incurred by the *Contractor* as the result of such delay.
- 6.5.3 If the *Contractor* is delayed in the performance of the *Work* by:
 - .1 labour disputes, strikes, lock-outs (including lock-outs decreed or recommended for its members by a recognized contractors' association, of which the *Contractor* is a member or to which the *Contractor* is otherwise bound),
 - .2 fire, unusual delay by common carriers or unavoidable casualties,
 - .3 abnormally adverse weather conditions, or
 - .4 any cause beyond the *Contractor*'s control other than one resulting from a default or breach of *Contract* by the *Contractor*,

then the *Contract Time* shall be extended for such reasonable time as the *Consultant* may recommend in consultation with the *Contractor*. The extension of time shall not be less than the time lost as the result of the event causing the delay, unless the *Contractor* agrees to a shorter extension. The *Contractor* shall not be entitled to payment for costs incurred by such delays unless such delays result from actions by the *Owner*, *Consultant* or anyone employed or engaged by them directly or indirectly.

- 6.5.4 No extension shall be made for delay unless *Notice in Writing* of the cause of delay is given to the *Consultant* not later than 10 *Working Days* after the commencement of the delay. In the case of a continuing cause of delay only one *Notice in Writing* shall be necessary.
- 6.5.5 If no schedule is made under paragraph 2.2.13 of GC 2.2 ROLE OF THE CONSULTANT, then no request for extension shall be made because of failure of the *Consultant* to furnish instructions until 10 *Working Days* after demand for such instructions has been made.

GC 6.6 CLAIMS FOR A CHANGE IN CONTRACT PRICE

- 6.6.1 If the *Contractor* intends to make a claim for an increase to the *Contract Price*, or if the *Owner* intends to make a claim against the *Contractor* for a credit to the *Contract Price*, the party that intends to make the claim shall give timely *Notice in Writing* of intent to claim to the other party and to the *Consultant*.
- 6.6.2 Upon commencement of the event or series of events giving rise to a claim, the party intending to make the claim shall:
 - .1 take all reasonable measures to mitigate any loss or expense which may be incurred as a result of such event or series of events, and
 - .2 keep such records as may be necessary to support the claim.
- 6.6.3 The party making the claim shall submit within a reasonable time to the *Consultant* a detailed account of the amount claimed and the grounds upon which the claim is based.
- 6.6.4 Where the event or series of events giving rise to the claim has a continuing effect, the detailed account submitted under paragraph 6.6.3 shall be considered to be an interim account and the party making the claim shall, at such intervals as the *Consultant* may reasonably require, submit further interim accounts giving the accumulated amount of the claim and any further grounds upon which it is based. The party making the claim shall submit a final account after the end of the effects resulting from the event or series of events.
- 6.6.5 The *Consultant's* findings, with respect to a claim made by either party, will be given by *Notice in Writing* to both parties within 30 *Working Days* after receipt of the claim by the *Consultant*, or within such other time period as may be agreed by the parties.
- 6.6.6 If such finding is not acceptable to either party, the claim shall be settled in accordance with Part 8 of the General Conditions DISPUTE RESOLUTION.

GC 6.7 QUANTITY VARIATIONS

- 6.7.1 The provisions of GC 6.7 QUANTITY VARIATIONS apply to the estimated quantities identified in the *Schedule of Prices*, or where the estimated quantities have been amended by *Change Order*, the provisions apply to the amended estimated quantities.
- 6.7.2 The *Owner* or the *Contractor* may request an adjustment to a *Unit Price* contained in the *Schedule of Prices* provided the actual quantity of the *Unit Price* item in the *Schedule of Prices* exceeds or falls short of the estimated quantity by more that 15%.
- 6.7.3 Where the actual quantity exceeds the estimated quantity by more than 15%, a *Unit Price* adjusted pursuant to paragraph 6.7.2 shall apply only to the quantity that exceeds 115% of the estimated quantity.
- 6.7.4 Where the actual quantity falls short of the estimated quantity by more than 15%, a *Unit Price* adjusted pursuant to paragraph 6.7.2 shall apply to the actual quantity of the *Unit Price* item. The adjusted *Unit Price* shall not exceed a *Unit Price* that would cause the payment amount to exceed that derived from the original *Unit Price* and estimated quantity.
- 6.7.5 The party that intends to request for an adjustment to a *Unit Price* shall give timely *Notice in Writing* to the other party and to the *Consultant*.
- 6.7.6 The *Consultant's* findings, with respect to a claim made by either party, will be given by *Notice in Writing* to both parties within 30 *Working Days* after receipt of the claim by the *Consultant*, or within such other time period as may be agreed by the parties.
- 6.7.7 If such finding is not acceptable to either party, the claim shall be settled in accordance with Part 8 of the General Conditions DISPUTE RESOLUTION.

PART 7 DEFAULT NOTICE

GC 7.1 OWNER'S RIGHT TO PERFORM THE WORK, TERMINATE THE CONTRACTOR'S RIGHT TO CONTINUE WITH THE WORK OR TERMINATE THE CONTRACT

- 7.1.1 If the *Contractor* is adjudged bankrupt, or makes a general assignment for the benefit of creditors because of the *Contractor*'s insolvency, or if a receiver is appointed because of the *Contractor*'s insolvency, the *Owner* may, without prejudice to any other right or remedy the *Owner* may have, terminate the *Contractor*'s right to continue with the *Work*, by giving the *Contractor* or receiver or trustee in bankruptcy *Notice in Writing* to that effect.
- 7.1.2 If the *Contractor* neglects to prosecute the *Work* properly or otherwise fails to comply with the requirements of the *Contract* to a substantial degree and if the *Consultant* has given a written statement to the *Owner* and *Contractor* that sufficient cause exists to justify such action, the *Owner* may, without prejudice to any other right or remedy the *Owner* may have, give the *Contractor Notice in Writing* that the *Contractor* is in default of the *Contractor's* contractual obligations and instruct the *Contractor* to correct the default in the 5 *Working Days* immediately following the receipt of such *Notice in Writing*.
- 7.1.3 If the default cannot be corrected in the 5 *Working Days* specified or in such other time period as may be subsequently agreed in writing by the parties, the *Contractor* shall be in compliance with the *Owner*'s instructions if the *Contractor*:
 - .1 commences the correction of the default within the specified time, and
 - .2 provides the *Owner* with an acceptable schedule for such correction, and
 - .3 corrects the default in accordance with the *Contract* terms and with such schedule.
- 7.1.4 If the *Contractor* fails to correct the default in the time specified or in such other time period as may be subsequently agreed in writing by the parties, without prejudice to any other right or remedy the *Owner* may have, the *Owner* may:
 - .1 correct such default and deduct the cost thereof from any payment then or thereafter due the *Contractor* provided the *Consultant* has certified such cost to the *Owner* and the *Contractor*, or
 - .2 terminate the Contractor's right to continue with the Work in whole or in part or terminate the Contract.

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- 7.1.5 If the *Owner* terminates the *Contractor*'s right to continue with the *Work* as provided in paragraphs 7.1.1 and 7.1.4, the *Owner* shall be entitled to:
 - .1 take possession of the *Work* and *Products* at the *Place of the Work*; subject to the rights of third parties, utilize the *Construction Equipment* at the *Place of the Work*; finish the *Work* by whatever method the *Owner* may consider expedient, but without undue delay or expense, and
 - .2 withhold further payment to the *Contractor* until a final certificate for payment is issued, and
 - .3 charge the *Contractor* the amount by which the full cost of finishing the *Work* as certified by the *Consultant*, including compensation to the *Consultant* for the *Consultant*'s additional services and a reasonable allowance as determined by the *Consultant* to cover the cost of corrections to work performed by the *Contractor* that may be required under GC 12.3 WARRANTY, exceeds the unpaid balance of the *Contract Price*; however, if such cost of finishing the *Work* is less than the unpaid balance of the *Contract Price*, the *Owner* shall pay the *Contractor* the difference, and
 - .4 on expiry of the warranty period, charge the *Contractor* the amount by which the cost of corrections to the *Contractor*'s work under GC 12.3 WARRANTY exceeds the allowance provided for such corrections, or if the cost of such corrections is less than the allowance, pay the *Contractor* the difference.
- 7.1.6 The *Contractor*'s obligation under the *Contract* as to quality, correction and warranty of the work performed by the *Contractor* up to the time of termination shall continue after such termination of the *Contract*.

GC 7.2 CONTRACTOR'S RIGHT TO SUSPEND THE WORK OR TERMINATE THE CONTRACT

- 7.2.1 If the *Owner* is adjudged bankrupt, or makes a general assignment for the benefit of creditors because of the *Owner*'s insolvency, or if a receiver is appointed because of the *Owner*'s insolvency, the *Contractor* may, without prejudice to any other right or remedy the *Contractor* may have, terminate the *Contract* by giving the *Owner* or receiver or trustee in bankruptcy *Notice in Writing* to that effect.
- 7.2.2 If the *Work* should be suspended or otherwise delayed for a period of 20 *Working Days* or more under an order of a court or other public authority and providing that such order was not issued as the result of an act or fault of the *Contractor* or of anyone directly or indirectly employed or engaged by the *Contractor*, the *Contractor* may, without prejudice to any other right or remedy the *Contractor* may have, terminate the *Contract* by giving the *Owner Notice in Writing* to that effect.
- 7.2.3 The *Contractor* may give *Notice in Writing* to the *Owner*, with a copy to the *Consultant*, that the *Owner* is in default of the *Owner*'s contractual obligations if:
 - .1 the *Owner* fails to furnish, when so requested by the *Contractor*, reasonable evidence that financial arrangements have been made to fulfill the *Owner*'s obligations under the *Contract*, or
 - .2 the Consultant fails to issue a certificate as provided in GC 5.3 PROGRESS PAYMENT, or
 - .3 the *Owner* fails to pay the *Contractor* when due the amounts certified by the *Consultant* or awarded by arbitration or court, or
 - .4 the *Owner* violates the requirements of the *Contract* to a substantial degree and the *Consultant*, except for GC 5.1 FINANCING INFORMATION REQUIRED OF THE OWNER, confirms by written statement to the *Contractor* that sufficient cause exists.
- 7.2.4 The *Contractor's Notice in Writing* to the *Owner* provided under paragraph 7.2.3 shall advise that if the default is not corrected within 5 *Working Days* following the receipt of the *Notice in Writing*, the *Contractor* may, without prejudice to any other right or remedy the *Contractor* may have, suspend the *Work* or terminate the *Contract*.
- 7.2.5 If the *Contractor* terminates the *Contract* under the conditions set out above, the *Contractor* shall be entitled to be paid for all work performed including reasonable profit, for loss sustained upon *Products* and *Construction Equipment*, and such other damages as the *Contractor* may have sustained as a result of the termination of the *Contract*.

PART 8 DISPUTE RESOLUTION

GC 8.1 AUTHORITY OF THE CONSULTANT

- 8.1.1 Differences between the parties to the *Contract* as to the interpretation, application or administration of the *Contract* or any failure to agree where agreement between the parties is called for, herein collectively called disputes, which are not resolved in the first instance by findings of the *Consultant* as provided in GC 2.2 ROLE OF THE CONSULTANT, shall be settled in accordance with the requirements of Part 8 of the General Conditions DISPUTE RESOLUTION.
- 8.1.2 If a dispute arises under the *Contract* in respect of a matter in which the *Consultant* has no authority under the *Contract* to make a finding, the procedures set out in paragraph 8.1.3 and paragraphs 8.2.3 to 8.2.8 of GC 8.2 NEGOTIATION, MEDIATION AND ARBITRATION, and in GC 8.3 RETENTION OF RIGHTS apply to that dispute with the necessary changes to detail as may be required.

8.1.3 If a dispute is not resolved promptly, the *Consultant* will give such instructions as in the *Consultant*'s opinion are necessary for the proper performance of the *Work* and to prevent delays pending settlement of the dispute. The parties shall act immediately according to such instructions, it being understood that by so doing neither party will jeopardize any claim the party may have. If it is subsequently determined that such instructions were in error or at variance with the *Contract Documents*, the *Owner* shall pay the *Contractor* costs incurred by the *Contractor* in carrying out such instructions which the *Contractor* was required to do beyond what the *Contract Documents* correctly understood and interpreted would have required, including costs resulting from interruption of the *Work*.

GC 8.2 NEGOTIATION, MEDIATION AND ARBITRATION

- 8.2.1 In accordance with the Rules for Mediation of Construction Disputes as provided in CCDC 40 in effect at the time of bid closing, the parties shall appoint a Project Mediator
 - .1 within 20 Working Days after the Contract was awarded, or
 - .2 if the parties neglected to make an appointment within the 20 *Working Days*, within 10 *Working Days* after either party by *Notice in Writing* requests that the Project Mediator be appointed.
- 8.2.2 A party shall be conclusively deemed to have accepted a finding of the *Consultant* under GC 2.2 ROLE OF THE CONSULTANT and to have expressly waived and released the other party from any claims in respect of the particular matter dealt with in that finding unless, within 15 *Working Days* after receipt of that finding, the party sends a *Notice in Writing* of dispute to the other party and to the *Consultant*, which contains the particulars of the matter in dispute and the relevant provisions of the *Contract Documents*. The responding party shall send a *Notice in Writing* of reply to the dispute within 10 *Working Days* after receipt of such *Notice in Writing* setting out particulars of this response and any relevant provisions of the *Contract Documents*.
- 8.2.3 The parties shall make all reasonable efforts to resolve their dispute by amicable negotiations and agree to provide, without prejudice, frank, candid and timely disclosure of relevant facts, information and documents to facilitate these negotiations.
- 8.2.4 After a period of 10 *Working Days* following receipt of a responding party's *Notice in Writing* of reply under paragraph 8.2.2, the parties shall request the Project Mediator to assist the parties to reach agreement on any unresolved dispute. The mediated negotiations shall be conducted in accordance with the Rules for Mediation of Construction Disputes as provided in CCDC 40 in effect at the time of bid closing.
- 8.2.5 If the dispute has not been resolved within 10 *Working Days* after the Project Mediator was requested under paragraph 8.2.4 or within such further period agreed by the parties, the Project Mediator shall terminate the mediated negotiations by giving *Notice in Writing* to the *Owner*, the *Contractor* and the *Consultant*.
- 8.2.6 By giving a *Notice in Writing* to the other party and the *Consultant*, not later than 10 *Working Days* after the date of termination of the mediated negotiations under paragraph 8.2.5, either party may refer the dispute to be finally resolved by arbitration under the Rules for Arbitration of Construction Disputes as provided in CCDC 40 in effect at the time of bid closing. The arbitration shall be conducted in the jurisdiction of the *Place of the Work*.
- 8.2.7 On expiration of the 10 *Working Days*, the arbitration agreement under paragraph 8.2.6 is not binding on the parties and, if a *Notice in Writing* is not given under paragraph 8.2.6 within the required time, the parties may refer the unresolved dispute to the courts or to any other form of dispute resolution, including arbitration, which they have agreed to use.
- 8.2.8 If neither party, by *Notice in Writing*, given within 10 *Working Days* of the date of *Notice in Writing* requesting arbitration in paragraph 8.2.6, requires that a dispute be arbitrated immediately, all disputes referred to arbitration as provided in paragraph 8.2.6 shall be
 - .1 held in abevance until
 - (1) Substantial Performance of the Work,
 - (2) the Contract has been terminated, or
 - (3) the *Contractor* has abandoned the *Work*, whichever is earlier; and
 - .2 consolidated into a single arbitration under the rules governing the arbitration under paragraph 8.2.6.

GC 8.3 RETENTION OF RIGHTS

8.3.1 It is agreed that no act by either party shall be construed as a renunciation or waiver of any rights or recourses, provided the party has given the *Notice in Writing* required under Part 8 of the General Conditions - DISPUTE RESOLUTION and has carried out the instructions as provided in paragraph 8.1.3 of GC 8.1 – AUTHORITY OF THE CONSULTANT.

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8.3.2 Nothing in Part 8 of the General Conditions - DISPUTE RESOLUTION shall be construed in any way to limit a party from asserting any statutory right to a lien under applicable lien legislation of the jurisdiction of the *Place of the Work* and the assertion of such right by initiating judicial proceedings is not to be construed as a waiver of any right that party may have under paragraph 8.2.6 of GC 8.2 – NEGOTIATION, MEDIATION AND ARBITRATION to proceed by way of arbitration to adjudicate the merits of the claim upon which such a lien is based.

PART 9 PROTECTION OF PERSONS AND PROPERTY

GC 9.1 PROTECTION OF WORK AND PROPERTY

- 9.1.1 The *Contractor* shall protect the *Work* and the *Owner*'s property and property adjacent to the *Place of the Work* from damage which may arise as the result of the *Contractor*'s operations under the *Contract*, and shall be responsible for such damage, except damage which occurs as the result of:
 - .1 errors in the *Contract Documents*;
 - .2 acts or omissions by the Owner, the Consultant, other contractors, their agents and employees.
- 9.1.2 Before commencing any work, the *Contractor* shall determine the location of all underground utilities and structures indicated in the *Contract Documents* or that are reasonably apparent in an inspection of the *Place of the Work*.
- 9.1.3 Should the *Contractor* in the performance of the *Contract* damage the *Work*, the *Owner*'s property, or property adjacent to the *Place of the Work*, the *Contractor* shall be responsible for making good such damage at the *Contractor*'s expense.
- 9.1.4 Should damage occur to the *Work* or *Owner*'s property for which the *Contractor* is not responsible, as provided in paragraph 9.1.1, the *Contractor* shall make good such damage to the *Work* and, if the *Owner* so directs, to the *Owner*'s property. The *Contract Price* and *Contract Time* shall be adjusted as provided in GC 6.1 OWNER'S RIGHT TO MAKE CHANGES, GC 6.2 CHANGE ORDER and GC 6.3 CHANGE DIRECTIVE.

GC 9.2 TOXIC AND HAZARDOUS SUBSTANCES

- 9.2.1 For the purposes of applicable legislation related to toxic and hazardous substances, the *Owner* shall be deemed to have control and management of the *Place of the Work* with respect to existing conditions.
- 9.2.2 Prior to the *Contractor* commencing the *Work*, the *Owner* shall,
 - .1 take all reasonable steps to determine whether any toxic or hazardous substances are present at the *Place of the Work*, and
 - .2 provide the *Consultant* and the *Contractor* with a written list of any such substances that are known to exist and their locations.
- 9.2.3 The *Owner* shall take all reasonable steps to ensure that no person's exposure to any toxic or hazardous substances exceeds the time weighted levels prescribed by applicable legislation at the *Place of the Work* and that no property is damaged or destroyed as a result of exposure to, or the presence of, toxic or hazardous substances which were at the *Place of the Work* prior to the *Contractor* commencing the *Work*.
- 9.2.4 Unless the *Contract* expressly provides otherwise, the *Owner* shall be responsible for taking all necessary steps, in accordance with applicable legislation in force at the *Place of the Work*, to dispose of, store or otherwise render harmless toxic or hazardous substances which were present at the *Place of the Work* prior to the *Contractor* commencing the *Work*.
- 9.2.5 If the *Contractor*
 - .1 encounters toxic or hazardous substances at the *Place of the Work*, or
 - .2 has reasonable grounds to believe that toxic or hazardous substances are present at the *Place of the Work*, which were not brought to the *Place of the Work* by the *Contractor* or anyone for whom the *Contractor* is responsible and which were not disclosed by the *Owner* or which were disclosed but have not been dealt with as required under paragraph 9.2.4, the *Contractor* shall
 - take all reasonable steps, including stopping the *Work*, to ensure that no person's exposure to any toxic or hazardous substances exceeds any applicable time weighted levels prescribed by applicable legislation at the *Place of the Work*, and
 - .4 immediately report the circumstances to the *Consultant* and the *Owner* in writing.
- 9.2.6 If the *Owner* and *Contractor* do not agree on the existence, significance of, or whether the toxic or hazardous substances were brought onto the *Place of the Work* by the *Contractor* or anyone for whom the *Contractor* is responsible, the *Owner* shall retain and pay for an independent qualified expert to investigate and determine such matters. The expert's report shall be delivered to the *Owner* and the *Contractor*.

- 9.2.7 If the *Owner* and *Contractor* agree or if the expert referred to in paragraph 9.2.6 determines that the toxic or hazardous substances were not brought onto the place of the *Work* by the *Contractor* or anyone for whom the *Contractor* is responsible, the *Owner* shall promptly at the *Owner's* own expense:
 - .1 take all steps as required under paragraph 9.2.4;
 - .2 reimburse the *Contractor* for the costs of all steps taken pursuant to paragraph 9.2.5;
 - .3 extend the *Contract* time for such reasonable time as the *Consultant* may recommend in consultation with the *Contractor* and the expert referred to in 9.2.6 and reimburse the *Contractor* for reasonable costs incurred as a result of the delay; and
 - .4 indemnify the *Contractor* as required by GC 12.1 INDEMNIFICATION.
- 9.2.8 If the *Owner* and *Contractor* agree or if the expert referred to in paragraph 9.2.6 determines that the toxic or hazardous substances were brought onto the place of the *Work* by the *Contractor* or anyone for whom the *Contractor* is responsible, the *Contractor* shall promptly at the *Contractor*'s own expense:
 - .1 take all necessary steps, in accordance with applicable legislation in force at the *Place of the Work*, to safely remove and dispose the toxic or hazardous substances;
 - .2 make good any damage to the *Work*, the *Owner*'s property or property adjacent to the place of the *Work* as provided in paragraph 9.1.3 of GC 9.1 PROTECTION OF WORK AND PROPERTY;
 - .3 reimburse the *Owner* for reasonable costs incurred under paragraph 9.2.6; and
 - .4 indemnify the Owner as required by GC 12.1 INDEMNIFICATION.
- 9.2.9 If either party does not accept the expert's findings under paragraph 9.2.6, the disagreement shall be settled in accordance with Part 8 of the General Conditions Dispute Resolution. If such disagreement is not resolved promptly, the parties shall act immediately in accordance with the expert's determination and take the steps required by paragraph 9.2.7 or 9.2.8 it being understood that by so doing, neither party will jeopardize any claim that party may have to be reimbursed as provided by GC 9.2 TOXIC AND HAZARDOUS SUBSTANCES.

GC 9.3 ARTIFACTS AND FOSSILS

- 9.3.1 Fossils, coins, articles of value or antiquity, structures and other remains or things of scientific or historic interest discovered at the *Place or Work* shall, as between the *Owner* and the *Contractor*, be deemed to be the absolute property of the *Owner*.
- 9.3.2 The *Contractor* shall take all reasonable precautions to prevent removal or damage to discoveries as identified in paragraph 9.3.1, and shall advise the *Consultant* upon discovery of such items.
- 9.3.3 The *Consultant* will investigate the impact on the *Work* of the discoveries identified in paragraph 9.3.1. If conditions are found that would cause an increase or decrease in the *Contractor's* cost or time to perform the *Work*, the *Consultant*, with the *Owner's* approval, will issue appropriate instructions for a change in the *Work* as provided in GC 6.2 CHANGE ORDER or GC 6.3 CHANGE DIRECTIVE.

GC 9.4 CONSTRUCTION SAFETY

9.4.1 Subject to paragraph 3.2.2.2 of GC 3.2 - CONSTRUCTION BY OWNER OR OTHER CONTRACTORS, the *Contractor* shall be solely responsible for construction safety at the *Place of the Work* and for compliance with the rules, regulations and practices required by the applicable construction health and safety legislation and shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the *Work*.

GC 9.5 MOULD

- 9.5.1 If the *Contractor* or *Owner* observes or reasonably suspects the presence of mould at the *Place of the Work*, the remediation of which is not expressly part of the *Work*,
 - .1 the observing party shall promptly report the circumstances to the other party in writing, and
 - .2 the *Contractor* shall promptly take all reasonable steps, including stopping the *Work* if necessary, to ensure that no person suffers injury, sickness or death and that no property is damaged as a result of exposure to or the presence of the mould, and
 - .3 if the *Owner* and *Contractor* do not agree on the existence, significance or cause of the mould or as to what steps need be taken to deal with it, the *Owner* shall retain and pay for an independent qualified expert to investigate and determine such matters. The expert's report shall be delivered to the *Owner* and *Contractor*.
- 9.5.2 If the *Owner* and *Contractor* agree, or if the expert referred to in paragraph 9.5.1.3 determines that the presence of mould was caused by the *Contractor*'s operations under the *Contract*, the *Contractor* shall promptly, at the *Contractor*'s own expense:
 - .1 take all reasonable and necessary steps to safely remediate or dispose of the mould, and
 - .2 make good any damage to the *Work*, the *Owner*'s property or property adjacent to the *Place of the Work* as provided in paragraph 9.1.3 of GC 9.1 PROTECTION OF WORK AND PROPERTY, and
 - .3 reimburse the *Owner* for reasonable costs incurred under paragraph 9.5.1.3, and
 - .4 indemnify the *Owner* as required by paragraph 12.1 of GC 21.1 INDEMNIFICATION.

- 9.5.3 If the *Owner* and *Contractor* agree, or if the expert referred to in paragraph 9.5.1.3 determines that the presence of mould was not caused by the *Contractor*'s operations under the *Contract*, the *Owner* shall promptly, at the *Owner*'s own expense:
 - .1 take all reasonable and necessary steps to safely remediate or dispose of the mould, and
 - .2 reimburse the *Contractor* for the cost of taking the steps under paragraph 9.5.1.2 and making good any damage to the *Work* as provided in paragraph 9.1.4 of GC 9.1 PROTECTION OF WORK AND PROPERTY, and
 - .3 extend the *Contract Time* for such reasonable time as the *Consultant* may recommend in consultation with the *Contractor* and the expert referred to in paragraph 9.5.1.3 and reimburse the *Contractor* for reasonable costs incurred as a result of the delay, and
 - .4 indemnify the *Contractor* as required by paragraph 12.1.
- 9.5.4 If either party does not accept the expert's finding under paragraph 9.5.1.3, the disagreement shall be settled in accordance with Part 8 of the General Conditions DISPUTE RESOLUTION. If such desagreement is not resolved promptly, the parties shall act immediately in accordance with the expert's determination and take the steps required by paragraphs 9.5.2 or 9.5.3, it being understood that by so doing neither party will jeopardize any claim the party may have.

