

**SAINT JOHN PORT AUTHORITY  
TENDER DOCUMENTS**

**FOR**

**RODNEY TERMINAL REPAIRS - 2023**

**AT**

**PORT OF SAINT JOHN  
SAINT JOHN, NEW BRUNSWICK**

SAINT JOHN, N. B.  
May 17, 2023

**SAINT JOHN PORT AUTHORITY**  
**TENDER DOCUMENTS**  
**FOR**  
**RODNEY TERMINAL REPAIRS - 2023**

---

**INDEX**

<b>Section</b>	<b>Description</b>	<b>Pages</b>
1	INSTRUCTIONS TO TENDERERS	5
2	TENDER FORM	4
3	RODNEY TERMINAL REPAIRS - 2023 CONTRACT CCDC 18-2001	35
4	SUPPLEMENTARY CONTRACT CONDITIONS FOR RODNEY TERMINAL REPAIRS - 2023	10
5	TECHNICAL SPECIFICATION	17
6	DRAWINGS	4

**LIST OF DRAWINGS**  
**RODNEY TERMINAL REPAIRS - 2023**

<b>S01</b>	<b>Repair Location Plan</b>
<b>S02</b>	<b>Pile and Deck Repair Details</b>
<b>S03</b>	<b>Panel Repair Type 4 Details</b>
<b>S04</b>	<b>Existing Photos</b>

**OTHER INFORMATION**

## SECTION 1 - INSTRUCTIONS TO TENDERERS

### 1.1 Tendering Procedures

- (1) A prospective tenderer is expected to examine all instructions, forms, terms, specifications and other information in the Tender Documents. Failure to furnish all information required by the Tender Documents or submission of a bid not substantially responsive to the Tender Documents in every respect will be at a prospective tenderer's risk and may result in the rejection of its tender by the Authority, at its sole discretion.
- (2) A prospective tenderer requiring any clarification of the Tender Documents may notify Philippe Arseneau, Project Manager, Saint John Port Authority, in writing, via telephone (506) 645-9006, or email at [parseneau@sjport.com](mailto:parseneau@sjport.com) not less than four days prior to the deadline for submission of tenders. If a prospective tenderer feels that any important provision in the Tender Documents is unacceptable, such an issue should be raised at this stage in writing, or by email not less than four days prior to the deadline for submission of tenders to the Authority. The Authority will respond in writing to any request for clarification or modification of the Tender Documents that it receives, not later than two days prior to the deadline for submission of tenders. Written copies of the Authority's response (including an explanation of the query but not the identification of its source) will be sent to all prospective tenderers that have received the Tender Documents.
- (3) At any time prior to the deadline for submission of a tender the Authority may, for any reason, whether at its own initiative, or in response to a clarification requested by a prospective tenderer, issue an addendum to the Tender Documents.
- (4) Any addendum(a) will be sent in writing or by facsimile to all prospective tenderers that have obtained the Tender Documents and will be binding on them. Prospective tenderers are required to immediately acknowledge receipt of any such addendum, and it will be assumed that the information contained therein will have been taken into account by the prospective tenderer in its tender.
- (5) In order to afford a prospective tenderer reasonable time in which to take the addendum(a) into account in preparing its tender, the Authority may, at its discretion, extend the deadline for the submission of tenders, in which case, the Authority will notify all prospective tenderers that have obtained the Tender Documents, in writing, by facsimile, or by email of the extended deadline.
- (6) The Authority will not be liable to any prospective tenderer for any claims, whether for costs, damages incurred by any prospective tenderer in preparing its tender, loss of anticipated profit in connection with the Contract, or any other matter relating to a tender.
- (7) The Authority, for any reason, may extend the deadline for the submission of tenders, in which case, the Authority will notify all prospective tenderers that have obtained the Tender Documents in writing, by facsimile, or by

email of the extended deadline.

## 1.2 Qualifications

- (1) It is expressly agreed by every prospective tenderer that no contract arises upon the submission of a tender.
- (2) The Authority reserves the right and power to reject tenders received from parties who cannot show a reasonable acquaintance with, and preparation for the proper performance of the Work. Evidence of such competency must be furnished by any prospective tenderer if requested to do so by the Authority.
- (3) A tender may be rejected if it is illegible, incomplete, conditional, obscure or contains unnecessary additions, erasures, alterations or irregularities.
- (4) The Authority may, at its sole discretion, waive any informality or irregularity.
- (5) The Authority specifically retains the right not to award any tender if the tender submissions are beyond the prices estimated for the tender, by the Authority.
- (6) The Authority reserves the right to not reject tenders which include minor discrepancies by any tenderer.
- (7) No consideration shall be given to any tender based on any alternative to the Work as shown and described in the Tender Documents.
- (8) The Authority reserves the right:
  - (a) to accept or reject any tender;
  - (b) not to bind itself to accept the lowest tender that complies with the terms contained in the Tender Documents;
  - (c) to cancel the tender process and reject all tenders at any time prior to award of the Contract without thereby incurring any liability to the affected tenderers or any obligation to inform the affected tenderers of the grounds for the Authority's action;
  - (d) to accept a tender that may not strictly conform with the terms contained in the Tender Documents;
  - (e) to negotiate with the successful tenderer a modification of the terms and conditions contained in the Tender Documents; and
  - (f) to request and have prospective tenderers provide any accounting breakdown of all unit and / or lump sum prices.
- (9) A tender constitutes an offer by a tenderer which shall remain open and irrevocable until 90 days after the date set by the Authority for the opening of tenders for the Work.

## 1.3 Examination of Site

- (1) All prospective tenderers are advised to visit and examine the Site where the Work is to be carried out and its surroundings and obtain for themselves all information that may be necessary for preparing their tender and entering into a contract for the carrying out of the Work. The costs of visiting the Site shall be at the prospective tenderer's own expense.

**Due to Security Regulations all visits to the Site are to be coordinated with Philippe Arseneau, Projects Manager. Telephone 506-645-9006.**

- (2) All prospective tenderers and any of their personnel or agents will be granted permission by the Authority to enter upon the Site and for the purpose of such inspection, but only upon the express condition that the prospective tenderer, its personnel and agents release and indemnify the Authority and its personnel and agents from and against all liability in respect thereof and will be responsible for death or personal injury, loss of or damage to property and any other loss, damage, costs and expenses incurred as a result of the inspection.

#### 1.4 Form of Tender

- (1) A tender submitted by a prospective tenderer shall comprise the following documents:
  - (a) Form of Tender supplied by the Authority, duly completed and signed by the tenderer;
  - (b) Bid security;
  - (c) Copies of signed addendum (a) (if any); and
  - (d) Appendices.
- (2) Tenders submitted by a joint venture or a consortium of two or more firms as partners shall comply with the following requirements:
  - (a) the tender shall state the name and address of each joint venture or consortium partner;
  - (b) the tender shall be signed so as to be legally binding on all partners;
  - (c) one of the partners shall be designated as leader which shall be evidenced by submitting with the tender, a power of attorney signed by all other partners designating the one partner as leader;
  - (d) the leader shall be authorized to incur liabilities and receive instructions for and on behalf of any and all partners of the joint venture or consortium, and the carrying out of the Contract, including payment, shall be done exclusively with the leader;
  - (e) all partners of the joint venture or consortium shall be jointly liable and severally for the tenderers obligations pursuant to the Contract; and
  - (f) a copy of the agreement entered into by the joint venture or

consortium partners shall be submitted prior to the execution of the Contract.

- (3) Where a prospective tenderer is an individual, partnership or unincorporated organization, the Form of Tender shall be signed with the signatures of all members along with their occupations and places of residence. Where a prospective tenderer is a corporation, the Form of Tender shall be signed by those officers authorized to sign on behalf of the corporation, indicating the position and address of each signing officer.
- 1.5 Opening of Tenders
- (1) Sealed tenders addressed to the Senior Director, Infrastructure and Asset Management, will be received at the office of the Authority, 111 Water Street, Saint John, New Brunswick until 3 p.m. Local Time, **June 8, 2023**
  - (2) Immediately following the closing time, tenders will be publicly opened at the Authority's offices. Only the name and address of each tenderer and the approximate total tendered price will be made public at that time. No other information about the tender will be made public.
- 1.6 Prices Tendered
- (1) If applicable, the prices tendered shall be for the unit quantities for the various items of Work and must include all allowances for waste or superfluous lengths or quantities of materials of any kind. These unit prices shall also apply to the quantities of materials ordered during the progress of the Work and not specified or shown on the Drawings, as well as to any deductions or additions in the quantities shown. It shall include all fortuitous salaries and materials related to the Work to be performed and required by the Specifications and the Drawings
  - (2) If applicable, unit prices are to include all general conditions, including but not limited to, staff, site facilities, materials, labour, equipment, testing, expenses, travel costs, room & board, safety, administration, inspections, drawings, fees, taxes, duties, overhead and profit for the proper and complete performance of the Work.
  - (3) All pricing must be firm for the duration of the Work.
- 1.7 Preparation of Tender
- The tender submission must be legible and written in ink or completed electronically. All blank spaces are to be filled in and all items must be bid unless the tender specifically permits otherwise. Tenders must not contain any qualifying statements added to the tender form or alterations to the tender form unless specifically authorized in the Contract Documents or the tender will be rejected. Any corrections must be in ink and initialled by the person signing the tender.
- 1.8 Substitutions
- The tender shall be based upon using the products, materials and methods indicated or specified. Substitutions will only be considered after the award of the Contract.
- 1.9 Tender and Amendments
- To be acceptable, the Form of Tender, duly executed, and with required security shall be submitted at the place and time advertised. Amendments to tenders via e-mail or delivered by messenger service in sealed envelopes will be accepted up to the time for submitting tenders. All amendments to tenders must be in writing and submitted in sealed envelopes prior to the opening time. E-mail amending

tender submissions are acceptable and are to be sent to the email address [parseneau@sjport.com](mailto:parseneau@sjport.com)

- 1.10 Qualification to Tender Any condition or qualification placed upon a tender could result in disqualification of the said tender. Alterations, corrections, changes or erasures made to statements or figures entered on the Form of Tender by a prospective tenderer shall be initialed by the person or persons signing the tender. Initials shall be original. Alterations, corrections, changes or erasures that are not initialed shall be deemed void and without effect.
- 1.11 Interpretation In the case of any discrepancy between words and figures in the tender, the words will prevail. In the case of errors in addition or extensions, the unit prices shown for each item in the breakdown of the price will prevail and the amount of the tender will be corrected accordingly. The correct sum of the extensions, as calculated by the Authority, will be deemed to be the tender price.
- 1.12 Tender Security
- (1) Provide tender security in a minimum amount of 10% of the total tender price, in the form of a certified cheque or money order payable to the Saint John Port Authority, or a bid bond on CCDC Form 220.
  - (2) Tender security will be returned to:
    - (a) All tenderers except the three lowest acceptable tenderers within seven (7) days of tender opening.
    - (b) Two (2) remaining unsuccessful tenderers within fourteen (14) days of the date of award.
    - (c) Successful tenderer following receipt by Owner of an executed agreement, specified contract security, and insurance documents.
- 1.13 Contract Security Accepted tenderer will be required to provide a Performance Bond in the amount of 50% of the Total Estimated Contract Price stated in the tenderer's completed Tender Form, and a Labour and Material Payment Bond in the amount of 50% of the Total Estimated Contract Price stated in the tenderer's completed Tender Form. Refer to Rodney Terminal Repairs - 2023 Contract CCDC 18-2001 – Contract Security for required form of bonds.
- 1.14 Insurance Refer to Rodney Terminal Repairs - 2023 Contract CCDC 18-2001, subsection GC11.1 – INSURANCE, for insurance required.
- 1.15 Inquiries During Tender Period
- (1) All inquiries during the tender period should be directed to Philippe Arseneau, Project Manager, Saint John Port Authority, in writing, via [parseneau@sjport.com](mailto:parseneau@sjport.com), or via telephone (506) 645-9006.
  - (2) Inquiries should not be directed to the consulting Engineer or Architect who provided the contract documents. All information provided, whether oral or written is the exclusive property of the Owner and must be kept confidential at all times.

**END OF SECTION  
SECTION 2 – TENDER FORM**

**2.1 SALUTATION:**

- (1) To: Saint John Port Authority, operating as “Port Saint John”
- (2) For: Rodney Terminal Repairs - 2023  
Saint John, New Brunswick
- (3) From:

---

---

---

**2.2 TENDERER DECLARES:**

- (1) That this tender was made without collusion or fraud.
- (2) That the proposed Work was carefully examined.
- (3) That the tenderer has visited the Place of the Work and is familiar with local conditions.
- (4) That Contract Documents, Clarifications No. \_\_ to \_\_ and Addenda No. \_\_\_\_\_ to \_\_\_\_\_ inclusive were carefully examined.
- (5) That all the above were taken into consideration in preparation of this tender.

**2.3 TENDERER AGREES:**

- (1) To enter into a Contract to supply all labour, materials and equipment and to do all Work necessary to construct the Work as described and specified herein for the Unit Prices stated in Subsection 4 hereunder, Schedule of Quantities and Unit Prices.
- (2) That the estimated Contract Price shall be the sum of the Products of the tendered Unit Prices times the estimated quantities in Subsection 4 hereunder.
- (3) That this tender is valid for acceptance for 90 days from tender closing.
- (4) That measurement and payment for items listed in Subsection 4 hereunder shall be in accordance with corresponding items in Section 5 (3.0.13) - Payment.
- (5) To provide evidence of ability and experience within five (5) Working Days of request, including: experience in similar work, work currently under contract, senior supervisory staff available for the Project, equipment available for use on the Work, and financial resources.
- (6) To execute in triplicate the agreement and forward same together with the specified contract security and insurance documents to the owner within five (5) Working Days of written notice of award.



- (7) That failure to enter into a formal Contract and give specified insurance documents and contract security within time required will constitute grounds for forfeiture of certified cheque or enforcement of bid bond.
- (8) That if certified cheque is forfeited, Owner will retain difference in money between amount of tender and amount for which Owner legally Contracts with another party to perform the Work and will refund balance, if any, to tenderer.

## 2.4 SCHEDULE OF QUANTITIES AND UNIT PRICES

Item No.	Description of Work	Unit of Measurement	Estimated Quantity	Unit Price	Total Price
<b>1</b>	<b>Rodney Terminal Repairs - 2023</b>				
A	Supply and place overhead repair mortar	m <sup>2</sup>	115		
B	Supply and place wearing surface repair mortar	m <sup>2</sup>	400		
C	Supply and install steel shear stud plate	each	10		
D	Supply and install reinforcing steel	kg	625		
E	Supply and place Self-consolidating concrete	m <sup>3</sup>	3.5		
F	Mobilization/Demobilization	each	1		
Sub-Total 1					

**TOTAL ESTIMATED CONTRACT PRICE (Items 1)** \$ \_\_\_\_\_

**ADD HARMONIZED SALES TAX (15%)** \$ \_\_\_\_\_

**TOTAL PRICE** \$ \_\_\_\_\_

TENDERER'S HST REGISTRATION NUMBER \_\_\_\_\_

## 2.5 COMPLETION TIME

- (1) Tenderer agrees to achieve substantial completion of the Work to the satisfaction of the Consultant by **November 3, 2023**.

## 2.6 DETAILS OF TENDERERS EXPERIENCE

- (1) The tenderer shall furnish details of three similar contracts which he has successfully carried to completion. The projects referenced should be similar in nature and size to the Works tendered for.

	<b>Owner / Contact Info</b>	<b>Description</b>	<b>Year</b>	<b>Value</b>
1				
2				
3				

**SIGNATURE\***

Dated this \_\_\_\_\_ Day of \_\_\_\_\_, 2023.

_____	_____
Witness	Name of Firm Tendering
_____	_____
_____	Signature of Signing Officer
_____	_____
_____	Name and Title (Printed)
_____	_____
Witness	Signature of Signing Officer
_____	_____
_____	Name and Title (Printed)
_____	_____
Company Address	_____
_____	_____
Telephone Number	_____
_____	_____
Fax Number	Seal
_____	_____
Email Address	_____

\*NOTE: Tenders submitted by or on behalf of any Corporation must be signed and sealed in the name of such Corporation by a duly authorized officer or agent.

**END OF SECTION**

**SECTION 3 - RODNEY TERMINAL REPAIRS - 2023 CONTRACT CCDC 18-2001**

# Civil Works Contract

## CCDC 18 — 2001

Name of the Work

Rodney Terminal Repairs - 2023

Saint John, New Brunswick

Apply a CCDC 18 copyright seal here.

The application of the seal demonstrates the intention of the party proposing the use of this document that it be an accurate and unamended form of CCDC 18 — 2001 except to the extent that any alterations, additions or modifications are set forth in supplementary conditions.

## TABLE OF CONTENTS

### AGREEMENT BETWEEN OWNER AND CONTRACTOR

- A-1 THE WORK
- A-2 AGREEMENTS AND AMENDMENTS
- A-3 CONTRACT DOCUMENTS
- A-4 CONTRACT PRICE
- A-5 PAYMENT
- A-6 RECEIPT OF AND ADDRESSES FOR NOTICES
- A-7 LANGUAGE OF THE CONTRACT
- A-8 SUCCESSION

### DEFINITIONS

- 1. Change Directive
- 2. Change Order
- 3. Construction Equipment
- 4. Consultant
- 5. Contract
- 6. Contract Documents
- 7. Contract Price
- 8. Contract Time
- 9. Contractor
- 10. Drawings
- 11. Owner
- 12. Place of the Work
- 13. Product
- 14. Project
- 15. Provide
- 16. Schedule of Prices
- 17. Shop Drawings
- 18. Specifications
- 19. Subcontractor
- 20. Substantial Performance of the Work
- 21. Supplemental Instruction
- 22. Supplier
- 23. Temporary Work
- 24. Unit Price
- 25. Value Added Taxes
- 26. Work
- 27. Working Day

### GENERAL CONDITIONS OF THE CIVIL WORKS CONTRACT

#### PART 1 GENERAL PROVISIONS

- GC 1.1 CONTRACT DOCUMENTS
- GC 1.2 LAW OF THE CONTRACT
- GC 1.3 RIGHTS AND REMEDIES
- GC 1.4 ASSIGNMENT

#### PART 2 ADMINISTRATION OF THE CONTRACT

- GC 2.1 AUTHORITY OF THE CONSULTANT
- GC 2.2 ROLE OF THE CONSULTANT
- GC 2.3 REVIEW AND INSPECTION OF THE WORK
- GC 2.4 DEFECTIVE WORK

#### PART 3 EXECUTION OF THE WORK

- GC 3.1 CONTROL OF THE WORK
- GC 3.2 CONSTRUCTION BY OWNER OR OTHER CONTRACTORS
- GC 3.3 TEMPORARY WORK
- GC 3.4 DOCUMENT REVIEW
- GC 3.5 CONSTRUCTION SCHEDULE
- GC 3.6 SUPERVISION
- GC 3.7 LAYOUT OF THE WORK
- GC 3.8 SUBCONTRACTORS AND SUPPLIERS
- GC 3.9 LABOUR AND PRODUCTS
- GC 3.10 DOCUMENTS AT THE SITE
- GC 3.11 SHOP DRAWINGS
- GC 3.12 USE OF THE WORK
- GC 3.13 CUTTING AND REMEDIAL WORK
- GC 3.14 CLEANUP

#### PART 4 ALLOWANCES

- GC 4.1 CASH ALLOWANCES
- GC 4.2 CONTINGENCY ALLOWANCE

#### PART 5 PAYMENT

- GC 5.1 FINANCING INFORMATION REQUIRED OF THE OWNER
- GC 5.2 BASIS OF PAYMENT FOR UNIT PRICE WORK
- GC 5.3 BASIS OF PAYMENT FOR LUMP SUM WORK
- GC 5.4 BASIS OF PAYMENT FOR COST PLUS WORK
- GC 5.5 APPLICATIONS FOR PROGRESS PAYMENT
- GC 5.6 PROGRESS PAYMENT
- GC 5.7 SUBSTANTIAL PERFORMANCE OF THE WORK
- GC 5.8 PAYMENT OF HOLDBACK UPON SUBSTANTIAL PERFORMANCE OF THE WORK
- GC 5.9 PROGRESSIVE RELEASE OF HOLDBACK
- GC 5.10 FINAL PAYMENT
- GC 5.11 WITHHOLDING OF PAYMENT
- GC 5.12 NON-CONFORMING WORK

#### PART 6 CHANGES

- GC 6.1 CHANGES
- GC 6.2 CHANGE ORDER
- GC 6.3 CHANGE DIRECTIVE
- GC 6.4 CONCEALED OR UNKNOWN CONDITIONS
- GC 6.5 DELAYS
- GC 6.6 CLAIMS
- GC 6.7 QUANTITY VARIATIONS

#### PART 7 DEFAULT NOTICE

- GC 7.1 OWNER'S RIGHT TO PERFORM THE WORK, STOP THE WORK, OR TERMINATE THE CONTRACT
- GC 7.2 CONTRACTOR'S RIGHT TO STOP THE WORK OR TERMINATE THE CONTRACT

#### PART 8 DISPUTE RESOLUTION

- GC 8.1 AUTHORITY OF THE CONSULTANT
- GC 8.2 NEGOTIATION, MEDIATION, AND ARBITRATION
- GC 8.3 RETENTION OF RIGHTS

#### PART 9 PROTECTION OF PERSONS AND PROPERTY

- GC 9.1 PROTECTION OF WORK AND PROPERTY
- GC 9.2 DAMAGES AND MUTUAL RESPONSIBILITY
- GC 9.3 TOXIC AND HAZARDOUS SUBSTANCES
- GC 9.4 ARTIFACTS AND FOSSILS
- GC 9.5 CONSTRUCTION SAFETY

#### PART 10 GOVERNING REGULATIONS

- GC 10.1 TAXES AND DUTIES
- GC 10.2 LAWS, NOTICES, PERMITS, AND FEES
- GC 10.3 PATENT FEES
- GC 10.4 WORKERS' COMPENSATION

#### PART 11 INSURANCE AND CONTRACT SECURITY

- GC 11.1 INSURANCE
- GC 11.2 CONTRACT SECURITY

#### PART 12 INDEMNIFICATION - WAIVER - WARRANTY

- GC 12.1 INDEMNIFICATION
- GC 12.2 WAIVER OF CLAIMS
- GC 12.3 WARRANTY

CCDC 18 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 18 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 18.

**AGREEMENT BETWEEN OWNER AND CONTRACTOR**

This Agreement made on the \_\_\_\_\_ day of \_\_\_\_\_ in the year \_\_\_\_\_.

by and between

Saint John Port Authority, operating as "Port Saint John"  
111 Water Street  
Saint John, NB E2L 0B1



hereinafter called the "Owner"

and

hereinafter called the "Contractor"

The Owner and the Contractor agree as follows:

**ARTICLE A-1 THE WORK**

The Contractor shall:

1.1 perform the Work required by the Contract Documents for Rodney Terminal Repairs - 2023

\_\_\_\_\_ *insert above the title of the Work*

located at Port Saint John, New Brunswick

\_\_\_\_\_ *insert above the Place of the Work*

for which the Agreement has been signed by the parties, and for which Hilcon Limited

\_\_\_\_\_ *insert above the name of the Consultant*

is acting as and is hereinafter called the "Consultant" and

1.2 do and fulfill everything indicated by the Contract Documents, and

1.3 commence the Work by the 8th day of June in the year 2023 and, subject to adjustment in Contract Time as provided for in the Contract Documents, attain Substantial Performance of the Work, by the 3rd day of November in the year 2023

## 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 The following are the *Contract Documents* referred to in Article A-1 of the Agreement - THE WORK:
- Agreement Between *Owner* and *Contractor*
  - Definitions
  - The General Conditions of the Contract
  - \*
    - Instructions to Tenderers
    - Tender Form
    - Rodney Terminal Repairs - 2023 Contract CCDC 18-2001
    - Supplementary Contract Conditions for Rodney Terminal Repairs - 2023
    - Technical Specification
    - Drawings
    - List of Drawings

- \* (Insert here, attaching additional pages if required, a list identifying all other Contract Documents e.g.:
- *Supplementary Conditions;*
  - *Schedule of Prices;*
  - *Specifications, giving a list of contents with section numbers and titles, number of pages, and date;*
  - *Drawings, giving drawing number, title, date, revision date or mark;*
  - *Addenda, giving title, number, date;*
  - *Information documents, or parts thereof, to be incorporated in the Contract Documents identifying them by title, date, name of preparer and, if not included in their entirety, the page or sheet numbers to be included).*



ARTICLE A-4 CONTRACT PRICE

4.1 \* Unit Prices form the basis for payment of the Contract Price. Quantities in the Schedule of Prices are estimated. The estimated Contract Price, which is the total extended amount indicated in the Schedule of Prices, is:

OR

\* A lump sum stipulated price forms the basis for payment of the Contract Price. The Contract Price is:

\* (Manually strike out inapplicable paragraph)

\_\_\_\_\_ /100 dollars \$ \_\_\_\_\_

4.2 All amounts are in Canadian funds and exclude Value Added Taxes.

4.3 These amounts shall be subject to adjustments as provided in the Contract Documents.

ARTICLE A-5 PAYMENT

5.1 Subject to the provisions of the Contract Documents, and in accordance with legislation and statutory regulations respecting holdback percentages and, where such legislation or regulations do not exist or apply, subject to a holdback of \_\_\_\_\_ Ten percent ( 10 %), the Owner shall in Canadian funds:

- .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 payment, 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 two percent (2%) per annum above the prime rate on such unpaid amounts shall also become due and payable until payment. Such interest shall be compounded and adjusted on a monthly basis. The prime rate shall be the rate of interest quoted by Bank of Canada for prime business loans. (Insert name of chartered lending institution whose prime rate is to be used)
.2 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 it is paid.

**ARTICLE A-6 RECEIPT OF AND ADDRESSES FOR NOTICES**

6.1 Notices in writing between the parties or between them and the *Consultant* shall be considered to have been received by the addressee on the date of delivery if delivered to the individual, or to a member of the firm, or to an officer of the corporation for whom they are intended by hand or by registered post; or if sent by regular post, to have been delivered within 5 *Working Days* of the date of mailing when addressed as follows:

The *Owner* at Saint John Port Authority, operating as "Port Saint John"

111 Water Street

*street and number and postal box number if applicable*

Saint John, NB E2L 0B1

*post office or district, province or territory, postal code*

The *Contractor* at \_\_\_\_\_

*street and number and postal box number if applicable*

*post office or district, province or territory, postal code*

The *Consultant* at Hilcon Limited

420 York Street

*street and number and postal box number if applicable*

Fredericton, NB E3B 3P7

*post office or district, province or territory, postal code*

**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:

**Owner**

Saint John Port Authority, operating as "Port Saint John"  
\_\_\_\_\_  
*name of Owner*

\_\_\_\_\_  
*signature*

\_\_\_\_\_  
*name and title of person signing*

\_\_\_\_\_  
*signature*

\_\_\_\_\_  
*name and title of person signing*

**WITNESS**

\_\_\_\_\_  
*signature*

\_\_\_\_\_  
*name and title of person signing*

**Contractor**

\_\_\_\_\_  
*name of Contractor*

\_\_\_\_\_  
*signature*

\_\_\_\_\_  
*name and title of person signing*

**WITNESS**

\_\_\_\_\_  
*signature*

\_\_\_\_\_  
*name and title of person signing*

- 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*.

1. **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* .
2. **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.
3. **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*.
4. **Consultant**  
The *Consultant* is the person or entity identified as such in the Agreement. The *Consultant* is the Engineer or other 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.
5. **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.
6. **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.
7. **Contract Price**  
When *Unit Prices* form the basis of payment, the *Contract Price* is the sum of the product of each *Unit Price* stated in the *Schedule of Prices* multiplied by the appropriate actual quantity of each 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*. When a lump sum stipulated price forms the basis of payment, the *Contract Price* is the amount stipulated in Article A-4 of the Agreement - CONTRACT PRICE.
8. **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*.
9. **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.
10. **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, schedules, and diagrams.
11. **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*.
12. **Place of the Work**  
The *Place of the Work* is the designated site or location of the *Work* identified in the *Contract Documents*.

13. **Product**  
*Product* or *Products* means material, machinery, equipment, and fixtures forming the *Work*, but does not include *Construction Equipment*.
14. **Project**  
The *Project* means the total construction contemplated of which the *Work* may be the whole or a part.
15. **Provide**  
*Provide* means to supply and install.
16. **Schedule of Prices**  
The *Schedule of Prices* is the schedule listed in Article A-3 - CONTRACT DOCUMENTS identifying items of work, estimated quantities, units of measure, and *Unit Prices*.
17. **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*.
18. **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, and the services necessary for the performance of the *Work*.
19. **Subcontractor**  
A *Subcontractor* is a person or entity having a direct contract with the *Contractor* to perform a part or parts of the *Work*, or to supply *Products* worked to a special design for the *Work*.
20. **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*.
21. **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*.
22. **Supplier**  
A *Supplier* is a person or entity having a direct contract with the *Contractor* to supply *Products* not worked to a special design for the *Work*.
23. **Temporary Work**  
*Temporary Work* means temporary supports, structures, facilities, services, and other temporary things, excluding *Construction Equipment*, required for the execution of the *Work* but not incorporated into the *Work*.
24. **Unit Price**  
A *Unit Price* is the amount payable for a single unit of work as stated in the *Schedule of Prices*.
25. **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 is by the *Contractor* as imposed by the tax legislation.
26. **Work**  
The *Work* means the total construction and related services required by the *Contract Documents*.
27. **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 CIVIL WORKS 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 Except for the provisions of article 12.3.6, 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 of the *Work*.
  - .2 the *Consultant* and the *Contractor*, a *Subcontractor*, a *Supplier*, or their agent, employee, or other person performing any 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,
    - the *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* during construction until issuance of the final certificate for payment, and subject to GC 2.1 - AUTHORITY OF THE CONSULTANT and with the *Owner's* concurrence, from time to time until the completion of any correction of defects as provided in paragraph 12.3.3 of GC 12.3 - WARRANTY.
- 2.2.2 The *Consultant* may 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*.
- 2.2.3 The *Consultant* will review the *Work* at intervals appropriate to the progress of construction to:
  - .1 become familiar with the progress and quality of the *Work*,
  - .2 determine if the *Work* is proceeding in general conformity with the *Contract Documents*, and
  - .3 verify quantities of *Work* performed under a *Schedule of Prices*.
- 2.2.4 Based on the *Consultant's* observations and evaluation 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 5.6 - PROGRESS PAYMENT, and GC 5.10 - FINAL PAYMENT.
- 2.2.5 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*.

- 2.2.6 The *Consultant* will be, in the first instance, the interpreter of the requirements of the *Contract Documents* and shall make findings as to the performance thereunder by both parties to the *Contract*, except with respect to GC 5.1 - FINANCING INFORMATION REQUIRED OF THE OWNER. Interpretations and findings of the *Consultant* shall be consistent with the intent of the *Contract Documents*. When making such interpretations and findings the *Consultant* will not show partiality to either the *Owner* or the *Contractor*.
- 2.2.7 Matters in question relating to the performance of the Work or the interpretation of the *Contract Documents*, except for GC 5.1 FINANCING INFORMATION REQUIRED OF THE OWNER, shall be referred initially to the *Consultant* by notice in writing given to the *Consultant* and to the other party for the *Consultant's* interpretation and finding which will be given by notice in writing to the parties within a reasonable time. With respect to claims, the *Consultant* will make findings as set out in GC 6.6 - CLAIMS, paragraph 6.6.5.
- 2.2.8 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*.
- 2.2.9 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*.
- 2.2.10 The *Consultant* will review and take appropriate action upon such *Contractor's* submittals as *Shop Drawings*, *Product data*, and samples, as provided in the *Contract Documents*.
- 2.2.11 The *Consultant* will prepare *Change Orders* and *Change Directives* as provided in GC 6.2 - CHANGE ORDER and GC 6.3 - CHANGE DIRECTIVE.
- 2.2.12 The *Consultant* will conduct reviews of the *Work* to determine the date of *Substantial Performance of the Work* as provided in GC 5.7 - SUBSTANTIAL PERFORMANCE OF THE WORK.
- 2.2.13 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.
- 2.2.14 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 tests, inspections, or approvals in the *Contract Documents*, or by the *Consultant's* instructions, or the laws or ordinances of the *Place of the Work*, the *Contractor* shall give the *Consultant* reasonable notice of when the work will be ready for review and inspection. The *Contractor* shall arrange for and shall give the *Consultant* reasonable notice 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 special tests, inspections, or approvals before such special tests, inspections, or approvals are made, given or completed, the *Contractor* shall, if so directed, uncover such work, have the inspections or tests 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 of 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 remove from the *Place of the Work* and replace or re-execute 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 co-ordinate 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 introduce and store products and use the *Owner's* or other contractor's construction equipment to execute their work;
  - .2 cooperate with other contractors and the *Owner* in reviewing their construction schedules; and
  - .3 where part of the *Work* is affected by or depends upon for its proper execution the work of other contractors or *Owner's* own forces, promptly report to the *Consultant* in writing and prior to proceeding with that part of the *Work*, any apparent deficiencies in such work
- 3.2.4 Where the *Contract Documents* identify the work to be performed by other contractors or the *Owner's* own forces, the *Contractor* shall coordinate and schedule the *Work* with the work of other contractors and the *Owner's* own forces and interface 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 interface 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 - 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.
- 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 the 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 the *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* and notices and instructions given to the appointed representative by the *Consultant* shall be held to have been received by the *Contractor*.

### GC 3.7 LAYOUT OF THE WORK

- 3.7.1 The *Owner* shall, in consultation with the *Contractor*, establish reference points for construction which are necessary for the *Contractor* to proceed with the *Work*.
- 3.7.2 The *Contractor* shall be responsible for laying out the *Work*, shall preserve and protect the established reference points, and shall not change or relocate the established reference points without the approval of the *Consultant*.
- 3.7.3 The *Contractor* shall advise the *Consultant* whenever any established reference point is lost, destroyed, damaged, or requires relocation as a result of the *Contractor's* operations. The cost to reestablish any reference point that is lost, destroyed, damaged, or requires relocation as a result of the *Contractor's* operations, shall be at the *Contractor's* expense.

### GC 3.8 SUBCONTRACTORS AND SUPPLIERS

- 3.8.1 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*.
- 3.8.2 The *Contractor* shall indicate in writing, at the request of 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 *Contract*, 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.
- 3.8.3 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.
- 3.8.4 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.

- 3.8.5 The *Contractor* shall not be required to employ as a *Subcontractor* or *Supplier*, a person or firm to which the *Contractor* may reasonably object.
- 3.8.6 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 3.9 LABOUR AND PRODUCTS**

- 3.9.1 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*.
- 3.9.2 *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*.
- 3.9.3 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 3.10 DOCUMENTS AT THE SITE**

- 3.10.1 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 3.11 SHOP DRAWINGS**

- 3.11.1 The *Contractor* shall provide *Shop Drawings* as required in the *Contract Documents*.
- 3.11.2 The *Contractor* shall review all *Shop Drawings* prior to submission to the *Consultant*. The *Contractor* represents by this review that:
- .1 the *Contractor* has determined and verified all field measurements, field construction conditions, materials, *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 *Contract Documents*.
- 3.11.3 The *Contractor* shall confirm the review of each shop drawing by stamp, date, and signature of the person responsible for the review. At the time of submission the *Contractor* shall notify the *Consultant* in writing of any deviations in the *Shop Drawings* from the requirements of the *Contract Documents*.
- 3.11.4 The *Contractor* shall submit *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. Upon request of the *Contractor* or the *Consultant*, they jointly shall prepare a schedule of the dates for submission and return of *Shop Drawings*. *Shop Drawings* which require approval of any legally constituted authority having jurisdiction shall be submitted to such authority by the *Contractor* for approval.
- 3.11.5 The *Contractor* shall submit *Shop Drawings* in the form specified or as the *Consultant* may direct. The *Consultant* will review and return *Shop Drawings* in accordance with the schedule agreed upon, or otherwise with reasonable promptness so as to cause no delay. The *Consultant's* review is for conformity to the design concept and for general arrangement only. 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* unless the *Consultant* expressly notes the acceptance of a deviation on the *Shop Drawings*.
- 3.11.6 Upon the *Consultant's* request, the *Contractor* shall revise and resubmit *Shop Drawings* 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 resubmission other than those requested by the *Consultant*.

### **GC 3.12 USE OF THE WORK**

- 3.12.1 The *Contractor* shall confine *Construction Equipment*, *Temporary Work*, storage of *Products*, waste products and debris, and operations of employees to limits indicated by laws, ordinances, permits, or the *Contract Documents* and shall not unreasonably encumber the *Place of Work* with *Products*.
- 3.12.2 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*.

### **GC 3.13 CUTTING AND REMEDIAL WORK**

- 3.13.1 The *Contractor* shall do the cutting and remedial work required to make the several parts of the *Work* come together properly.
- 3.13.2 The *Contractor* shall co-ordinate the *Work* to ensure that this requirement is kept to a minimum.
- 3.13.3 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 - CHANGES, GC 6.2 - CHANGE ORDER, and GC 6.3 - CHANGE DIRECTIVE.
- 3.13.4 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 3.14 CLEANUP**

- 3.14.1 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.
- 3.14.2 Before applying for *Substantial Performance of the Work* as provided in GC 5.7 - 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 *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.
- 3.14.3 Prior to application for the final certificate for 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 costs under any cash allowance exceed 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 costs under any cash allowance are 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 actual cost and each 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 Expenditures under the contingency allowance shall be authorized and valued as provided in GC 6.1 - CHANGES, GC 6.2 - CHANGE ORDER, and GC 6.3 - CHANGE DIRECTIVE.
- 4.2.3 The *Contract Price* shall be adjusted by *Change Order* to provide for any difference between the expenditures authorized under paragraph 4.2.2 and the contingency allowance.

### **PART 5 PAYMENT**

#### **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 notify the *Contractor* in writing of any material change in the *Owner's* financial arrangements during performance of the *Contract*.

#### **GC 5.2 BASIS OF PAYMENT FOR UNIT PRICE WORK**

- 5.2.1 Payment for *Unit Price* work shall be based on the *Unit Prices* in the *Contract*.
- 5.2.2 The *Contractor* shall measure the *Work* and the *Consultant* will verify such measurements to determine payment to the *Contractor* in accordance with the measurement provisions of the *Contract Documents*.

#### **GC 5.3 BASIS OF PAYMENT FOR LUMP SUM WORK**

- 5.3.1 Payment for lump sum work shall be based on the stipulated price(s) in the *Contract*.

#### **GC 5.4 BASIS OF PAYMENT FOR COST PLUS WORK**

- 5.4.1 Payment for cost plus work shall be based on the cost of such work, as provided in paragraph 5.4.2, plus a fee calculated as a percentage of the cost of such work, for the *Contractor's* overhead and profit. The percentage amount shall be as provided in the *Contract Documents* but shall not be applied to the cost of *Construction Equipment* when such cost is based on rates which already include the *Contractor's* overhead and profit.
- 5.4.2 The cost of cost plus work shall be at rates prevailing in the locality of the *Place of the Work* and shall include the following cost elements as applicable to such work:
- .1 wages and benefits paid for labour in the direct employ of the *Contractor* under applicable collective bargaining agreements, or under a salary or wage schedule agreed upon by the *Owner* and *Contractor*;
  - .2 salaries, wages, and benefits of the *Contractor's* personnel, when stationed at the field office, in whatever capacity employed; or personnel at shops or on the road, engaged in expediting the production or transportation of materials or equipment;
  - .3 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 5.4.2.1 and 5.4.2.2;
  - .4 travel and subsistence expenses of the *Contractor's* personnel described in paragraphs 5.4.2.1 and 5.4.2.2;
  - .5 the cost of all *Products* including cost of transportation thereof;

- .6 the cost of 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*;
  - .7 the cost of 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;
  - .8 deposits lost;
  - .9 the amounts of all subcontracts;
  - .10 the cost of 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 license 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 and duties for which the *Contractor* is liable;
  - .15 charges for long distance telephone and facsimile communications, courier services, expressage, and petty items incurred in relation to the performance of the *Work*;
  - .16 the cost of removal and disposal of waste products and debris; and
  - .17 cost incurred due to emergencies affecting the safety of persons or property.
- 5.4.3 The *Contractor* shall obtain the *Owner's* approval prior to subcontracting or entering into other agreements for cost plus work.
- 5.4.4 The *Consultant* may refuse to certify payment for all or part of the cost of any item under any cost element, where the item in question was unsuitable, unnecessary or the cost was otherwise improperly incurred in the performance of the *Work*.
- 5.4.5 The *Contractor* shall keep full and detailed accounts and records necessary for the documentation of the cost of cost plus work and shall provide the *Consultant* with copies thereof when requested.
- 5.4.6 The *Owner* shall be afforded reasonable access to all of the *Contractor's* books, records, correspondence, instructions, drawings, receipts, vouchers, and memoranda related to the cost of cost plus work, and for this purpose the *Contractor* shall preserve such records for a period of one year from the date of *Substantial Performance of the Work*.