PART 10 GOVERNING REGULATIONS

GC 10.1 TAXES AND DUTIES

- 10.1.1 The *Contract Price* shall include all taxes and customs duties in effect at the time of the bid closing except for *Value Added Taxes* payable by the *Owner* to the *Contractor* as stipulated in Article A-4 of the Agreement CONTRACT PRICE.
- 10.1.2 Any increase or decrease in costs to the *Contractor* due to changes in such included taxes and duties after the time of the bid closing shall increase or decrease the *Contract Price* accordingly.

GC 10.2 LAWS, NOTICES, PERMITS, AND FEES

- 10.2.1 The laws of the *Place of the Work* shall govern the *Work*.
- 10.2.2 The *Owner* shall obtain and pay for development approvals, building permit, permanent easements, rights of servitude, and all other necessary approvals and permits, except for the permits and fees referred to in paragraph 10.2.3 or for which the *Contract Documents* specify as the responsibility of the *Contractor*.
- 10.2.3 The *Contractor* shall be responsible for the procurement of permits, licences, inspections, and certificates, which are necessary for the performance of the *Work* and customarily obtained by contractors in the jurisdiction of the *Place of the Work* after the issuance of the building permit. The *Contract Price* includes the cost of these permits, licences, inspections, and certificates, and their procurement.
- 10.2.4 The *Contractor* shall give the required notices and comply with the laws, ordinances, rules, regulations, or codes which are or become in force during the performance of the *Work* and which relate to the *Work*, to the preservation of the public health, and to construction safety.
- 10.2.5 The *Contractor* shall not be responsible for verifying that the *Contract Documents* are in compliance with the applicable laws, ordinances, rules, regulations, or codes relating to the *Work*. If the *Contract Documents* are at variance therewith, or if, subsequent to the time of bid closing, changes are made to the applicable laws, ordinances, rules, regulations, or codes which require modification to the *Contract Documents*, the *Contractor* shall advise the *Consultant* in writing requesting direction immediately upon such variance or change becoming known. The *Consultant* will make the changes required to the *Contract Documents* as provided in GC 6.1 OWNER'S RIGHT TO MAKE CHANGES, GC 6.2 CHANGE ORDER and GC 6.3 CHANGE DIRECTIVE.
- 10.2.6 If the *Contractor* fails to advise the *Consultant* in writing; and fails to obtain direction as required in paragraph 10.2.5; and performs work knowing it to be contrary to any laws, ordinances, rules, regulations, or codes; the *Contractor* shall be responsible for and shall correct the violations thereof; and shall bear the costs, expenses and damages attributable to the failure to comply with the provisions of such laws, ordinances, rules, regulations, or codes.
- 10.2.7 If, subsequent to the time of bid closing, changes are made to applicable laws, ordinances, rules, regulations, or codes of authorities having jurisdiction which affect the cost of the *Work*, either party may submit a claim in accordance with the requirements of GC 6.6 CLAIMS FOR A CHANGE IN CONTRACT PRICE.

GC 10.3 PATENT FEES

- 10.3.1 The *Contractor* shall pay the royalties and patent licence fees required for the performance of the *Contracto*. The *Contractor* shall hold the *Owner* harmless from and against claims, demands, losses, costs, damages, actions, suits, or proceedings arising out of the *Contractor*'s performance of the *Contract* which are attributable to an infringement or an alleged infringement of a patent of invention by the *Contractor* or anyone for whose acts the *Contractor* may be liable.
- 10.3.2 The *Owner* shall hold the *Contractor* harmless against claims, demands, losses, costs, damages, actions, suits, or proceedings arising out of the *Contractor*'s performance of the *Contract* which are attributable to an infringement or an alleged infringement of a patent of invention in executing anything for the purpose of the *Contract*, the model, plan or design of which was supplied to the *Contractor* as part of the *Contract Documents*.

GC 10.4 WORKERS' COMPENSATION

- 10.4.1 Prior to commencing the *Work*, *Substantial Performance of the Work* and the issuance of the final certificate for payment, the *Contractor* shall provide evidence of compliance with workers' compensation legislation at the *Place of the Work*, including payments due thereunder.
- 10.4.2 At any time during the term of the *Contract*, when requested by the *Owner*, the *Contractor* shall provide such evidence of compliance by the *Contractor* and *Subcontractors*.

PART 11 INSURANCE AND CONTRACT SECURITY

GC 11.1 INSURANCE

- 11.1.1 Without restricting the generality of GC 12.1 INDEMNIFICATION, the *Contractor* shall provide, maintain and pay for the following insurance coverages, the minimum requirements of which are specified in CCDC 41 CCDC Insurance Requirements in effect at the time of bid closing except as hereinafter provided:
 - .1 General liability insurance in the name of the *Contractor* and include, or in the case of a single, blanket policy, be endorsed to name, the *Owner* and the *Consultant* as insureds but only with respect to liability, other than legal liability arising out of their sole negligence, arising out of the operations of the *Contractor* with regard to the *Work*. General liability insurance shall be maintained from the date of commencement of the *Work* until one year from the date of *Substantial Performance of the Work*. Liability coverage shall be provided for completed operations hazards from the date of *Substantial Performance of the Work*, on an ongoing basis for a period of 6 years following *Substantial Performance of the Work*.
 - .2 Automobile Liability Insurance from the date of commencement of the *Work* until one year after the date of *Substantial Performance of the Work*.
 - .3 Aircraft or Watercraft Liability Insurance when owned or non-owned aircraft or watercraft are used directly or indirectly in the performance of the *Work*
 - "Broad form" property insurance in the joint names of the *Contractor*, the *Owner* and the *Consultant*. The policy shall include as Insureds all *Subcontractors*. The "Broad form" property insurance shall be provided from the date of commencement of the *Work* until the earliest of:
 - (1) 10 calendar days after the date of Substantial Performance of the Work;
 - (2) on the commencement of use or occupancy of any part or section of *Work* unless such use or occupancy is for construction purposes, habitational, office, banking, convenience store under 465 square metres in area, or parking purposes, or for the installation, testing and commissioning of equipment forming part of the *Work*;
 - (3) when left unattended for more than 30 consecutive calendar days or when construction activity has ceased for more than 30 consecutive calendar days.
 - 5 Boiler and machinery insurance in the joint names of the *Contractor*, the *Owner* and the *Consultant*. The policy shall include as Insureds all *Subcontractors*. The coverage shall be maintained continuously from commencement of use or operation of the boiler and machinery objects insured by the policy and until 10 calendar days after the date of *Substantial Performance of the Work*.
 - .6 The "Broad form" property and boiler and machinery policies shall provide that, in the case of a loss or damage, payment shall be made to the *Owner* and the *Contractor* as their respective interests may appear. In the event of loss or damage:
 - (1) the *Contractor* shall act on behalf of the *Owner* for the purpose of adjusting the amount of such loss or damage payment with the insurers. When the extent of the loss or damage is determined, the *Contractor* shall proceed to restore the *Work*. Loss or damage shall not affect the rights and obligations of either party under the *Contract* except that the *Contractor* shall be entitled to such reasonable extension of *Contract Time* relative to the extent of the loss or damage as the *Consultant* may recommend in consultation with the *Contractor*;

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- (2) the *Contractor* shall be entitled to receive from the *Owner*, in addition to the amount due under the *Contract*, the amount which the *Owner*'s interest in restoration of the *Work* has been appraised, such amount to be paid as the restoration of the *Work* proceeds in accordance with the progress payment provisions. In addition the *Contractor* shall be entitled to receive from the payments made by the insurer the amount of the *Contractor*'s interest in the restoration of the *Work*; and
- (3) to the *Work* arising from the work of the *Owner*, the *Owner*'s own forces, or another contractor, in accordance with the *Owner*'s obligations under the provisions relating to construction by *Owner* or other contractors, shall pay the *Contractor* the cost of restoring the *Work* as the restoration of the *Work* proceeds and as in accordance with the progress payment provisions.
- .7 Contractors' Equipment Insurance from the date of commencement of the *Work* until one year after the date of *Substantial Performance of the Work*.
- 11.1.2 Prior to commencement of the *Work* and upon the placement, renewal, amendment, or extension of all or any part of the insurance, the *Contractor* shall promptly provide the *Owner* with confirmation of coverage and, if required, a certified true copy of the policies certified by an authorized representative of the insurer together with copies of any amending endorsements applicable to the *Work*.
- 11.1.3 The parties shall pay their share of the deductible amounts in direct proportion to their responsibility in regards to any loss for which the above policies are required to pay, except where such amounts may be excluded by the terms of the *Contract*.
- 11.1.4 If the *Contractor* fails to provide or maintain insurance as required by the *Contract* Documents, then the *Owner* shall have the right to provide and maintain such insurance and give evidence to the *Contractor* and the *Consultant*. The *Contractor* shall pay the cost thereof to the *Owner* on demand or the *Owner* may deduct the cost from the amount which is due or may become due to the *Contractor*.
- 11.1.5 All required insurance policies shall be with insurers licensed to underwrite insurance in the jurisdiction of the *Place of the Work*.
- 11.1.6 If a revised version of CCDC 41 INSURANCE REQUIREMENTS is published, which specifies reduced insurance requirements, the parties shall address such reduction, prior to the *Contractor*'s insurance policy becoming due for renewal, and record any agreement in a *Change Order*.
- 11.1.7 If a revised version of CCDC 41 INSURANCE REQUIREMENTS is published, which specifies increased insurance requirements, the *Owner* may request the increased coverage from the Contractor by way of a *Change Order*.
- 11.1.8 A *Change Directive* shall not be used to direct a change in the insurance requirements in response to the revision of CCDC 41 INSURANCE REQUIREMENTS.

GC 11.2 CONTRACT SECURITY

- 11.2.1 The *Contractor* shall, prior to commencement of the *Work* or within the specified time, provide to the *Owner* any *Contract* security specified in the *Contract Documents*.
- 11.2.2 If the *Contract Documents* require surety bonds to be provided, such bonds shall be issued by a duly licensed surety company authorized to transact the business of suretyship in the province or territory of the *Place of the Work* and shall be maintained in good standing until the fulfillment of the *Contract*. The form of such bonds shall be in accordance with the latest edition of the CCDC approved bond forms.

PART 12 INDEMNIFICATION, WAIVER OF CLAIMS AND WARRANTY

GC 12.1 INDEMNIFICATION

- 12.1.1 Without restricting the *Owner*'s obligation to indemnify as described in paragraphs 12.1.4 and 12.1.5, the *Owner* and the *Contractor* shall each indemnify and hold harmless the other from and against all claims, demands, losses, costs, damages, actions, suits, or proceedings whether in respect to losses suffered by them or in respect to claims by third parties that arise out of, or are attributable in any respect to their involvement as parties to this *Contract*, provided such claims are:
 - .1 caused by:
 - (1) the negligent acts or omissions of the party from whom indemnification is sought or anyone for whose acts or omissions that party is liable, or
 - (2) a failure of the party to the *Contract* from whom indemnification is sought to fulfill its terms or conditions; and

.2 made by *Notice in Writing* within a period of 6 years from the date of *Substantial Performance of the Work* as set out in the certificate of *Substantial Performance of the Work* issued pursuant to paragraph 5.4.2.2 of GC 5.4 – SUBSTANTIAL PERFORMANCE OF THE WORK or within such shorter period as may be prescribed by any limitation statute of the province or territory of the *Place of the Work*.

The parties expressly waive the right to indemnity for claims other than those provided for in this *Contract*.

- 12.1.2 The obligation of either party to indemnify as set forth in paragraph 12.1.1 shall be limited as follows:
 - .1 In respect to losses suffered by the *Owner* and the *Contractor* for which insurance is to be provided by either party pursuant to GC 11.1 INSURANCE, the general liability insurance limit for one occurrence as referred to in CCDC 41 in effect at the time of bid closing.
 - .2 In respect to losses suffered by the *Owner* and the *Contractor* for which insurance is not required to be provided by either party in accordance with GC 11.1 INSURANCE, the greater of the *Contract Price* as recorded in Article A-4 CONTRACT PRICE or \$2,000,000, but in no event shall the sum be greater than \$20,000,000.
 - .3 In respect to claims by third parties for direct loss resulting from bodily injury, sickness, disease or death, or to injury to or destruction of tangible property, the obligation to indemnify is without limit. In respect to all other claims for indemnity as a result of claims advanced by third parties, the limits of indemnity set forth in paragraphs 12.1.2.1 and 12.1.2.2 shall apply.
- 12.1.3 The obligation of either party to indemnify the other as set forth in paragraphs 12.1.1 and 12.1.2 shall be inclusive of interest and all legal costs.
- 12.1.4 The *Owner* and the *Contractor* shall indemnify and hold harmless the other from and against all claims, demands, losses, costs, damages, actions, suits, or proceedings arising out of their obligations described in GC 9.2 TOXIC AND HAZARDOUS SUBSTANCES.
- 12.1.5 The *Owner* shall indemnify and hold harmless the *Contractor* from and against all claims, demands, losses, costs, damages, actions, suits, or proceedings:
 - .1 as described in paragraph 10.3.2 of GC 10.3 PATENT FEES, and
 - arising out of the *Contractor*'s performance of the *Contract* which are attributable to a lack of or defect in title or an alleged lack of or defect in title to the *Place of the Work*.
- 12.1.6 In respect to any claim for indemnity or to be held harmless by the *Owner* or the *Contractor*:
 - .1 *Notice in Writing* of such claim shall be given within a reasonable time after the facts upon which such claim is based became known;
 - .2 should any party be required as a result of its obligation to indemnify another to pay or satisfy a final order, judgment or award made against the party entitled by this contract to be indemnified, then the indemnifying party upon assuming all liability for any costs that might result shall have the right to appeal in the name of the party against whom such final order or judgment has been made until such rights of appeal have been exhausted.

GC 12.2 WAIVER OF CLAIMS

- 12.2.1 Subject to any lien legislation applicable to the *Place of the Work*, as of the fifth calendar day before the expiry of the lien period provided by the lien legislation applicable at the *Place of the Work*, the *Contractor* waives and releases the *Owner* from all claims which the *Contractor* has or reasonably ought to have knowledge of that could be advanced by the *Contractor* against the *Owner* arising from the *Contractor*'s involvement in the *Work*, including, without limitation, those arising from negligence or breach of contract in respect to which the cause of action is based upon acts or omissions which occurred prior to or on the date of *Substantial Performance of the Work*, except as follows:
 - .1 claims arising prior to or on the date of *Substantial Performance of the Work* for which *Notice in Writing* of claim has been received by the *Owner* from the *Contractor* no later than the sixth calendar day before the expiry of the lien period provided by the lien legislation applicable at the *Place of the Work*;
 - .2 indemnification for claims advanced against the *Contractor* by third parties for which a right of indemnification may be asserted by the *Contractor* against the *Owner* pursuant to the provisions of this *Contract*;
 - .3 claims for which a right of indemnity could be asserted by the *Contractor* pursuant to the provisions of paragraphs 12.1.4 or 12.1.5 of GC 12.1 INDEMNIFICATION; and
 - .4 claims resulting from acts or omissions which occur after the date of Substantial Performance of the Work.
- 12.2.2 The *Contractor* waives and releases the *Owner* from all claims referenced in paragraph 12.2.1.4 except for those referred in paragraphs 12.2.1.2 and 12.2.1.3 of GC 12.1 INDEMNIFICATION and claims for which *Notice in Writing* of claim has been received by the *Owner* from the *Contractor* within 395 calendar days following the date of *Substantial Performance of the Work*.

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- 12.2.3 Subject to any lien legislation applicable to the *Place of the Work*, as of the fifth calendar day before the expiry of the lien period provided by the lien legislation applicable at the *Place of the Work*, the *Owner* waives and releases the *Contractor* from all claims which the *Owner* has or reasonably ought to have knowledge of that could be advanced by the *Owner* against the *Contractor* arising from the *Owner*'s involvement in the *Work*, including, without limitation, those arising from negligence or breach of contract in respect to which the cause of action is based upon acts or omissions which occurred prior to or on the date of *Substantial Performance of the Work*, except as follows:
 - .1 claims arising prior to or on the date of *Substantial Performance of the Work* for which *Notice in Writing* of claim has been received by the *Contractor* from the *Owner* no later than the sixth calendar day before the expiry of the lien period provided by the lien legislation applicable at the *Place of the Work*;
 - .2 indemnification for claims advanced against the *Owner* by third parties for which a right of indemnification may be asserted by the *Owner* against the *Contractor* pursuant to the provisions of this *Contract*;
 - 3 claims for which a right of indemnity could be asserted by the *Owner* against the *Contractor* pursuant to the provisions of paragraph 12.1.4 of GC 12.1 INDEMNIFICATION;
 - .4 damages arising from the *Contractor*'s actions which result in substantial defects or deficiencies in the *Work*. "Substantial defects or deficiencies" mean those defects or deficiencies in the *Work* which affect the *Work* to such an extent or in such a manner that a significant part or the whole of the *Work* is unfit for the purpose intended by the *Contract Documents*;
 - .5 claims arising pursuant to GC 12.3 WARRANTY; and
 - .6 claims arising from acts or omissions which occur after the date of Substantial Performance of the Work.
- 12.2.4 The *Owner* waives and releases the *Contractor* from all claims referred to in paragraph 12.2.3.4 except claims for which *Notice* in *Writing* of claim has been received by the *Contractor* from the *Owner* within a period of six years from the date of *Substantial Performance of the Work* should any limitation statute of the Province or Territory of the *Place of the Work* permit such agreement. If the applicable limitation statute does not permit such agreement, within such shorter period as may be prescribed by:
 - .1 any limitation statute of the Province or Territory of the *Place of the Work*; or
 - .2 if the *Place of the Work* is the Province of Quebec, then Article 2118 of the Civil Code of Quebec.
- 12.2.5 The *Owner* waives and releases the *Contractor* from all claims referenced in paragraph 12.2.3.6 except for those referred in paragraph 12.2.3.2, 12.2.3.3 and those arising under GC 12.3 WARRANTY and claims for which *Notice in Writing* has been received by the *Contractor* from the *Owner* within 395 calendar days following the date of *Substantial Performance of the Work*.
- 12.2.6 "Notice in Writing of claim" as provided for in GC 12.2 WAIVER OF CLAIMS to preserve a claim or right of action which would otherwise, by the provisions of GC 12.2 WAIVER OF CLAIMS, be deemed to be waived, must include the following:
 - .1 a clear and unequivocal statement of the intention to claim;
 - .2 a statement as to the nature of the claim and the grounds upon which the claim is based; and
 - .3 a statement of the estimated quantum of the claim.
- 12.2.7 The party giving "*Notice in Writing* of claim" as provided for in GC 12.2 WAIVER OF CLAIMS shall submit within a reasonable time a detailed account of the amount claimed.
- 12.2.8 Where the event or series of events giving rise to a claim made under paragraphs 12.2.1 or 12.2.3 has a continuing effect, the detailed account submitted under paragraph 12.2.7 shall be considered to be an interim account and the party making the claim shall submit further interim accounts, at reasonable intervals, giving the accumulated amount of the claim and any further grounds upon which it is based. The party making the claim shall submit a final account after the end of the effects resulting from the event or series of events.
- 12.2.9 If a *Notice in Writing* of claim pursuant to paragraph 12.2.1.1 is received on the seventh or sixth calendar day before the expiry of the lien period provided by the lien legislation applicable at the *Place of the Work*, the period within which *Notice in Writing* of claim shall be received pursuant to paragraph 12.2.3.1 shall be extended to two calendar days before the expiry of the lien period provided by the lien legislation applicable at the *Place of the Work*. If a *Notice in Writing* of claim pursuant to paragraph 12.2.3.1 is received on the seventh or sixth calendar day before the expiry of the lien period provided by the lien legislation applicable at the *Place of the Work*, the period within which *Notice in Writing* of claim shall be received pursuant to paragraph12.2.1.1 shall be extended to two calendar days before the expiry of the lien period provided by the lien legislation applicable at the *Place of the Work*.

GC 12.3 WARRANTY

- 12.3.1 Except for extended warranties as described in paragraph 12.3.6, the warranty period under the *Contract* is one year from the date of *Substantial Performance of the Work*.
- 12.3.2 The *Contractor* shall be responsible for the proper performance of the *Work* to the extent that the design and *Contract Documents* permit such performance.

- 12.3.3 The *Owner*, through the *Consultant*, shall promptly give the *Contractor Notice in Writing* of observed defects and deficiencies which occur during the one year warranty period.
- 12.3.4 Subject to paragraph 12.3.2, the *Contractor* shall correct promptly, at the *Contractor*'s expense, defects or deficiencies in the *Work* which appear prior to and during the one year warranty period.
- 12.3.5 The *Contractor* shall correct or pay for damage resulting from corrections made under the requirements of paragraph 12.3.4.
- 12.3.6 Any extended warranties required beyond the one year warranty period as described in paragraph 12.3.1, shall be as specified in the *Contract Documents*. Extended warranties shall be issued by the warrantor to the benefit of the *Owner*. The *Contractor*'s responsibility with respect to extended warranties shall be limited to obtaining any such extended warranties from the warrantor. The obligations under such extended warranties are solely the responsibilities of the warrantor.

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CANADIAN CONSTRUCTION DOCUMENTS COMMITTEE CANADIAN CONSTRUCTION DOCUMENTS COMMITTEE CANADIAN CONSTRUCTION DOCUMENTS COMMITTEE

CCDC 41 CCDC INSURANCE REQUIREMENTS

PUBLICATION DATE: December 14, 2020

- 1. General liability insurance shall be with limits of not less than \$10,000,000 per occurrence, an aggregate limit of not less than \$10,000,000 within any policy year with respect to completed operations, and a deductible not exceeding \$10,000. The insurance coverage shall not be less than the insurance provided by IBC Form 2100 (including an extension for a standard provincial and territorial form of non-owned automobile liability policy) and IBC Form 2320. To achieve the desired limit, umbrella or excess liability insurance may be used. Subject to satisfactory proof of financial capability by the *Contractor*, the *Owner* may agree to increase the deductible amounts.
- 2. Automobile liability insurance in respect of vehicles that are required by law to be insured under a contract by a Motor Vehicle Liability Policy, shall have limits of not less than \$10,000,000 inclusive per occurrence for bodily injury, death and damage to property, covering all vehicles owned or leased by the *Contractor*. Where the policy has been issued pursuant to a government-operated automobile insurance system, the *Contractor* shall provide the *Owner* with confirmation of automobile insurance coverage for all automobiles registered in the name of the *Contractor*.
- 3. Manned Aircraft and watercraft liability insurance with respect to owned or non-owned aircraft and watercraft (if used directly or indirectly in the performance of the *Work*), including use of additional premises, shall have limits of not less than \$10,000,000 inclusive per occurrence for bodily injury, death and damage to property including loss of use thereof and limits of not less than \$10,000,000 for aircraft passenger hazard. Such insurance shall be in a form acceptable to the *Owner*.
- 4. Unmanned aerial vehicle liability insurance with respect to owned or non-owned aircraft (if used directly or indirectly in the performance of the Work), shall have limits of not less than \$5,000,000 per occurrence or accident for bodily injury, death and damage to property or such amounts as required by any applicable law or regulation.
- 5. "Broad form" property insurance shall have limits of not less than the sum of 1.1 times *Contract Price* and the full value, as stated in the *Contract*, of *Products* and design services that are specified to be provided by the *Owner* for incorporation into the *Work*, with a deductible not exceeding \$10,000. The insurance coverage shall not be less than the insurance provided by IBC Forms 4042 and 4047 or their equivalent replacement. Subject to satisfactory proof of financial capability by the *Contractor*, the *Owner* may agree to increase the deductible amounts.
- 6. Boiler and machinery insurance shall have limits of not less than the replacement value of the permanent or temporary boilers and pressure vessels, and other insurable objects forming part of the *Work*. The insurance coverage shall not be less than the insurance provided by a comprehensive boiler and machinery policy including hot testing and commissioning.
- 7. Contractors' equipment insurance coverage written on an "all risks" basis covering *Construction Equipment* used by the *Contractor* for the performance of the *Work*, shall be in a form acceptable to the *Owner* and shall not allow subrogation claims by the insurer against the *Owner*. Subject to satisfactory proof of financial capability by the *Contractor* for self-insurance, the *Owner* may agree to waive the equipment insurance requirement.
- 8. Contractors' Pollution liability insurance shall have limits of not less than \$5,000,000 per occurrence for bodily injury, death and damage to property.

Association of Canadian Engineering Companies

Canadian Construction Association

Construction
Specifications Canada

The Royal Architectural Institute of Canada

These Supplementary Conditions contain modifications or additions to the General Conditions of the *Contract* - CCDC No. 4, 2011 edition. Where any part of the General Conditions are modified or deleted by the Supplementary Conditions, the unaltered provisions remain in effect.

PART 1 - GENERAL PROVISIONS

1. GC 1.4 Assignment

.1 Delete paragraph 1.4.1 and replace with the following:

"The *Contractor* shall not assign the *Contract* or a portion thereof without the written consent of the *Owner*, which consent may be withheld at the sole discretion of the *Owner*. No assignment by the Contractor shall relieve the *Contractor* from its obligations and liabilities hereunder."