#### **GC 5.5 APPLICATIONS FOR PROGRESS PAYMENT**

- 5.5.1 Applications for payment on account as provided in Article A-5 of the Agreement - PAYMENT may be made monthly as the *Work* progresses.
- 5.5.2 Applications for payment shall be dated the last day of the agreed monthly payment period and the amount claimed shall be for the value, proportionate to the amount of the *Contract*, of work performed and *Products* delivered to the *Place of the Work* at that date.
- 5.5.3 Where the basis of payment of the *Contract Price* is *Unit Prices*, applications for payment shall include quantity measurements and any other data requested by the *Consultant* to assist the *Consultant* in evaluating the application and verifying quantity measurements.
- 5.5.4 Where the basis of payment of the *Contract Price* is a lump sum stipulated price:
- .1 the *Contractor* shall submit to the *Consultant*, at least 10 *Working Days* before the first application for payment, a schedule of values for the parts of the *Work*, aggregating the total amount of the *Contract Price*, so as to facilitate evaluation of applications for payment;
  - .2 the schedule of values 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, unless it is found to be in error; and
  - .3 the *Contractor* shall include a statement based on the schedule of values with each application for payment.

- 5.5.5 Where the basis of payment for a portion of the *Work* is cost plus, applications for payment shall be based on the cost of the work performed plus the amount of the fee earned, in accordance with GC 5.4 - BASIS OF PAYMENT FOR COST PLUS WORK.
- 5.5.6 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 5.6 PROGRESS PAYMENT**

- 5.6.1 The *Consultant* will issue to the *Owner*, no later than 5 *Working Days* after the receipt of an application for payment from the *Contractor* submitted in accordance with GC 5.2 - APPLICATIONS FOR PROGRESS 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 notify the *Contractor* in writing giving reasons for the amendment.
- 5.6.2 The *Owner* shall make payment to the *Contractor* on account as provided in Article A-5 of the Agreement - PAYMENT no later than 5 *Working Days* after the date of a certificate for payment issued by the *Consultant*.
- 5.6.3 Where the basis of payment of the *Contract Price* is *Unit Prices*, quantities for progress payments shall be considered approximate until final verification of quantities by the *Consultant*. A certificate for progress payment shall not be construed as the *Consultant's* final verification of quantities. Final verification of quantities will be made after all work of an item is completed.

#### **GC 5.7 SUBSTANTIAL PERFORMANCE OF THE WORK**

- 5.7.1 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 prepare and submit to the *Consultant* a comprehensive list of items to be completed or corrected and apply 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*.
- 5.7.2 No later than 15 *Working Days* after the receipt of the *Contractor's* list and application, the *Consultant* will review the *Work* to verify the validity of the application and notify the *Contractor* whether the *Work* or the designated portion of the *Work* is substantially performed.
- 5.7.3 The *Consultant* will state the date of *Substantial Performance of the Work* or designated portion of the *Work* in a certificate.
- 5.7.4 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 5.8 PAYMENT OF HOLDBACK UPON SUBSTANTIAL PERFORMANCE OF THE WORK**

- 5.8.1 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 submit a sworn or affirmed statement 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.
- 5.8.2 After the receipt of an application for payment from the *Contractor* and the sworn or affirmed statement as provided in paragraph 5.8.1, the *Consultant* will issue a certificate for payment of the holdback amount.



- 5.8.3 Where the holdback amount required by the applicable lien legislation has not been placed in a separate holdback account, the *Owner* shall, 5 *Working 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*.
- 5.8.4 In the common law jurisdictions, the holdback amount authorized by the certificate for payment of the holdback amount is due and payable on the 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*.
- 5.8.5 In the Province of Quebec, the holdback amount authorized by the certificate for payment of the holdback amount is due and payable no later than 30 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 5.9 PROGRESSIVE RELEASE OF HOLDBACK**

- 5.9.1 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 *Working Day* following the expiration of the holdback period for such work stipulated in the lien legislation applicable to the *Place of the Work*.
- 5.9.2 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 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*.
- 5.9.3 Notwithstanding the provisions of the preceding paragraph, and notwithstanding the wording of such certificates, the *Contractor* shall ensure that such subcontract work or *Products* is 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 5.10 FINAL PAYMENT**

- 5.10.1 When the *Contractor* considers that the *Work* is completed, the *Contractor* shall submit an application for final payment.
- 5.10.2 The *Consultant* will, no later than 15 *Working Days* after the receipt of an application from the *Contractor* for final payment, review the *Work* to verify the validity of the application and notify the *Contractor* that the application is valid or give reasons why it is not valid.
- 5.10.3 When the *Consultant* finds the *Contractor's* application for final payment valid, the *Consultant* will promptly issue a final certificate for payment.
- 5.10.4 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 *Working Days* after the issuance of a final certificate for payment, pay the *Contractor* as provided in Article A-5 of the Agreement - PAYMENT.

## **GC 5.11 WITHHOLDING OF PAYMENT**

- 5.11.1 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 5.12 NON-CONFORMING WORK**

- 5.12.1 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**

### **GC 6.1 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* or the *Contract Time* is proposed or required, the *Consultant* will provide notice in writing to the *Contractor* describing the proposed change. The *Contractor* shall present, in a form acceptable to the *Consultant*, a method of adjustment or an amount of adjustment of the *Contract Price*, if any, and the adjustment in the *Contract Time*, if any, for the proposed change.
- 6.2.2 The method of adjustment of the *Contract Price* presented by the *Contractor* may be:
- .1 *Unit Prices* listed in the *Schedule of Prices* that are applicable to the change in the *Work* or, if *Unit Prices* listed in the *Schedule of Prices* are not directly applicable, by unit prices deduced or extrapolated from such *Unit Prices*,
  - .2 a lump sum or unit price quotation, or
  - .3 the cost plus method as provided in GC 5.4 - BASIS OF PAYMENT FOR COST PLUS WORK.
- 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*, signed by *Owner* and *Contractor*. The value of the work performed as the result of a *Change Order* shall be included in applications 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 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 by the *Owner* to direct a change in the *Work* that is within the general scope of the *Contract Documents*.
- 6.3.3 Upon receipt of a *Change Directive*, the *Contractor* shall proceed promptly with the change in the *Work*.

- 6.3.4 The adjustment in the *Contract Price* for a change in the *Work* carried out by way of a *Change Directive* shall be on the basis of the *Contractor's* actual expenditures and savings attributable to the change. If a change in the *Work* results in expenditures only, the change in the *Work* shall be valued as cost plus work in accordance with GC 5.4 - BASIS OF PAYMENT FOR COST PLUS WORK.
- 6.3.5 If a change in the *Work* results in savings only, the amount of the credit shall be the actual cost savings to the *Contractor*, without deduction for overhead or profit.
- 6.3.6 If a change in the *Work* results in both expenditures and savings, the change in the *Work* shall be valued as specified in GC 6.3.4 and GC 6.3.5, except that overhead and profit on the cost plus work shall be payable only on the net increase, if any, with respect to that change in the *Work*.
- 6.3.7 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.
- 6.3.8 If the *Owner* and *Contractor* do not agree on the proposed adjustment in the *Contract Time* or the method of determining it, the adjustment shall be referred to the *Consultant* for determination.
- 6.3.9 If at any time after the start of the work directed by a *Change Directive*, 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* signed by *Owner* and *Contractor*.

#### 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 notify the other party in writing before conditions 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 The *Contractor* shall not be entitled to an adjustment in the *Contract Price* or the *Contract Time* if such conditions were reasonably apparent prior to the time of bid closing.

#### 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 other cause beyond the *Contractor's* control, other than one resulting from a default of 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*.
- 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 delay, providing however, that in the case of a continuing cause of delay only one notice shall be necessary.
- 6.5.5 If no schedule is made under paragraph 2.2.9 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 and not then, unless the request is reasonable.

#### GC 6.6 CLAIMS

- 6.6.1 If the *Contractor* intends to make a claim for additional payment, or if the *Owner* intends to make a claim for a credit to the *Contract Price* or for damages of any kind, the party that intends to make the claim shall give notice in writing of intent to claim to the other party and to the *Consultant* as soon as practicable, but no later than 10 *Working Days* after commencement of the event or series of events giving rise to the claim. Failure to provide such notification shall invalidate the claim.
- 6.6.2 Upon commencement of the event or series of events giving rise to the claim, the party intending to make a claim shall:
- .1 take all reasonable measures to mitigate any loss or damage 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 Within 30 *Working Days* after commencement of the event or series of events giving rise to the claim, or such other reasonable time as may be agreed by the *Consultant*, the party making the claim shall submit 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 with 30 *Working Days* 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 the other party within 30 *Working Days* after receipt thereof by the *Consultant*, or such other time period as may be agreed by the parties. If such finding is not acceptable to both parties, 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 *Owner* or the *Contractor* may request an adjustment to a *Unit Price* contained in a *Schedule of Prices* included in the *Contract* provided that the actual quantity of the item in the *Schedule of Prices* exceeds or falls short of the estimated quantity by more than 15%.
- 6.7.2 Where the actual quantity exceeds the estimated quantity by more than 15%, a *Unit Price* adjusted pursuant to paragraph 6.7.1 shall apply only to the quantity that exceeds 115% of the estimated quantity.

- 6.7.3 Where the actual quantity falls short of the estimated quantity by more than 15%, a *Unit Price* adjusted pursuant to paragraph 6.7.1 shall not exceed the *Unit Price* that would cause the extended amount to equal the original extended amount derived from the original *Unit Price* and estimated quantity.
- 6.7.4 If either party requests adjustment of a *Unit Price*, both parties shall make all reasonable efforts to agree on a revised *Unit Price*. The agreed revised *Unit Price* shall be recorded in a Change Order.
- 6.7.5 If agreement on a revised *Unit Price* is not reached, the matter shall be subject to final determination in accordance with Part 8 - DISPUTE RESOLUTION. Pending determination of the revised *Unit Price*, payment for the *Work* performed shall be included in progress payments based on the unrevised *Unit Price*.

**PART 7 DEFAULT NOTICE**

**GC 7.1 OWNER'S RIGHT TO PERFORM THE WORK, STOP 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, by giving the *Contractor* or receiver or trustee in bankruptcy notice in writing, terminate the *Contract*.
- 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, notify the *Contractor* 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.
- 7.1.3 If the default cannot be corrected in the 5 *Working Days* specified, 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 such schedule.
- 7.1.4 If the *Contractor* fails to correct the default in the time specified or subsequently agreed upon, 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*.
- 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* delivered to the *Place of the Work*, subject to the rights of third parties, and 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 in force after such termination.

## GC 7.2 CONTRACTOR'S RIGHT TO STOP 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, by giving the *Owner* or receiver or trustee in bankruptcy notice in writing, terminate the *Contract*.
- 7.2.2 If the *Work* is stopped 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, by giving the *Owner* notice in writing, terminate the *Contract*.
- 7.2.3 The *Contractor* may notify the *Owner* in writing, 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, stop 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 latest edition of the Rules for Mediation of Construction Disputes as provided in CCDC 40, 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 Day* period, 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 the notice of dispute 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 latest edition of the Rules for Mediation of Construction Disputes as provided in CCDC 40.
- 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 both parties.
- 8.2.6 By giving a notice in writing to the other party, 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 latest edition of the Rules for Arbitration of Construction Disputes as provided in CCDC 40. 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 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 requires by notice in writing given within 10 *Working Days* of the date of notice requesting arbitration in paragraph 8.2.6 that a dispute be arbitrated immediately, all disputes referred to arbitration as provided in paragraph 8.2.6 shall be
- .1 held in abeyance 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 notices required under Part 8 of the General Conditions - DISPUTE RESOLUTION and has carried out the instructions as provided in paragraph 8.1.3.

- 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 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 known 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 the 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 - CHANGES, GC 6.2 - CHANGE ORDER, and GC 6.3 - CHANGE DIRECTIVE.

### **GC 9.2 DAMAGES AND MUTUAL RESPONSIBILITY**

- 9.2.1 If either party to the *Contract* should suffer damage in any manner because of any wrongful act or neglect of the other party or of anyone for whom the other party is responsible in law, then that party shall be reimbursed by the other party for such damage. The reimbursing party shall be subrogated to the rights of the other party in respect of such wrongful act or neglect if it be that of a third party.
- 9.2.2 If the *Contractor* has caused damage to the work of another contractor on the *Project*, the *Contractor* shall upon due notice in writing settle with the other contractor by negotiation or arbitration. If the other contractor makes a claim against the *Owner* on account of damage alleged to have been so sustained, the *Owner* shall notify the *Contractor* in writing and may require the *Contractor* to defend the action at the *Contractor's* expense. The *Contractor* shall satisfy a final order or judgment against the *Owner* and pay the costs incurred by the *Owner* arising from such action.
- 9.2.3 If the *Contractor* becomes liable to pay or satisfy a final order, judgment, or award against the *Owner*, then the *Contractor*, upon undertaking to indemnify the *Owner* against any and all liability for costs, shall have the right to appeal in the name of the *Owner* such final order or judgment to any and all courts of competent jurisdiction.

### **GC 9.3 TOXIC AND HAZARDOUS SUBSTANCES**

- 9.3.1 For the purposes of applicable environmental legislation, the *Owner* shall be deemed to have control and management of the *Place of the Work* with respect to existing conditions.
- 9.3.2 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.



- 9.3.3 The *Owner* shall take all reasonable steps to ensure that no person suffers injury, sickness, or death 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*.
- 9.3.4 Unless the *Contract* expressly provides otherwise, the *Owner* shall be responsible for taking all necessary steps, in accordance with legal requirements, 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*.
- 9.3.5 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 disclosed by the *Owner*, as required under paragraph 9.3.2, or which were disclosed but have not been dealt with as required under paragraph 9.3.4, the *Contractor* shall
  - .3 take all reasonable steps, including stopping the *Work*, to ensure that no person suffers injury, sickness, or death and that no property is damaged or destroyed as a result of exposure to or the presence of the substances, and
  - .4 immediately report the circumstances to the *Consultant* and the *Owner* in writing.
- 9.3.6 If the *Contractor* is delayed in performing the *Work* or incurs additional costs as a result of taking steps required under paragraph 9.3.5.3, the *Contract Time* shall be extended for such reasonable time as the *Consultant* may recommend in consultation with the *Contractor* and the *Contractor* shall be reimbursed for reasonable costs incurred as a result of the delay and as a result of taking those steps.
- 9.3.7 Notwithstanding paragraphs 2.2.6 and 2.2.7 of GC 2.2 - ROLE OF THE CONSULTANT, or paragraph 8.1.1 of GC 8.1 - AUTHORITY OF THE CONSULTANT, the *Consultant* may select and rely upon the advice of an independent expert in a dispute under paragraph 9.3.6 and, in that case, the expert shall be deemed to have been jointly retained by the *Owner* and the *Contractor* and shall be jointly paid by them.
- 9.3.8 The *Owner* shall indemnify and hold harmless the *Contractor*, the *Consultant*, their agents and employees, from and against claims, demands, losses, costs, damages, actions, suits, or proceedings arising out of or resulting from 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*. This obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity set out in GC 12.1 - INDEMNIFICATION or which otherwise exist respecting a person or party described in this paragraph.
- 9.3.9 GC 9.3 - TOXIC AND HAZARDOUS SUBSTANCES shall govern over the provisions of paragraph 1.3.1 of GC 1.3 RIGHTS AND REMEDIES or GC 9.2 - DAMAGES AND MUTUAL RESPONSIBILITY.

#### **GC 9.4 ARTIFACTS AND FOSSILS**

- 9.4.1 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*.
- 9.4.2 The *Contractor* shall take all reasonable precautions to prevent removal or damage to discoveries as identified in paragraph 9.4.1, and shall notify the *Consultant* immediately upon discovery of such items.
- 9.4.3 The *Consultant* will investigate the impact on the *Work* of the discoveries identified in paragraph 9.4.1. 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, shall issue appropriate instructions for a change in the *Work* as provided in GC 6.2 - CHANGE ORDER or GC 6.3 - CHANGE DIRECTIVE.

#### **GC 9.5 CONSTRUCTION SAFETY**

- 9.5.1 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 or 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*.

## **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 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 Except for the permits and fees, including those required under paragraph 10.2.3, which the *Contract Documents* specify as the responsibility of the *Contractor*, the *Owner* shall obtain and pay for all necessary approvals, permits, permanent easements, and rights of servitude.
- 10.2.3 The *Contractor* shall obtain and pay for permits, licenses, inspections and certificates necessary for performance of the *Work* and customarily obtained after signing of the *Contract*.
- 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 notify 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 - CHANGES, GC 6.2 - CHANGE ORDER, and GC 6.3 - CHANGE DIRECTIVE.
- 10.2.6 If the *Contractor* fails to notify 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.

### **GC 10.3 PATENT FEES**

- 10.3.1 The *Contractor* shall pay the royalties and patent licence fees required for the performance of the *Contract*. 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 insurance coverages specified in GC 11.1 - INSURANCE. Unless otherwise stipulated, the duration of each insurance policy shall be from the date of commencement of the *Work* until the date of the final certificate for payment. 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.
- .1 General Liability Insurance:  
General liability insurance shall be in the joint names of the *Contractor*, the *Owner*, and the *Consultant*, with limits of not less than \$2,000,000 per occurrence and with a property damage deductible not exceeding \$2,500. The insurance coverage shall not be less than the insurance required by IBC Form 2100, or its equivalent replacement, provided that IBC Form 2100 shall contain the latest edition of the relevant CCDC endorsement form. To achieve the desired limit, umbrella, or excess liability insurance may be used. All liability coverage shall be maintained for completed operations hazards from the date of *Substantial Performance of the Work*, as set out in the certificate of *Substantial Performance of the Work*, on an ongoing basis for a period of 6 years following *Substantial Performance of the Work*. Where the *Contractor* maintains a single, blanket policy, the addition of the *Owner* and the *Consultant* is limited to liability arising out of the *Work* and all operations necessary or incidental thereto. The policy shall be endorsed to provide the *Owner* with not less than 30 days notice in writing in advance of any cancellation, and of change or amendment restricting coverage.
  - .2 Automobile Liability Insurance:  
Automobile liability insurance in respect of licensed vehicles shall have limits of not less than \$2,000,000 inclusive per occurrence for bodily injury, death, and damage to property, covering all licensed vehicles owned or leased by the *Contractor*, and endorsed to provide the *Owner* with not less than 15 days notice in writing in advance of any cancellation, change or amendment restricting coverage. 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 Aircraft and Watercraft Liability Insurance:  
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 be subject to limits of not less than \$2,000,000 inclusive per occurrence for bodily injury, death, and damage to property including loss of use thereof and limits of not less than \$2,000,000 for aircraft passenger hazard. Such insurance shall be in a form acceptable to the *Owner*. The policies shall be endorsed to provide the *Owner* with not less than 15 days notice in writing in advance of cancellation, change, or amendment restricting coverage.

.4 Property and Boiler and Machinery Insurance:

- (1) "All risks" property insurance shall be in the joint names of the *Contractor*, the *Owner*, the *Consultant*, and all *Subcontractors*, insuring not less than the sum of the amount of the *Contract Price* and the full value, as stated in the Supplementary Conditions, of *Products* that are specified to be provided by the *Owner* for incorporation into the *Work*, with a deductible not exceeding \$2,500. The insurance coverage shall not be less than the insurance required by IBC Form 4042 or its equivalent replacement, provided that IBC Form 4042 shall contain the latest edition of the relevant CCDC endorsement form. The coverage shall be maintained continuously until 5 *Working Days* after the date of the final certificate for payment.
- (2) Boiler and machinery insurance shall be in the joint names of the *Contractor*, the *Owner*, and the *Consultant* for not less than the replacement value of the boilers, pressure vessels, and other insurable objects forming part of the *Work*. The insurance provided shall not be less than the insurance provided by the "Comprehensive Boiler and Machinery Form" and shall be maintained continuously from commencement of use or operation of the property insured and until 5 *Working Days* after the date of the final certificate for payment.
- (3) The policies shall allow for partial or total use or occupancy of the *Work*. If because of such use or occupancy the *Contractor* is unable to provide coverage, the *Contractor* shall notify the *Owner* in writing. Prior to such use or occupancy the *Owner* shall provide, maintain, and pay for all risk property and boiler insurance insuring the full value of the *Work*, as in sub-paragraphs (1) and (2), including coverage for such use or occupancy and shall provide the *Contractor* with proof of such insurance. The *Contractor* shall refund to the *Owner* the unearned premiums applicable to the *Contractor's* policies upon termination of coverage.
- (4) The 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. 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*.
- (5) The *Contractor* shall be entitled to receive from the *Owner*, in addition to the amount due under the *Contract*, the amount at 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 and as provided in GC 5.5 - APPLICATIONS FOR PROGRESS PAYMENT and GC 5.6 - PROGRESS PAYMENT. 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*.
- (6) In the case of loss or damage to the *Work* arising from the work of another contractor, or *Owner's* own forces, the *Owner*, in accordance with the *Owner's* obligations under paragraph 3.2.2.4 of GC 3.2 - 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 provided in GC 5.5 - APPLICATIONS FOR PROGRESS PAYMENT and GC 5.6 - PROGRESS PAYMENT.