PART 2 - ADMINISTRATION OF THE CONTRACT

2. GC 2.1 Authority of the Consultant

.1 Delete paragraph 2.1.2 and replace with the following:

No independent *Consultant* is assigned in the *Contract*; the City's Engineering Department will assume the authority of the *Consultant* under this *Contract*."

3. GC 2.2 Role of the *Consultant*

.1 Paragraph 2.2.13: Add to the end of the paragraph:

"If, in the opinion of the *Contractor*, the *Supplemental Instruction* involves an adjustment in the *Contract Price* or in the *Contract Time*, it shall, within 5 *Working Days* of the receipt of a *Supplemental Instruction*, provide the City Engineer with a *Notice in Writing* to that effect which shall include the *Contractor's* good faith estimate of the expected adjustment to the *Contract Price* or in the *Contract Time* and a clear and unequivocal statement of the intention to make a claim for such adjustment. Failure to provide such *Notice in Writing* within such time shall preclude the *Contractor* from making a claim for an adjustment in the *Contract Price* or in the *Contract Time* as a result of the *Supplemental Instruction*."

PART 3 - EXECUTION OF THE WORK

4. GC 3.1 Control of the Work

.1 Add the following new paragraph 3.1.3:

"The Contractor represents that prior to entering into the Contract, the Contractor conducted such investigations and examinations of the Place of the Work, the Contract Documents and any other documents made available to the Contractor by the Owner (which include legal descriptions, results of tests, reports of independent testing agencies and surveys and documents indicating the location of utilities and other structures to the extent obtained by the Owner), so as to ascertain the nature and location of the Work, possible delays in commencing the phases of the Work, conditions relating to the transportation, handling and storage of materials, and facilities needed to perform the Work. Nothing in this paragraph 3.1.3 is intended to restrict the application of GC 6.4 - CONCEALED OR UNKNOWN CONDITIONS."

5. GC 3.2 Construction by Owner or Other Contractors

- .1 Delete paragraphs 3.2.2.1 and 3.2.2.2.
- .2 Add the following new items after paragraph 3.2.3.3:
 - ".4 provide for the co-ordination of the activities and work of other contractors and Owner's own forces with the Work of the Contract; and
 - .5 retain overall responsibility for compliance with the applicable health and construction safety legislation at the *Place of the Work*."

6. GC 3.4 Document Review

.1 Add the following to the end of paragraph 3.4.1:

"Notwithstanding the foregoing, the *Contractor* will not be entitled to any adjustment to the *Contract Price* or *Contract Time* in respect of any error or omission in or between any *Drawings* or *Specifications* that would have been discovered by a diligent review of the *Drawings* and *Specifications* by a reasonably competent contractor prior to the establishing the *Contract Price* to perform the *Work* as inferable from the *Contract Documents*."

7. <u>GC 3.5 Construction Schedule</u>

.1 Add the following new paragraph 3.5.2:

"If, due to the fault of the *Contractor*, the actual progress of the *Work* is behind schedule or is likely to become behind schedule, based on critical path methodology, the *Contractor* shall take appropriate steps, at the *Contractor's* own expense, to cause the actual progress of the *Work* to conform to the schedule such that the date for achieving Substantial Performance of the Work specified in paragraph 1.3 of Article A1 of the

Agreement shall be achieved. The Contractor shall produce and present to the *City Engineer*, for their review and approval, a recovery plan demonstrating how the *Contractor* will achieve the recovery of the schedule. The *Owner* shall be entitled to withhold any payment otherwise due to the *Contractor* until such time as the *Contractor* submits the recovery plan to the *Owner* and the *Consultant*."

8. GC 3.6 Supervision

.1 Add the following to the end of paragraph 3.6.1:

"... and with the prior written approval of the City Engineer. If the City Engineer, acting reasonably, requests in writing that the *Contractor's* site supervisor or appointed representative be replaced, the *Contractor* shall appoint an acceptable replacement."

9. GC 3.7 Subcontractors and Suppliers

.1 Delete paragraph 3.7.2 and replace with the following:

"The Contractor agrees to employ those Subcontractors and Suppliers accepted by the City Engineer at the signing of the Contract or otherwise identified in the Contractor's bid, if applicable. The Contractor shall not change the accepted Subcontractors or Suppliers without the prior written approval of the City Engineer, such approval not to be unreasonably withheld."

10. GC 3.9 Documents at the Site

.1 Add the following sentence to the end of paragraph 3.9.1:

"Such submittals, reports, and records of meetings shall not in any case constitute the giving of notice under the *Contract* or in any way amend or alter the terms of the *Contract*."

11. GC 3.10 Shop Drawings

.1 Paragraph 3.10.1: Add the words, "or as the *City Engineer* may reasonably request" after "*Contract Documents*".

12. GC 3.12 Cutting and Remedial Work

.1 Add the following sentence to the end of paragraph 3.12.3:

"The Contractor must provide the City Engineer with Notice in Writing of such ill-timed work, which shall include the Contractor's good faith estimate of the expected adjustment to the Contract Price or Contract Time and a clear and unequivocal statement of the intention to make a claim for such an adjustment no later than 10 Working Days after becoming aware of such ill-timed work, or the completion of such ill-timed work, whichever is earlier. Failure to provide such Notice in Writing within the time stipulated in this paragraph will constitute a waiver of the Contractor's right to make a claim for an

adjustment in the Contract Time or Contract Price as a result of such ill-timed work."

PART 5 - PAYMENT

13. GC 5.1 Financing Information Required of the Owner

.1 Delete GC 5.1 in its entirety.

14. GC 5.2 Application for Progress Payment

.1 Add the following new paragraph 5.2.8:

"As a condition of receiving each progress payment after the first, the *Contractor* shall submit:

- a Statutory Declaration on an original form CCDC Document 9A-2001, attesting to the truth of the statements made therein; and
- .2 evidence of compliance with workers' compensation legislation and provincial sales tax legislation in force at the *Place of the Work*.

15. GC 5.3 Progress Payment

- .1 Paragraph 5.3.1.3: Delete "20" and substitute "30".
- .2 Add the following new paragraph 5.3.2:

"Notwithstanding any other provision of this *Contract*, the *Owner* may refuse to make the whole or any part of any payment otherwise due under this *Contract* including payment of any holdback to the *Contractor*, to the extent that is reasonably necessary to protect the *Owner* from loss because:

- .1 the *Work* is defective, or completed *Work* has been damaged by the *Contractor* requiring correction and replacement;
- .2 the *Owner* has been required to correct defective *Work* or complete *Work* in accordance with paragraph 7.1.4.1;
- .3 liens have been filed against the *Work* or written notice of a lien in respect of the *Work* has been given to the *Owner*;
- .4 of third party monetary claims against the *Contractor* which are enforceable against the *Owner*;
- .5 there are other items or deficiencies entitling the *Owner* to a set-off pursuant to this *Contract*; or
- .6 the *Contractor* has failed to deliver all manuals, records, as-built drawings, written warranties or other deliverables contemplated by the *Contract Documents*."

16. GC 5.5 Payment of Holdback Upon Substantial Performance of the Work

.1 Add the following new item after paragraph 5.5.1.2:

- ".3 submit evidence of compliance with workers' compensation legislation and provincial sales tax legislation in force at the *Place of the Work*, including payments due thereunder."
- .2 Delete paragraph 5.5.3 in its entirety.

17. GC 5.7 Final Payment

.1 Add the following sentence to the end of paragraph 5.7.1:

"The *Contractor's* application for final payment shall be accompanied by any documents or materials not yet delivered pursuant to the *Contract Documents*, including any undelivered as-built drawings."

.2 Paragraph 5.7.4: Replace "5" with "30".

18. GC 5.9 Non-Conforming Work

.1 Add the following to the end of paragraph 5.9.1:

"Furthermore, no review or approval of any *Shop Drawings* and no inspection, examination or test conducted by or on behalf of the *Owner*, nor any failure to do any of the foregoing, shall constitute acceptance of any *Work* or *Products* that are not in accordance with the requirements of the *Contract Documents*."

19. GC 5.10 Builders' Liens

Add new GC 5.10 BUILDERS' LIENS as follows:

- .1 Notwithstanding anything else in this PART 5- PAYMENT, if a claim of lien is made against the Owner registered against the *Project* lands, or if the *Owner* receives a written notice of a lien, and provided that such lien does not arise as a direct result of the Owner's failure to pay in accordance with the terms of the *Contract Documents*, the Owner shall be entitled to withhold any payment otherwise due to the *Contractor* until such time as such claims have been dealt with as provided below.
- .2 If the *Owner* receives a claim of lien or written notice of a lien arising from performance of the *Work*, the *Contractor* shall, within ten (10) days, at its expense, arrange for the withdrawal or other disposal of the written notice of a lien.
- .3 If a claim of lien arising from the performance of the *Work* is registered against the *Project* lands, the *Contractor* shall, within ten (10) days, at its expense, vacate or discharge the lien from title to the *Project* lands. If the lien is merely vacated, the *Contractor* shall, if requested, undertake the *Owner's* defence of any subsequent action commenced in respect of the lien at the *Contractor's* expense.
- .4 If the Contractor fails or refuses to deal with a claim of lien or written notice of lien within

the time prescribed above, the *Owner* shall at its option, be entitled to take all steps necessary to vacate and/or discharge the lien, and all costs incurred by the *Owner* in doing so (including, without limitation, legal fees on a solicitor and his own client basis and any payment which may ultimately be made out of or pursuant to security posted to vacate the lien) shall be for the account of the *Contractor*, and the *Owner* may deduct such amounts from the amounts otherwise due or owing to the *Contractor*.

- .5 Without limiting the generality of the foregoing, the *Contractor* shall satisfy all judgments and orders and pay all costs resulting from any builders' liens or any actions brought in connection with any liens, or in connection with any other claim or lawsuit brought against the *Owner* by any person that provided services or materials to the *Project* lands which constituted part of the *Work*, and the *Contractor* shall indemnify the *Owner* for any and all costs (including, without limitation, legal fees on a solicitor and his own client basis) and the *Owner* shall be entitled to deduct such costs from any amounts otherwise owing to the *Contractor*.
- .6 This GC 5.10 BUILDERS' LIENS does not apply to liens claimed by the *Contractor*.

PART 6 - CHANGES IN THE WORK

20. GC 6.1 Owner's Right to Make Changes

.1 Add new paragraph 6.1.3 to read as follows:

"Changes to the *Work* performed by the *Contractor* without a prior *Change Order* or a *Change Directive*, shall be at the *Contractor's* sole risk, cost and expense and the Owner shall not be liable for any claim for compensation in respect thereof by the *Contractor*. Claims by the *Contractor* for a change in the *Contract Price* shall be barred unless there has been strict compliance with all requirements in PART 6 – CHANGES IN THE WORK. No course of conduct or dealing between the parties, no express or implied acceptance of alteration or additions to the *Work* and no claims that the Owner has been unjustly enriched by any alteration or addition to the *Work*, whether in fact there is any such unjust enrichment or not, shall be the basis of a claim for additional payment under this *Contract* or a claim for any extension of the *Contract Time*."

21. GC 6.2 Change Order

.1 Add the following sentence to the end of paragraph 6.2.1:

"Lump sum quotations for changes to the *Work* provided by the *Contractor* shall be accompanied by itemized breakdowns together with detailed, substantiating quotations or cost vouchers from *Subcontractors* and *Suppliers*, and shall be in such form as the *Consultant* may reasonably require."

.2 Add new paragraph 6.2.4 to read as follows:

"The adjustment to the *Contract Price* and *Contract Time* recorded in a *Change Order* shall be the only adjustment made to the *Contract Price* and *Contract Time* for the proposed

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change in the *Work* referred to in the *Change Order* and the *Contractor* will not be entitled to be paid any additional amount (including, without limitation, on account of cumulative impact of changes to the Work) or to be granted any additional time to perform the *Work* as a result of or arising in any way, either directly or indirectly, from the proposed change in the *Work* other than that adjustment of the *Contract Time* and *Contract Price* agreed to and recorded in the *Change Order*."

22. GC 6.3 Change Directive

.1 Delete paragraph 6.3.7 and substitute the following

"The cost of performing the work attributable to a *Change Directive* shall, at the *Owner's* option, be determined based on the *Unit Prices* set forth in this *Contract*. Where the cost of performing the work attributable to a *Change Directive* is not determined based on *Unit Prices*, such cost will be limited to the sum of the following:

- .1 the actual labour costs of the *Contractor*'s on-site own forces;
- .2 the actual labour costs of all *Subcontractor* on-site own forces;
- .3 the actual cost of all *Products* necessary for the change in the *Work;*
- .4 any other out-of-pocket fees or expenses not included in the mark-up for overhead, supervision and profit, and specifically agreed to by the *Owner* and the *Contractor*;
- in the case of work performed by the *Contractor*, the *Contractor* shall be entitled to a percentage mark-up of **10%** on account of overhead, supervision and profit on the actual cost of the *Contractor's* work (i.e., the sum of items .1, .3 and .4 above); and
- .6 in the case of work performed by a *Subcontractor*:
 - .1 the *Subcontractor* shall be entitled to a percentage mark-up of **10%** on account of overhead, supervision and profit on the actual cost of the *Subcontractor's* work (i.e., the sum of .2, .3 and .4 above); and
 - .2 the *Contractor* shall be entitled to a percentage mark-up of **5%** for the *Contractor's* overhead, supervision and profit on account of the actual cost of the *Subcontractor's* work

The mark-ups for overhead, supervision and profit identified above are intended to include without limitation: all site and head office costs including head office personnel, insurance and bonding, travel costs, financing costs including holdback; the salaries of superintendents, Owners, timekeepers, accountants, clerks, watch persons and all other site supervision staff above foreperson employed directly on the *Work*; coordination with other trades affected, use of temporary offices, sheds and other general temporary site support facilities and all utilities used therein.

Labour costs shall be the actual, salaries or wages paid by the *Contractor* or any *Subcontractor*, plus the associated employer contribution to workers compensation payments, vacation pay, employment insurance premiums, sickness and accident insurance and pension fund contributions, or shall be as otherwise set out in a salary or wage schedule agreed to by the *Owner* and the *Contractor*."

23. GC 6.4 Concealed or Unknown Conditions

.1 Add the following new sentence to the end of paragraph 6.4.1:

"Failure by the *Contractor* to give a clear and unequivocal *Notice in Writing* within the time stipulated in this paragraph 6.4.1 will constitute a waiver of the *Contractor's* right to a change in the *Work* as contemplated by paragraph 6.4.2."

24. <u>GC 6.5 Delays</u>

.1 Delete paragraph 6.5.4 and substitute the following:

"Notwithstanding anything herein to the contrary, no extension of the *Contract Time* will be given and the *Contractor* shall not be entitled to payment for costs incurred as a result of any delay unless *Notice in Writing* (including details as to the cause of delay) is given to the *Consultant* and the *Owner* not later than 10 *Working Days* after the commencement of the delay. In the case of a continuing cause of delay, only one *Notice in Writing* shall be necessary. Failure on the part of the *Contractor* to give the *Notice in Writing* to the *Consultant* and the *Owner* in accordance with this paragraph 6.5.4 will constitute a waiver of the *Contractor's* right to make a claim for an adjustment to the *Contract Price or the Contract Time* as a result of such delay."

.2 Add new paragraph 6.5.6 to read as follows:

"Notwithstanding anything herein to the contrary, if the *Contractor* is delayed for 30 days or longer in the performance of the *Work* pursuant to paragraph 6.5.2 or 6.5.3, the *Owner* may terminate the *Contract* by written notice to the *Contractor* given at any time after the expiry of such 30 day period, in which case paragraph 7.1.7 hereof shall apply."

.3 Add new paragraph 6.5.7 to read as follows:

"Notwithstanding anything herein to the contrary, no extension of the *Contract Time* will be given and the *Contractor* shall not be entitled to payment for costs incurred as a result of any delay if and to the extent that such delay could have been reasonably mitigated by the *Contractor*."

25. GC 6.6 Claims for a Change in Contract Price

.1 Add the following to the end of paragraph 6.6.1:

"Failure to give such Notice in Writing of intent to claim to the other party and the *Consultant* in strict compliance with any express time period stipulated in the *Contract Documents* will constitute a waiver of the right to make such a claim."

26. GC 6.7 Quantity Variations

.1 Delete paragraphs 6.7.3 through 6.7.7 and replace with the following new paragraph 6.7.3:

"Unless otherwise agreed, any such adjusted *Unit Price* shall reflect the cost of performing the *Work*, together with a reasonable markup on account of overhead and profit."

PART 7 - DEFAULT NOTICE

- 27. <u>GC 7.1 Owner's Right to Perform the Work, Terminate the Contractor's Right to Continue with</u> the Work or Terminate the *Contract*
 - .1 Add the following new paragraph 7.1.7:

"The *Owner* may terminate the *Contractor's* right to continue with the *Work* at any time without cause. In the event of such termination by the Owner, the following provisions shall apply.

- .1 Upon the date of giving such notice of termination without cause, which shall be the effective date of such termination, the *Contractor* shall:
 - .1 stop the performance of the *Work* to the extent directed in the notice of termination;
 - .2 if required by the *Owner*, cancel to the extent possible all outstanding contracts with *Subcontractors* or *Suppliers*;
 - .3 use its best efforts to minimize all costs incurred by the *Contractor*, all *Subcontractors* and all *Suppliers* as a result of such termination of the *Work*: and
 - .4 take any other action toward cancellation of the *Work* which the *Owner* may direct.
- .2 Upon the *Contractor* delivering or making available to the *Owner* all components and items of the *Work* as they exist at the effective date of termination without a lien having been filed in respect thereof (or if filed, such lien having been removed), the *Owner* will pay to the *Contractor* the value of the *Work* performed to the effective date of cancellation (including profit on *Work* performed) calculated with reference to the *Contract Documents*, plus all actual direct expenses, charges and liabilities necessitated by the cancellation.
- .3 The *Owner* shall have the right to elect by notification to the *Contractor* to assume the *Contractor's* contractual rights with any third party as to the performance of any aspect of the *Work* to the extent such contracts are assignable, and upon such notification the *Contractor* shall execute and deliver to the *Owner* an assignment sufficient for such purposes.
- 28. <u>GC 7.2 Contractor's Right to Perform the Work, Stop the Work, Or Terminate the Contract</u>
 - .1 Delete paragraph 7.2.2 in its entirety.
 - .2 Delete paragraph 7.2.3.1 in its entirety.

.3 Paragraph 7.2.3.3: Add the phrase ", except where the *City Engineer* has a *bona fide* claim for set off" after the word "court."

PART 8 – DISPUTE RESOLUTION

29. GC 8.1 Authority of the Consultant

.1 Paragraph 8.1.2: Replace "8.2.8" with "8.2.6".

30. GC 8.2 Negotiation, Mediation and Arbitration

.1 Delete paragraphs 8.2.6, 8.2.7 and 8.2.8 and replace with the following new paragraph 8.2.6:

"Upon termination of the mediated negotiations according to paragraph 8.2.4, either the *Owner* or the *Contractor* may refer the unresolved dispute to the courts, or they may by an agreement in writing refer the unresolved dispute to any other form of dispute resolution, including binding arbitration."

PART 9 - PROTECTION OF PERSONS AND PROPERTY

31. GC 9.1 Protection of Work and Property

.1 Delete paragraph 9.1.2 in its entirety and replace with the following:

"Before commencing any *Work*, the *Contractor* shall determine the locations of all underground utilities and structures indicated in or inferable from the *Contract Documents*, or that are reasonably apparent in or inferable from an inspection of the *Place of the Work*."

32. GC 9.4 Construction Safety

.1 Add the following new paragraph 9.4.2:

"9.4.2 Without restricting the generality of paragraph 9.4.1, the Contractor acknowledges that it is the "prime contractor" for the Place of the Work pursuant to The Saskatchewan Employment Act and the Contractor undertakes to carry out the duties and responsibilities of the "prime contractor". The Contractor shall indemnify and hold harmless the Owner from any liability for claims, damages or penalties, including reasonable legal fees to defend any offences, arising from the Contractor's failure to comply with the duties, responsibilities and obligations of the "prime contractor".

PART 10 - GOVERNING REGULATIONS

33. <u>GC 10.2 Laws, Notices, Permits and Fees</u>

.1 Delete paragraph 10.2.2 and replace with the following:

"The *Owner* shall obtain and pay for the development permit, permanent easements, and rights of servitude. The *Contractor* shall obtain and pay for the application of building permits, occupancy permits and other permits, licenses, or certificates necessary for the performance of the *Work* and which relate to the *Work*, to the preservation of the public health, and to construction safety. The *Contract Price* includes the costs of all permits, licences, inspections and certificates to be obtained by the *Contractor*, and their procurement."

- .2 Delete paragraph 10.2.3.
- .3 Add the following sentence to the end of paragraph 10.2.7:

"Failure on the part of the *Contractor* to advise the *Owner* in writing of such change to such laws, ordinances, rules, regulations, or codes in accordance with paragraph 10.2.5 will constitute a waiver of the *Contractor's right* to any such change in the *Contract Price*."

34. <u>GC 10.4 Worker's Compensation</u>

.1 Add the following new paragraph 10.4.3:

"The *Contractor* shall ensure that workers' compensation covers all workers engaged in the *Work* in accordance with the statutory requirements of the province or territory having jurisdiction over such employees, including the provision of voluntary coverage, where applicable, for all workers engaged in the *Work* for whom mandatory coverage under workers' compensation legislation in force at the *Place of the Work* does not apply."

PART 11 - INSURANCE AND CONTRACT SECURITY

35. GC 11.2 Contract Security

.1 Add new paragraph 11.2.3 to read as follows:

"The Contractor shall, prior to the commencement of the Work, provide to the Owner:

- .1 a performance bond in an amount equal to 50% of the *Contract Price*, covering the performance of the *Contract*, including the *Contractor's* requirements with respect to the correction of deficiencies and the fulfillment of all warranties; and
- .2 a labour and material payment bond in an amount equal to 50% of the *Contract Price* covering payment for labour and *Products*, each in a form acceptable to the *Owner*."

PART 12 INDEMNIFICATION - WAIVER - WARRANTY

36. GC 12.1 Indemnification

.1 Delete paragraph 12.1.1 entirely and replace with the following:

"The *Contractor* shall indemnify and hold harmless the *Owner*, the respective directors, officers, partners, employees and agents from and against all claims, demands, losses, costs, damages, actions, suits, or proceedings whether in respect to losses suffered by them or in respect to claims by third parties that arise out of, or are attributable in any respect to the *Contractor's* involvement in this *Contract*, provided such claims:

- .1 are attributable to bodily injury, sickness, disease or death, or injury to or destruction of tangible property; and
- .2 arise from the negligent acts or omissions of the Contractor, any Subcontractor, or anyone for whose acts or omissions the Contractor is liable, or a failure of the Contractor to fulfill its obligations under the Contract."
- .2 Delete paragraph 12.1.2 and replace with the following:

"The obligation of the *Contractor* to indemnify as set forth in paragraph 12.1.1 shall be limited as follows:

- .1 In respect to losses suffered by the *Owner* (excluding losses related to damage to the *Work*) for which insurance is to be provided by the *Contractor* pursuant to this *Contract*, \$5,000,000 per occurrence; and
- .2 In respect to claims by third parties, the obligation to indemnify is without limit."
- .2 Paragraph 12.1.3: "Replace "12.1.2" with "12.1.4 and 12.1.5".
- .3 Delete paragraph 12.1.4 entirely and replace with the following:

"The *Owner* shall indemnify and hold harmless the *Contractor* from and against all claims, demands, losses, costs, damages, actions, suits, or proceedings arising out of the *Owner's* obligations described in GC 9.2 – TOXIC AND HAZARDOUS SUBSTANCES. The *Contractor* shall indemnify and hold harmless the *Owner* from and against all claims, demands, losses, costs, damages, actions, suits, or proceedings arising out of the *Contractor's* obligations described in GC 9.2 – TOXIC AND HAZARDOUS SUBSTANCES."

37. GC 12.2 Waiver of Claims

.1 Delete paragraph 12.2.3 in its entirety as replace with the following:

"Any claim which the *Owner* may have against the *Contractor* arising out of the *Contractor's* performance of the *Work* shall be brought within a period of 2 years from the date of *Substantial Performance of the Work* or within the applicable limitation period prescribed by any limitation of actions legislation in force in the province or territory of the *Place of the Work*, whichever period is longer."

- .2 Delete paragraphs 12.2.4 and 12.2.5 in their entirety.
- .3 Delete paragraphs 12.2.9 and 12.2.10 in their entirety.

38. GC 12.3 Warranty

.1 Delete paragraph 12.3.1 and replace with the following:

"Except for extended warranties as described in the *Contract Documents*, the warranty period under the *Contract* for the purposes of paragraph 12.3.4 is one year from the date of *Substantial Performance of the Work*."

.2 Add the following new sentence to the end of paragraph 12.3.2:

"The *Contractor* warrants that the *Work* will be in accordance with the *Contract Documents*, will be completed in a good and workmanlike manner and will be free from all defects and deficiencies."

.3 Add the following to the end of paragraph 12.3.4:

"If the *Contractor* does not promptly and diligently correct any defect or deficiency in the *Work* for which it has received notice under GC 12.3, then the *Owner* may correct such defect or deficiency and the *Contractor* shall reimburse the *Owner* for all reasonable costs and expenses incurred by the *Owner* in such regard within 30 days of the *Owner* invoicing the *Contractor* for such amounts. The term "defects and deficiencies" include all damage resulting from any defect or deficiency."

.4 Add the following to the end of paragraph 12.3.5:

"Furthermore, the *Contractor* shall correct, at the *Contractor's* expense, defects of deficiencies in the corrected work which appear within one year after completion of the corrected work."

.5 Revise paragraph 12.3.6 to read as follows:

"Any extended warranties required beyond the one year warranty period as described in paragraph 12.3.1 for certain portions of the *Work* or *Products* shall be as specified in the *Contract Documents*. Extended warranties regarding specific *Products* shall be issued by the warrantor to the benefit of the *Owner*. The *Contractor's* responsibility with respect to extended *Products* warranties shall be limited to obtaining any such extended warranties from the warrantor. The obligations under such extended warranties are solely the responsibilities of the warrantor.

.6 Add new paragraph 12.3.7 to read as follows:

"Where applicable, warranties shall take into account seasonal deficiencies, such as for landscaping, and the commencement of such warranties shall commence upon the date that the seasonal deficiencies have been remedied."

Part 1 General

1.1 RELATED REQUIREMENTS

.1 All

1.2 WORK COVERED BY CONTRACT DOCUMENTS

.1 Work of this Contract as more fully detailed in the Tender Documents, comprises general construction of the Broadway / Highway 9 Gateway Development.

1.3 CONTRACT METHOD

.1 Construct Work under unit price contract. CCDC4

1.4 WORK BY OTHERS

- .1 Co-operate with other Contractors in carrying out their respective works and carry out instructions from Consultant.
- .2 Co-ordinate work with that of other Contractors. If any part of work under this Contract depends for its proper execution or result upon work of another Contractor, report promptly to Consultant, in writing, any defects which may interfere with proper execution of Work.
- .3 Work of this Project must include provisions for co-ordinating all items of work identified in Contract Documents, for following principal items.
 - .1 Rough Grading
 - .2 Topsoil Stockpiling and redistribution
 - .3 Weed Management
 - .4 Gabion Wall Structural Design and Construction
 - .5 Signage and Lighting Design and Construction
 - .6 Native Grass Seeding and Establishment (2 year maintenance/commissioning)
 - .7 Additional Separate Price Items as budget allows

1.5 WORK SEQUENCE

- .1 Construct Work in stages to accommodate Owner's and the Public's continued use of all roadways, including both sidewalks and roadways, as well as service lanes during construction.
- .2 Temporary road and sidewalk closures may be permitted if required and subject to formal request at least 7 days in advance of required closure.
- .3 Co-ordinate Progress Schedule during construction process.
- .4 Construct Work in stages to provide for continuous public usage. Do not close off public usage of facilities until use of one stage of Work will provide alternate usage.
- .5 Maintain fire access/control.

1.6 PUBLIC OCCUPANCY

- .1 Execute work with least possible interference or disturbance to building operations, occupants, public and normal use of premises.
- .2 The Public will occupy businesses, streets, sidewalks, back lanes and the highways during entire construction period for execution of normal operations.
- .3 Contractor to provide measures to ensure Public safety during all phases of construction, both during working hours and after.

1.7 EXISTING SERVICES

- .1 Notify, Consultant and City of Yorkton Representative and utility companies of intended interruption of services and obtain required permission.
- .2 Establish location and extent of all utilities and service lines in area of work before starting Work. Notify Consultant of findings.
- .3 Where unknown services are encountered, immediately advise Consultant and confirm findings in writing.
- .4 Record locations of maintained, re-routed and abandoned service lines.
- .5 Construct barriers in accordance with jurisdictional requirements.

1.8 SCHEDULE AND COMPLETION

- .1 It is anticipated that the Contractor would begin project work upon award of contract. This may include but is not limited to securing approved materials and equipment, preparing shop drawings, fabrication lead times, etc.
- .2 Site work shall begin promptly as weather permits and other environmental constraints such as road restrictions are lifted. Work such as but not limited to site preparation, site securing, light work and stockpiling can begin as soon as possible.
- .3 Work shall be performed expediently and accurately while permitting continued use of public areas such as streets, and sidewalk. Businesses in affected work areas must be permitted to have continued operation with equal or greater accessibility to their premises during business hours.
- .4 Milestone construction deadlines include the following:
 - .1 Gabion Wall Construction September 30, 2021
 - .2 Substantial Completion June 15, 2022
 - .3 Final Completion June 15, 2024 (completion of Maintenance period)

1.9 DOCUMENTS REQUIRED

- .1 Maintain at job site, one copy each document as follows:
 - .1 Contract Drawings.
 - .2 Specifications.
 - .3 Addenda.
 - .4 Reviewed Shop Drawings.
 - .5 List of Outstanding Shop Drawings.

- .6 Change Orders.
- .7 Other Modifications to Contract.
- .8 Field Test Reports.
- .9 Copy of Approved Work Schedule.
- .10 Public Safety Measures Plan
- .11 Health and Safety Plan and Other Safety Related Documents.
- .12 Other documents as specified.

Part 2 Products

2.1 NOT USED

.1 Not used.

Part 3 Execution

3.1 NOT USED

.1 Not used.

END OF SECTION

Part 1 General

1.1 RELATED REQUIREMENTS

.1 Section 00 21 13 – Instructions to Bidders

1.2 ADMINISTRATIVE

- .1 Submit to Consultant submittals listed for review. Submit promptly and in orderly sequence to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for extension of Contract Time and no claim for extension by reason of such default will be allowed.
- .2 Do not proceed with Work affected by submittal until review is complete.
- .3 Present shop drawings, product data, samples and mock-ups in SI Metric units.
- .4 Where items or information is not produced in SI Metric units converted values are acceptable.
- .5 Review submittals prior to submission to Consultant. This review represents that necessary requirements have been determined and verified, or will be, and that each submittal has been checked and co-ordinated with requirements of Work and Contract Documents. Submittals not stamped, signed, dated and identified as to specific project will be returned without being examined and considered rejected.
- Notify Consultant, in writing at time of submission, identifying deviations from requirements of Contract Documents stating reasons for deviations.
- .7 Verify field measurements and affected adjacent Work are co-ordinated.
- .8 Contractor's responsibility for errors and omissions in submission is not relieved by Consultant's review of submittals.
- .9 Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by Consultant review.
- .10 Keep one reviewed copy of each submission on site.

1.3 SHOP DRAWINGS AND PRODUCT DATA

- .1 Refer to CCDC 4 GC 3.10.
- .2 The term "shop drawings" means drawings, diagrams, illustrations, schedules, performance charts, brochures and other data which are to be provided by Contractor to illustrate details of a portion of Work.
- .3 Submit drawings stamped and signed by professional engineer registered or licensed in the jurisdiction of the project location.
- .4 Indicate materials, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for completion of Work. Where articles or equipment attach or connect to other articles or equipment, indicate that such items have been co-ordinated, regardless of Section under which adjacent items will be supplied and installed. Indicate cross references to design drawings and specifications.

- .5 Allow 5 business days for Consultant's review of each submission.
- Adjustments made on shop drawings by Consultant are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to Consultant prior to proceeding with Work.
- .7 Approvals by the Consultant are provided to ensure conformance with information given and the intent of the construction documents and not for the purposes of verifying dimensions, safety analysis and the like, as these are solely the contractor's obligations.
- .8 Acceptance of Shop Drawings for a component or a subassembly does not constitute acceptance of the complete assembly of which it is a part.
- .9 The Contract Administrator's review will not relieve responsibility for errors and omissions in Shop Drawings or of the responsibility for meeting requirements of the Specifications.
- .10 Make changes in shop drawings as Consultant may require, consistent with Contract Documents. When resubmitting, notify Consultant in writing of revisions other than those requested.
- .11 Accompany submissions with transmittal letter, containing:
 - .1 Date.
 - .2 Project title and number.
 - .3 Contractor's name and address.
 - .4 Identification and quantity of each shop drawing, product data and sample.
 - .5 Other pertinent data.
- .12 Submissions include:
 - .1 Date and revision dates.
 - .2 Project title and number.
 - .3 Name and address of:
 - .1 Subcontractor.
 - .2 Supplier.
 - .3 Manufacturer.
 - .4 Contractor's stamp, signed by Contractor's authorized representative certifying approval of submissions, verification of field measurements and compliance with Contract Documents.
 - .5 Details of appropriate portions of Work as applicable:
 - .1 Fabrication.
 - .2 Layout, showing dimensions, including identified field dimensions, and clearances.
 - .3 Setting or erection details.
 - .4 Capacities.
 - .5 Performance characteristics.
 - .6 Standards.
 - .7 Operating weight.
 - .8 Wiring diagrams.

- .9 Single line and schematic diagrams.
- .10 Relationship to adjacent work.
- .13 After Consultant's review, distribute copies.
- .14 Submit electronic copy of shop drawings for each requirement requested in specification Sections and as Consultant may reasonably request.
- .15 Submit electronic copies of product data sheets or brochures for requirements requested in specification Sections and as requested by Consultant where shop drawings will not be prepared due to standardized manufacture of product.
- .16 Submit electronic copies of test reports for requirements requested in specification Sections and as requested by Consultant.
 - .1 Report signed by authorized official of testing laboratory that material, product or system identical to material, product or system to be provided has been tested in accord with specified requirements.
- .17 Submit electronic copies of certificates for requirements requested in specification Sections and as requested by Consultant.
 - .1 Statements printed on manufacturer's letterhead and signed by responsible officials of manufacturer of product, system or material attesting that product, system or material meets specification requirements.
 - .2 Certificates must be dated after award of project contract complete with project name.
- .18 Submit electronic copies of manufacturers instructions for requirements requested in specification Sections and as requested by Consultant.
 - .1 Pre-printed material describing installation of product, system or material, including special notices and Material Safety Data Sheets concerning impedances, hazards and safety precautions.
- .19 Submit electronic copies of Manufacturer's Field Reports for requirements requested in specification Sections and as requested by Consultant.
- .20 Submit electronic copies of Operation and Maintenance Data for requirements requested in specification Sections and as requested by Consultant.
- .21 Supplement standard information to provide details applicable to project.
- .22 If upon review by Consultant, no errors or omissions are discovered or if only minor corrections are made, copies will be returned and fabrication and installation of Work may proceed. If shop drawings are rejected, noted copy will be returned and resubmission of corrected shop drawings, through same procedure indicated above, must be performed before fabrication and installation of Work may proceed.

1.4 SAMPLES

- .1 Submit for review samples in duplicate as requested in respective specification Sections. Label samples with origin and intended use.
- .2 Deliver samples prepaid to Consultant's business address and Contractor's site office.
- .3 Notify Consultant in writing, at time of submission of deviations in samples from requirements of Contract Documents.

- .4 Where colour, pattern or texture is criterion, submit full range of samples.
- .5 Adjustments made on samples by Consultant are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to Consultant prior to proceeding with Work.
- .6 Make changes in samples which Consultant may require, consistent with Contract Documents.
- .7 Reviewed and accepted samples will become standard of workmanship and material against which installed Work will be verified.

1.5 MOCK-UPS

.1 Erect mock-ups in accordance with drawings and specifications.

1.6 REPORTING

- .1 Contractor to prepare and submit weekly reports that document the following.
 - .1 General Information including site foreman, visitors, inspections.
 - .2 Construction Activity of the one week past, current and one week ahead.
 - .3 Ongoing tasks and Percent complete of each ongoing task.
 - .4 Number of workers on each site.
 - .5 Days lost to inclement weather.
 - .6 Materials arriving to site.
 - .7 Long Range work forecast look ahead to identify potential conflicts.
 - .8 Any other information considered pertinent.

1.7 PHOTOGRAPHIC DOCUMENTATION

- .1 At all times, the Contractor must have on-site access to digital technology such as smart phones or digital cameras in order to provide instant communication and digital photographs of work progress in real time as required by the Consultant.
- .2 Submit electronic and hard copy of colour digital photography in jpg format, standard resolution as directed by Consultant.
- .3 Project identification: name and number of project and date of exposure indicated.
- .4 Number of viewpoints: 4 locations.
 - .1 Viewpoints and their location as determined by Consultant.
- .5 Frequency of photographic documentation: weekly and as directed by Consultant.
 - .1 Upon completion of: excavations, erection of formworks, foundations, and services before concealment of Work, and as directed by Consultant.

1.8 CERTIFICATES AND TRANSCRIPTS

- .1 Immediately after award of Contract, submit Workers' Compensation Board status.
- .2 Submit transcription of insurance immediately after award of Contract.
- .3 Submit Bonding information immediately after award of Contract.

1.9 TRAFFIC CONTROL PLAN

- .1 Submit to Consultant and City of Yrokton Representative, a traffic control plan that outlines items of work, dates, durations, locations, site supervisors, risk assessments both site and procedural as well as proposed closure plans and diagrams.
- .2 Traffic Control Plans are to be submitted no less than 7 days in advance of any proposed closure.

Part 2 Products

2.1 NOT USED

.1 Not Used.

Part 3 Execution

3.1 NOT USED

.1 Not Used.

1.1 REFERENCES

- .1 American Society for Testing and Materials International, (ASTM)
 - .1 ASTM D7803-19, Standard Practice for Preparation of Zinc (Hot-Dip Galvanized) Coated Iron and Steel Product and Hardware Surfaces for Powder Coating
 - .2 ASTM D1730-09, Practices for Preparation of Aluminum and Aluminum-Alloy Surfaces for Painting
 - .3 ASTM A36/A36M-14, Standard Specification for Carbon Structural Steel
 - .4 ASTM A53/A53M-18, Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless.
 - .5 ASTM A123/A123M-17, Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
 - .6 ASTM A269 / A269-15a, Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service.
 - .7 ASTM A307-14e1, Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength.
 - .8 ASTM A568/A568M-17a, Steel, Sheet, Carbon, Structural, and High-Strength, Low-Alloy, Hot-Rolled and Cold-Rolled
 - .9 Steel tube: to ASTM A1085/A1085M-15, Cold-Formed Welded Carbon Steel Hollow Structural Sections (HSS).
- .2 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-1.40-97, Anti-corrosive Structural Steel Alkyd Primer.
 - .2 CAN/CGSB-1.181-99, Ready-Mixed, Organic Zinc-Rich Coating.
- .3 Canadian Standards Association (CSA International)
 - .1 CAN/CSA-G40.20/G40.21-13, General Requirements for Rolled or Welded Structural Quality Steel.
 - .2 CAN/CSA-G164-18, Hot Dip Galvanizing of Irregularly Shaped Articles.
 - .3 CSA S16-14, Design of Steel Structures
 - .4 CSA W48-18, Filler Metals and Allied Materials for Metal Arc Welding (Developed in co-operation with the Canadian Welding Bureau).
 - .5 CSA W59-18, Welded Steel Construction.
- .4 Underwriters' Laboratories of Canada (ULC)
 - .1 UL 2768 Architectural Surface Coatings
- .5 Green Seal Environmental Standards (GS)
 - .1 GS-11-2015, Edition 3.2, Paints and Coatings, Stains and Sealers.

- .6 Health Canada / Workplace Hazardous Materials Information System (WHMIS)
 - .1 Material Safety Data Sheets (MSDS).
- .7 The Master Painters Institute (MPI)
 - .1 Architectural Painting Specification Manual 2018 Revision

1.2 SUBMITTALS

- .1 Submit in accordance with Section 01 33 00- Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's printed product literature, specifications and data sheet in accordance with Section 01 33 00 Submittal Procedures.
 - .2 Submit two (2) copies of WHMIS MSDS Material Safety Data Sheets in accordance with Section 01 35 43- Environmental Procedures.
 - .1 For finishes, coatings, primers and paints applied on site: indicate VOC concentration in g/L.
- .3 Shop Drawings
 - .1 Submit shop drawings of the following in accordance with Section 01 33 00 Submittal Procedures:
 - .1 "Yorkton Where Good Things Happen" signage connections to gabion retaining wall, finishes, hidden lighting.
 - .2 Steel lighting strip connections to gabion retaining wall, finishes, hidden lighting.
 - .2 Indicate materials, core thicknesses, finishes, connections and joints, method of anchorage, number of anchors, supports, reinforcement, details, and accessories.
- .4 Raised Entry Planter / Sample and Mock-up
 - .1 Construct one corner section, one (1) metre in length each side for review and approval prior to fabrication and finishing. The mock-up shall remain as raw material and include sheeting, base plate, supports and fasteners.
 - .2 Provide for approval in advance a sample of power coated aluminum for colour match.

1.3 QUALITY ASSURANCE

- .1 Test Reports: Certified test reports showing compliance with specified performance characteristics and physical properties.
- .2 Weld Inspection Reports: Provide certified inspection reports by Third Party Welding Inspector (CSA). Include magnetic particle inspection of each connection type and 100% of all CJP welded connections. Provide a 10% inspection of all PJP welds. If it is determined that there are gross deficiencies as determined by the inspections and the

- Departmental Representative, additional testing may be required, the cost of which will be borne by the contractor.
- .3 Certificates: Product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.
- .4 Pre-installation Meetings: Conduct pre-installation meeting to verify project requirements, manufacturer's installation instructions and manufacturer's warranty requirements. Meetings shall be arranged with Departmental Representative prior to painting and prior to shipping to site.
- .5 Pre-coating treatment of galvanized steel as per ASTM D7803-19
- .6 Pre-coating treatment of aluminum as per ASTM D1730-09

1.4 DELIVERY, STORAGE, AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00- Common Product Requirements.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Replace defective or damaged materials with new.
- .4 Packaging Waste Management: remove for reuse of packaging materials as specified in Construction Waste Management Plan in accordance with Section 01 74 21-Construction/Demolition Waste Management and Disposal]

Part 2 Products

2.1 MATERIALS

- .1 "Yorkton Where Good Things Happen" Stainless Steel Lettering
- .2 Stainless Steel lighting strip
- .3 Welding materials: to CSA W59.
- .4 Welding electrodes: to CSA W48 Series.
- .5 Bolts and anchor bolts: to ASTM A307.
- .6 Coatings: Primers, Degassing Grade Polyester Powder Coating.

2.2 FABRICATION

- .1 Fabricate work square, true, straight and accurate to required size, with joints closely fitted and properly secured.
- .2 Fabricate work in accordance with approved Shop Drawings.
- .3 Use self-tapping shake-proof flat headed screws on items requiring assembly by screws or as indicated. Tamper-proof.
- .4 Where possible, fit and shop assemble work, ready for galvanization and erection.

 Contractor to ensure that all partial assemblies are sized suitably for galvanization tanks and available paint bays prior to fabrication.

.5 Welding

- .1 All welding work shall be in accordance with CSA W59 unless specified otherwise.
- .2 Ensure exposed welds are continuous for length of each joint. File or grind exposed welds smooth and flush.
- .3 Use PJP groove welds except in butt joints unless they conform to AASHTO/AWS D1.5, and/or except where the applied tensile stress is normal to its effective throat

.6 Galvanization:

- .1 Remove all burrs and edge imperfections prior to galvanization. Prep and clean all surfaced prior to galvanizing. Use appropriate caustic cleaners and degreasers.
- .2 Apply rinse before and after pickling to remove rust and other impurities.
- .3 Apply a flux solution prior to drying
- .4 Apply full immersion, hot dip galvanized coating to CSA-G164 and ASTM A123
- .5 Provide a full inspection with report prior to completion. Determine coating thickness and the coating appearance is appropriate per the applicable standard.

2.3 PRE-TREATMENT FOR COATINGS

- .1 Hot Dipped Galvanized Steel
 - .1 Prep and clean all surfaces prior to primer and paint. Use appropriate cleaners, phosphate washes and degreasers and remove imperfections in galvanizing.
 - .2 Items galvanized less than two years prior to powder coating must be pre-treated as per ASTM D7803-19.
 - .1 Remove outer oxide/hydroxide layer by brushing, buffing and cleaning
 - .2 Eliminate Outgassing process to remove volatile materials from the steel by pre-pre-baking prior to coating. Application of a sealing primer is also required.

.2 Aluminum Components

- .1 Prep and clean all surfaces prior to primer and paint. Use appropriate cleaners and degreasers and remove surface imperfections mechanically.
- .2 Use cleaners such as solvents or aqueous alkaline cleaners and Dry-In-Place treatment after cleaning.
- .3 Chemical pre-treatment such as a three stage phosphate treatment

2.4 FINISHES

- .1 Shop coat primer: two-part epoxy with sealing properties to eliminate outgassing.
- .2 Zinc primer: zinc rich, ready mix to CAN/CGSB-1.181.
- .3 Base Coat: Degassing Grade Polyester Powder Only . Including hardeners and reducers as per manufacturer's specifications. Colour: TBA.
- .4 Clear Coat: Two part, low VOC acrylic-urethane clear coat, including hardeners and reducers as per manufacturer's specifications. Finish: Matte

2.5 ISOLATION COATING

- .1 Isolate dissimilar metals and materials from following components, by means of bituminous paint:
 - .1 Dissimilar metals: aluminum to all metals except stainless steel, zinc, or white bronze of small area.
 - .2 Concrete, mortar and masonry.
 - .3 Wood.

Part 3 Execution

3.1 EXAMINATION

- .1 Verification of Conditions: verify conditions of substrates previously installed under other Sections are acceptable for metal fabrications installation in accordance with manufacturer's written instructions.
 - .1 Visually inspect substrate.
 - .2 Inform Contract Administrator of unacceptable conditions immediately upon discovery.
 - .3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Contract Administrator.

3.2 CLEANING AND PRE-TREATMENT

- .1 Galvanized Steel as per ASTM
- .2 Aluminum as per ASTM

3.3 COATINGS

.1 As described in this specification.

3.4 ERECTION

- .1 Install the following items in locations as indicated and as per approved Shop Drawings:
 - .1 "Yorkton Where Good Things Happen" signage
 - .2 Steel lighting strip
- .2 Undertake welding work in accordance with CSA W59 unless specified otherwise.
- .3 Erect metalwork square, plumb, straight, and true, accurately fitted, with tight joints and intersections.
- .4 Exposed fastening devices to match finish and be compatible with material through which they pass.
- .5 Supply components for work by other trades in accordance with shop drawings and schedule.
- .6 Deliver items over for casting into concrete and building into masonry together with setting templates to appropriate location and construction personnel.
- .7 Field Touch Ups
 - .1 Touch-up rivets, field welds, bolts and burnt or scratched surfaces with primer after completion of:
 - .1 Primer: maximum VOC limit 250g/L to GS-11.
 - .2 Touch-up aluminum surfaces with zinc rich primer where burned by field welding.
 - .1 Primer: maximum VOC limit 250]g/L to GS-11.

3.5 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11- Cleaning.
 - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11- Cleaning.
- .3 Waste Management: separate waste materials for [recycling in accordance with Section 01 74 21- Construction/Demolition Waste Management and Disposal.
 - .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

3.6 PROTECTION

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by metal fabrications installation.

1.1 RELATED SECTIONS

- .1 Section 31 23 33 Excavation, Trenching and Backfilling
- .2 Section 32 91 21 Planting Medium Placement and Finish Grading

1.2 REFERENCES

- .1 ASTM International
 - .1 ASTM D698-[07e1], Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (600 kN-m/m³).

1.3 EXISTING CONDITIONS

- .1 Examine drawings and geotechnical report which are bound into the Bid Documents.
- .2 Known underground and surface utility lines and buried objects are as indicated in approximate locations on drawings. Contractor is responsible to verify all locations of known and potentially unknown utilities.

Part 2 Products

2.1 MATERIALS

- .1 Fill materials: In accordance with of drawings and details.
- .2 Excavated or graded material existing on site suitable to use as fill for grading work if approved by Consultant.

Part 3 Execution

3.1 EXAMINATION

- .1 Verification of Conditions: verify that conditions of existing substrate are acceptable for rough grading installation in accordance with testing or sieve analysis procedures.
 - .1 Contractor to carry out testing of substrate to determine suitablility for use in other Work items such as but not limited to fill to construct berms or other earthworks, granular base or sub-base course under pavements, etc. Contractor to provide test results to Consultant.
 - .2 Inform Consultant of unacceptable conditions immediately upon discovery.
 - .3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Consultant.

3.2 STRIPPING OF SOIL AND GRANULAR SUBSTRATE

.1 Do not handle soils while in wet or frozen condition or in any manner in which soil structure is adversely affected.

- .2 Commence stripping of areas as indicated by drawings.
- .3 Strip existing topsoil (estimated at 150mm depth) to depths as required, Strip and salvage subsoil separate from topsoil. Avoid mixing topsoil with subsoil.
- .4 Stockpile height not to exceed 1.5 m.

3.3 GRADING

- .1 Rough grade to levels, profiles, and contours allowing for surface treatment as indicated.
- .2 Rough grade to following depths below finish grades:
 - .1 Native Grass Planting area to allow for 150mm depth salvaged topsoil.
- .3 Prior to placing fill over existing ground, scarify surface to depth of 150 mm minimum before placing fill over existing ground. Maintain fill and existing surface at approximately same moisture content to facilitate bonding.
- .4 Compact filled and disturbed areas to [corrected maximum dry density] [maximum dry density] to ASTM D698, as follows:
 - .1 85% under landscaped areas.
 - .2 95% in CU Structural Soil
- .5 Do not disturb soil within branch spread of trees or shrubs to remain.

3.4 TESTING

- .1 Inspection and testing of soil compaction will be carried out by testing laboratory approved by the Consultant. Costs of tests will be paid under a Cash Allowance by Owner.
- .2 Submit testing procedure, frequency of tests, testing laboratory as designated by ULC or certified testing personnel to Consultant for review.

3.5 CLEANING

- .1 Progress Cleaning
 - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment
- .3 Waste Management: separate waste materials for reuse, recycling.
 - .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

3.6 PROTECTION

.1 Protect existing fencing, trees, landscaping, natural features, bench marks, buildings, pavements, surface or underground utility lines which are to remain as directed by The Consultant. If damaged, restore to original or better condition unless directed otherwise.