.5 Contractors' Equipment Insurance:

"All risks" contractors' equipment insurance covering *Construction Equipment* used by the *Contractor* for the performance of the *Work*, including boiler insurance on temporary boilers and pressure vessels, shall be in a form acceptable to the *Owner* and shall not allow subrogation claims by the insurer against the *Owner*. The policies shall be endorsed to provide the *Owner* with not less than 15 days notice in writing in advance of cancellation, change, or amendment restricting coverage. Subject to satisfactory proof of financial capability by the *Contractor* for self-insurance, the *Owner* agrees to waive the equipment insurance requirement.

11.1.2 The *Contractor* shall be responsible for deductible amounts under the policies except where such amounts may be excluded from the *Contractor's* responsibility by the terms of GC 9.1 - PROTECTION OF WORK AND PROPERTY and GC 9.2 - DAMAGES AND MUTUAL RESPONSIBILITY.

11.1.3 Where the full insurable value of the *Work* is substantially less than the *Contract Price*, the *Owner* may reduce the amount of insurance required or waive the course of construction insurance requirement.

- 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 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*.

## 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 — WARRANTY

### GC 12.1 INDEMNIFICATION

- 12.1.1 The *Contractor* shall indemnify and hold harmless the *Owner* and the *Consultant*, their agents and employees from and against claims, demands, losses, costs, damages, actions, suits, or proceedings (hereinafter called "claims"), by third parties that arise out of, or are attributable to, the *Contractor's* performance of the *Contract* provided such claims are:
- .1 attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property, and
  - .2 caused by negligent acts or omissions of the *Contractor* or anyone for whose acts the *Contractor* may be liable, and
  - .3 made 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*, 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 *Owner* expressly waives the right to indemnity for claims other than those stated above.
- 12.1.2 The obligation of the *Contractor* to indemnify hereunder shall be limited to \$2,000,000 per occurrence from the commencement of the *Work* until *Substantial Performance of the Work* and thereafter to an aggregate limit of \$2,000,000.
- 12.1.3 The *Owner* shall indemnify and hold harmless the *Contractor*, the *Contractor's* agents and employees 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 a lack of or defect in title or an alleged lack of or defect in title to the *Place of the Work*.
- 12.1.4 GC 12.1 - INDEMNIFICATION shall govern over the provisions of paragraph 1.3.1 of GC 1.3 - RIGHTS AND REMEDIES or GC 9.2 - DAMAGES AND MUTUAL RESPONSIBILITY.

### GC 12.2 WAIVER OF CLAIMS

- 12.2.1 Waiver of Claims by *Owner*
- As of the date of the final certificate for payment, the *Owner* expressly waives and releases the *Contractor* from all claims against the *Contractor* including without limitation those that might arise from the negligence or breach of contract by the *Contractor* except one or more of the following:
- .1 those made in writing prior to the date of the final certificate for payment and still unsettled;
  - .2 those arising from the provisions of GC 12.1 - INDEMNIFICATION or GC 12.3 - WARRANTY;
  - .3 those arising from the provisions of paragraph 9.3.5 of GC 9.3 - TOXIC AND HAZARDOUS SUBSTANCES AND MATERIALS and arising from the *Contractor* bringing or introducing any toxic or hazardous substances and materials to the *Place of the Work* after the *Contractor* commences the *Work*.

In the Common Law provinces GC 12.2.1.4 shall read as follows:

- .4 those made 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*, or within such shorter period as may be prescribed by any limitation statute of the province or territory of the *Place of the Work* and arising from any liability of the *Contractor* for damages resulting from the *Contractor's* performance of the *Contract* with respect to substantial defects or deficiencies in the *Work* for which the *Contractor* is proven responsible. As used herein "substantial defects or deficiencies" means 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*.

In the Province of Quebec GC 12.2.1.4 shall read as follows:

- .4 those arising under the provisions of Article 2118 of the Civil Code of Quebec.

#### 12.2.2 Waiver of Claims by *Contractor*

As of the date of the final certificate for payment, the *Contractor* expressly waives and releases the *Owner* from all claims against the *Owner* including without limitation those that might arise from the negligence or breach of contract by the *Owner* except:

- .1 those made in writing prior to the *Contractor's* application for final payment and still unsettled; and
- .2 those arising from the provisions of GC 9.3 - TOXIC AND HAZARDOUS SUBSTANCES or GC 10.3 - PATENT FEES.

#### 12.2.3 GC 12.2 - WAIVER OF CLAIMS shall govern over the provisions of paragraph 1.3.1 of GC 1.3 - RIGHTS AND REMEDIES, GC 6.6 - CLAIMS, and GC 9.2 - DAMAGES AND MUTUAL RESPONSIBILITY.

### 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 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 warranty periods specified in the *Contract Documents*.
- 12.3.4 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.
- 12.3.5 The *Contractor* shall correct or pay for damage resulting from corrections made under the requirements of paragraph 12.3.3.
- 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 responsibility of the warrantor.



CCDC Copyright 2001

Must not be copied in whole or in part without the written permission of the CCDC.

The Canadian Construction Documents Committee is a joint committee composed of owners and representatives appointed by:

The Association of Consulting Engineers of Canada  
The Canadian Construction Association  
Construction Specifications Canada  
The Royal Architectural Institute of Canada

Committee policy and procedures are directed and approved by the constituent organizations.

This document has been endorsed by each of the above organizations.

Enquiries should be directed to:

The Secretary  
Canadian Construction Documents Committee  
400 - 75 Albert Street  
Ottawa, Ontario K1P 5E7  
Tel: (613) 236-9455  
Fax: (613) 236-9526  
[www.ccdc.org](http://www.ccdc.org)

## SECTION 4 - SUPPLEMENTARY CONTRACT CONDITIONS FOR RODNEY TERMINAL REPAIRS – 2023 SAINT JOHN, NEW BRUNSWICK

The Definitions and General Conditions are amended as follows:

### Part 1 GENERAL PROVISIONS

#### SCC 1

By adding to GC 1.1 the following:

- 1.1.11 Wherever standards or codes are referred to in the *Specifications*, the reference is to the most recent edition thereof. In case of conflicts, the more stringent requirement shall apply.
- 1.1.12 All quantities and measurements in the *Specifications* and *Drawings* are shown in metric (S.I.) units unless otherwise stated.

#### SCC 2

By deleting GC 1.2.1 and adding the following:

- 1.2.1 The Contract shall be governed, construed and interpreted according to the law of the Province of New Brunswick and federal laws of Canada applicable therein.

#### SCC 3

By adding to GC 3.3 the following:

- 3.3.4 The *Contractor* shall clean and maintain the cleanliness of adjacent roads and property and the *Place of the Work* and keep them free of waste material, soil, tracking/spillage or refuse resulting from the operations of the *Contractor*.
- 3.3.5 The *Contractor* shall ensure that all vehicles hauling debris, excavated material, aggregate, fill or other loose material to or from the site have their loads trimmed before leaving or approaching the *Place of the Work* and that their bodies are tight in order to prevent any spillage.

#### SCC 4

By adding to GC 3.4 the following:

- 3.4.2 The *Drawings* show the existing conditions at the *Place of the Work* as accurately as could be determined by site observation. The *Contractor* shall be deemed to have visited the *Place of the Work* made measurements of all existing structures and facilities and made its own evaluation of actual site and job conditions and the correctness of the information in the *Drawings*.



- 3.4.3 Locations, dimensions and elevations of existing facilities shown on the *Drawings* are approximate only. In particular, elevations are subject to settlement variations. The *Contractor* shall take all necessary spot elevations it deems necessary to satisfy itself of existing conditions.
- 3.4.4 The *Contractor* acknowledges that tides in the Saint John harbor vary from an approximate maximum high tide of 8.5 metres above chart datum to a minimum low tide of approximately 0.0 metres.

#### SCC 5

By adding to GC 3.10 the following:

- 3.10.2 The Contractor shall maintain As-Built Drawings on a current and continuous basis. The Consultant and/or the Owner may inspect the As-Built Drawings at any time.
- 3.10.3 All as-built drawings, designs, bills of material, detail sheets, specification sheets and similar documents prepared by or on behalf of the *Contractor* in anyway connected with the *Work* shall be the sole property of the *Owner* and shall be delivered to the *Owner* upon completion, termination or cancellation of the *Work*.

#### SCC 6

By adding to GC 3.12 the following:

- 3.12.3 The *Contractor* shall be permitted to use the *Place of the Work* for the performance of the *Work*. Other property of the *Owner* may in the sole discretion of the *Owner* be made available for use by the *Contractor* provided such use was agreed to in writing between the *Contractor* and *Owner* prior to the closing time for tenders for the *Contract*.
- 3.12.4 The *Contractor* shall obtain all required permits and licenses for *Additional Work Areas* and for blocking roads and or sidewalks and shall obtain permission and be responsible for paying all costs associated with the use and rehabilitation of adjacent properties to their original condition.
- 3.12.5 The *Contractor* acknowledges that Rodney Terminal will be in operation while the *Work* is being performed and that the *Contractor* is to cause as little interference as possible with any traffic associated with terminal operations and associated traffic. The *Contractor's* operations shall not interfere with any traffic to or from adjacent wharves, sheds, railway lines, or other property of the *Owner* or impede the berthing or movement of vessels to or from the adjacent wharves or piers. Disputes as to whether or not the *Contractor* is fulfilling its obligations hereunder shall be referred to the *Owner* whose decision shall be final and binding.
- 3.12.6 The *Owner* may specify the time or times when particular portions of the *Work* are performed in order to avoid interference with terminal operations.
- 3.12.7 Parking will be permitted on the *Place of the Work* provided it does not disrupt the performance of the *Work* or terminal operations.

- 3.12.8 Materials delivered to the *Place of the Work* shall be received, inspected and verified by the *Contractor* immediately upon arrival.
- 3.12.9 Security, weather protection and proper storage of such material is the sole responsibility of the *Contractor*.
- 3.12.10 Laydown areas for such materials shall be designated by the Owner.
- 3.12.11 The *Place of the Work* is not to be used as a storage area and materials delivered to the *Place of the Work* shall be limited to those that are required to be used within the work week during which they are delivered. However, at the request the *Contractor* and with the consent of the *Owner* materials, plant and equipment may be stored at the *Place of the Work* in locations approved by the *Owner* provided they are properly secured and protected.

#### SCC 7

By adding to GC 3.14 the following:

- 3.14.4 Daily cleanup and weekly broom cleaning of the *Place of the Work* by the *Contractor* is a minimum requirement.
- 3.14.5 The *Contractor* shall
  - .1 make arrangements with and obtain permits from authorities having jurisdiction for the disposal of waste and debris;
  - .2 provide on-site containers for the collection of waste and debris;
  - .3 remove waste and debris from the *Place of the Work* at regularly scheduled time or as directed by the *Owner*;
  - .4 Not burn waste or debris on any property of the *Owner* including the *Place of the Work*;
  - .5 clear snow and ice from the *Place of the Work* or any access thereto and snow and ice may only be placed in areas designated by the *Owner*.
- 3.14.6 The *Owner* may, without notice to the *Contractor* clean up the *Place of the Work* if in the opinion of the *Owner* the *Contractor* has failed to do so adequately. The costs of such cleanup will be deducted from the Contract Price.

#### SCC 8

By adding to GC 5.4 the following:

- 5.4.1 The percentage amount used to calculate the contractor's overhead and profit for cost plus work shall be a maximum of 10%.

#### SCC 9

By adding to GC 6.5 the following:

- 6.5.6 If the Owner is directly or indirectly delayed in the performance of any of its express or implied duties under the Contract through no fault of its own by reason of any circumstance or occurrence beyond its reasonable control, including an intervening act of God or public enemy, war, blockade, embargo, civil commotions, pandemic, epidemic, quarantine, government declared state of emergency and/or associated orders or directions and that delay results in a delay in the performance of the Work 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 a result of the circumstance or occurrence giving rise to the Owner's delay, unless the Contractor agrees to a shorter extension. The Contractor shall not be entitled to payment for costs incurred by such delays.

SCC 10

By deleting GC 6.7 and substituting therefore the following:

- 6.7.1 The Owner or the Contractor may request an adjustment to a Unit Price contained in a Schedule of Prices included in the Contract provided that the actual quantity of the item in the Schedule of Prices exceeds or falls short of the estimated quantity by more than 25%.
- 6.7.2 Where the actual quantity exceeds the estimated quantity by more than 25%, a Unit Price adjustment pursuant to paragraph 6.7.1 shall apply only to the quantity that exceeds 125% of the estimated quantity.
- 6.7.3 Where the actual quantity falls short of the estimated quantity by more than 25%, a Unit Price adjustment pursuant to paragraph 6.7.1 shall not exceed the Unit Price that would cause the extended amount to equal the original extended amount derived from the original Unit Price and estimated quantity.
- 6.7.4 If either party requests adjustment of a Unit Price, both parties shall make all reasonable efforts to agree on a revised Unit Price. The agreed revised Unit Price shall be recorded in a Change Order.
- 6.7.5 If agreement on a revised Unit Rate is not reached, the matter shall be subject to final determination in accordance with Part 8 – DISPUTE RESOLUTION. Pending determination of the revised Unit Rate, payment for the Work performed shall be included in progress payments based on unrevised Unit Price.

SCC 11

By adding to GC 7.1 the following:

- 7.1.7 Notwithstanding any other rights of the *Owner* under the *Contract*, the *Owner* may, at its discretion, terminate the *Work* at any time upon notice to the *Contractor*.

Upon receipt of any such notice, the *Contractor* shall

- .1 immediately stop all *Work* in progress;
  - .2 in accordance of any instructions from the Owner, terminate any orders or subcontracts related to the *Work*;
  - .3 take all reasonable steps and precautions to minimize all costs resulting from the termination;
  - .4 deliver to the Owner all material, supplies, documents and other work in progress obtained or performed by the *Contractor* up to the effective date of termination for which the *Contractor* has been paid.
- 7.1.8 In the event of termination pursuant to GC 7.1.7, the *Owner* shall pay the *Contractor* in accordance with the terms of the *Contract* for all *Work* performed to the effective date of termination and for all reasonable and unavoidable direct costs or expenses incurred by the *Contractor* as a result of the termination. The *Owner* shall not be liable to the *Contractor* for any other costs, expenses or damages resulting from the termination, including, without limitation, any indirect, consequential or special damages such as, but not limited to, loss of profit, claims of *Subcontractors* or *Suppliers*, loss of opportunity or loss of productivity.

SCC 12

By deleting GC 8.2 and substituting therefore the following:

**GC 8.2 NEGOTIATION AND ARBITRATION**

- 8.2.1 A party shall be conclusively deemed to have accepted the 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 reference to the relevant provisions of the *Contract Documents*. The responding party shall send a notice in writing of reply to the dispute within 15 *Working Days* after receipt of the notice of dispute setting out particulars of this response and referencing any relevant provisions of the *Contract Documents*.
- 8.2.2 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.
- 8.2.3 If a dispute is not resolved within 15 *Working Days* following receipt of the responding party's notice in writing of reply either party may serve on the other a notice demanding arbitration.
- 8.2.4 Unresolved disputes shall be resolved by final and binding arbitration before a sole arbitrator sitting in Saint John, New Brunswick in accordance with the provisions of the *Arbitration Act* of New Brunswick.

- 8.2.5 When a notice demanding arbitration has been served, arbitration may in the sole discretion of the *Owner* be held in abeyance until *Substantial Performance of the Work*, the *Contract* has been terminated or the *Contractor* has abandoned the *Work*, whichever is earlier.
- 8.2.6 Subject to 8.2.4 hereof, the Court of Queen's Bench of New Brunswick shall have exclusive original jurisdiction over any disputes arising out of or related to the *Contract*.

#### SCC 13

By adding to GC 9.1 the following:

- 9.1.5 All existing works, property and facilities such as piles, cope walls, retaining walls, filled areas, buildings or other structures, water, sewer, power or communication lines, other service facilities, railway tracks, apron slabs, roadways, equipment, storage areas and commodities thereon in or adjacent to the *Place of the Work* shall be adequately protected from damage or loss of any kind and from disruption of service at all times by the *Contractor*.
- 9.1.6 The *Contractor* shall remove all protection works immediately after they are no longer required.
- 9.1.7 The *Contractor* shall repair or replace any damage to existing works, property and facilities which occurs as a result of the performance of the *Work* to the entire satisfaction of the *Owner*.

#### SCC 14

By adding to GC 9.5 the following:

- 9.5.2 The *Contractor* shall be New Brunswick Construction Safety Association (NBCSA) COR certified.
- 9.5.3 Prior to the commencement of the *Work* the *Contractor* shall submit to the *Owner* a detailed Health and Safety Plan for review. Such plan shall at a minimum comply with the provisions of this General Condition and shall demonstrate the *Contractor's* knowledge and understanding of the health and safety issues involved with the *Work* and the *Place of the Work* as well as *Contractor's* commitment to ensure the highest level of safety during the performance of the *Work*.
- 9.5.4 The *Contractor* shall ensure that all workers and supervisory personnel are trained in and familiar with the Health and Safety Plan and with the use of appropriate personal protective equipment.
- 9.5.5 The *Contractor* shall provide a responsible Site Safety Officer who will be responsible for ensuring that all provisions of the Health and Safety Plan, this General Condition and applicable laws and Regulations pertaining to workplace health and safety are implemented and followed. The Site Safety Office shall be authorized to act on behalf of the *Contractor* in all matters related to health and safety and shall

- .1 ensure that all monitoring and testing as specified or as directed by the *Owner* are carried out;
  - .2 maintain records of all readings or tests relating to health and safety undertaken by the *Contractor*;
  - .3 report to the *Owner* any abnormal or dangerous situation at or adjacent to the *Place of the Work*;
  - .4 implement any emergency measures as required and suspend all *Work* until the circumstances giving rise to the suspension have been rectified;
  - .5 maintain a daily log of all activities related to health and safety which shall at a minimum include activity date, time, location of occurrence, description of occurrence, identification of individuals involved, any mitigation action taken and the results thereof and which log shall be made available for inspection at any time at the request of the *Owner*.
- 9.5.6 All *Work* and *Temporary Work* shall be marked, lighted and barricaded as required from time to time and the *Contractor* shall adopt such precautionary policies and perform such measures as the *Owner* may order from time to time for the protection of the public, personnel of the *Owner* and the terminal and employees of the *Contractor*.
- 9.5.7 The *Contractor* shall erect protective fencing around the perimeter of any excavations left open at the end of the work day. Such fencing shall be self-supporting and compliant with Labour and Workplace Development and Construction Safety and Industrial Safety Regulations.
- 9.5.8 All operations of the *Contractor* shall be compliant with the latest edition of the National Building Code of Canada. Permits stipulated pursuant to such standards or otherwise required shall be obtained from the *Owner*.
- 9.5.9 Smoking and use of open flames are prohibited in all structures or buildings on the property of the *Owner* including the *Place of the Work* except as expressly permitted in writing by the *Owner*. Such use as is so permitted and any sparks necessarily resulting from the performance of the *Work* shall be kept to minimum and the *Contractor* shall take all necessary precautions and follow all proper procedures to prevent fire or explosion.
- 9.5.10 Before using any heating unit on or near the *Place of the Work* the *Contractor* shall obtain the express written permission of the *Owner*. Only C.S.A. approved heating units may be used and the *Contractor* comply with all rules and regulations pertaining to their use and with the manufacturer's instructions regarding the use and maintenance thereof.
- 9.5.11 During the performance of the *Work* the *Contractor* shall provide and maintain in easily accessible locations at the *Place of the Work* adequate first aid kits equal to those requires by WorkSafe NB for the free use of persons at the *Place of the Work*

and shall ensure that there is always at least one person at the *Place of the Work* who is trained and certified in emergency first aid.