1.1 RELATED SECTIONS

- .1 Section 31 22 13 Rough Grading
- .2 Section 32 11 16 Granular Sub-Base
- .3 Section 32 91 21 Planting Medium Placement and Finish Grading

1.2 MEASUREMENT AND PAYMENT

.1 No measurement will be made for Work performed under this Section. Payment for this Work will be included in the execution of the relative areas of construction as listed within the contract.

1.3 PROTECTION OF EXISTING FEATURES

- .1 Existing buried utilities and structures:
 - .1 Size, depth and location of existing utilities and structures as indicated are for guidance only. Completeness and accuracy are not guaranteed.
 - .2 Prior to commencing excavation work, notify applicable owner or authorities having jurisdiction, establish location and state of use of buried utilities and structures. Arrange with owners or authorities having jurisdiction to clearly mark such locations to prevent disturbance during work.
 - .3 Confirm locations of buried utilities by careful test excavations.
 - .4 Maintain and protect from damage, water, sewer, gas, electric, telephone and other utilities and structures encountered.
 - .5 Where utility lines or structures exist in area of excavation, obtain direction of local authorities having jurisdiction.
 - .6 Record location of maintained, re-routed and abandoned underground lines.
- .2 Existing buildings and surface features:
 - .1 Conduct, with The Consultant condition survey of existing buildings, trees and other plants, lawns, fencing, service poles, wires, rail tracks, pavement, survey bench marks and monuments which may be affected by work.
 - .2 Protect existing buildings and surface features from damage while work is in progress. In event of damage, immediately make repair to approval of the Consultant.

Part 2 Products

2.1 MATERIALS

.1 As shown on the drawings.

Part 3 Execution

3.1 SITE PREPARATION

- .1 Remove obstructions, ice and snow, from surfaces to be excavated within limits indicated.
- .2 Cut pavement or sidewalk neatly along limits of proposed excavation in order that surface may break evenly and cleanly.

3.2 STOCKPILING

- .1 Stockpile fill materials in areas designated by the Consultant. Stockpile granular materials in manner to prevent segregation.
- .2 Protect fill materials from contamination.

3.3 EXCAVATION

- .1 Excavate to lines, grades, elevations and dimensions as shown on the drawings.
- .2 Do not disturb soil within branch spread of trees or shrubs that are to remain. If excavating through roots, excavate by hand and cut roots with sharp axe or saw if directed by certified arborist.
- .3 Dispose of surplus and unsuitable excavated material off site.
- .4 Do not obstruct flow of surface drainage or natural watercourses.
- .5 Earth bottoms of excavations to be undisturbed soil, level, free from loose, soft or organic matter.
- .6 Obtain the Consultant's approval of completed excavation.
- .7 Hand trim, make firm and remove loose material and debris from excavations. Where material at bottom of excavation is disturbed, compact foundation soil to density at least equal to undisturbed soil.

3.4 DEWATERING

- .1 Contractor to carry out dewatering work as required in order to ensure concrete foundations or other proposed installations are not compromised.
- .2 All labour, equipment and materials necessary to maintain a continuous dewatering operation shall be provided to keep the excavation stable and free of water.

3.5 BACKFILLING

- .1 Do not proceed with backfilling operations until the Consultant or Consultant's Representative has inspected and approved installations.
- .2 Areas to be backfilled to be free from debris, snow, ice, water and frozen ground.
- .3 Do not use backfill material which is frozen or contains ice, snow or debris.

- .4 Place backfill material in uniform layers not exceeding 150 mm compacted thickness up to grades indicated. Compact each layer before placing succeeding layer.
- .5 Backfill around installations.
- .6 Place unshrinkable fill in areas as indicated. Consolidate and level unshrinkable fill with internal vibrators.
 - .1 Place bedding and surround material as specified elsewhere.
 - .2 Do not backfill around or over cast-in-place concrete within [24] h after placing of concrete.

3.6 RESTORATION

.1 Upon completion of work, remove waste materials and debris, trim slopes, and correct defects as directed by the Consultant.

1.1 RELATED REQUIREMENTS

.1 Section 31 36 00 Gabion Retaining Wall

1.2 MEASUREMENT AND PAYMENT

.1 Geotextiles are incidental to the design and construction of Gabion Retaining Walls.

1.3 REFERENCES

- .1 ASTM International
 - .1 ASTM A123/A123M-[09], Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
 - .2 ASTM D4491-[99a(2009)], Standard Test Methods for Water Permeability of Geotextiles by Permittivity.
 - .3 ASTM D4595-[09], Standard Test Method for Tensile Properties of Geotextiles by the Wide-Width Strip Method.
 - .4 ASTM D4716-[08], Standard Test Method for Determining the (In-Plane) Flow Rate Per Unit Width and Hydraulic Transmissivity of a Geosynthetic Using a Constant Head.
 - .5 ASTM D4751-[04], Standard Test Method for Determining Apparent Opening Size of a Geotextile.
- .2 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-4.2 No. 11.2-[2004], Textile Test Methods Bursting Strength Ball Burst Test (Extension of September 1989).
 - .2 CAN/CGSB-148.1, Methods of Testing Geotextiles and Complete Geomembranes.
 - .1 No.2-[M85], Methods of Testing Geosynthetics Mass per Unit Area.
 - .2 No.3-[M85], Methods of Testing Geosynthetics Thickness of Geotextiles.
 - .3 No.6.1-[93], Methods of Testing Geotextiles and Geomembranes Bursting Strength of Geotextiles Under No Compressive Load.
 - .4 No.7.3-[92], Methods of Testing Geotextiles and Geomembranes Grab Tensile Test for Geotextiles.
 - .5 No. 10-[94], Methods of Testing Geosynthetics Geotextiles Filtration Opening Size.

.3 CSA International

- .1 CSA G40.20/G40.21-[04(R2009)], General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel.
- .4 Ontario Provincial Standard Specifications (OPSS)
 - .1 OPSS 1860-[November 2010], Material Specification for Geotextiles.

1.4 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section [01 33 00 Submittal Procedures].
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for all geo-grid and geo-textiles and include product characteristics, performance criteria, physical size, finish and limitations.
- .3 Samples:
 - .1 Submit following samples [4] weeks prior to beginning Work.
 - .1 Minimum length of [2] m of roll width of geotextile.
 - .2 Methods of joining.
- .4 Test and Evaluation Reports:
 - .1 Submit copies of mill test data and certificate at least [4] weeks prior to start of Work.

1.5 DELIVERY, STORAGE AND HANDLING

- Deliver, store and handle materials in accordance with Section [01 61 00 Common Product Requirements] [with manufacturer's written instructions].
- .2 Storage and Handling Requirements:
 - .1 Store materials in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Store and protect geotextiles from direct sunlight and UV rays.
 - .3 Replace defective or damaged materials with new.
- .3 Packaging Waste Management: remove for reuse and return any and all packing materials as coordinated with the City of Yorkton, the Consultant and all best practices.

Part 2 Products

2.1 MATERIAL

.1 Geotextile: as required by engineered design of Gabion Retaining Walls, supplied in rolls.

Part 3 Execution

3.1 EXAMINATION

- .1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for geotextile material installation in accordance with manufacturer's written instructions.
 - .1 Visually inspect substrate in presence of Consultant
 - .2 Inform Consultant of unacceptable conditions immediately upon discovery.

.3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Consultant.

3.2 INSTALLATION

- .1 Place geotextile material by unrolling onto graded surface in orientation, manner and locations indicated in shop drawings.
- .2 Place geotextile material smooth and free of tension stress, folds, wrinkles and creases.
- .3 Place geotextile material on sloping surfaces in one continuous length from toe of slope to upper extent of geotextile.
- .4 Overlap each successive strip of geotextile 600 mm over previously laid strip.
- .5 Pin successive strips of geotextile with securing pins at 500 mm interval at mid point of lap.
- .6 Protect installed geotextile material from displacement, damage or deterioration before, during and after placement of material layers.
- .7 After installation, cover with overlying layer within [4] hours of placement.
- .8 Replace damaged or deteriorated geotextile to approval of Consultant
- .9 Place and compact soil layers in accordance with Section 31 23 33.01 Excavating, Trenching and Backfilling.

3.3 CLEANING

- .1 Progress Cleaning:
 - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment.
- .3 Waste Management: separate waste materials for recycling in accordance with local best practices and to the acceptance of the City of Yorkton
 - .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

3.4 PROTECTION

.1 Vehicular traffic not permitted directly on geotextile.

1.1 RELATED REQUIREMENTS

- .1 Section 31 23 33.01 Excavating Trenching and Backfilling.
- .2 Section 31 32 19.01 Geotextiles

1.2 MEASUREMENT PROCEDURES

- .1 Measure gabions in cubic metres of stone filled baskets incorporated into Work.
- .2 Measure installation of gabions in cubic metres and include excavation and preparation of foundation bed, supply and installation of graded stone fill and supply and installation of backfill.

1.3 REFERENCES

- .1 American Society for Testing and Materials (ASTM)
 - .1 ASTM A313/A313M-[98], Standard Specification for Stainless Steel Spring Wire.
 - .2 ASTM A764-[95(2001)], Standard Specification for Metallic Coated Carbon Steel Wire, Coated at Size and Drawn to Size For Mechanical Springs.
- .2 Canadian Standards Association (CSA)
 - .1 CAN/CSA-G164-[M92(R1998)], Hot Dip Galvanizing of Irregularly Shaped Articles.

1.4 WASTE MANAGEMENT AND DISPOSAL

- .1 Place materials defined as hazardous or toxic in designated containers.
- .2 Fold up metal banding, flatten and place in designated area for recycling.
- .3 Divert left over metal materials to a local recycling facility as required by authorities having jurisdiction.
- .4 Divert left over geotextiles from landfill to a local plastic recycling facility as required by authorities having jurisdiction

1.5 SUBMITTALS

- .1 Product Data:
 - .1 Submit manufacturer's printed product literature, specifications and data sheet in accordance with Section 01 33 00 Submittal Procedures.
- .2 Shop Drawings
 - .1 Submit shop drawings in accordance with Section 01 33 00 Submittal Procedures.
 - .2 Indicate materials, wire thicknesses and sizing, welding or weaving details finishes, connections, joints, method of anchorage, number of anchors, supports, reinforcement, details, and accessories.

Part 2 Products

2.1 MATERIALS

- .1 Gabion baskets:
 - .1 Gabion Baskets to be Architectural Welded Wire.
 - .2 Factory fabricated so that sides, ends, lid and internal diaphragms can be readily assembled at site into rectangular baskets of sizes as indicated.
 - .3 Single unit construction or with joints having strength and flexibility equal to that of mesh.
 - .4 Provide diaphragms of same mesh as gabion walls, when length exceeds horizontal width. Diaphragms to divide basket into equal cells of length not to exceed horizontal width.
 - .5 Wire mesh gabions:
 - .1 Welded Wire mesh: uniform horizontal rectangular pattern wire with openings of approximately (and no greater than) 75 x 75 mm, may be rectangular or square openings.
 - .2 Wire to have following dimensions:
 - .1 Mesh: 6.6 mm diameter. (9 Gauge)
 - .2 Connectors: Use U Clips with pneumatic U-Clip Tool.
 - .3 Wire: T304 Stainless Steel
 - .4 Use U Clips with pneumatic U-Clip Tool.
- .2 Stone fill:
 - .1 Regionally sourced local rounded field stone with minor variations permitted.
 - .2 Hard, durable, abrasion resistant, capable of resisting degradation from action of wetting and drying, wave action, freezing and thawing cycles.
 - .3 Minimum 100 mm to maximum 200 mm dimension for individual stones.
- .3 Geotextile filter: in accordance with Section 31 32 19.01 Geotextiles.

Part 3 Execution

3.1 INSTALLATION

- .1 Provide one gabion basket mock up completed in situ for review and acceptance prior to building out.
- .2 Install gabions and geotextiles to lines and grades as indicated. Follow manufacturer's engineered design instructions in assembling baskets.
- .3 Excavate for and backfill behind gabions in accordance with Section 31 23 33.01 Excavating Trenching and Backfilling.
- .4 Coordinate and plan for signage and lighting strip installation during construction, including all electrical requirements to meet code requirements.

3.2 PLACING GABIONS

- .1 Wherever possible, place baskets in position prior to filling with stones.
- .2 Join adjacent baskets together at corners or as recommended by manufacturer, to ensure joints are as strong as mesh.

3.3 FILLING BASKETS

- .1 Tension geogrid gabions according to manufacturer's instructions before filling with stone. Do not release wall tension until sufficient stone fill has been placed to prevent wall slackening.
- On exposed faces of gabions, place stones by hand with flattest surfaces bearing against face mesh to produce satisfactory alignment and appearance.
- .3 For wire mesh gabions, fill gabion cells in lifts not to exceed 300 mm and connect opposite walls with minimum of three tie wires after each lift.
- .4 For geogrid gabions, fill cells in lifts not to exceed 300 mm and connect opposite walls with a minimum of three polyethylene braids after each lift.

1.1 RELATED SECTIONS

.1 Section 31 36 00 Gabion Retaining Wall

1.2 MEASUREMENT PROCEDURES

.1 The supply and installation of granular sub-base shall be incidental to the Work of completing the Gabion Retaining Wall. No separate measurement shall be made.

1.3 REFERENCES

- .1 American Society for Testing and Materials (ASTM)
 - .1 ASTM C117-[95], Standard Test Methods for Material Finer Than 0.075 mm Sieve in Mineral Aggregates by Washing.
 - .2 ASTM C131-[96], Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.
 - .3 ASTM C136-[96a], Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
 - .4 ASTM D422-[63(1998)], Standard Test Method for Particle-Size Analysis of Soils.
 - .5 ASTM D698-[00a], Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400ft-lbf/ft³) (600kN-m/m³).
 - .6 ASTM D1557-[00], Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000ft-lbf/ft³) (2,700kN-m/m³).
 - .7 ASTM D1883-[99], Standard Test Method for CBR (California Bearing Ratio) of Laboratory Compacted Soils.
 - .8 ASTM D4318-[00], Standard Test Methods for Liquid Limit, Plastic Limit and Plasticity Index of Soils.
- .2 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-8.1-[88], Sieves, Testing, Woven Wire, Inch Series.
 - .2 CAN/CGSB-8.2-[M88], Sieves, Testing, Woven Wire, Metric.

1.4 WASTE MANAGEMENT AND DISPOSAL

.1 Divert unused granular material from landfill to local facility as approved by Consultant.

Part 2 Products

2.1 MATERIALS

- .1 Granular sub-base material: Sub-Grade, Sub-Base and Base Course Construction and following requirements:
 - .1 Crushed, pit run or screened stone, gravel or sand.

.2 Gradations to be within limits specified when tested to ASTM C136 and ASTM C117. Sieve sizes to CAN/CGSB-8.1 and/or CAN/CGSB-8.2.

Part 3 Execution

3.1 PLACING

- .1 Place granular sub-base after sub grade is inspected and approved by Consultant.
- .2 Construct granular sub-base to depth and grade in areas indicated.
- .3 Ensure no frozen material is placed.
- .4 Place material only on clean unfrozen surface, free from snow or ice.
- .5 Begin spreading sub-base material on crown line or high side of one-way slope.
- .6 Place granular sub-base materials using methods which do not lead to segregation or degradation.
- .7 For spreading and shaping material, use spreader boxes having adjustable templates or screeds which will place material in uniform layers of required thickness.
- .8 Place material to full width in uniform layers not exceeding 150mm compacted thickness. Consultant may authorize thicker lifts (layers) if specified compaction can be achieved.
- .9 Shape each layer to smooth contour and compact to specified density before succeeding layer is placed.
- .10 Remove and replace portion of layer in which material has become segregated during spreading.

3.2 COMPACTION

- .1 Compaction equipment to be capable of obtaining required material densities.
- .2 Efficiency of equipment not specified to be proved at least as efficient as specified equipment at no extra cost and written approval must be received from Consultant before use.
- .3 Equipped with device that records hours of actual work, not motor running hours.
- .4 Compact to density of not less than 98% corrected maximum dry density in accordance with ASTM D698.
- .5 Shape and roll alternately to obtain smooth, even and uniformly compacted sub-base.
- .6 Apply water as necessary during compaction to obtain specified density.
- .7 In areas not accessible to rolling equipment, compact to specified density with mechanical tampers approved by Consultant.

.8 Correct surface irregularities by loosening and adding or removing material until surface is within specified tolerance.

3.3 PROOF ROLLING

- .1 Proof roll at level in sub-base as indicated. If non standard proof rolling equipment is approved, Consultant to determine level of proof rolling.
- .2 Make sufficient passes with proof roller to subject every point on surface to three separate passes of loaded tire.
- .3 Where proof rolling reveals areas of defective subgrade:
 - .1 Remove sub-base and subgrade material to depth and extent as directed by Consultant.
 - .2 Backfill excavated subgrade sub-base material and compact in accordance with this section.
 - .3 Replace sub-base material and compact.
- .4 Where proof rolling reveals areas of defective sub-base, remove and replace in accordance with this section at no extra cost.

3.4 SITE TOLERANCES

.1 Finished sub-base surface to be within 10mm of elevation as indicated but not uniformly high or low.

3.5 PROTECTION

.1 Maintain finished sub-base in condition conforming to this section until succeeding base is constructed, or until granular sub-base is accepted by Consultant.

1.1 REFERENCES

- .1 Agriculture and Agri-Food Canada.
 - .1 The Canadian System of Planting medium Classification, Third Edition, 1998.
- .2 Canadian Council of Ministers of the Environment.
 - .1 PN1340-2005, Guidelines for Compost Quality.
- .3 U.S. Environmental Protection Agency (EPA)/Office of Water.
 - .1 EPA 832R92005, Storm Water Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices

1.2 SUBMITTALS

.1 N/A

1.3 QUALITY ASSURANCE

.1 Construction meetings: conduct pre-installation meeting to verify project requirements, installation instructions and warranty requirements.

1.4 SOURCE QUALITY CONTROL

.1 It is assumed that only re-used topsoil will be managed through this project, if amendments are required (and as directed by the Consultant), a scope change will be considered.

1.5 WASTE MANAGEMENT AND DISPOSAL

- .1 Unused planting shall be removed from site and disposed of in a legal manner and as approved by the Departmental Representative.
- .2 Do not dispose of unused soil amendments into sewer systems, into lakes, streams, onto ground or in locations where it will pose health or environmental hazard.

Part 2 Products

2.1 AMENDED PLANTING MEDIUM FOR SEEDED AREAS

- .1 Soil for the amended planting medium shall be in-situ material as shown on the drawings.
- .2 Stripped soil shall contain no toxic elements or growth inhibiting materials and be free of:
 - .1 Debris and stones over 50mm diameter.
 - .2 Course vegetative material, 10 mm diameter and 100 mm length, occupying more than 2% of soil volume.
- .3 If required, amendments may include 100mm depth Peatmoss, in accordance with the following:
 - .1 Derived from partially decomposed species of Sphagnum Mosses.
 - .2 Elastic and homogeneous, brown in colour.
 - .3 Free of wood and deleterious material which could prohibit growth.
 - .4 Shredded particle minimum size: 5mm.
- .4 Amended soil shall not be placed until receiving written approval from the Consultant.

Part 3 Execution

3.1 TEMPORARY EROSION AND SEDIMENT CONTROL

- .1 Provide temporary erosion and sedimentation control measures to prevent erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to sediment and erosion control plan, specific to site.
- .2 If used for erosion control, all cover crops used on site shall be annual cereal crops Oats, Barley, and Winter Wheat.
- .3 Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent desired vegetation has been established.
- .4 Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal. Only non-biodegradable products shall be removed (metal pins, wood stakes, sten log, etc.)
- .5 Any annual crops used for the purposes of erosion control must be managed to prevent excessive seed volunteering which could interfere with the successful establishment of permanent perennial vegetation.

3.2 SOIL STRIPPING AND AMENDMENTS

- .1 Strip topsoil after existing vegetation has been cleared and removed from the site.
- .2 Strip all available topsoil, average depth of 150mm
- .3 Strip and handle soils only when moisture content will aid in limiting wind- blown erosion but still be friable enough for spreading.
- .4 Avoid mixing topsoil with subsoil.
- .5 Protect stockpiles from erosion, compaction and contamination from wind-blown seed.

- .6 Limit height of stockpiles to 1.5M.
- .7 Stockpiles remaining for more than 3 weeks shall be broadcast seeded with a cover crop.
- .8 Prior to the introduction of soil amendments, the contractor shall obtain samples for testing. No amendments shall be made until written approval to proceed is provided by the Departmental Representative.
- .9 The Contractor is responsible for supplying all material and equipment necessary for soil amendment. Amendment shall be done on-site, thoroughly mixed and screened to ensure a consistent and uniform product.
- .10 Disposal of unused planting medium is to be in an environmentally responsible manner but not used as landfill.

3.3 PREPARATION OF GRADE FOR PLANTING MEDIUM

- .1 Rough grading to levels, profiles, and contours shown on the drawings to be approved by Departmental Representative prior to any planting medium placement.
- .2 Prior to placing planting medium, the sub-grade must be fractured (where existing planting medium is present). The Contractor shall disc (fracture) the sub-grade on the seeded areas to a minimum depth of 200mm not exceeding 300mm in preparation for planting medium placement.
- .3 Cultivate entire area which is to receive planting medium to minimum depth of 150 mm. Cross cultivate those areas where equipment used for hauling and spreading has compacted planting medium
- .4 Prior to placement of planting medium, the Contractor shall fine grade the subplanting medium eliminating rough spots and low areas that are not part of the design and to ensure positive drainage
- .5 Verify that grades are correct. There shall be positive drainage to the existing catch basins. If discrepancies occur, notify Departmental Representative and do not commence work until instructed by Departmental Representative.

3.4 PLACING AND SPREADING OF PLANTING MEDIUM

- .1 The placed planting medium shall be incorporated with the fractured subgrade after placement and groomed or harrowed with suitable equipment. The Contractor shall fine-grade and loosen the planting medium, eliminating rough spots and low areas to ensure positive drainage.
- .2 Manually spread planting medium/planting medium around trees and obstacles.
- .3 The Contractor shall place, spread, and grade planting medium with adequate moisture in uniform layers over the approved, unfrozen sub-grade, where the specified grass planting is indicated.
- .4 To create the proper seed bed conditions, the Contractor shall harrow-pack or roll-pack the incorporated planting medium in order to consolidate the material and leave the surface smooth and firm to a level where a human footprint leaves less than a 15 mm impression.
- .5 The Contractor shall ensure that planting medium does not come in contact with new concrete pavement that is less than 2 weeks old.

Page 4

.6 Manually spread planting medium around trees shrubs and other obstacles to the minimum depth of 150 mm.

3.5 FINISH GRADING

- .1 Grade to eliminate rough spots and low areas and ensure positive drainage. Prepare loose friable bed by means of cultivation and subsequent raking.
- .2 Consolidate planting medium to required bulk density using equipment approved by Departmental Representative. Leave surfaces smooth, uniform and firm against deep foot printing.
- .3 Finished surface free from: Debris and stones over 25 mm diameter and Course vegetative material, 10 mm diameter and 100 mm length, occupying more than 2% of planting medium volume
- .4 The finished grading will be assessed and approved by the Departmental Representative.

3.6 ACCEPTANCE

.1 Contractor and Departmental Representative will inspect and test planting medium in place and determine acceptance of material, depth of planting medium and finish grading.

3.7 CLEANING

.1 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.

1.1 REFERENCES

- .1 Department of Justice
 - .1 Government of Canada, Pest Control Products Act, 2002, c. 28 (Consolidated Acts).
 - .2 Province of Manitoba, The Pesticides and Fertilizers Control Act (June 2012).

1.2 RELATED SECTIONS

- .1 Section 32 91 21 Planting Medium Placement and Finish Grading
- .2 Section 32 91 25 Native Grass Planting.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Make submittals in accordance with Section 01 33 00- Submittal Procedures.
- .2 Product Data:
 - .1 Provide manufacturer's installation instructions, including printed product literature, specifications and datasheet.
 - .2 Provide 2 copies of Workplace Hazardous Materials Information System (WHMIS) Material Safety Data Sheets (MSDS).
 - .1 WHMIS acceptable to Human Resources Development Canada Labour and Health Canada for herbicides and pesticides.
 - .2 Indicate Volatile Organic Compound (VOC) content.
 - .3 Provide copy of on-site stored products to local fire department.
 - .3 Quality Control Reports: within 7 days of work completion, provide to the Departmental Representative a written report containing following information:
 - .1 Full name and PCP Registration number of herbicide products used including adjuvants.
 - .2 Copies of provincial applicator's licence and pesticide project application permit.
 - .3 Copy of equipment log indicating spray calibration used during pesticide application.
- .3 Make submittals in accordance with Section 01 33 00 Submittal Procedures.
- .4 Product Data:
 - .1 Submit manufacturer's installation instructions, including printed product literature, specifications and datasheet.
 - .2 Submit 2 copies of Workplace Hazardous Materials Information System (WHMIS) Material Safety Data Sheets (MSDS).
 - .1 WHMIS acceptable to Human Resources Development Canada Labour and Health Canada for herbicides and pesticides.
 - .2 Indicate VOC content.
 - .3 Provide copy of on-site stored products to local fire department.
 - .3 Quality Control Reports: within 7 days of work completion, submit to the Departmental Representative a written report containing following information:

- .1 Full name and PCP Registration number of herbicide products used including adjuvants.
- .2 Copies of provincial applicator's license and pesticide project application permit.
- .3 Copy of equipment log indicating spray calibration used during pesticide application.