SCC 15

By adding the following:

## **PART 13 SECURITY – ACCESS**

### **GC 13.1 SECURITY REGULATIONS**

- 13.1.1 The *Contractor* acknowledges that the *Place of Work* is within a terminal that operates subject to the Marine Transportation Security Regulation (MTSR) under the Marine Act of Canada.
- 13.1.2 The *Contractor* shall follow and enforce such security regulations as may be required by the *Owner* and any other authority or official having jurisdiction over the *Work* or the *Place of the Work*.
- 13.1.3 No explosives may be used, stored on or brought to the *Place of the Work*.
- 13.1.4 No fire arms or other weapons of any nature may be stored on or brought to the *Place of the Work* or on or to any property of the *Owner*.

### **GC 13.2 ACCESS CONTROL**

- 13.2.1 All persons whether employed directly by the *Contractor* or by any *Subcontractor* or agent who access the *Place of the Work* are subject to the *Owner's* security policy.
- 13.2.2 All persons accessing the *Place of the Work* or accessing or traveling over property of the *Owner* shall be required to produce verifiable identity cards when required to do so by the *Owner*, agencies such as federal and municipal police and security personnel of the *Owner* or the terminal.
- 13.2.3 The *Owner* may require persons accessing the *Place of the Work* or accessing or travelling over other property of the *Owner* to wear identity passes or badges it may issue from time to time. Such passes or badges shall be worn and shall be visible at all times persons issued with such passes or badges are on any property of the *Owner* including but not limited to the *Place of the Work*.

SCC 16

By adding the following:

## **Part 14 TESTING, INSPECTION AND MONITORING**

### **GC 14.1 TESTING AND INSPECTION**

- 4.1.1 The *Owner* will engage an independent testing agency to perform testing of materials and compliance with the *Specifications*.

- 4.1.2 To facilitate testing, the *Contractor* shall;
- .1 furnish such labour as is necessary to handle samples at the *Place of the Work* and at the material sources;
  - .2 supply a reasonable amount of material for testing as determined by the testing agency, materials supplied for testing shall not be included in quantities calculated for payment purposes;
  - .3 inform the *Owner* sufficiently in advance of operations to allow for required testing to be performed.
- 4.1.3 Testing by the independent testing agency shall not relieve the *Contractor* of its obligation to furnish materials and execute the *Work* in accordance with the requirements of the *Construction Documents*.

SCC 17

By adding the following:

## **PART 15 QUALITY MANAGEMENT**

### **GC 15.1 QUALITY CONTROL PROGRAM**

- 15.1.1 Before commencing the *Work* the *Contractor* will submit to the *Owner* a quality control program which will ensure that:
- .1 all dimensions are verified prior to fabrication and ordering of materials;
  - .2 the *Work* will conform to the National Building Code of Canada, 2005 and to all other applicable standards and codes in force at the time of the *Work*;
  - .3 all plant, materials and equipment meet or exceed CSA standards;
  - .4 existing conditions are inspected prior to the commencement of any of the *Work* and any discrepancies or deficiencies are reported in writing to the *Owner*.
- 15.1.2 The *Contractor* shall not commence the *Work* before receiving written approval of its quality control program from the *Owner*.

SCC 17

By adding the following:

## **PART 16 REPORTING**

### **GC 16.1 REPORTS REQUIRED**

- 16.1.1 The *Contractor* shall submit the following reports to the *Owner*:



- .1 daily progress reports
- .2 weekly updated schedule showing day-to-day operations identifying manpower and major equipment requirements
- .3 all material test reports and MSDS

## SECTION 5 - TECHNICAL SPECIFICATION

### 5.0 GENERAL

---

- 5.0.1 Site of Work** (1) The work is located at the Rodney Marginal Wharf, Port of Saint John, Saint John, New Brunswick.
- 5.0.2 Scope of Work** (1) The scope of work covered by this Specification includes, but is not limited to, supply of all labour, materials, and equipment, complete in every respect for:
- (a) Assorted concrete surface repairs at existing piles, panel underside, and deck wear surface.
  - (b) Structural repair of concrete deck panels at Rodney terminal at location(s) indicated on the plans.
- (2) Contractor and the Authority shall confirm the scope of work before the commencement of the Work.
- (3) Comply with all environmental requirements when handling and disposing of demolition materials and new materials / packaging.
- (4) At project completion, clean up the construction area.
- 5.0.3 Environmental Compliance** (1) The Contractor's operations shall be in accordance with the Clean Environment Act and Regulations of the Province of New Brunswick and WORKSAFE NB regulations. Environmental compliance shall include but not be limited to:
- (a) Ensuring no large pieces of concrete debris or rebar is permitted to fall into the harbour.
  - (b) Concrete trucks and/or pumps are not permitted to discharge directly into the harbour, etc.
  - (c) The work is to be carried out so as to minimize the impact on the environment.
- 5.0.4 Health and Safety** (1) Observe and ensure compliance to safety measures of Federal Regulations such as:
- (a) Canadian Labour Code Part II
  - (b) All regulations applicable to the scope of work found in Canadian Occupational Health and Safety Regulations
  - (c) National Fire Code of Canada
- (2) Provincial Government, including but not limited to the:

- (a) Latest edition of the New Brunswick Occupational Health & Safety Act Statutes (including any amendments to and regulations).
  - (b) Workers' Compensation Act.
  - (c) Fire Prevention Act.
  - (d) Dangerous Goods Transportation Act.
  - (e) Industrial Best Practices for Equipment Isolation and Lockout Policy.
  - (f) In case of conflict or discrepancy the more stringent requirement shall apply.
  - (g) Maintain clear emergency exit paths.
  - (h) Ensure that employees working on this specific project have met training requirements as legislated by the New Brunswick Occupational Health and Safety Act and its regulations.
  - (i) Where reference is made to jurisdictional authorities, it shall mean all authorities who have within their constituted powers the right to enforce the laws of the place of the building or workplace.
- (3) Overloading
- (a) Ensure no part of Work Location is subjected to loading that will endanger its safety or will cause permanent deformation.
- (4) Hoists & Cranes
- (a) Operate such equipment only by qualified hoist or crane operators, and maintain current inspection certificates at the work location.
- (5) Scaffolding & Fall Protection
- (a) Design and Construct scaffolding in accordance with CSA S269.2
- (6) Equipment and Tools
- (a) Each user of equipment or tools shall be appropriately trained and be responsible to examine for sufficiency before use. Make equipment and tools safe if necessary or notify the Contractor in writing that user will not commence work with such tools until it is made safe.
- (7) WHMIS

- (a) Comply with the requirements of Workplace Hazardous Materials Information System (WHMIS) regarding safe use, handling, storage, and disposal of hazardous materials; and comply regarding labelling and provision of safety data sheets.
  - (b) Have a copy of WHMIS data sheets available at the workplace on delivery of materials.
- (8) Site Cleaning
- (a) Except where special permission is obtained, maintain clear access of work area and shared travel ways.
  - (b) Maintain work site; clear of construction materials and debris, including retracted concrete, rebar and metals. Clean work area as frequently as required to ensure safety hazards are not created for workers or other terminal operations.
- (9) Fire Safety Requirements
- (a) Enforce fire protection methods, good housekeeping and adherence to a specific Fire Safety Plan. Provide UL approved fire extinguishers and containment as required based on Fire Safety Plan.
  - (b) Hot Work will not be permitted without a Hot Work Permit issued to the site supervisor by Port of Saint John representative. Prior to conducting hot work, a hazard assessment shall be conducted with site supervisor and PSJ representative.
- (10) Confined Space
- (a) Hazard Assessment specific to the location will include a safe plan of action for entry into a confined space. Confined Space Plan shall be documented and include access and egress measures as well as emergency response and rescue.
  - (b) All criteria set out in the Confined Space plan shall comply with applicable regulations and include at minimum assurance of air quality, training, equipment inspections and ongoing evaluations to ensure plan is executed safely. No persons shall enter into a confined space without the contractor assuring the provisions of the CS plan are adhered too.
  - (c) **Confined Space Safe Plan of Action (Confined Space Entry Plan) shall be submitted to PSJ representative prior to activities carried out in the space.**
- (11) Reporting of Incidents
- (a) Any event that occurred resulting in harm, property damage or loss to process or that could have resulted in the latter; must be

reported to the PSJ representative in a timely manner with full disclosure of details of event, time, cause and remedial actions.

- (12) Safety Documentation
- (a) Ensure safety document submission applies to work of this specific project and site. Generic Safe Plans of Action and Hazard Assessments will not be accepted as appropriate safety documentation.
  - (b) Safety Documentation shall be submitted to the appropriate PSJ representative prior to set up and commencement of work.
  - (c) Safety documentation shall include the following:
    - i. Copy of WCB letter of good standing
    - ii. RIR for last 3 years
    - iii. Signed Corporate OHS Policy
    - iv. Safety Program, Table of Contents
    - v. Section from Safety Program pertaining to Hazard Recognition and Control
    - vi. Section from Safety Program pertaining to Employee Orientations
    - vii. Section from Safety Program pertaining to Fall Protection
    - viii. Section from Safety Program pertaining to Confined Space Entry
    - ix. Emergency Response plan specific to the project and location

- 5.0.5 Building Permit Fees** (1) The Saint John Port Authority has been informed by the office of the City Building Inspector that no building permit or fee will be required for the work.
- 5.0.6 Construction Schedule/Procedure** (1) Before commencement of any work under this contract, the Contractor shall supply the Authority with a complete detailed construction schedule and procedure which shall show the proposed dates of commencement and completion of each main item of work entering into the contract.
- 5.0.7 Date of Commencement** (1) The Contractor shall commence preparations for the work immediately upon award of the contract.
- 5.0.8 Date of Completion** (1) The work included in this contract shall be substantially completed by **November 3, 2023**
- 5.0.9 Submittals Prior to Commencement of Work** (1) The Contractor after receiving notification of award of Contract shall provide the Authority, within ten days of such notification the following documents:
- (a) performance securities;
  - (b) notice of good standing with WORKSAFE NB;

(c) proof of insurance.

(2) No work will be permitted to commence on site until the above requirements are met.

#### **5.0.10 Submittals**

(1) Submit to the Authority for review and approval:

(a) Manufacturer's certification that concrete meets the specified material requirements.

(b) Manufacturer's data sheet for:

a. Repair mortar(s);

b. Other products to be used in completion of the work

(c) A schedule of the work taking into account tidal conditions.

(d) Sequencing and methods for removal of concrete of existing concrete surfaces and for capturing debris.

(e) Sequencing and methods for surface preparation of existing concrete surfaces and for capturing waste water and debris.

(f) Submittals as outlined all sections of this specification.

(g) Alternates to approved specified products require documented proof that the alternate product complies with the specifications.

Note: In choosing materials for the work the Contractor is to ensure compatibility of materials being used if using materials from more than one manufacturer.

#### **5.0.11 Authority Facilities**

(1) Water Supply – Water can be obtained, at no charge, from the Authority from the nearest fire hydrant or ships' water supply. The contractor shall be aware of the special techniques necessary for operating these fixtures. The Contractor will be responsible for all damage that occurs to these fixtures during their use for this project.

(2) Hoses – The Authority will not supply any hoses or other fittings for this work.

(3) Concrete Materials Cleaning – Cleanout and disposal of whole or partial loads if required will not be permitted at the terminal and are to be taken off site.

#### **5.0.12 Reference Standards**

(1) The standards and guidelines referenced below form a part of this specification. Latest editions apply.

(a) CAN/CSA-A3000, Cementitious Materials Compendium.

(b) CAN/CSA-A23.1, Concrete Materials and Methods of Concrete Construction.

- (c) CAN/CSA-A23.2, Methods of Test and Standard Practices for Concrete.
- (d) CAN/CSA-S6, Canadian Highway Bridge Design Code.
- (e) CAN/CSA S269.1, Falsework and Formwork.
- (f) CAN/CSA S269.2, Access Scaffolding for Construction Purposes.
- (g) CAN/CSA G30.18, Billet Steel Bars for Concrete
- (h) CAN/CSA G40.20-13/G40.21-13 - General requirements for rolled or welded structural quality steel / Structural quality steel
- (i) CAN/CSA W47.1, Certification of companies for fusion welding of steel
- (j) CAN/CSA W59, Welded steel construction (metal arc welding)
- (k) ICRI Technical Guideline No. 310.2R, Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, and Polymer Overlays
- (l) ASTM C579, Method B, Standard Test Methods for Compressive Strengths of Chemical-Resistant Mortars, Grouts, Monolithic Surfacing and Polymer Concretes
- (m) ASTM C469, Standard Test Method for Static Modulus of Elasticity and Poisson's Ratio of Concrete in Compression
- (n) ASTM C293, Standard Test Method for Flexural Strength of Concrete (Using Simple Beam with Center-Point Loading)
- (o) ASTM C307, Standard Test Method for Tensile Strength of Chemical-Resistant Mortar, Grouts, and Monolithic Surfacing
- (p) ASTM C531, Standard Test Method for Linear Shrinkage and Coefficient of Thermal Expansion of Chemical-Resistant Mortars, Grouts, Monolithic Surfacing, and Polymer Concretes
- (q) ASTM C413, Standard Test Method for Absorption of Chemical Resistant Mortars, Grouts, Monolithic Surfacing, and Polymer Concretes
- (r) ASTM C881, Standard Specification for Epoxy-Resin Base Bonding Systems for Concrete
- (s) ASTM C882, Standard Test Method for Bond Strength of Epoxy Resin Systems Used with Concrete by Slant Shear
- (t) ASTM C1107, Standard Specification for Packaged Dry,

Hydraulic-Cement Grout (Nonshrink)

- (u) ASTM D2566, Test Method for Linear Shrinkage of Cured Thermosetting Casting Resins During Cure
- (v) New Brunswick Department of Transportation and Infrastructure Standard Specifications for Highway Construction
- (w) Standards and guidelines referenced in product data for materials used.

### 5.0.13 Payment

- (1) There is no pay unit for Section 5.0 of the Specification.
- (2) Materials indicated in Section 5.1 are included for payment as part of Sections 5.2 to 5.4.
- (3) Actual payment will be based on field measurements of actual quantities installed and accepted.

#### Pay Item # 1A – Supply and Placement of Overhead Repair Mortar:

This pay item includes furnishing of all submittals, materials, tools, equipment, labour, transportation, storage and supervision required for the supply, placement and finishing of MasterEmaco S 488 CI (or engineer approved equivalent) repair mortar to lines and grades shown on the contract drawings.

**Per Square Meter of repair area (m<sup>2</sup>)**

#### Pay Item # 1B – Supply and Placement of Wearing Surface Repair Mortar:

This pay item includes the furnishing of all submittals, materials, tools, equipment, labour, transportation, storage, and supervision required for the supply, placement and finishing of MasterEmaco T1060 (or engineer approved equivalent) according to the requirements shown in the contract drawings..

**Per Square Meter of repair area (m<sup>2</sup>)**

#### Pay Item # 1C – Steel Shear Stud Plate

This pay item includes the furnishing of all submittals, materials, tools, equipment, labour, transportation, storage, and supervision required for the supply and installation Steel Shear Stud Plate including the epoxy adhesive, as shown on the Plans. The supply and installation of the deck drains and all other associated work shall be considered incidental to this item.

**Per Steel Stud Plate (each)**

#### Pay Item # 1D – Reinforcing Steel

This pay item includes the furnishing of all submittals, materials, tools,



equipment, labour, transportation, storage, and supervision required for the supply and installation reinforcing steel including epoxy adhesive where required, as shown on the Plans.

**Per kilogram of Reinforcing Steel (kg)**

Pay Item # 1E – Self-Consolidating Concrete (SCC)

This pay item includes the furnishing of all submittals, materials, tools, equipment, labour, transportation, storage, and supervision required for the supply, placement and finishing of self-consolidating concrete, including formwork, falsework, surface preparation of existing concrete and corrosion inhibitors, as shown on the Plans.

**Per Cubic Meter of Self-Consolidating Concrete (m<sup>3</sup>)**

Pay Item #1F – Mobilization/Demobilization

This pay item includes all labour, transportation, and costs associated with site mobilization necessary for completion of the work and demobilization upon completion of the work. This shall not exceed ten percent of the contract price, and there will be no change in the lump sum price due to change in contract scope. This is a one-time lump sum payment regardless of the number of times the contractor mobilizes.

**Lump Sum**

## 5.1 MATERIALS AND STAGING FOR THE WORK

---

5.1.1	<b>Safety</b>	(1)	Comply with all requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage and disposal of hazardous materials.
5.1.2	<b>Migrating Corrosion Inhibitor Coating</b>	(1) (2) (3) (4)	Gem – Gard MCI by GEMITE or approved equal. Sika FerroGard 903 by SIKA or approved equal. Mapeshield CI by MAPEI or approved equal. MCI-2020/MCI-2020 V/O by Cortec/Stoncor or approved equal.
5.1.3	<b>Overhead Repair Mortar</b>	(1) (1)	MasterEmaco S 488 CI by Master Builders/BASF Approved equal repair mortar that meets or exceeds the specifications of the approved product per 5.2.2 of this section, designed for marine environment
5.1.4	<b>Rapid-Set Repair Mortar</b>	(1) (2)	MasterEmaco T 1060 by Master Builders/BASF Approved equal repair mortar that meets or exceeds the specifications of the approved product per 5.3.2 of this section.
5.1.5	<b>Self-Consolidating Concrete</b>	(3) (4)	MasterEmaco S440 CI by Master Builders/BASF Approved equal self-consolidating ready-mix concrete that meets or exceeds the specifications of the approved product per 5.4.2 of this section, designed for marine environment.
5.1.6	<b>Water</b>	(2) (1)	Approved equal pre-packaged self-consolidating concrete Potable
5.1.7	<b>Adhesive Anchor</b>	(1)	Hilti HIT-RE 500 V3 Adhesive Anchoring System or approved equivalent
5.1.8	<b>Reinforcing Steel</b>	(1)	Grade 400W CAN/CSA G30.18
5.1.9	<b>Construction Joint Sealer</b>	(1)	Hydrocote 1063 by BASF or approved equal
5.1.10	<b>Steel Plate</b>	(1)	Grade 300W, CSA G40.20/G40.21
5.1.11	<b>Shear Studs</b>	(1)	Grade 300W, Type B, CSA W59
5.1.12	<b>Epoxy Adhesive</b>	(1)	MasterEmaco ADH 327 by Master Builders/BASF or approved equal
5.1.13	<b>Steel Pipe</b>	(1)	ASTM A53, Hot Dipped Galvanized

## 5.2 SUPPLY AND PLACEMENT OF OVERHEAD REPAIR MORTAR

---

- 5.2.1 Description** (1) The Work in this section includes the supply, placement and finishing of overhead repair mortar for deck underside and pile repairs as shown on the plans.
- 5.2.2 Materials**
- (1) All materials shall be supplied by the Contractor.
- (2) All materials used in the Work shall be demonstrated to be suitable for a marine environment subject to regular wet/dry and freeze/thaw cycles
- (3) The material shall contain at a minimum:
- a. An integral corrosion inhibitor;
  - b. An integral surface bonding agent or compatible product to be applied prior to application.
  - c. Minimum 28 day strength of 35 MPa;
  - d. Non-sag and low shrinkage for overhead repairs
- (4) Acceptable product is MasterEmaco S 488 CI or engineer-approved equivalent.
- (5) It shall be the responsibility of the Contractor to ensure that the mixture proportions are properly batched, mixed, placed and cured such that the repair mortar conforms to the Specification and manufacturers recommendations.
- 5.2.3 Submittals** (1) The Contractor shall submit the manufacturer's certification that the materials supplied meet the specified requirements, at least 14 Days in advance of the commencement of the Work. If alternative products are to be used, the Contractor will provide technical information from the manufacturer for the replacement product(s).
- 5.2.4 Construction** (1) The work shall be performed in strict accordance with the Manufacturer's printed instructions

## 5.3 SUPPLY AND PLACEMENT OF RAPID-SET REPAIR MORTAR

---

- 5.3.1 Description** (1) The Work in this section includes the supply, placement and finishing of rapid-set repair mortar for wearing surface repairs as shown on the plans.
- 5.3.2 Materials** (1) All materials shall be supplied by the Contractor.
- (2) The material shall contain at a minimum:
- (a) An integral corrosion inhibitor;
  - (b) An integral surface bonding agent or compatible product to be applied prior to application.
  - (c) Minimum 28 day strength 35 MPa;
  - (d) Rapid setting with high early strength gain
- (3) Acceptable product is MasterEmaco T 1060 or engineer-approved equivalent.
- (4) It shall be the responsibility of the Contractor to ensure that the mixture proportions are properly batched, mixed, placed and cured such that the repair mortar conforms to the Specification and manufacturers recommendations.
- 5.3.3 Submittals** (2) The Contractor shall submit the manufacturer's certification that the materials supplied meet the specified requirements, at least 14 Days in advance of the commencement of the Work. If alternative products are to be used, the Contractor will provide technical information from the manufacturer for the replacement product(s).
- 5.3.4 Construction** (5) The work shall be performed in strict accordance with the Manufacturer's printed instructions

## 5.4 DECK PANEL REPAIR

---

### 5.4.1 Description

- (1) Damage, such as spalling and delamination, were observed at two (2) precast concrete deck panels. The objective of the Work is to repair the deck panel by providing a protective layer on the underside of the existing deck panel and to confine the unreinforced ends of the panel that have been subject to cracking and spalling.

The two (2) deck panels shall be repaired as shown on the plans.

- (2) This Item includes the furnishing of all submittals, materials, tools, equipment, labour, transportation, storage, and supervision required for the installation of the encapsulation system as shown on the Plans, including:
  - (a) the removal of concrete and temporary shoring.
  - (b) the surface preparation of concrete, which includes the removal of any loose or delaminated concrete and/or debris that could compromise the bond of the steel plates and/or new concrete as well as intentional roughening of the existing concrete surface as noted on the Plans,
  - (c) the reinforcing steel,
  - (d) the adhesive anchors,
  - (e) the steel plate and welded studs,
  - (f) the steel pipe (deck drains)
  - (g) the epoxy adhesive, and;
  - (h) the self-consolidating concrete.

### 5.4.2 Materials

- (1) All materials shall be in accordance with Section 5.1 – Materials and Staging for the Work and shall be supplied by the Contractor.
- (2) All materials used in the Work shall be demonstrated to be suitable for a marine environment subject to regular wet/dry and freeze/thaw cycles.
- (3) Overall Quality Assurance to be provided by a combination of the following:
  - (a) Contractor's Quality Control
    - i. Provide control over materials and workmanship by preparation and implementation of a Quality Control Program which includes but is not limited to:
      - .1 Procuring materials conforming to the specifications and providing documentation and/or samples as required by the Authority.
      - .2 Providing all submittals as specified in a timely manner to permit review and acceptance by the

Authority in advance of required scheduling.

.3 Provide competent supervision, direction, and training of personnel in all tasks having effects on final quality of the work.

.4 Prove all test samples of repair materials, including necessary formwork, curing on site as specified and loading onto the testing agencies truck for delivery to testing laboratory.

(b) Authority's Quality Monitoring

i. Authority to provide onsite inspection. Results of all inspection, testing and verification to be made available to the Contractor at no charge. Provision of such information by Authority will not relieve the Contractor of his obligation to provide a satisfactory level of control over the quality of all materials and workmanship.

(c) Independent Testing Laboratory

i. An independent testing laboratory will be retained and paid for by the Authority to sample repair materials as required, carry out quality verification testing and generally assist the Authority as required in all quality related duties.

**5.4.3 Submittals**

(3) The Contractor shall submit the manufacturer's certification that the materials supplied meet the specified requirements, at least 14 Days in advance of the commencement of the Work.

(4) Other submittals as noted in 5.0.10 - Submittals

**5.4.4 Construction**

**(1) The Contractor shall be aware that the Rodney Container Terminal must remain in operation at all times. Work is to be well coordinated with Port Saint John and terminal operations, as access to the worksite may be limited due to ship loading operations.**

(2) The work required by this Specification shall generally require installation of staging in the tidal zone and above. The Contractor shall become familiar with the tidal range and shall consider this when planning the work. The work is to be carried out to meet all requirements of the Occupational Health and Safety Act.

(3) The Contractor shall transport, handle and store all materials in strict accordance with the corresponding product manufacturer's printed instructions.

(4) Removal of Concrete

(a) In areas identified by the Authority, loose and unsound concrete are to be removed, to the satisfaction of the Authority.

- (b) Loose and unsound concrete is to be removed to sound concrete using pneumatic or electrically powered chipping hammers not exceeding 7 kilograms nominal weight or by another Engineer approved means.
- (c) The Contractor shall contact the Authority for further instruction if concrete removal at the existing deck panel exposes existing reinforcing steel and/or prestressing strands. The existing prestressing strands must not be damaged therefore the Contractor shall use extreme care to avoid the areas containing prestressing strands.
- (d) Concrete removal is to be carried out so debris from the operation does not enter the harbor. The Contractor shall submit the proposed method to the Authority for approval.
- (e) Concrete removal shall be carried out allowing for the following:
  - i. In a manner to prevent damage to adjacent concrete, components and utilities that are to remain in place.
  - ii. Reinforcing steel and prestressing strands shall not be damaged or loosened.
  - iii. Exposed existing reinforcing steel is cleaned of all rust and concrete.
  - iv. In a manner to prevent loss of support at the existing bearings.

(5) Surface Preparation of Concrete

- (a) Surface preparation of the existing precast deck panel soffit shall be in strict accordance with the SCC manufacturer's printed instructions. Placement and curing of the SCC shall be in strict accordance with the SCC manufacturer's printed instructions.
- (b) As a minimum, surface preparation shall be given a final cleaning using a high pressure water blast (70 MPa), using a rotating nozzle. Care is to be taken not to remove any sound concrete.
- (c) In the proposed area of the epoxy adhesive, the surface preparation shall be in strict accordance with the epoxy adhesive manufacturer's written instruction.
- (d) In the area of the sloped fillets, the surface of the deck panel shall be clean and free of laitance and intentionally roughened to achieve a surface profile having a full amplitude of about 5mm and a spacing of about 15mm. The method for establishing the surface profile shall be submitted to the Authority for approval.

(6) Reinforcing Steel

- (a) The reinforcing steel shall be installed as shown on the Plans.

- (b) Materials for reinforcing steel shall conform to the requirements of Item 304.2 of the NBDTI Standard Specifications for Highway Construction.
- (c) Work related the reinforcing steel shall conform to Item 304.4 of the NBDTI Standard Specifications for Highway Construction.

(7) Steel Shear Stud Plate

- (a) The steel shear stud plate shall be installed as shown on the Plans.
- (b) Stud shear connectors shall be of a headed type, in accordance with the requirements of CAN/CSA W59.

(8) Adhesive Anchors

- (a) The hole preparation, installation and curing of the adhesive anchors to anchor the proposed reinforcing steel into the existing concrete shall be in strict accordance with the epoxy adhesive anchor manufacturer's printed instructions and as specified herein. Holes shall be hammer drilled only; cored holes will not be permitted.
- (b) Every effort shall be taken to prevent damaging the prestressing strands and reinforcing steel in the existing deck panel.
- (c) Installation of the adhesive anchor shall be performed by personnel certified by an applicable certification program or under direct supervision of a manufacturer's representative.

(9) Welding

- (a) Welding of connections, field and shop splices shall be in accordance with CSA W59.
- (b) Welding certification of companies shall be Division 1 or 2 in accordance with CSA W47.1.
- (c) Welders shall have a Qualified Welder's Certificate issued by the Canadian Welding Bureau for the process, position and type of welds to be used.
- (d) Welders stamp shall appear on all welds.
- (e) The procedure and technique for visual and non-destructive testing shall be in accordance with CAN/CSA W59, Clauses 7 and
  - i. All welds shall be inspected visually.

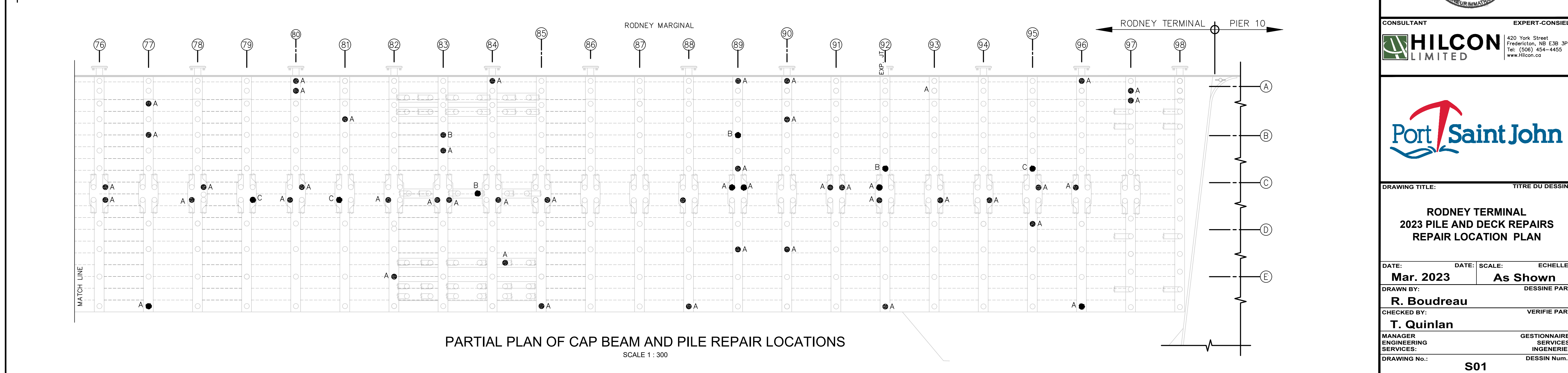
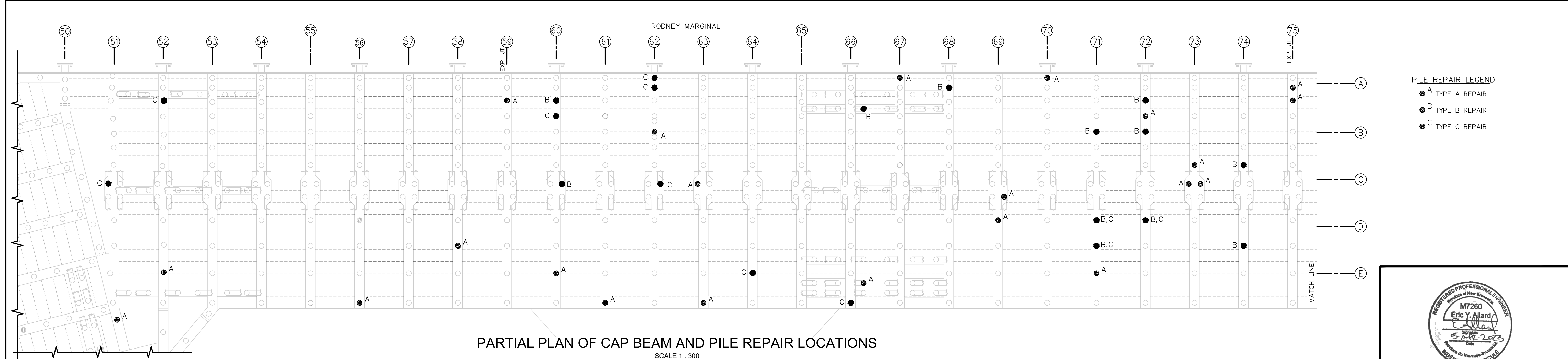
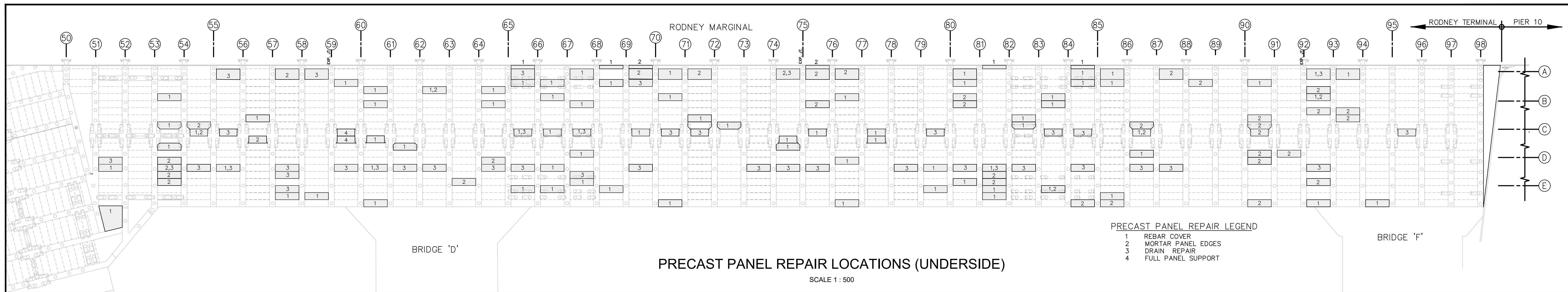


- ii. Weld testing and inspection will be the responsibility of the Authority.
  - (f) The acceptance standards for weld defects shall be in accordance with W59. CWB approved repair procedures shall be used to repair welds that do not meet the acceptance standards.
- (10) Epoxy Adhesive
- (a) The surface preparation of the existing concrete in bonded areas shall be in strict accordance with the epoxy manufacturer's printed instructions and as specified herein.
  - (b) The installation of the epoxy adhesive to bond the steel shear stud plate to the existing deck panel shall be in strict accordance with the epoxy adhesive anchor manufacturer's printed instructions and as specified herein.
  - (c) Installation of the epoxy adhesive shall be performed by personnel certified by an applicable certification program or under direct supervision of a manufacturer's representative.
  - (d) The Contractor shall test epoxy adhesive at a minimum of 5 representative locations.
    - i. Testing shall be completed by applying a sustained load of 2 kN to a shear stud for a minimum of 6 hours.
    - ii. The Authority shall be notified a minimum of 24 hours before testing.
    - iii. The Authority shall be notified upon completion of the testing.
- (11) Self-Consolidating Concrete (SCC)
- (a) The placement and curing of the SCC shall be in strict accordance with the manufacturer's written instructions.
  - (b) Formwork shall be left in place until the compressive strength of the SCC has reached 80% of the 28-day compressive strength.
  - (c) A concrete placement and curing plan shall be submitted to the Authority a minimum of 72 hours before concrete pour. Exact date and time shall be coordinated with the Authority, considering Crane and other operations.
  - (d) Live Loads, such as crane loads, shall not be applied to the work area until the SCC has achieved 80% of its 28-day compressive strength, unless otherwise instructed by the Authority.

- (e) Formwork shall be sealed and vent/grout ports installed to allow pumping of flowable repair material in order to completely fill the void as shown on the Plans.

(12) Formwork

- (a) All formwork shall be carried out in accordance with Item 958 of the NBDTI Standard Specifications for Highway Construction.



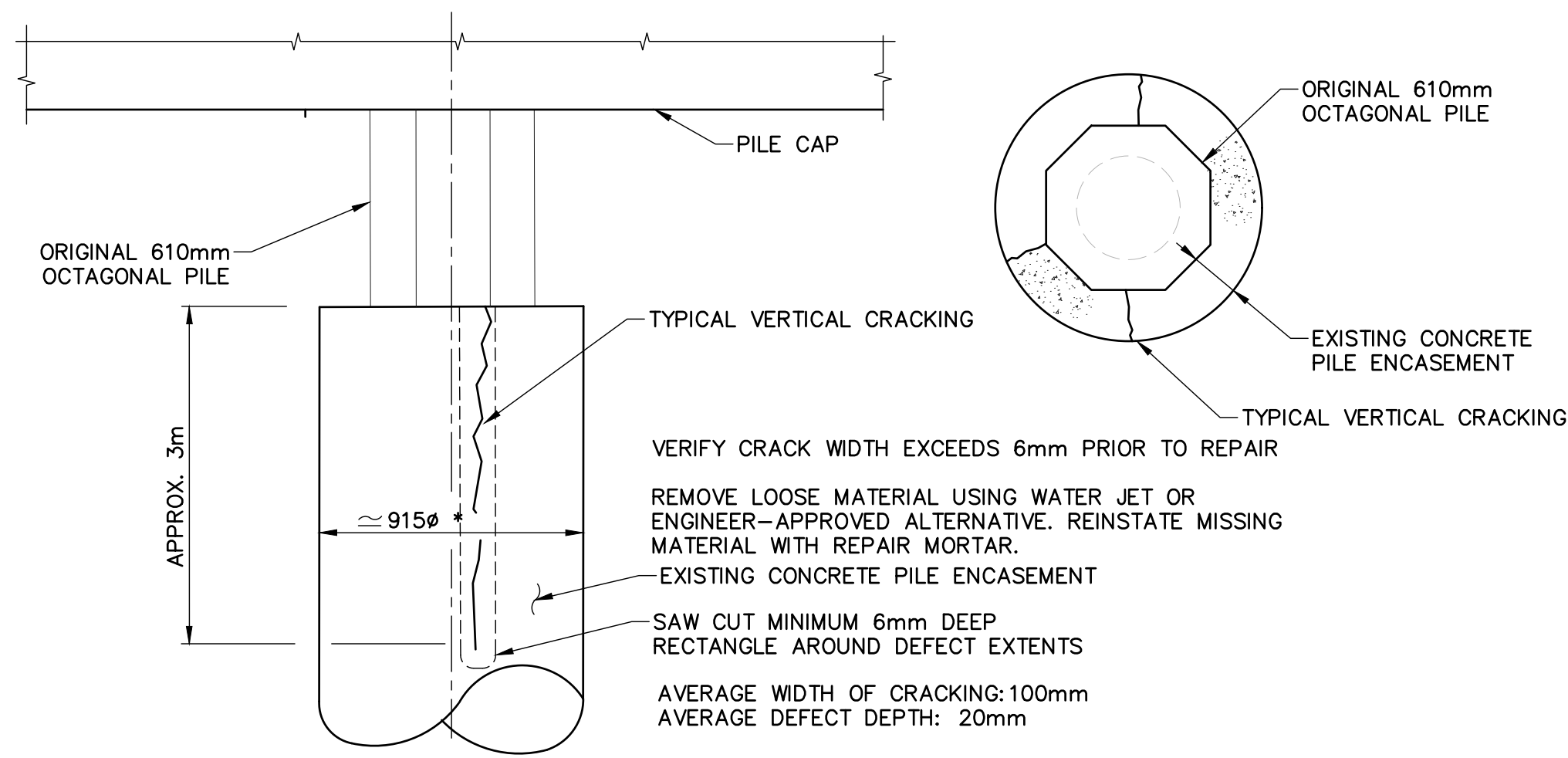
**CONSULTANT**      **EXPERT-CONSEIL**

**HILCON LIMITED**      420 York Street  
 Fredericton, NB E3B 3P7  
 Tel: (506) 454-4455  
 www.hilcon.ca

**DRAWING TITLE:**      **TITRE DU DESSIN:**

**RODNEY TERMINAL  
 2023 PILE AND DECK REPAIRS  
 REPAIR LOCATION PLAN**

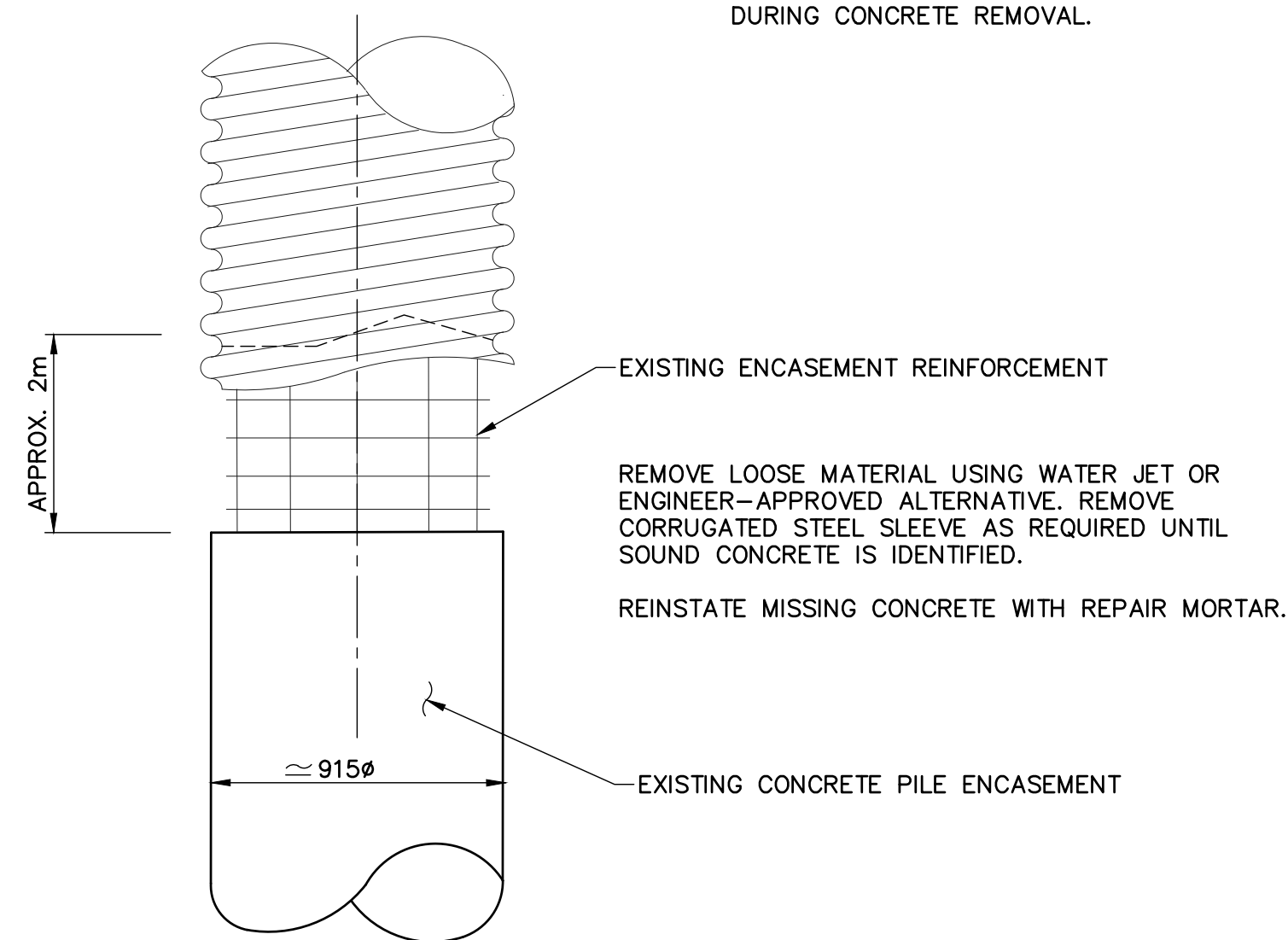
DATE:	DATE:	SCALE:	ECHELLE:
<b>Mar. 2023</b>		<b>As Shown</b>	
DRAWN BY:		DESSINE PAR:	
<b>R. Boudreau</b>			
CHECKED BY:		VERIFIE PAR:	
<b>T. Quinlan</b>			
MANAGER ENGINEERING SERVICES:		GESTIONNAIRE SERVICES INGENIERIE:	
DRAWING No.:		DESSIN Num.:	
		<b>S01</b>	