1.4 QUALITY ASSURANCE

- .1 Safety Requirements:
 - .1 Comply with label directions on the use of herbicide products.
 - .2 Worker protection:
 - .1 Comply with label directions as to ambient temperature ranges for application.
 - .2 Ensure workers wear gloves, respirators, protective clothing and[eye protection when applying pesticides.
 - .3 Ensure workers do not eat, drink or smoke while applying pesticides.
 - .3 Comply with applicable personnel safety standards for handling and use of pesticides.
- .2 Regulatory Requirements:
 - .1 Provincial Territorial Pesticide Certification Programs and local pesticide control regulations in which operation is to be carried out.
 - .2 Obtain permits and licenses necessary to complete work.

1.5 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and maintain packaged materials with manufacturer's seals and labels intact.
- .2 Provide storage facility with non-porous floor capable of preventing leaching of spilled pesticides.
 - .1 Locate storage above 1 year flood plains.
- .3 Prevent damage, adulteration and soiling of material during delivery, handling and storage.
- .4 Store material in accordance with label directions, including those on maximum and minimum storage temperatures.
- .5 Store herbicide products in original containers as supplied by manufacturer and keep sealed until used.
- .6 Store herbicide products in a sheltered, well ventilated and controlled access location, as accepted by the Departmental Representative.
- .7 Do not store herbicides near feeds and food stuffs, agricultural plants, seeds, fungicides, insecticides, fertilizers or other agricultural chemicals.
- .8 Identify storage area as pesticide storage facility for fire protection purposes.
- .9 Prominently post:
 - .1 List of medical and fire department telephone numbers.
 - .2 List of products stored and keep list up-to-date outside of storage location.

1.6 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate waste materials for reuse and recycling.
- .2 Rinse empty herbicide containers with diluent and add rinsate to spray mixture in tank.
- .3 Puncture and crush rinsed containers making them unsuitable for further use and dispose of material at an appropriate recycling drop point.
- .4 Crush containers and dispose of material at appropriate recycling facility.
- .5 Dispose of containers in accordance with provincial requirements.
- .6 Do not rinse or wash spray tanks and equipment on site.
- .7 Dispose of wash water from spray tanks and equipment in non-crop, non-graze area away from water sources including wells and ponds.
- .8 Dispose of unwanted or contaminated pesticides through appropriate environmental management facilities and in accordance with Pest Control Products Act.
- .9 Place materials defined as hazardous or toxic waste in designated containers. Ensure emptied containers are sealed and stored safely for disposal away from the general public.

Part 2 Products

2.1 MATERIALS

- .1 Herbicides:
 - .1 Herbicides shall be as per Section 32 91 25 Native Grass Planting.
 - .2 Herbicide products used must be currently registered in accordance with Pest Control Products Act.

2.2 EQUIPMENT

- .1 Tank Sprayer: do not use air-blast, mist or fog sprayer.
 - .1 Set pressure setting at minimal functional level to minimize spray drift.
 - .2 Provide with adjustable height boom, hose and handgun for spot treatments, strainers and nozzles to produce spray pattern compatible with job.
 - .3 Equip tank continuous agitation device.
 - .4 Ensure pressure gauge and regulator capable of maintaining uniform pressure as recommended by equipment manufacturer.
 - .5 Ensure equipment operated on turf has low pressure, wide profile turf tires.
- .2 Backpack handheld sprayer:
 - .1 With hose and handgun for spot treatment.
- .3 Dry formulation applicator:
 - .1 Drop or rotary type capable of calibration, as approved by Departmental Representative.
 - .2 Ensure equipment operated on turf has low pressure, wide profile turf tires.
 - .3 Registered for application of dry herbicides.

- .4 Equip with boom and nozzle system approved by Departmental Representative, calibrated and adjustable to specified application rates.
- .4 Equip spray tank loading pipe with check valve located within one metre of pump or hydrant to prevent siphoning from spray tank resulting in contamination of water source.

Part 3 Execution

3.1 NOTICE OF SPRAY OPERATION

- .1 Post areas to be treated with signs as required by agencies having authority and as approved by Departmental Representative.
- .2 Put signs in place prior to beginning of spray operation and retain in place for 48 hours after spray operation is completed.

3.2 ENVIRONMENTAL PROTECTION

- .1 Application may continue only when wind velocities range between 2 and 10 km/h.
- .2 Do not spray when air turbulence will prevent uniform application.
- .3 Do not apply herbicides or pesticides within 100 m of wells, rivers, streams, lakes, marshes or other environmentally sensitive areas unless otherwise sanctioned by provincial permit.
 - .1 Eliminate areas of steep grade from targeted areas as precipitation can facilitate leaching to non-targeted areas before degradation of the chemical has occurred.
- .4 In case of herbicide or pesticide spill, notify Departmental Representative and provincial Ministry of Environment verbally immediately and subsequently in writing.
 - .1 Minor spill: use dry soil or other absorbent materials to remove excess liquid and sweep up powders or granular material.
 - .2 Spread contaminated soils or sweepings over large area of bare soil to facilitate degradation.
 - .3 Dispose of paper, cardboard or paper packaging contaminated during spill as dictated by the provincial Ministry of the Environment.
- .5 Do not allow drifting beyond target area.
- .6 Do not apply sterilant to slopes greater than 3 to 1 where killing vegetation would lead to erosion problems.
- .7 Mix concentrate and water at least 50 m away from any water supply.

3.3 APPLICATION OF HERBICIDES

- .1 Application's instructions: comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and datasheet.
- .2 Treat areas with herbicides, as per Section 32 91 25 Native Grass Planting Integrated Weed Management Plan submittal.
- .3 Calibrate equipment to achieve specified application rates.
- .4 Confine herbicide application to areas indicated on drawings and as designated by Departmental Representative.

- .5 Space successive passes to provide uniform coverage of treated area.
- .6 Apply dry formulations uniformly using mechanical broadcasting device.
- .7 Ensure formulation and rate of sterilant will not lead to leaching outside treatment area.
- .8 Retreat areas inadequate herbicide efficacy.
- .9 Use appropriate buffer zones and berms to avoid surface contamination of wells, ponds and streams.

3.4 CLEANING

.1 On completion and verification of performance, remove surplus materials, excess materials, rubbish, tools and equipment.

1.1 EXPECTATIONS, COORDINATION, AND SCHEDULING

- .1 Please note that the requirements for undertaking the work contained herein is specific, intensive, and time sensitive. The work is three construction seasons in duration, including:
 - .1 2019 June through September
 - .2 2020 May through September
 - .3 2021 Establishment / Maintenance, and Warranty

1.2 RELATED SECTIONS

- .1 Section 31 23 33 Excavation, Trenching and Backfilling
- .2 Section 32 91 21 Planting Medium Placement and Finish Grading

1.3 SUBMITTALS

- .1 The Contractor is required to work with the consultant to provide the following:
 - .1 Detailed work schedule (Gantt Chart)
 - .2 Integrated weed management plan
 - .3 Erosion and sediment control plan
 - .4 Herbicide applicator's license
 - .5 Monthly written report of plant material condition during establishment period
- .2 The following templates for submittals 1.2.1.2-.3. are attached to this specification for information.
- .3 Submittals 1.2.1.1-.3 are required within ten (10) working days of award of contract.

1.4 SUBMITTAL TEMPLATES (FOR INFORMATION ONLY)

.1 Integrated Weed Management Plan Submittal Template (example)

Item	Description	Comment
1.	Describe General Site Conditions (include inventory of existing vegetation and weeds if possible, site map if relevant)	
2	Describe Site Weed Control Objective(s) as it relates to support successful establishment of native grass seed establishment	
3.	Integrated Weed Management Strategy a) General approach	

	b) Treatment options
	c) Proposed Timing (detailed Gantt Chart)
4	Additional Information (add sheets a necessary)

.2 Erosion and Sediment Control Submittal Template (example)

Item	Description	Comment
1.	Describe General Site Conditions (describe site relief and general drainage, include site sketch)	
2	Describe adjacent areas and features (including adjacent receiving water ways)	
3.	Describe Soils and existing cover (as it relates to erodibility)	
4	Critical Areas (refer to site sketch as needed)	
5	Erosion control strategy a) General Approach	
	b) Erosion Control Measures (ECMs)	
	c) Proposed Timing	

.3 Monthly written report of plant material condition during establishment period (example)

1	Date:			
2	Stage of planting :			
3 Describe site works performed:				
4	Condition of planted material (groundcover(s), trees, shrubs):			
5	Anticipated next steps:			
6	Describe any deviation from approved detailed schedule and what is being done to rectify/correct the issue:			

1.5 HANDLING AND STORAGE OF MATERIALS

.1 The Contractor shall be responsible for the supply, safe storage and handling of all materials set forth in this Specification. All materials shall be subject to inspection and testing by the Departmental Representative. There shall be no charge for materials taken by the Departmental Representative for inspection and testing purposes.

1.6 TIMING

.1 Native seeding shall be completed between May 20 and June 15 unless otherwise specified by The Consultant.

1.7 PAYMENT

- .1 Payment for native grass planting will be performed on a square metre basis upon the completion of native seed in the ground.
- .2 Commissioning and maintenance of Native Grass Planting will be paid annually upon the successful completion of the activities as designed within the approved maintenance plan.

1.8 HANDLING AND STORAGE OF MATERIALS

.1 The Contractor shall be responsible for the supply, safe storage and handling of all materials set forth in this Specification. All materials shall be subject to inspection and testing by the Departmental Representative. There shall be no charge for materials taken by the Departmental Representative for inspection and testing purposes.

Part 2 Materials

2.1 EROSION CONTROL

- .1 Common oat seed to be used in cover crop seeding.
- .2 Erosion control blanket shall be made of 100% coconut fibre with double photodegradable netting, or approved alternative.

.3 Straw wattles shall be Stenlog or other biodegradable straw wattles.

2.2 PLANTING MEDIUM

.1 Topsoil Planting Medium for Native Grass Areas to be prepared and supplied as per Section 39 91 21 - Planting Medium Placement and Finish Grading.

2.3 NATIVE GRASS SEED

- .1 "Canada pedigreed grade" in accordance with Government of Canada Seeds Act and Regulations.
- .2 Seed mixes will consist of pre-mixed, grass-based native seed mixes with a forb seed component.
- .3 Seed mixes will be developed on a pure live seed per M2 basis.
- .4 No seed shall be ordered until given written permission to do so by the Departmental Representative.
- .5 The Contractor will order seed mixes (2 mixes to be designed based on local availability and timing), as designed by the Consultant for planting in the Spring of 2022:

SHORT GRASS SEED MIX - SAMPLE

SPECIES SPECIES	Latin	Ecovar/ Cultivar ²	Pure Live Seed (PLS) Pounds / acre ³	
Blue grama	Bouteloua gracilis	TBD	2.00	
Buffalograss	Bouteloua dactyloides Festuca rubra subsp.	TBD	0.70	
Chewings fescue	commutata	TBD	0.20	
Creeping red fescue	Festuca rubra	TBD	0.30	
Hard fescue	Festuca trachyphylla	TBD	0.30	
June grass	Koeleria gracilis	TBD	0.40	
Little blue stem	Schizachyrium scoparium	TBD	1.50	
Nodding brome	Bromus anomalous	TBD	0.50	
Purple prairie clover	Dalea purpurea	TBD	0.20	
Rough hairgrass	Agrostis scabra	TBD	0.20	
side-oats grama	Bouteloua curtipendula	TBD	1.50	
Western wheatgrass	Pascopyrum smithii	TBD	0.10	

7.90

DITCH BOTTOM SEED MIX - SAMPLE

SPECIES	Latin	Ecovar/ Cultivar ²	Pure Live Seed (PLS) Pounds / acre ³
Canada wild rye	Elymus canadensis	TBD	0.40
Fowl bluegrass	Poa palustris	TBD	0.80
Rough hairgrass	Agrostis scabra	TBD	0.20

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	Slender wheatgrass	Elymus trachycaulus	TBD	0.40
	American sloughgrass	Beckmannia syzigachne	TBD	1.50
	Switch grass	Panicum virgatum	TBD	1.00
	Tall manna	Glyceria striata	TBD	1.70
	Western wheatgrass	Pascopyrum smithii	TBD	0.80

6.80

- .6 Storage for seed shall be in cool dry location. The Contractor shall provide secure, weather and rodent proof storage for the seed prior to planting.
- .7 Any seed lost or damaged while stored shall be replaced by The Contractor at no cost to the Owner.

2.4 CALCULATING SEED REQUIRMENTS

- .1 The seeding rate shown in the seed mix table 2.2.5 are for drill seeding, only. The amount shown should be doubled for areas the Contractor expects to have to broadcast seed.
- .2 The Contractor is responsible for determining the amount of seed required at time of bid submission. No additional costs will be considered unless seeding rates and /or mixes are adjusted by the Departmental Representative.

Part 3 Execution

3.1 GROWTH MEDIA PREPARATION – SUBSOIL / SUBGRADE AND TOPSOIL

- .1 The subsoil shall be graded in accordance with Specifications, the Construction Drawings.
- .2 Shall be prepared as per specification Section 39 91 21 Planting Medium Placement and Finish Grading and as per Drawings.

3.2 SEED BED PREPARATION

- .1 The Contractor shall fine grade site to eliminate rough spots, ruts, rills, or other similar low areas to ensure positive drainage and to facilitate consistent seed placement and seeding rate during planting.
- .2 The soil surface shall be rolled or harrow/packed in order to consolidate soil material and leave the surface smooth, firm and level to the satisfaction of the Departmental Representative.
- All seeded areas are to be free of woody debris and rocks. The Departmental Representative shall advise the contractor of any debris clean-up requirements.

3.3 EROSION CONTROL

A cover crop shall be seeded during the pre-native planting site preparation year (2019) to minimize the exposure of prepared topsoil to erosion. Weed control activities during

this period must take into account the management of the cover crop (i.e. timing and type of treatment).

- .1 Common oats to be seeded immediately after seedbed preparation or at the discretion of the Departmental Representative.
- Seeding of the cover crop can follow either of the seeding methods described in Section 3.6.1 3.6.3.
- .3 The common oat cover crop will be seeded at a rate of 40-50lbs/acre, or at the direction of the Departmental Representative.
- .4 Erosion control crop must be managed to prevent excessive build-up of plant stock which could interfere with native grass seeding.
- .5 Rutting or damage caused during management of the cover crop shall be repaired at the Contractor's cost to the satisfaction of the Departmental Representative.
- .2 The Contractor shall evaluate the project site for potential soil erosion risks during the life of The Project and take appropriate measures to ensure soils are not eroded.
- .3 If soil erosion occurs, bringing fine grading of the site out of line with clause 3.02, the Contractor shall repair the fine grading to the approval of the Departmental Representative at the expense of the Contractor.
- .4 Repair work shall occur immediately upon notification of the Contractor and may require any or all methods of construction described in specification Section 32 91 21 Planting Medium Placement and Grading.

3.4 WEED CONTROL

- .1 Further to section 32 91 23 Chemical Control of Vegetation, weed control shall be undertaken across the site to facilitate native grass seedling establishment.
 - .1 Up to three (3) weed control treatments per year shall be undertaken in 2019, 2020, and 2021.
 - .2 Treatments may include chemical control, mowing/bagging, or a combination of these.
- .2 Anticipated weed control treatments (including method, timing, products, and rates) shall be outlined in the Contractor's Integrated Weed Management Plan and Erosion and Sediment Control Plan.
 - .1 Specific weed control prescriptions shall be submitted by the Contractor for review by The Departmental Representative one (1) week prior to scheduled weed control work.
 - .2 Any herbicide application shall be done by a licenced herbicide applicator with experience in weed control in native revegetation projects.
- .3 Herbicide is to be applied in accordance with the manufacturer's instructions and the Manitoba Agriculture Guide to Crop Protection and Herbicide Recommendations for Landscape Applicators, latest editions.
 - .1 Glyphosate cannot be used on seeded areas at any time following seeding of native grass cover.
 - .2 The Contractor shall not apply any herbicide in areas seeded to native grass cover prior to native seedlings reaching the 2-3 leaf stage. Determination of 2-3 leaf stage shall be by the Departmental Representative.

- .3 Herbicide application techniques must eliminate spray drift to protect adjacent non-target plantings or adjacent habitat and property.
- .4 The Contractor shall undertake all reasonable and permissible means of restricting seedrain of invasive or otherwise problematic weed species from areas immediately adjacent The Project for the duration of the project.

3.5 SEEDING

- .1 Prior to seeding permanent native grass cover, the seeding area shall be free of weeds listed in the Saskatchewan Noxious Weed Act as well as weedy perennial species that may not be listed as noxious weeds but which will become invasive within the planting over time, including but not limited to, quackgrass, smooth brome and sweet clover.
- .2 Annual weeds including green and yellow foxtail (*Setaria* spp.) and barnyard grass (*Echinochloa crus galli*), if present, shall be controlled to within levels that will not compromise short term or long term native grass stand establishment. Post native grass planting control of these species, and species with similar tendencies in native plantings, shall be at the direction of the Consultant.
- .3 Where feasible, grass will be mechanically seeded using a Truax seed drill. Broadcast seeding or seeding with a Brillion seeder are acceptable seeding methods when seeding with a Truax drill is not feasible. All seeding methods require the same seedbed conditions and post-plant maintenance outlined in the specifications.
- .4 Contour seeding must be employed to discourage down slope erosion on sloped areas.
- .5 Following seeding, The Contractor shall return to the Consultant the shipment tags from each bag of seed planted on site.

3.6 SEEDING METHODS

- .1 Drill Seeding
 - Drill shall be undertaken using a Truax, two or three box native seed drill with seed box agitators, on-row packers and depth bands, capable of uniformly applying the specified mixes to a depth of 5.0-12.0mm (0.25" 0.5").
 - .2 A 1.8-2.4m (6.0-8.0) three point hitch-mounted Truax native seed drill is preferred. Alternatively a low ground pressure configuration capable of delivering native seed consistently at the proper rate and depth as per seeding specifications may be acceptable, pending Departmental Representative approval.
 - .3 The Truax seed drill must be capable of being equipped with trash plows to prevent light debris from interfering with seed placement during native drill seeding.
 - .4 The Consultant shall supply drill seeding rates and the rate shall be provided on a bulk seeds per 1/10 m² (approximately / ft²) basis.

.2 Brillion Seeding

- .1 Permitted only in areas that are inaccessible to Truax drill seeding equipment.
- .2 Brillion seeding must be accomplished using a Brillion Ag Seeder or Brillion Landscape Seeder with a Double Roller set-up capable of placing seed uniformly at a depth of 5.0-12.0mm (0.25" 0.5").

- .3 Brillion seeding equipment must be fitted with Seed Box agitators capable of keeping the seed mix evenly blended throughout seeding operations to ensure seed of variable weights and dimensions are dispersed evenly.
- .4 The Consultant shall supply Brillion seeding rates and the rate shall be provided on a bulk seeds per 1/10 m² (approximately / ft²) basis.
- .3 Harrow-Broadcast-Harrow Seeding
 - .1 Permitted only in areas that are inaccessible to all mechanical seeding equipment.
 - .2 Broadcast seeding is preceded by one or more harrow passes and is then followed by a second harrow pass once seed has been broadcasted at the specified rate.
 - .3 An industrial fertilizer applicator may be used for broadcast seeding to facilitate consistency of seed flow. A manual broadcast seeder may be used for small areas requiring manual seeding. Seed mix must be suitably agitated within the seeder/spreader to ensure seed of variable weights and dimensions are dispersed evenly.
 - .4 The Consultant shall supply Harrow-Broadcast-Harrow seeding rates and the rate shall be provided on a bulk seeds per 1/10 m² (approximately / ft²) basis.

3.7 ACCEPTANCE

- .1 A minimum of 6-8 grass seedlings with permanent roots (4-leaf stage) have been documented per 1/10 square meter, by the end of the first growing season.
- .2 Seeded areas are free of rutted, eroded, bare or dead spots.
- .3 All seeded areas shall be free of all broadleaf weeds at the time of final site inspection, one calendar year following native grass seeding.

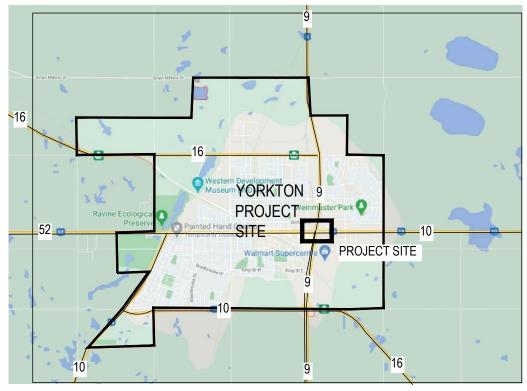
3.8 WARRANTY

- .1 Plant material damaged by vandalism or reasons beyond the control of the Contractor shall be replaced by the client.
- .2 End-of-Warranty inspection will be conducted by the Consultant one (1) calendar year after final acceptance (during active growing season).

END OF SECTION

ISSUED FOR TENDER MAY 5, 2021

YORKTON STREETSCAPE PHASE ONE: Broadway and Hwy 9



CITY OF YORKTON PROJECT SITE

LANDSCAPE ARCHITECTURAL DRAWINGS:

- TITLE SHEET
- SITE REMOVALS AND PREPARATION
- GENERAL ARRANGEMENT
- SOUTH WEST CORNER SITE PLAN
- SOUTH WEST CORNER SECTIONS AND ELEVATIONS
- SOUTH EAST CORNER SITE PLAN
- SOUTH EAST CORNER SECTIONS AND ELEVATIONS
- **DETAILS**
- SEPARATE PRICE ITEMS DETAILED LAYOUTS & DETAILS

CITY OF YORKTON: MINIMUM SETBACK REQUIREMENTS FOR TREES, PLANTS AND STRUCTURES TYPE OF UTILITY SETBACK

- OVERHEAD UTILITY LINES 3.0 METRES
- STREET LIGHT POWER AND TRAFFIC CONTROL LINES 3.0 METRES
- SIDEWALK AND PATHWAYS 1.0 METRES
- LOCAL ROAD CURB FACES, ACCESS DRIVEWAYS 1.5 METRES - BURIED POWER LINES, OVERHEAD POWER LINES AND UTILITY
- PEDESTALS 3.0 METRES (AS PER SASKPOWER)
- TELEPHONE, GAS DISTRIBUTION LINES AND CABLE LINES 2.0 METRES - ARTERIAL AND COLLECTOR ROAD CURB FACES 2.0 METRES
- FIBRE OPTIC LINES, ELECTRICAL TRANSFORMERS 3.0 METRES - WATER AND SEWER MAINS 3.0 METRES
- STREET LIGHTS AND TRAFFIC LIGHTS 3.0 METRES
- STREET CORNERS 7.0 METRES TRAFFIC SIGNS (FRONT FACING) 7.0 METRES
- NOTE: ALL UNDERGROUND UTILÍTIES WITHIN 5.0 METRES OF A PROPOSED PLANTING SITE OR STRUCTURE MUST BE LOCATED

AND FLAGGED.





- I. ALL EXISTING STRUCTURES, TREES, SHRUBS, SIDEWALKS, CURBS, SOD, UTILITIES AND PAVING TO BE PROTECTED (UNLESS OTHERWISE NOTED) DURING CONSTRUCTION TO CITY OF YORKTON STANDARDS. CONTRACTOR TO MAKE GOOD ALL DAMAGED AREA DURING CONSTRUCTION BOTH ON AND OFF SITE TO CITY OF YORKTON STANDARDS AT THE CONTRACTORS
- 2. ALL NOTES IN GREY INDICATE WORK TO BE COMPLETED BY
- OTHERS UNDER SEPARATE CONTRACT. 3. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

4. CONTRACTOR TO CONFIRM ALL EXISTING GRADES, BUILDING

LOCATIONS, LAYOUT, DIMENSIONS AND MATERIALS ON SITE AND REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION. 5. EXISTING GRADE TO BE MAINTAINED AT ALL PROPERTY LINES,

UTILITIES, CITY SIDEWALKS AND TREES, UNLESS NOTED

- 6. ALL GRADING TO BE APPROVED BY LANDSCAPE ARCHITECT
- PRIOR TO ANY CONSTRUCTION. 7. ALL PROPOSED ELEVATIONS TO BE FINISHED ELEVATIONS. 8. ENSURE POSITIVE DRAINAGE IN ALL AREAS TO CATCH BASINS
- AND CURB INLETS 9. ENSURE POSITIVE DRAINAGE AWAY FROM EXISTING BUILDINGS
- FOUNDATION AND ANY SEATING AREA. 10. CROWN ON ALL PATHS CROSS SLOPE TO ENSURE POSITIVE 11. SLOPE TOLERANCE:
- PAVED AREA SLOPES: MAXIMUM 5%, MINIMUM 1%; MAXIMUM CROSS SLOPE 1.5% - SODDED AREA SLOPES: MAXIMUM 25%, MINIMUM 1%
- ANY DEVIATION FROM THE ABOVE SLOPES TO BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION
- 12.REFER ALSO TO WRITTEN SPECIFICATIONS.