**PILE REPAIR DETAIL - TYPE A**  
CRACKING AT PILE ENCASEMENT

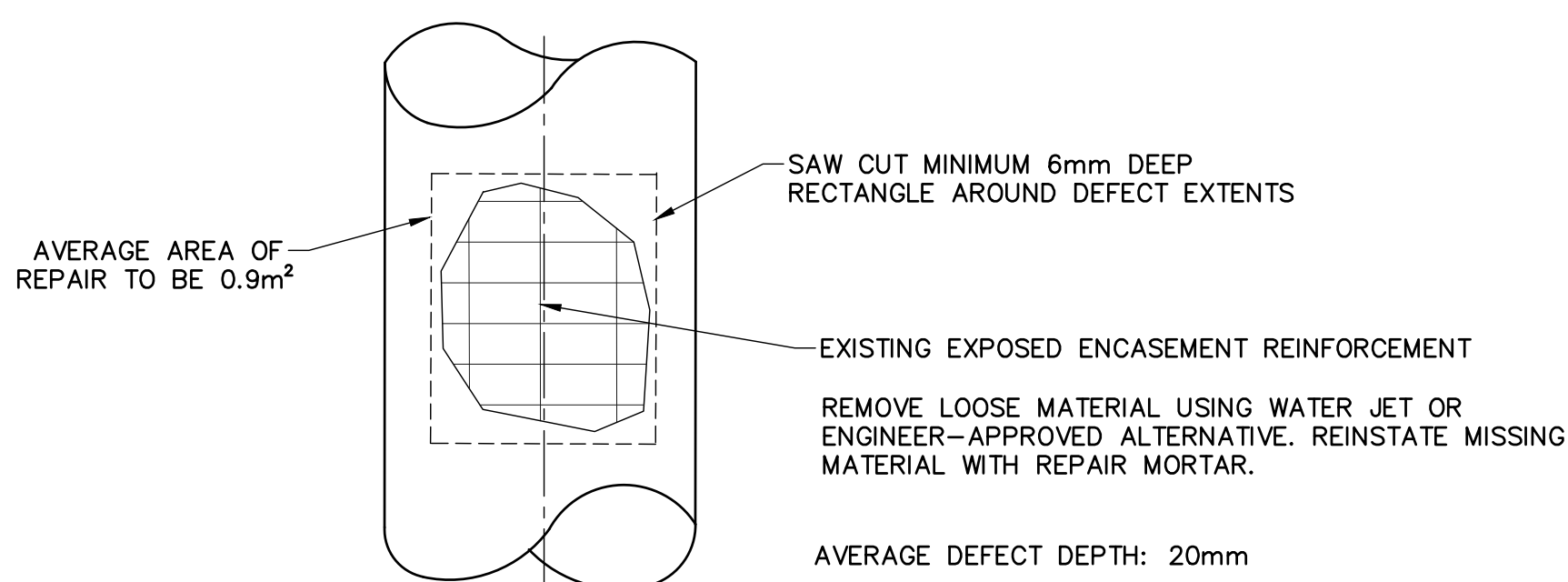
N.T.S.  
67 REQUIRED

NOTE:  
EXTREME CAUTION MUST BE TAKEN NOT TO DAMAGE EXISTING PILE AND ENCASEMENT REBAR DURING CONCRETE REMOVAL.



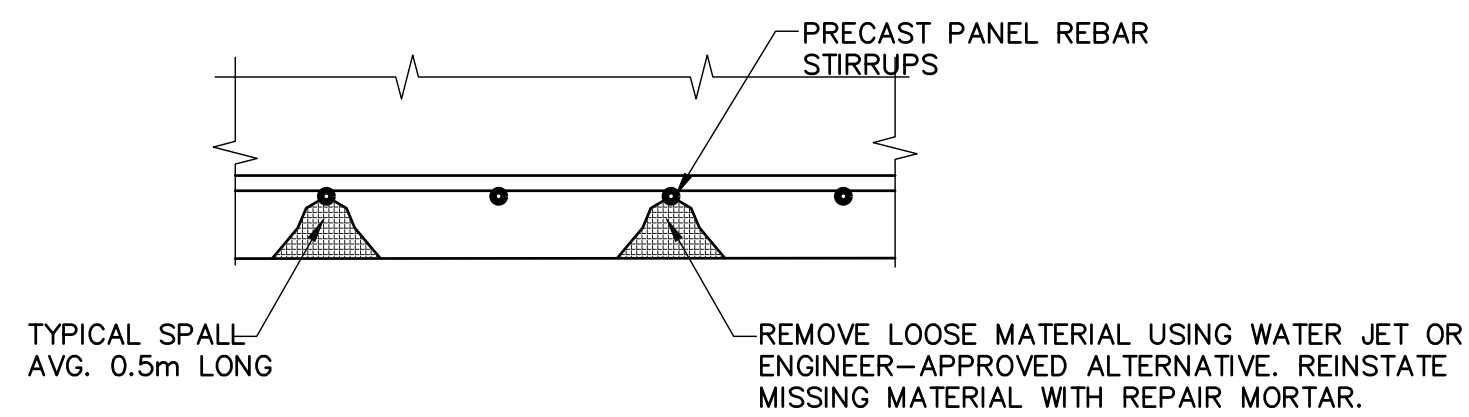
**PILE REPAIR DETAIL - TYPE B**  
EXPOSED REBAR IN PILE ENCASEMENT

N.T.S.  
15 REQUIRED



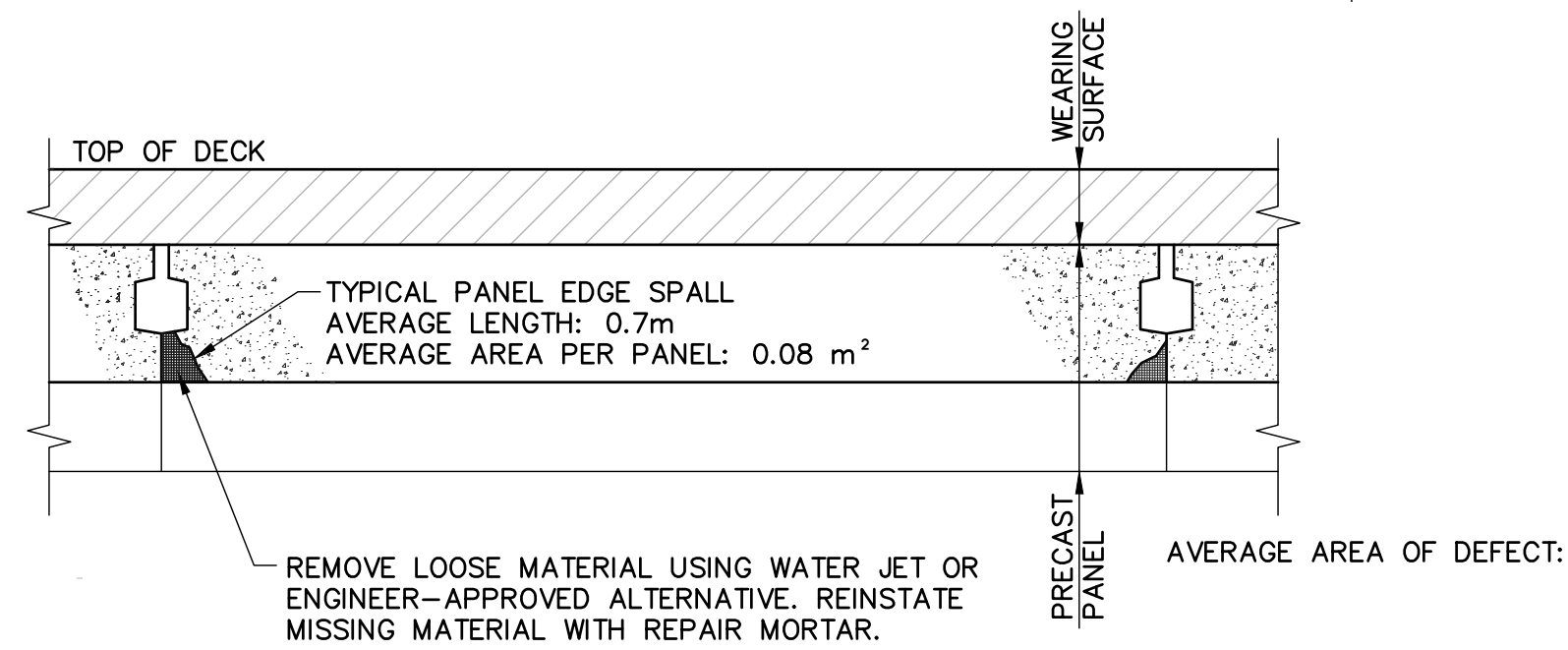
**PILE REPAIR DETAIL - TYPE C**  
EXPOSED REBAR IN PILE ENCASEMENT

N.T.S.  
15 REQUIRED



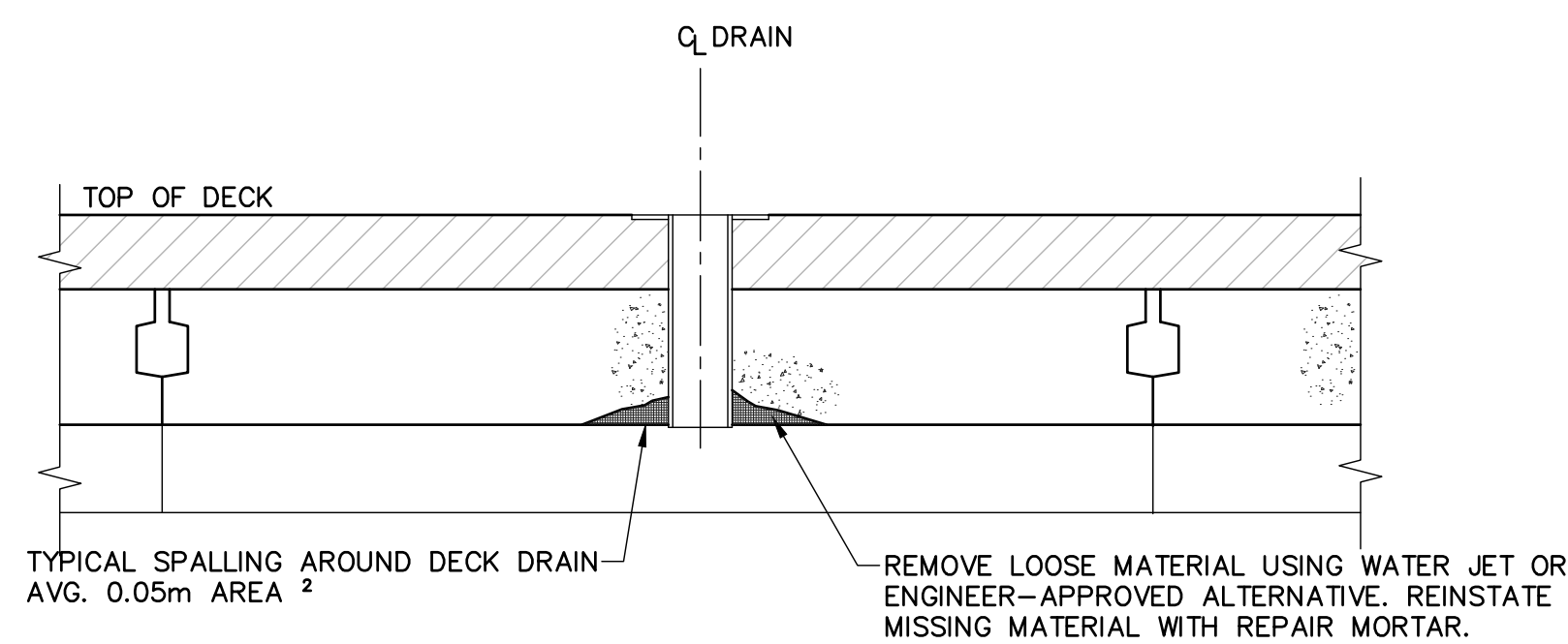
**PANEL REPAIR DETAIL - TYPE 1**  
EXPOSED REBAR

N.T.S.  
298 REQUIRED



**PANEL REPAIR DETAIL - TYPE 2**  
EDGE SPALLING

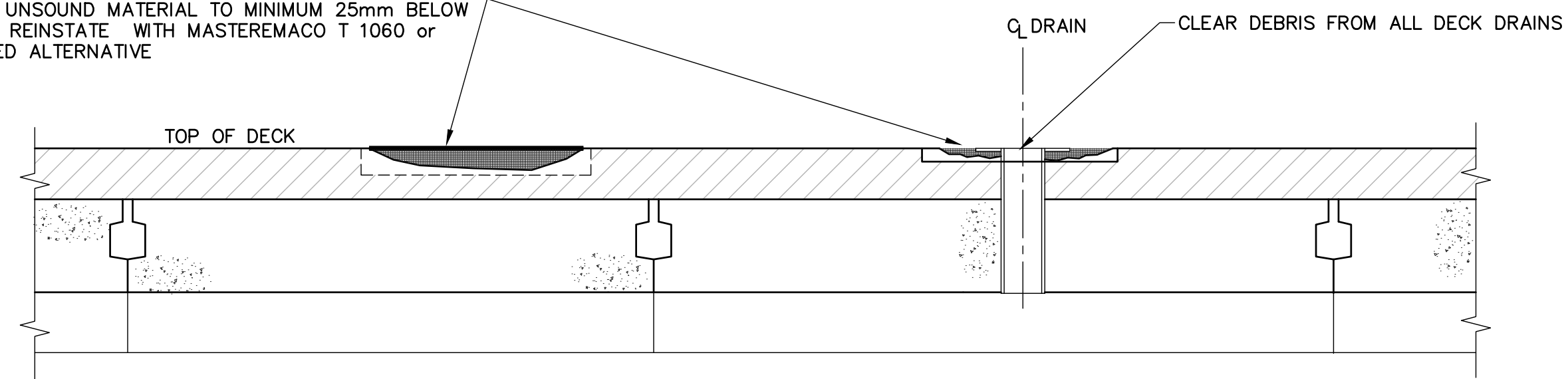
N.T.S.  
54 REQUIRED



**PANEL REPAIR DETAIL - TYPE 3**  
DECK DRAIN SPALLING

N.T.S.  
51 REQUIRED

VERIFY CRACK WIDTH EXCEEDS 6mm, or DEPTH EXCEEDS 13mm PRIOR TO REPAIR.  
SQUARE CUT 13mm DEEP RECTANGLE AROUND DEFECT. CHIP AND REMOVE LOOSE OR UNSOUND MATERIAL TO MINIMUM 25mm BELOW SURFACE OF DECK. REINSTATE WITH MASTEREMACO T 1060 or ENGINEER-APPROVED ALTERNATIVE

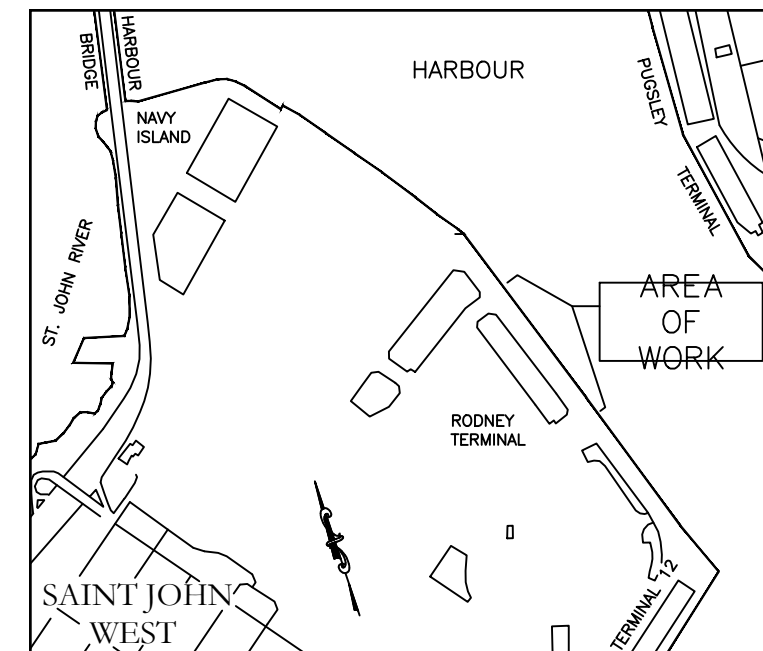


**DECK WEARING SURFACE REPAIR DETAIL**

N.T.S.

APPROXIMATE TOTAL DECK REPAIR AREA: 390 m<sup>2</sup>  
AVERAGE DEFECT DEPTH: 30mm

- NOTES:
1. DIMENSIONS IN MILLIMETERS UNLESS NOTED OTHERWISE.
  2. APPROXIMATE EXTENTS OF REPAIR AS INDICATED ON DRAWING.
  3. CONTRACTOR SHALL FIELD-VERIFY DIMENSIONS.
  4. SELECT PHOTOGRAPHS PROVIDED ON DRAWING S04. ADDITIONAL PHOTOGRAPHS CAN BE PROVIDED ON REQUEST.
  5. REPAIR MORTAR SHALL BE MASTER EMACO S 488 CI OR APPROVED EQUAL U.N.O.
  6. REMOVE ALL LOOSE AND UNSOUND CONCRETE USING WATER JET OR ENGINEER-APPROVED ALTERNATIVE. ENSURE SURFACE IS FREE OF ALGAE, DEBRIS ETC PRIOR TO APPLICATION OF REPAIR MATERIALS. ADDITIONAL SURFACE PREPARATION SHALL BE DONE IN ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTIONS.
  7. EDGES OF ALL REPAIR AREAS SHALL BE SAWCUT TO 6mm DEPTH. REMOVE CONCRETE TO MINIMUM 6mm DEPTH U.N.O.
  8. SAWCUTS TO BE RECTANGULAR AND PROPORTIONED TO COMPLETELY ENCAPSULATE AREA OF REPAIR.
  9. ALL PRODUCTS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTIONS.