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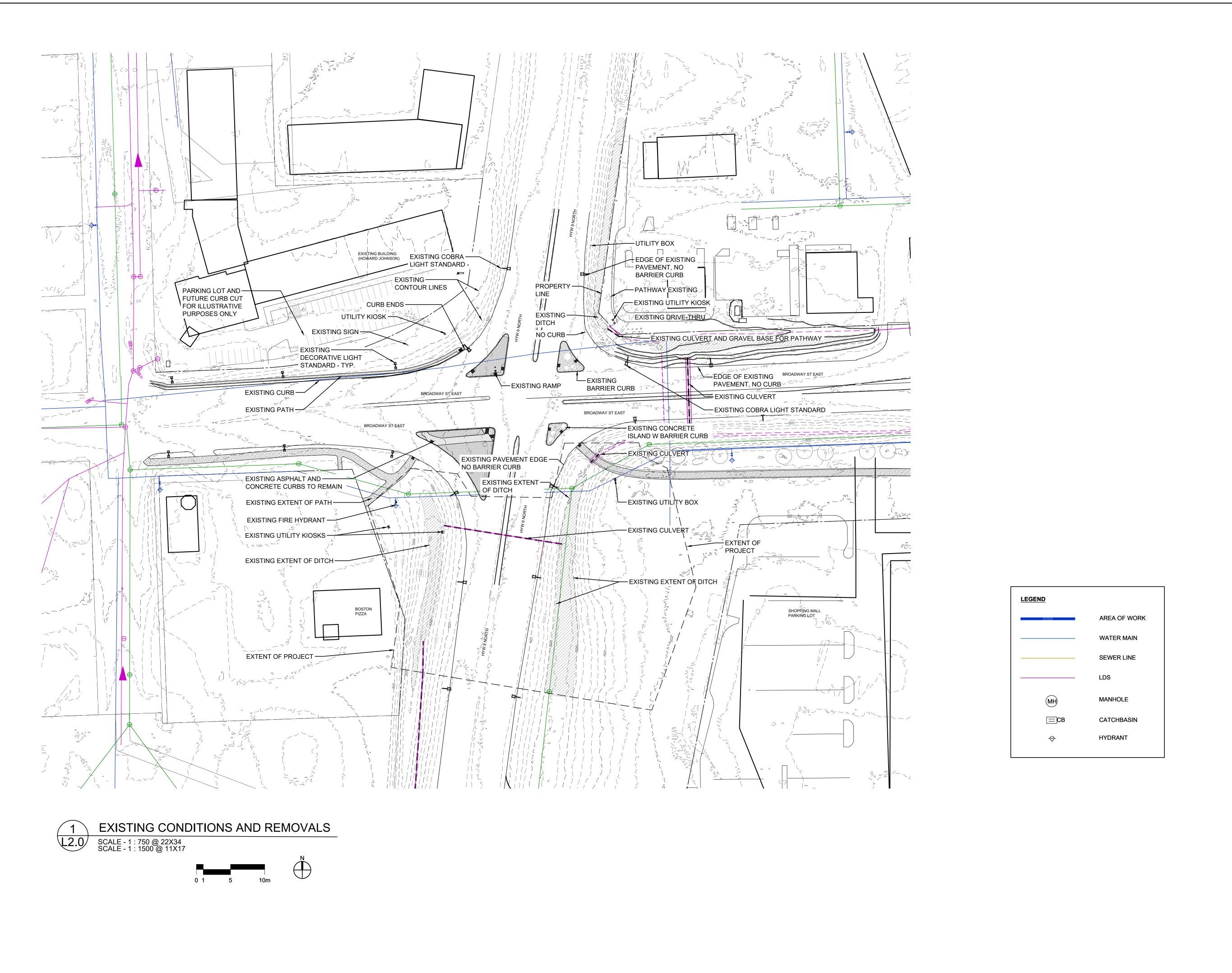
visionary urban design + landscapes

CITY OF YORKTON

PROJECT YORKTON BROADWAY **AND HWY 9 GATEWAY**

TITLE PAGE

CHECKED	APPROVED BS	JOB NO. 21-1147-001	DRAWING NO.
DESIGN SMM	DRAWN KTK/IT	DATE - Y / M / D 2021/05/05	N.T.S.



NOTES:

- ALL EXISTING STRUCTURES, TREES, SHRUBS, SIDEWALKS, CURBS, SOD, UTILITIES AND PAVING TO BE PROTECTED (UNLESS OTHERWISE NOTED) DURING CONSTRUCTION TO CITY OF YORKTON STANDARDS. CONTRACTOR TO MAKE GOOD ALL DAMAGED AREA DURING CONSTRUCTION BOTH ON AND OFF SITE TO CITY OF YORKTON STANDARDS AT THE CONTRACTORS COSTS.
- 2. CONSTRUCTION ACCESS TO BE LIMITED TO THE ROUTES IDENTIFIED AT THE CONSTRUCTION START UP MEETING OR OTHERWISE NOTED.
- CONTRACTOR TO LAYOUT EXTENTS OF EXCAVATION WITH LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION
- 4. IF POWER EQUIPMENT IS TO BE USED FOR EXCAVATION ON THIS PROJECT THE CONTRACTOR MUST:

 A) NOTIFY ALL UTILITIES OF THE PROPOSED LOCATION OF EXCAVATION
 B) TAKE PRECAUTION TO AVOID DAMAGE TO ALL UTILITIES.
- 5. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES
- BEFORE PROCEEDING WITH CONSTRUCTION

 CONTRACTOR TO CONFIRM ALL EXISTING CONDITIONS,
 DIMENSIONS AND MATERIALS ON SITE AND REPORT ANY

DISCREPANCIES TO THE LANDSCAPE ARCHITECT PRIOR TO

7. REFER ALSO TO WRITTEN SPECIFICATIONS

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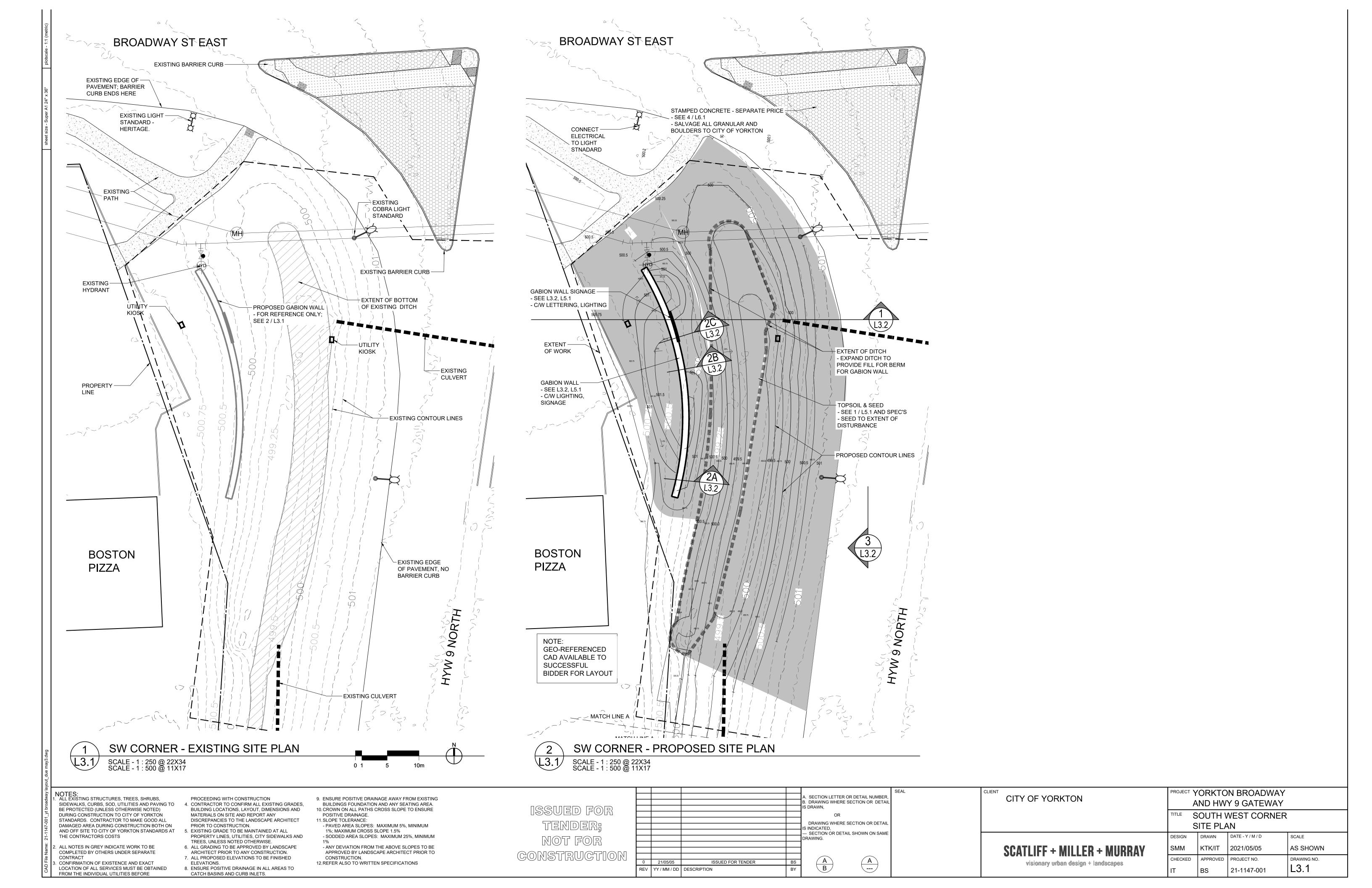
CITY OF YORKTON

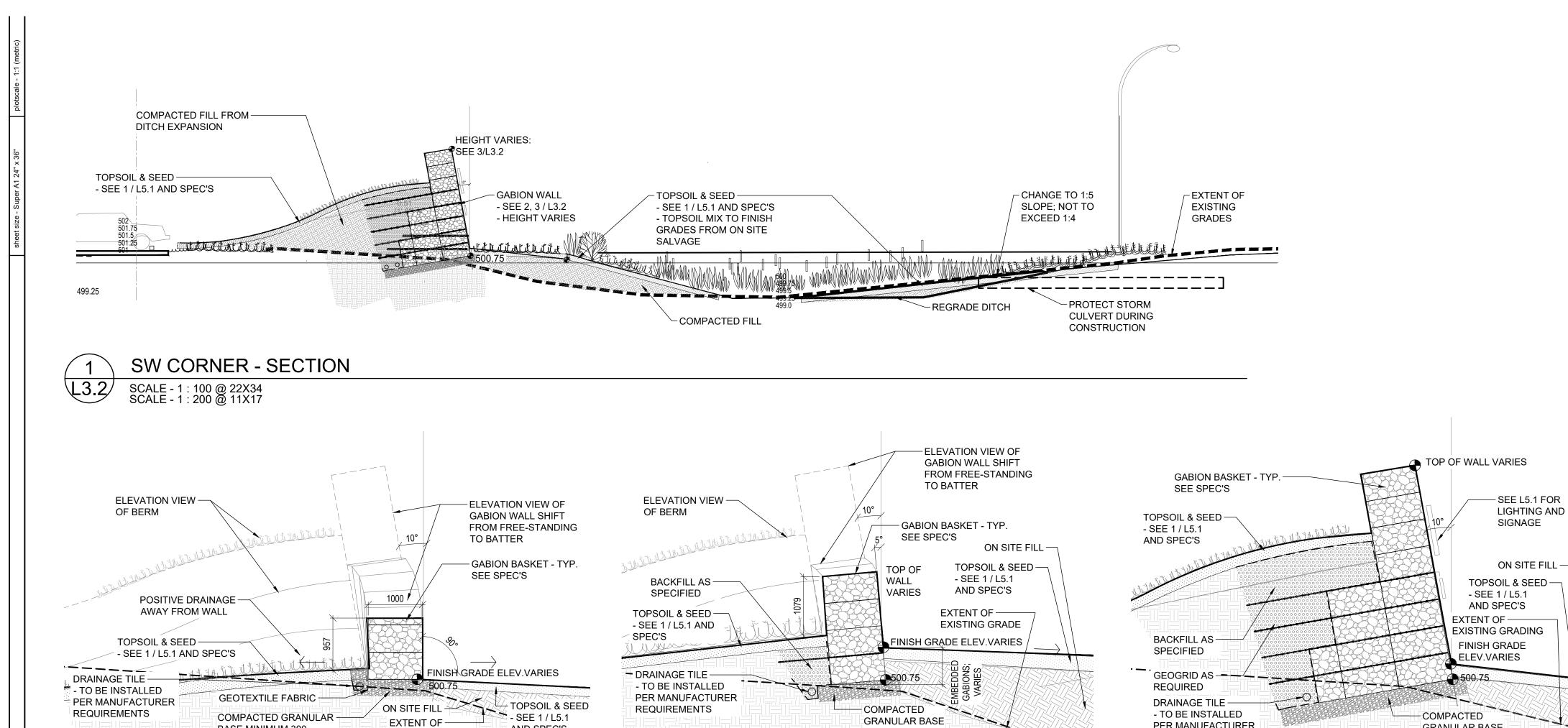
YORKTON BROADWAY
AND HWY 9 GATEWAY

EXISTING AND REMOVALS

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- GABION WALL SHOP DRAWINGS TO BE STAMPED W/ ENGINEER SEAL; PROVIDE TO C.A. FOR REVIEW AND ACCEPTANCE - OPTION TO CONSTRUCT INTERNAL FRAMEWORK TO SUPPORT GABION BASKETS; C/W STEEL VERTICAL AND HORIZONTAL SUPPORTS AND PILES AT INTERVALS PER GABION MANUFACTURER REQUIREMENTS. PROVIDE SHOP DRAWINGS W/ ENGINEER SEAL AND PROVIDE TO C.A. FOR REVIEW AND ACCEPTANCE

FACE AND WALL BATTER

- SMOOTH FRONT FACE - BATTER TO BE 6 - 10 DEGREES, CONSTRUCTED TO SUIT

- ARCHITECTURAL WIRE BASKET PER SPECIFICATIONS, INCLUDING BINDERS - STAGGER TO ENSURE VERTICAL SIDES OF GABIONS ARE NOT ALIGNED; SEE 2 / L5.1. BIND PER MANUFACTURER

REQUIREMENTS INCLUDING LAYERED AND ADJACENT BASKETS

GRANULAR FILL 4 - 8" FIELD STONE PER SPECIFICATIONS

- GRADED SOIL OR BASE LAYER OF ½ - ¾" GRANULAR FILL COMPACTED TO MIN. 150MM DEPTH; BUILD TO SUIT CONDITIONS - EMBED GABION BASKETS BELOW FINISH GRADE AS REQUIRED TO ENSURE STRUCTURAL STABILITY; FOLLOW MANUFACTURER REQUIREMENTS

GEOTEXTILE FILTER FABRIC - FABRIC TO SUIT BACKFILL MATERIAL; GABION MANUFACTURER TO SPECIFY REQUIRED WEIGHT, WEAVE, MATERIAL, ETC.

- INSTALL AT INTERVALS AND LIFTS PER MANUFACTURER REQUIREMENTS

GRANULAR BASE

MINIMUM 300

- SPECIFY FREE-DRAINING MATERIAL PER GABION MANUFACTURER REQUIREMENTS; CONFIRM W/ C.A. PRIOR TO

- INSTALL BETWEEN BACKFILL MATERIAL AND GABION BASKETS; SECURE PER MANUFACTURER REQUIREMENTS

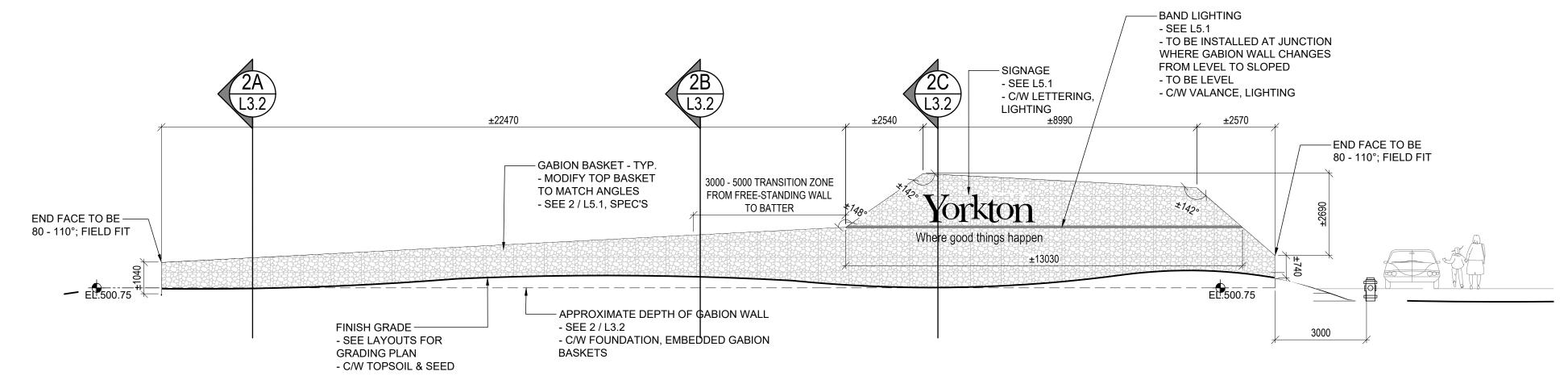
- QUANTITY TO BE DETERMINED BY GABION MANUFACTURER, INCLUDING REQUIRED WIDTHS, DEPTHS, AND ANGLE - PLACE AND COMPACT TO MIN. STANDARD PROCTER DENSITY 95% IN VERTICAL LIFTS PER GABION MANUFACTURER

- ENSURE TOP OF BACKFILL IS READY TO ACCEPT 18" TOPSOIL FOR LATER LANDSCAPING WORKS

SW CORNER - DETAIL SECTIONS

BASE MINIMUM 300

SCALE - 1 : 100 @ 22X34 SCALE - 1 : 200 @ 11X17



SW GABION WALL ELEVATION (FLATTENED)

NOTES	ALL EVICTING CERLICITIES EDEEC CURING	
NOTES. T	ALL EXISTING STRUCTURES, TREES, SHRUBS,	4
	SIDEWALKS, CURBS, SOD, UTILITIES AND PAVING TO	
	BE PROTECTED (UNLESS OTHERWISE NOTED)	
	DURING CONSTRUCTION TO CITY OF YORKTON	
	STANDARDS. CONTRACTOR TO MAKE GOOD ALL	
	DAMAGED AREA DURING CONSTRUCTION BOTH ON	5
	AND OFF SITE TO CITY OF YORKTON STANDARDS AT	
	THE CONTRACTORS COSTS.	
2	ALL NOTES IN CREVINDICATE WORK TO BE	6

COMPLETED BY OTHERS UNDER SEPARATE

LOCATION OF ALL SERVICES MUST BE OBTAINED

3. CONFIRMATION OF EXISTENCE AND EXACT

FROM THE INDIVIDUAL UTILITIES BEFORE

PROCEEDING WITH CONSTRUCTION

CONTRACT

4. CONTRACTOR TO CONFIRM ALL EXISTING GRADES, MATERIALS ON SITE AND REPORT ANY PRIOR TO CONSTRUCTION. 5. EXISTING GRADE TO BE MAINTAINED AT ALL TREES. UNLESS NOTED OTHERWISE 2. ALL NOTES IN GREY INDICATE WORK TO BE

BUILDING LOCATIONS, LAYOUT, DIMENSIONS AND DISCREPANCIES TO THE LANDSCAPE ARCHITECT PROPERTY LINES, UTILITIES, CITY SIDEWALKS AND 6. ALL GRADING TO BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO ANY CONSTRUCTION. 7. ALL PROPOSED ELEVATIONS TO BE FINISHED ELEVATIONS.

8. ENSURE POSITIVE DRAINAGE IN ALL AREAS TO

9. ENSURE POSITIVE DRAINAGE AWAY FROM EXISTING

CATCH BASINS AND CURB INLETS.

BUILDINGS FOUNDATION AND ANY SEATING AREA. 10. CROWN ON ALL PATHS CROSS SLOPE TO ENSURE POSITIVE DRAINAGE. 11. SLOPE TOLERANCE: - PAVED AREA SLOPES: MAXIMUM 5%, MINIMUM 1%; MAXIMUM CROSS SLOPE 1.5% - SODDED AREA SLOPES: MAXIMUM 25%, MINIMUM - ANY DEVIATION FROM THE ABOVE SLOPES TO BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION. 12.REFER ALSO TO WRITTEN SPECIFICATIONS

AND SPEC'S

EXISTING GRADE

ISSUED FOR

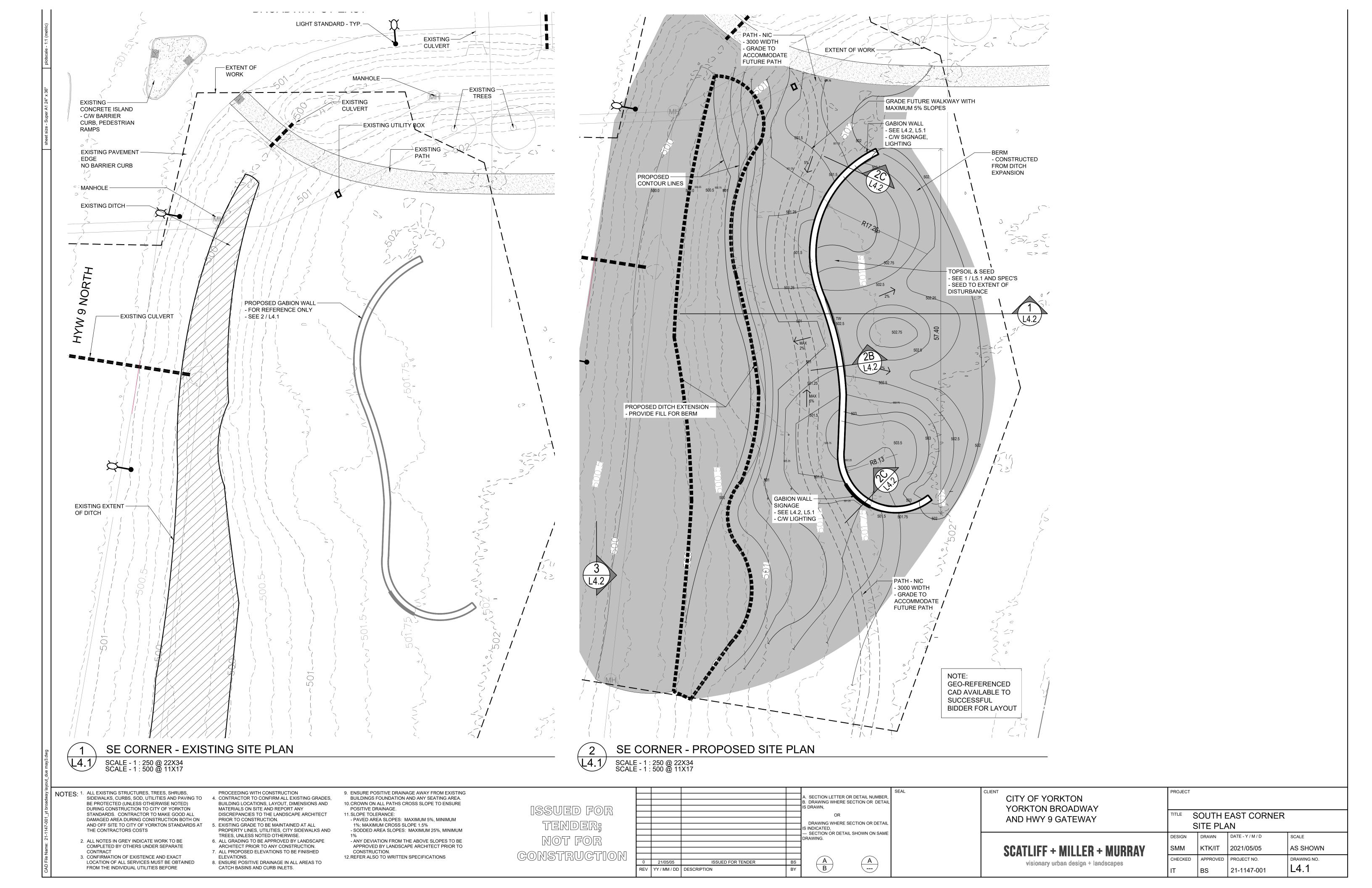
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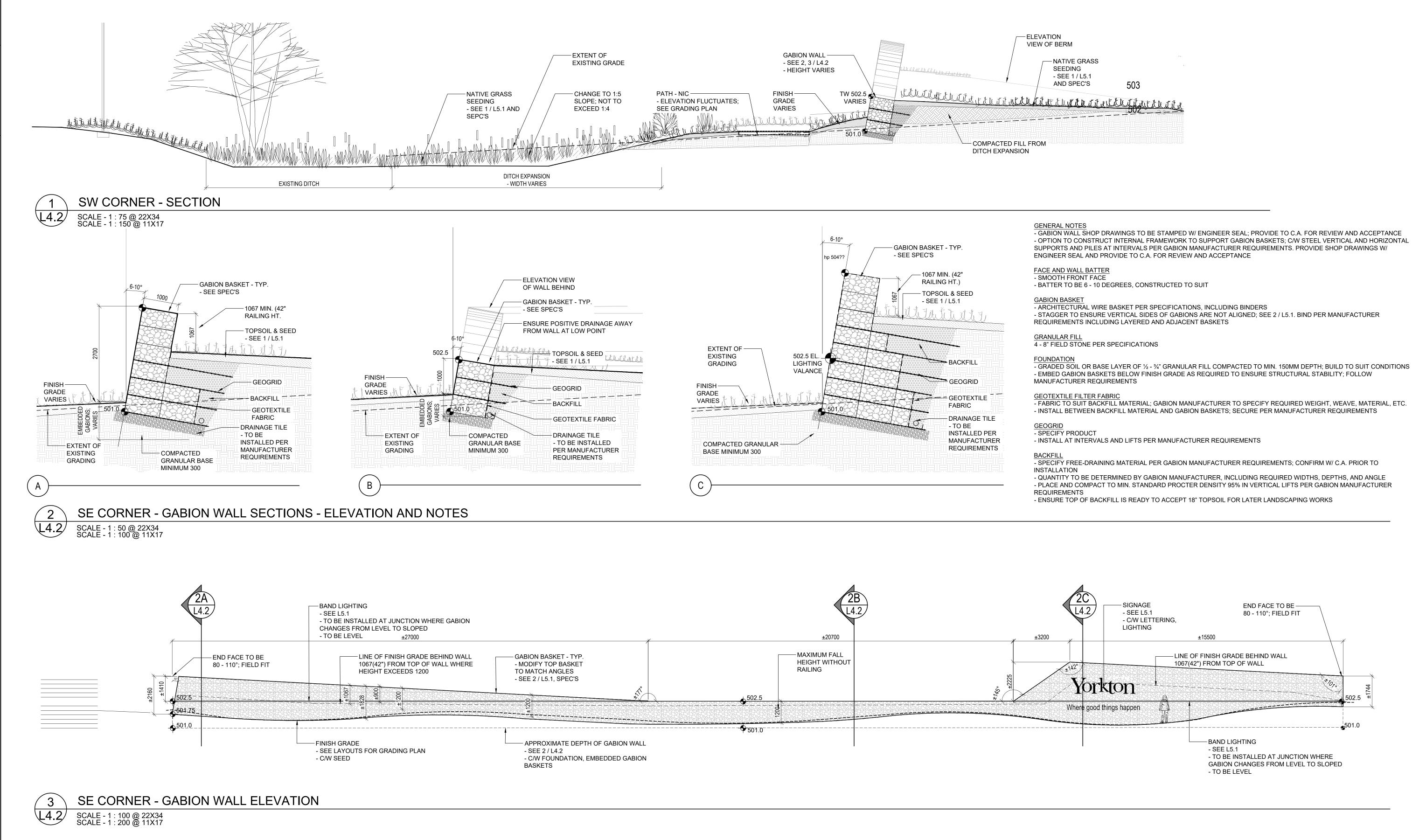
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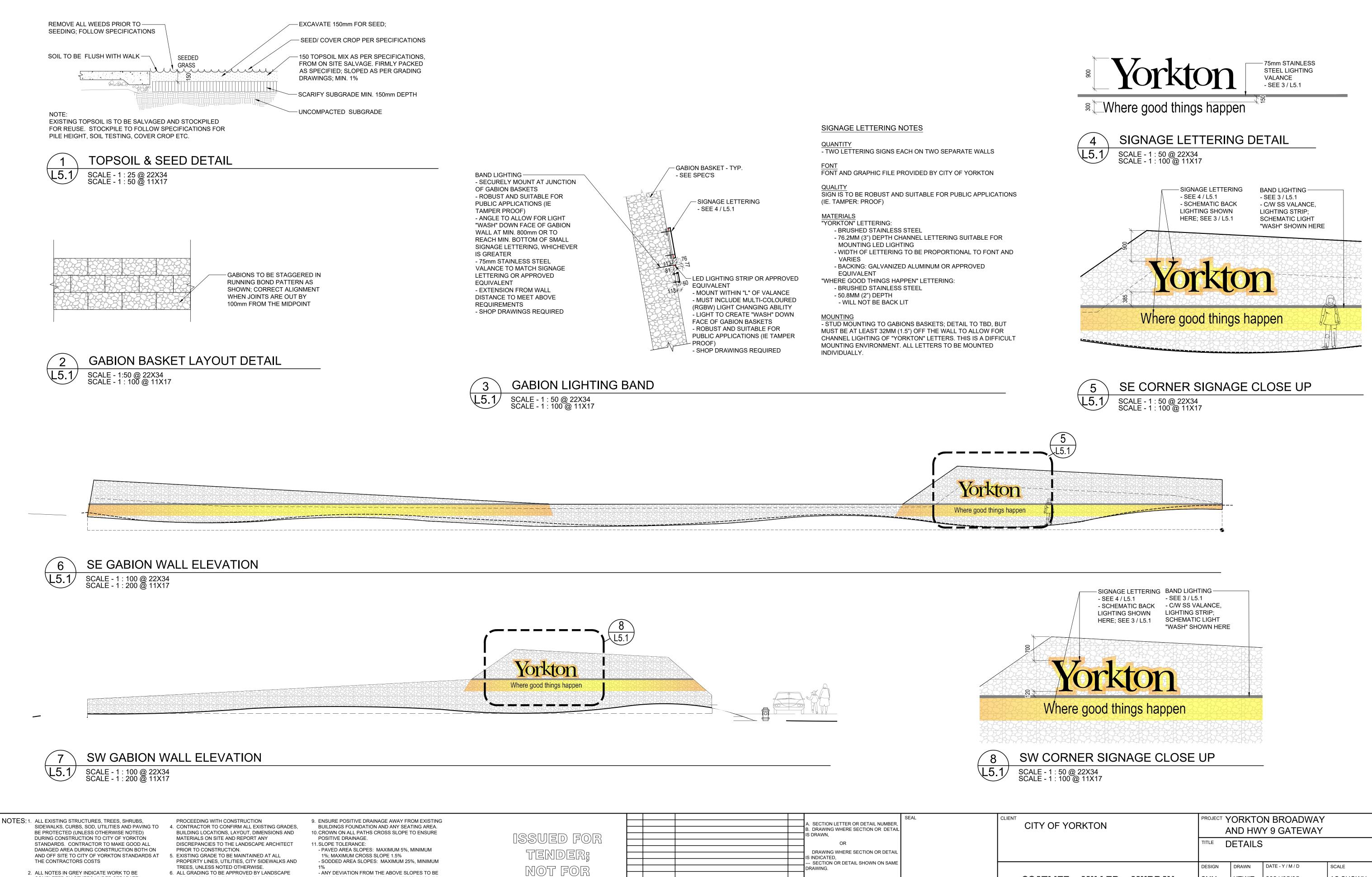
REQUIREMENTS

	CITY OF YORKTON	PROJECT YORKTON BROADWAY AND HWY 9 GATEWAY			
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	visionary urban design + landscapes		BS	21-1147-001	L3.2





PROJECT YORKTON BROADWAY NOTES: . SECTION LETTER OR DETAIL NUMBER CITY OF YORKTON **AND HWY 9 GATEWAY** . DRAWING WHERE SECTION OR DETAIL ISSUED FOR S DRAWN, SOUTH EAST CORNER TENDER; DRAWING WHERE SECTION OR DETAIL SECTIONS AND ELEVATIONS IS INDICATED, -- SECTION OR DETAIL SHOWN ON SAME NOT FOR DESIGN DRAWING. **SCATLIFF + MILLER + MURRAY AS SHOWN** SMM KTK/IT 2021/05/05 CONSTRUCTION AB CHECKED APPROVED | PROJECT NO. DRAWING NO. ISSUED FOR TENDER visionary urban design + landscapes L4.2 REV YY/MM/DD DESCRIPTION 21-1147-001



COMPLETED BY OTHERS UNDER SEPARATE 3. CONFIRMATION OF EXISTENCE AND EXACT

LOCATION OF ALL SERVICES MUST BE OBTAINED

FROM THE INDIVIDUAL UTILITIES BEFORE

ARCHITECT PRIOR TO ANY CONSTRUCTION.

7. ALL PROPOSED ELEVATIONS TO BE FINISHED

ELEVATIONS. 8. ENSURE POSITIVE DRAINAGE IN ALL AREAS TO CATCH BASINS AND CURB INLETS.

APPROVED BY LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION. 12.REFER ALSO TO WRITTEN SPECIFICATIONS

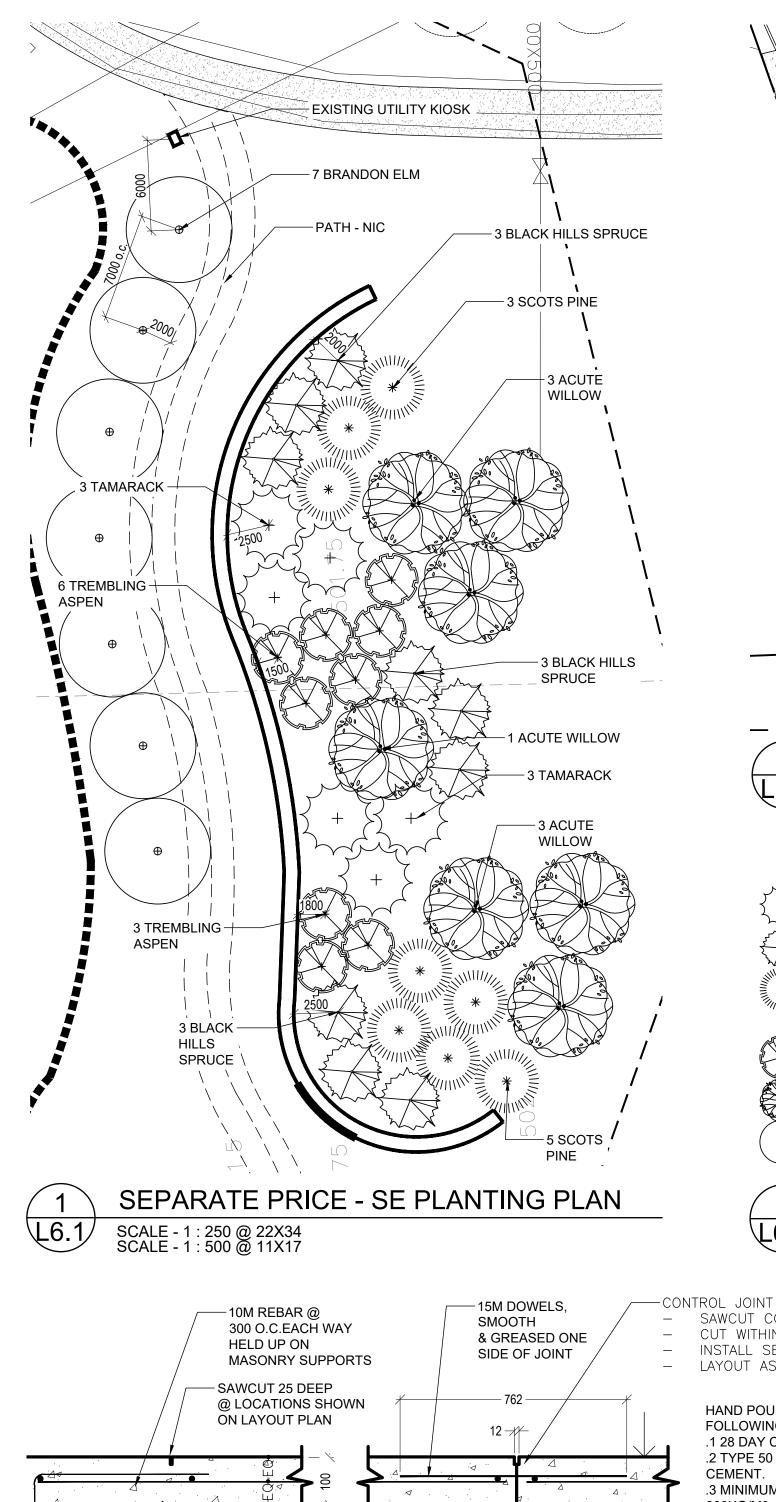
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SCATLIFF + MILLER + MURRAY

AS SHOWN SMM KTK/IT 2021/05/05 CHECKED APPROVED | PROJECT NO. DRAWING NO. L5.1 21-1147-001

 $\begin{pmatrix} A \\ B \end{pmatrix}$

visionary urban design + landscapes



- 3 SCOTS PINE - 3 BLACK HILLS SPRUCE SEPARATE PRICE - SW PLANTING PLAN SCALE - 1 : 250 @ 22X34 SCALE - 1 : 500 @ 11X17

SEE PLANS FOR LOCATION OF TREES - DECIDUOUS TREE; WITH DOMINANT LEADER WHERE APPLICABLE; eg.linden 1. LAYOUT OF PLANT MATERIAL TO BE APPROVED BY C.M. PRIOR TO INSTALLATION. TREE SET PLUMB 2. PIT TO BE DUG WITH BACKHOE NOT TREE SPADE. - TREE TIE: 25MM WIDE MIN. ARBOUR CLOTH; ROOT FLARE TO BE VISIBLE. ALLOW SOME FLEXIBILITY 4. IF ROOT FLARE IS NOT VISIBLE PROBE TOP OF BALL WITH SLENDER SKEWER WITHIN 100MM OF - SEPARATE PRICE: METAL "T" STAKE 1500-1800 TRUNK AND DETERMINE IF MAJOR ROOTS ARE ON **TWO** SIDES AND GUYING STRAP (WHERE PRESENT IN THE TOP 25-75MM OF SOIL, REMOVE REQUIRED); CITY DOES NOT REQUIRE STAKES EXCESS SOIL ON TOP OF ROOTBALL UNTIL ROOT BUT STAKES MAY BE REQUIRED FOR WIND FLARE SPEC IS ACHIEVED. ASH, APPLE, POPLAR AND LINDEN MUST HAVE ROOTS WITHIN TOP -RODENT PROTECTION 16 GAUGE, 5. CONTRACTOR TO ENSURE 'T'-BARS DO NOT GALVANIZED 50MM X 50MM STUCCO WIRE PENETRATE ROOT BALL. WRAP SECTION OF MESH AROUND TREE AND . SECURE 'T'-BARS TO TREE @ APPROX. 2/3 TOTAL SECURE WITH 300 LONG 100 BENT HOOK TREE HEIGHT ABOVE FIN. GRADE. REBAR ANCHORS. SEE CITY DETAIL LP10 FOR . STAKES,TIES AND TAGS TO BE REMOVED BY FULL DESCRIPTION. CONTRACTOR AT END OF WARRANTY PERIOD AND UPON ACCEPTANCE BY C.M. -100-75MM (SETTLED) DEPTH WOOD CHIP ENSURE TREES WATERED SAME DAY AS PLANTED MULCH. MULCH MUST NOT CONTACT TREE 9 REMOVE SOIL SAUCER AT END OF WARRANTY TRUNK - PULL BACK 100MM. DO NOT PLACE MULCH OVER ROOT BALL ON IRRIGATED SITES; 10.TREES TO BE TAGGED WITH CITY OF REGINA ID DO PLACE MULCH ON PIT TO CONTROL WEEDS. TAG. TAGS TO BE LOCATED ON SOUTH SIDE OF TREE ON LATERAL BRANCH, 1.5M FROM GROUND (CONTACT CITY OF REGINA TO OBTAIN TAGS) -FORM 100MM HIGH WATER DISH USING SOIL; 1. REMOVE SOIL SAUCER AT END OF WARRANTY FOR ESTABLISHMENT YEAR ONLY: CONTRACTOR TO REMOVE AFTER WARRANTY PERIOD un-irrigated - CONDITIONS VARY D Prince P A DO NOT PLANT ROOT BALL TOO LOW; -25MM ABOVE GRADE FOR SMALL - SCARIFY SIDES OF TREE PIT TO THE DEPTH OF TREES, 25-50MM FOR 50-100MM CALIPER TREES; DO NOT PLACE SOIL 1 SHOVEL BLADE OR 150-200 OVER ROOT BALL EXCEPT FOR GRADUAL TAPER TO EDGES OF PIT AFTER PLACEMENT; CUT & REMOVE BURLAP FROM THE TOP 2/3 OF ROOTBALL. REMOVE ALL TWINE. IF SET ROOT BALL ON UNDISTURBED TREE PIT IF NOT IN SHRUB BED THERE IS A WIRE BASKET CUT THE TOP RING OF SUBGRADE OR CREATE AND EACH TREE REQUIRES THE BASKET OR ROLL BACK TOP ONE THIRD AND COMPACT MOUND TO SUPPORT 7.5 CUBIC M. OF SOIL; CUT THE SECOND RING IN THREE OR FOUR PLACES ROOTBALL IF HOLE IS TOO DEEP. PIT = 4000 diam X 600mm ENSURING NO WIRE IS PRESENT IN TOP 200-300MM. (not drawn to scale) DON'T LEAVE

SEPARATE PRICE: DECIDUOUS TREE PLANTING DETAIL

SCALE - 1 : 25 @ 22X34 SCALE - 1 : 50 @ 11X17

QTY. COMMON NAME **BOTANICAL NAME** SIZE AND REMARKS (shown are minimum specifications) SPACING CONIFEROUS TREES 6 TAMARACK 2.4m ht., 900mm Base Width, Min. 900mm wide Root Ball, Single Upright Leader, Well Larix laricina Branched, Full Form 360° to grade. Machine Dug. Root Flare to be Visible. BLACK HILLS SPRUCE Picea glauca 'Densata' 2.4m ht., 900mm Base Width, Min. 900mm wide Root Ball, Single Upright Leader, Well Branched, Full Form 360° to grade. Machine Dug. Root Flare to be Visible. SCOTS PINE 2.4m ht., 900mm Base Width, Min. 900mm wide Root Ball, Single Upright Leader, Well Pinus sylvestris Branched, Full Form 360° to grade. Machine Dug. Root Flare to be Visible. DECIDUOUS TREES TREMBLING ASPEN Populus tremuloides 35mm Caliper, 2.4 - 3.0m ht., Min. 600mm Ø Rootball, Well Branched and Balanced, Min. 10 | 3.5m Major Branches. Wire Basket Machine Dug. Root Flare to be Visible. ACUTE WILLOW Salix acutifolia 50mm Caliper, 3.5 - 4.0m ht., 11 Major Branches in Well Formed Head 2.0m Above Grade. 7.0m Straight Trunk. Wire Basket Machine Dug. Root Flare to be Visible. **BRANDON ELM** 60mm Caliper, 3.5 - 4.0m ht., 11 Major Branches in Well Formed Head 2.0m Above Grade. 7.0m Ulmus americana 'Brandon' Straight Trunk. Wire Basket Machine Dug. Root Flare to be Visible.

<u>L6.1</u>

SEPARATE PRICE: PLANT SCHEDULE

CONCRETE WALK

SAWCUT CONTROL JOINT MIN.30MM DEEP CUT WITHIN 24 HOURS OF CASTING SLAB, - INSTALL SEALANT AFTER 28 DAYS. - LAYOUT AS INDICATED ON LAYOUT PLAN

> HAND POURED CONCRETE SHALL MEET THE FOLLOWING REQUIREMENTS: .1 28 DAY COMPRESSIVE STRENGTH OF 32 MPA. .2 TYPE 50 SULPHATE RESISTANT PORTLAND 3 MINIMUM CEMENTITIOUS CONTENT =

300KG/M3. .4 MAX NOMINAL SIZE OF COARSE AGGREGATE OF 20 MM. .5 SLUMP OF 70±20 MM.

.6 TOTAL AIR CONTENT OF 5-7 %. .7 MAX WATER TO CEMENT RATIO OF 0.45.

CITY OF YORKTON TO SUPPLY STAMP. COLOUR TO BE INTEGRAL TO CITY OF YORKTON SPECIFICATIONS; PROVIDE 3 COLOURS FOR TOP LAYER. EXACT LAYOUT TO BE DETERMINED. MUST HAVE A COEFFICIENT OF FRICTION THAT IS ACCEPTABLE TO CITY OF YORKTON STANDARDS FOR SIDEWALKS.

SINGLE LEADER. PRUNE ONLY BROKEN, DISEASED, OR DEAD BRANCHES. DO NOT PRUNE LEADER TREE PLANTING AS PER DECIDUOUS TREE PLANTING DETAIL RODENT PROTECTION 16 GAUGE, GALVANIZED 50MM X 50MM STUCCO WIRE. WRAP SECTION OF MESH AROUND TREE AND SECURE WITH 300 LONG 100 BENT HOOK REBAR ANCHORS. SEE CITY OF REGINA DETAIL LP10 FOR FULL DESCRIPTION. -FINISHED GRADE, CONDITION VARIES TREE PIT IF NOT IN SHRUB BED: EACH TREE REQUIRES 7.5 CUBIC M. OF SOIL;

SEPARATE PRICE: CONIFEROUS TREE PROTECTION

ISSUED FOR TENDER

SCALE - 1 : 25 @ 22X34 SCALE - 1 : 50 @ 11X17

PIT = 4000 diam X 600mm (not drawn to scale)



SEPARATE PRICE: TREE PLANTING ON SLOPE

SCALE - 1 : 25 @ 22X34 SCALE - 1 : 50 @ 11X17

A. SECTION LETTER OR DETAIL NUMBER, ISSUED FOR S DRAWN, TENDER; IS INDICATED. DRAWING. AB

REV YY/MM/DD DESCRIPTION

SCATLIFF + MILLER + MURRAY

PROJECT YORKTON BROADWAY CITY OF YORKTON AND HWY 9 GATEWAY SEPARATE PRICE ITEMS DETAILED LAYOUTS AND DETAILS DESIGN SMM KTK/IT 2021/05/05 AS SHOWN CHECKED APPROVED | PROJECT NO. DRAWING NO. visionary urban design + landscapes

A ROWN TO WARRY THE WARRANT TO WA TREE PIT: IF NOT IN SHRUB BED: EACH TREE REQUIRES 7.5 CUBIC M. OF SOIL: PIT = 4000 diam X 600mm

– METAL "T" STAKE ON TWO SIDES AND ARBORTIE $^{@}$ (WHERE REQUIRED, ADJUST LOCATION WITH PREVAILING WINDS)

-RODENT PROTECTION : SEE CONIFEROUS TREE DETAIL

TREE TO BE SET PLUMB IN CENTRE OF TREE PIT AND RAISED SO THAT SLOPE SHOULD PASS THROUGH TREE TRUNK BASE. ENSURE ROOT FLARE IS SLIGHTLY ABOVE FINISH GRADE OF SOIL. REMOVE EXCESS SOIL FROM TOP OF BALL. DO NOT COVER THE TOP OF THE ROOT BALL WITH SOIL -100mm DEPTH WOOD CHIP MULCH. MULCH RING: MIN.

1500mm DIA. MULCH MUST NOT BE PLACED WITHIN 75mm (3") OF TREE TRUNK. DO NOT PILE MULCH UP AGAINST TRUNK

- CUT WIRE BASKET, BEND BACK TOP LOOPS AND REMOVE BURLAP FROM TOP 1/3 OF ROOT BALL. REMOVE ALL POTS, TWINE AND NON BIODEGRADABLE MATERIAL

- ROUND-TOPPED TOPSOIL MIX BERM WATERING DISH 100mm HT. x 200mm WIDE SHALL BE CENTERED ON THE DOWNHILL SIDE OF THE ROOT BALL FOR 240°. BERM SHALL BEGIN AT ROOT BALL PERIPHERY

-PLANTING PIT OR PLANTING TRENCH AS PER PLANS C/W TAMPED TOPSOIL MIX TO MEET SPECIFICATIONS. PRIOR TO MULCHING, LIGHTLY TAMP SOIL AROUND THE ROOT BALL IN 150mm LIFTS TO BRACE TREE. DO NOT OVER COMPACT. WHEN THE PLANTING TRENCH HAS BEEN BACKFILLED, POUR WATER AROUND THE ROOT BALL TO SETTLE THE SOIL

- ONLY ON SLOPE MORE THAN 4H:1V

 ADD 225mm (9") DIA. STRAW WATTLE, PLACED ON SUBGRADE, CENTERED ON DOWNHILL SIDE OF BERM WATERING DISH FOR 180°, STAKED IN 4 PLACES

-FINISHED GRADE OF SEED

- SCARIFY SIDES OF PIT TO 150mm DEPTH

- COMPACTED SUBGRADE AS PER ENGINEER DWG.

SEPARATE PRICE - STAMPED COLOURED CONCRETE DETAIL <u>L6.1</u>

SCALE - 1 : 10 @ 22X34 SCALE - 1 : 20 @ 11X17 NOTES: 1. ALL EXISTING STRUCTURES, TREES, SHRUBS, SIDEWALKS, CURBS, SOD, UTILITIES AND PAVING TO

BE PROTECTED (UNLESS OTHERWISE NOTED) DURING CONSTRUCTION TO CITY OF YORKTON STANDARDS. CONTRACTOR TO MAKE GOOD ALL DAMAGED AREA DURING CONSTRUCTION BOTH ON AND OFF SITE TO CITY OF YORKTON STANDARDS AT THE CONTRACTORS COSTS. 2. CONFIRMATION OF EXISTENCE AND EXACT

MATERIALS ON SITE AND REPORT ANY

LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION 3. CONTRACTOR TO CONFIRM ALL EXISTING GRADES, BUILDING LOCATIONS, LAYOUT, DIMENSIONS AND

DISCREPANCIES TO THE LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION. 4. EXISTING GRADE TO BE MAINTAINED AT ALL

COMPACTED GRANULAR BASE

COMPACTED SUBGRADE

300 DEPTH

PROPERTY LINES, UTILITIES, CITY SIDEWALKS AND TREES. UNLESS NOTED OTHERWISE 5. ALL GRADING TO BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO ANY CONSTRUCTION.

BUILDINGS FOUNDATION AND ANY SEATING AREA.

9. CROWN ON ALL PATHS CROSS SLOPE TO ENSURE

ELEVATIONS. 7. ENSURE POSITIVE DRAINAGE IN ALL AREAS TO CATCH BASINS AND CURB INLETS. 8. ENSURE POSITIVE DRAINAGE AWAY FROM EXISTING

POSITIVE DRAINAGE.

1%; MAXIMUM CROSS SLOPE 1.5% - SODDED AREA SLOPES: MAXIMUM 25%, MINIMUM - ANY DEVIATION FROM THE ABOVE SLOPES TO BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO 6. ALL PROPOSED ELEVATIONS TO BE FINISHED

- PAVED AREA SLOPES: MAXIMUM 5%, MINIMUM

10. SLOPE TOLERANCE:

11.REFER ALSO TO WRITTEN SPECIFICATIONS

 DRAWING WHERE SECTION OR DETAIL DRAWING WHERE SECTION OR DETAIL -- SECTION OR DETAIL SHOWN ON SAME

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