CONSULTANT EXPERT-CONSEIL

**HILCON LIMITED**

420 York Street  
Fredericton, NB E3B 3P7  
Tel: (506) 454-4455  
www.Hilcon.ca



DRAWING TITLE: TITRE DU DESSIN:

**RODNEY TERMINAL**  
**2023 PILE AND DECK REPAIRS**  
**DETAILS**

DATE: DATE: SCALE: ECHELLE:  
**Apr. 2023** **As Shown**

DRAWN BY: DESSINE PAR:  
**R. Boudreau**

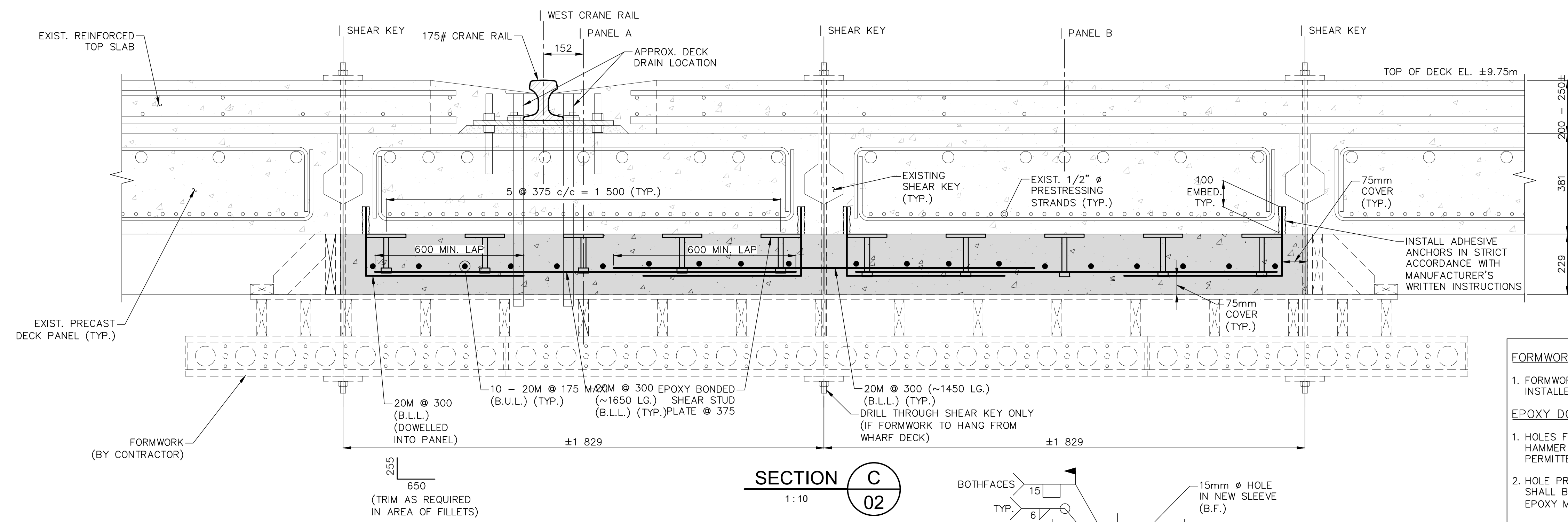
CHECKED BY: VERIFIE PAR:  
**T. Quinlan**

MANAGER ENGINEERING SERVICES: GESTIONNAIRE SERVICES INGENIERIE:

DRAWING No.: DESSIN Num.:  
**S02**

**SUGGESTED SEQUENCE :**

1. INSTALL FALSEWORK AND MEANS TO CAPTURE DEBRIS.
2. REMOVE LOOSE AND DELAMINATED CONCRETE AROUND BEARING AND AT UNDERSIDE OF PRECAST PANELS.
3. DOWEL NEW 20M BARS INTO UNREINFORCED FILLETS. CARE SHALL BE TAKEN TO NOT DAMAGE EXISTING PRESTRESSING STRANDS.
4. COMPLETE SURFACE PREPARATION AT UNDERSIDE OF PANEL.
5. BOND SHEAR STUD PLATES TO UNDERSIDE OF PANELS (CONCRETE SCREWS MAY BE USED FOR CLAMPING). SHEAR PLATES SHALL BE BONDED TO SOUND CONCRETE.
6. INSTALL DECK DRAIN DOWNSPOUT EXTENSIONS.
7. INSTALL REINFORCING STEEL. ONCE EPOXY HAS CURED, SHEAR STUDS MAY BE USED TO SUPPORT REINFORCING STEEL BAR CAGE.
8. INSTALL FORMWORK. IF SUPPORTING FORMWORK FROM THE TOP OF THE DECK, VERTICAL SUPPORT HANGER RODS MAY ONLY PASS-THROUGH SHEAR KEYS. DRILLING THROUGH PRECAST PANELS WILL NOT BE PERMITTED.
9. SEAL FORMWORK AND INSTALL GROUT/VENT PORTS TO ALLOW FOR PRESSURE GROUTING.
10. FILL VOID WITH PUMPABLE SHRINKAGE COMPENSATED REPAIR MATERIAL.



**FORMWORK :**

1. FORMWORK TO BE DESIGNED, SUPPLIED AND INSTALLED BY THE CONTRACTOR.

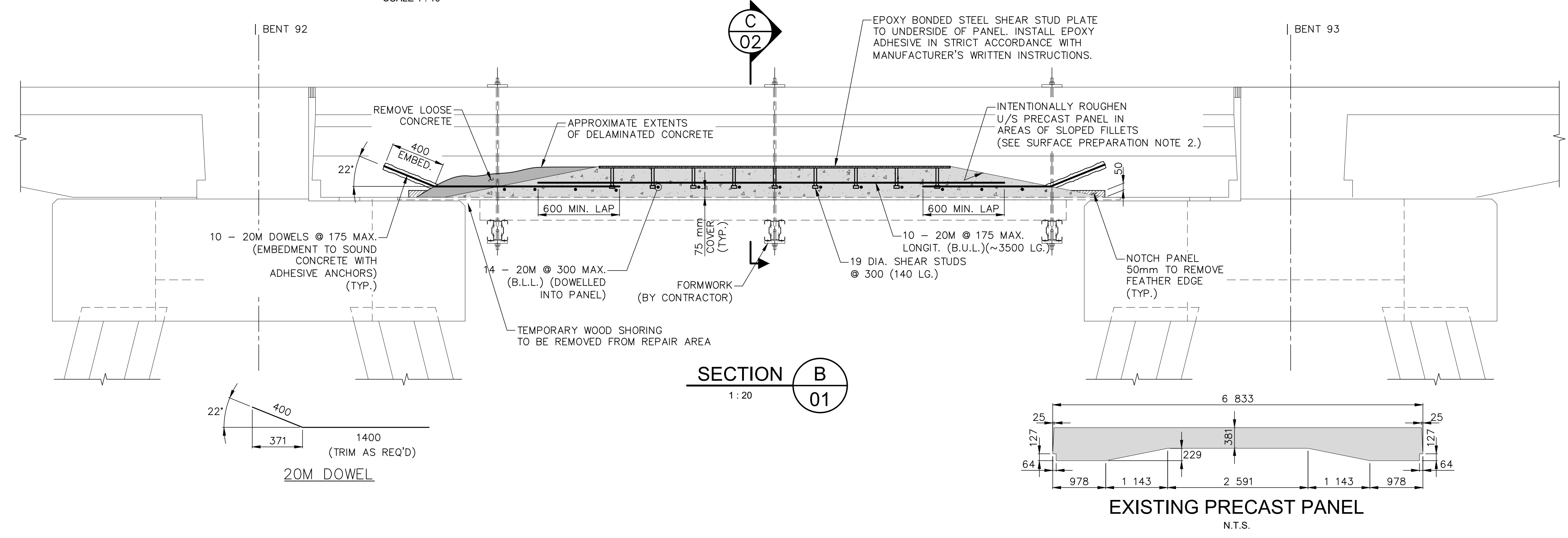
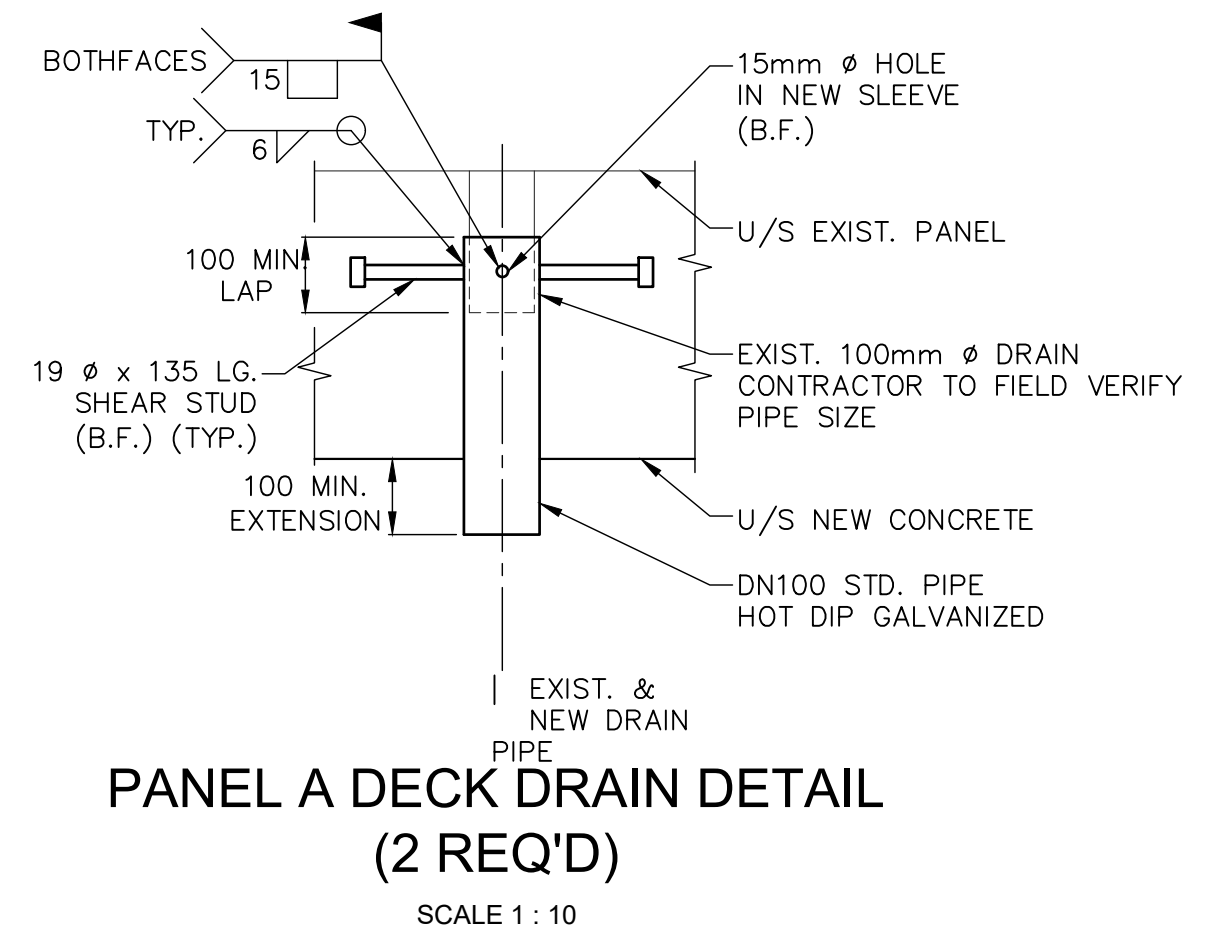
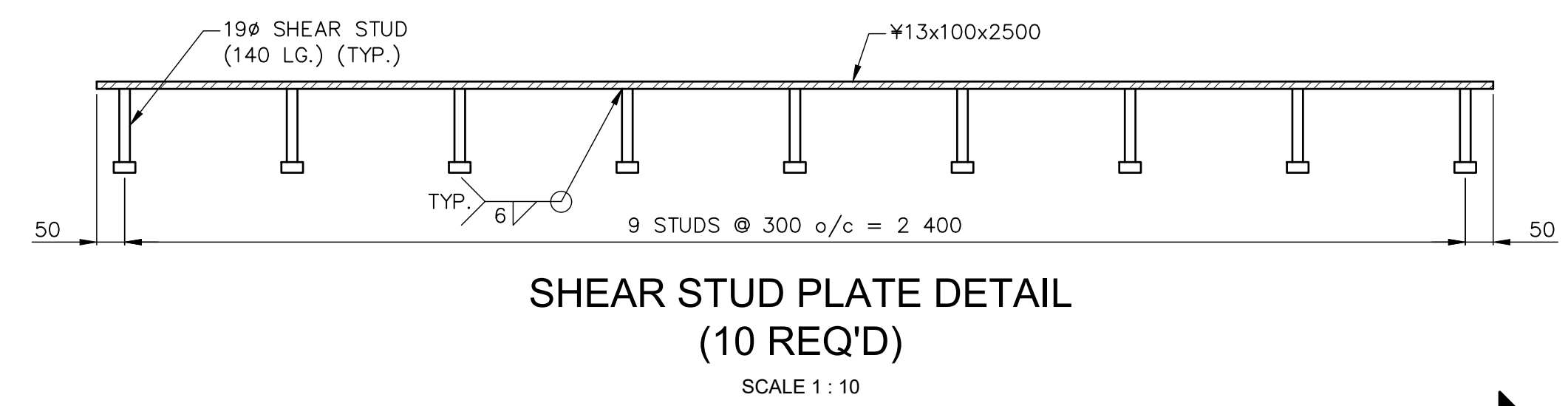
**EPOXY DOWELS:**

1. HOLES FOR ADHESIVE ANCHORS MUST BE HAMMER DRILLED. CORED HOLES WILL NOT BE PERMITTED.
2. HOLE PREPARATION AND EPOXY INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE EPOXY MANUFACTURER'S REQUIREMENTS.

**SURFACE PREPARATION:**

1. IN AREAS OF STEEL SHEAR STUD PLATE, UNDERSIDE OF PRECAST PANELS SHALL BE CLEAN AND FREE OF LAITANCE. CONCRETE SHALL BE SOUND AND SURFACE SHALL BE PREPARED IN STRICT ACCORDANCE WITH THE EPOXY ADHESIVE MANUFACTURER'S WRITTEN INSTRUCTIONS.
2. IN AREAS OF THE UNREINFORCED CONCRETE SLOPED FILLETS, THE UNDERSIDE OF PRECAST PANELS SHALL BE CLEAN AND FREE OF LAITANCE AND SHALL BE INTENTIONALLY ROUGHENED, AS REQUIRED, TO ACHIEVE A FULL AMPLITUDE OF APPROXIMATELY 5mm AND A SPACING OF ABOUT 15mm. METHODS FOR ACHIEVING THIS SURFACE PROFILE SHALL BE SUBMITTED TO THE AUTHORITY FOR REVIEW AND APPROVAL.

LEGEND	
T.U.L.	TOP UPPER LAYER
T.L.L.	TOP LOWER LAYER
B.U.L.	BOTTOM UPPER LAYER
B.L.L.	BOTTOM LOWER LAYER
T & B	TOP AND BOTTOM
N.F.	NEAR FACE
F.F.	FAR FACE
B.F.	BOTH FACES



**CONSULTANT EXPERT-CONSEIL**  
**HILCON LIMITED**  
420 York Street  
Fredericton, NB E3B 3P7  
Tel: (506) 454-4455  
www.hilcon.ca



**DRAWING TITLE: TITRE DU DESSIN:**  
**RODNEY TERMINAL  
2023 PILE AND DECK REPAIRS  
PRECAST PANEL REPAIR TYPE 4**

**DATE: DATE: SCALE: ECHELLE:**  
**Apr 2023 As Shown**

**DRAWN BY: DESSINE PAR:**  
**D. Stickles**

**CHECKED BY: VERIFIE PAR:**  
**E. Robichaud**

**MANAGER ENGINEERING SERVICES: GESTIONNAIRE SERVICES INGENIERIE:**

**DRAWING No.: DESSIN Num.:**  
**S03**



PHOTO 1, TYPICAL PANEL TYPE 1



PHOTO 2, TYPICAL PANEL TYPE 2



PHOTO 3, TYPICAL PANEL TYPE 3



PHOTO 4, PANEL TYPE 4



PHOTO 5, ALTERNATE PANEL TYPE 1



PHOTO 6, ALTERNATE PANEL TYPE 2



PHOTO 7, TYPICAL PILE TYPE A



PHOTO 8, TYPICAL PILE TYPE B



PHOTO 9, TYPICAL PILE TYPE C

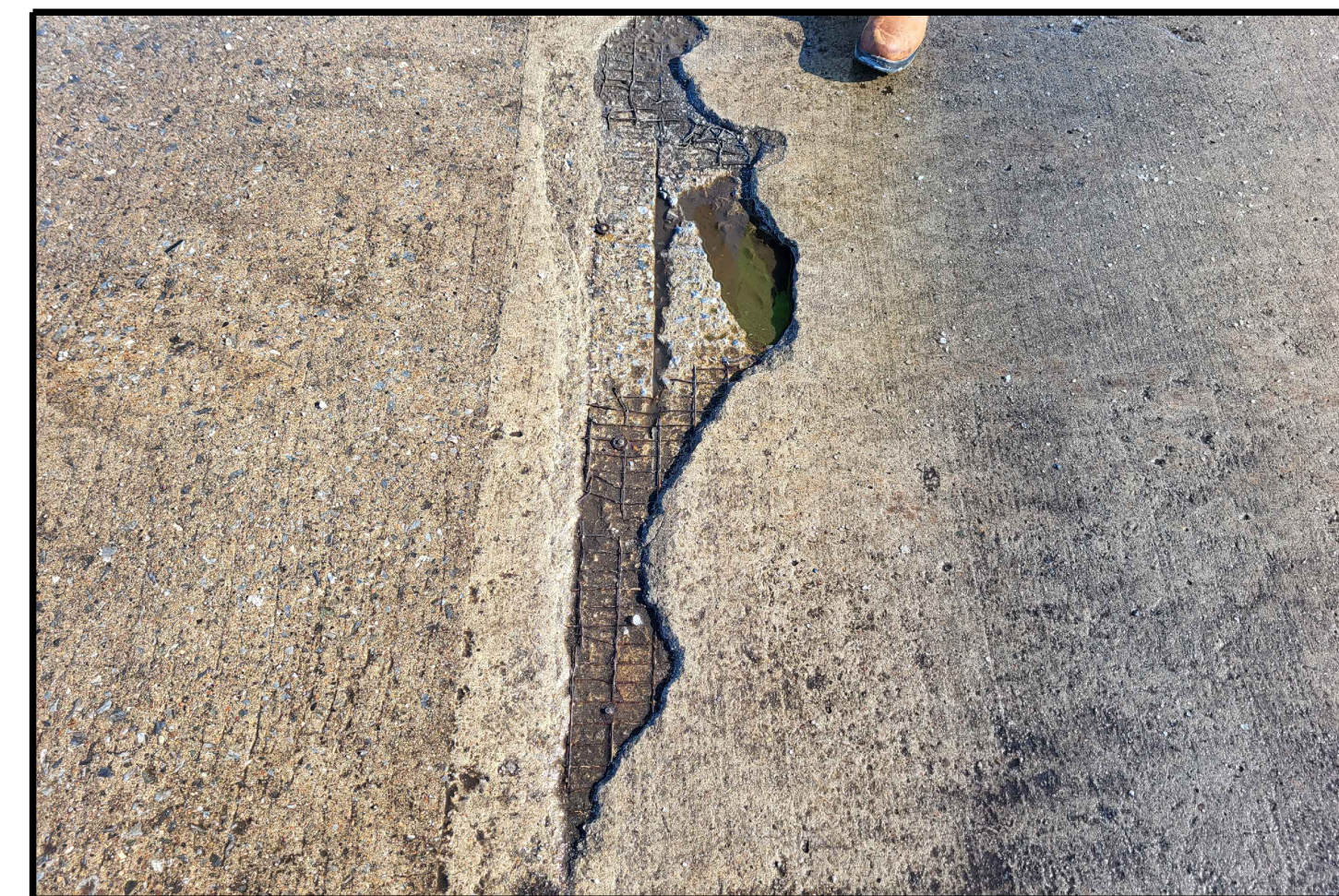


PHOTO 10, TYPICAL DECK POTHOLE

CONSULTANT      EXPERT-CONSEIL

**HILCON LIMITED**      420 York Street  
 Fredericton, NB E3B 3P7  
 Tel: (506) 454-4455  
 www.Hilcon.ca

DRAWING TITLE:      TITRE DU DESSIN:

**RODNEY TERMINAL  
 2022 PILE REPAIRS  
 EXISTING PHOTOS**

DATE:	DATE:	SCALE:	ECHELLE:
<b>Mar. 2023</b>		<b>As Shown</b>	
DRAWN BY:	DESIGNED BY:		DESSINE PAR:
<b>R. Boudreau</b>			
CHECKED BY:	VERIFIED BY:		VERIFIE PAR:
<b>T. Quinlan</b>			
MANAGER ENGINEERING SERVICES:	GESTIONNAIRE SERVICES INGENIERIE:		
DRAWING No.:	DESSIN Num.:		
	<b>S04</b>		