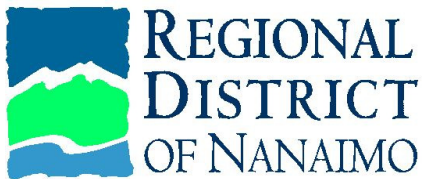


REGIONAL DISTRICT OF NANAIMO

Invitation to Tender 20-027:

Greater Nanaimo Pollution Control Centre (GNPCC)
Frontage Works

TENDER DOCUMENTS



Prepared for:

Regional District of Nanaimo
6300 Hammond Bay Road
Nanaimo, BC
V9T 6N2

Prepared By:

Herold Engineering Limited
3701 Shenton Road
Nanaimo, BC
V9T 2H1

Date: April 17, 2020
Project No. 0837-047

Regional District of Nanaimo

20-027: Greater Nanaimo Pollution Control Centre (GNPCC) Frontage Works

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Regional District of Nanaimo

20-027: Greater Nanaimo Pollution Control Centre (GNPCC) Frontage Works

Nanaimo, BC

Sealed tenders, clearly marked 'Tender 20-027 Greater Nanaimo Pollution Control Centre Frontage Works' will be received by email to pryan@heroldengineering.com on or before 15:00 hours, May 15, 2020. The owner and consultant will not be responsible for any technological delays. Submissions will be opened in private at that time.

The project site is the frontage of 4600 Hammond Bay Road between McGuffie Road and Shores Drive. The work consists of: removal of trees , stumps, clearing existing vegetation, removal of chain link fence, concrete and asphalt sidewalk, concrete curb; installation of approximately 400m of 3.0m wide asphalt trailway, curb and gutter, street lighting, boulevard tree planting, habitat fencing, riparian area enhancements, and all works incidental thereto as shown on the drawings.

The Tender Documents will be available on BC BID and on the Regional District of Nanaimo website <https://www.rdn.bc.ca/current-bid-opportunities>

Tenders are expected to familiarize themselves with the project site in its current state no later than **May 1, 2020**. Access to the property behind the fence can be arranged upon request.

Direct all inquiries, in writing, to Attention Patrick Ryan, P. Eng., Project Manager, Herold Engineering Limited, 3701 Shenton Road, Nanaimo, BC, V9T 2H1, Phone 250.751.8558, and e-mail: pryan@heroldengineering.com.

Each Tender Form Received from a Bidder must be accompanied by a Bid Bond in the amount equal to TEN PERCENT (10%) of the TOTAL AMOUNT OF TENDER. Bid Bonds shall be issued on a form approved by the Insurance Bureau of Canada and issued by a Surety acceptable to the Owner. The Successful Bidder will be required to submit a 50% Labour & Materials Bond and a 50% Performance Bond within ten (10) days after the Award of Contract.

Tenders must remain valid for sixty (60) days following closing time and date.

The Owner reserves the right to reject any or all tenders, to accept the tender deemed most favourable in the interests of the Owner, and to re-issue the tender with the same or different terms.

Regional District of Nanaimo
20-027: Greater Nanaimo Pollution Control
Centre (GNPCC) Frontage Works
Nanaimo, BC

PART II
INSTRUCTIONS TO TENDERERS

REGIONAL DISTRICT OF NANAIMO**20-027: Greater Nanaimo Pollution Control Centre (GNPCC) Frontage Works****Nanaimo, BC****PART II****INSTRUCTIONS TO TENDERERS****ARTICLE 1. TENDER**

Tenders, clearly marked 'Tender 20-027 Greater Nanaimo Pollution Control Centre Frontage Works' will be received by email to pryan@heroldengineering.com on or before 15:00 hours, May 15, 2020. The owner and consultant will not be responsible for any technological delays. Submissions will be opened in private at that time.

ARTICLE 2. SCOPE OF WORK

The project site is the frontage of 4600 Hammond Bay Road between McGuffie Road and Shores Drive. The work consists of: removal of trees, stumps, clearing existing vegetation, removal of chain link fence, concrete and asphalt sidewalk, concrete curb; installation of approximately 400m of 3.0m wide asphalt trailway, curb and gutter, street lighting, boulevard tree planting, habitat fencing, riparian area enhancements, and all works incidental thereto as shown on the drawings.

ARTICLE 3. STANDARDS AND SPECIFICATIONS

All work and materials are to be as described in the latest edition (November 2019) of the City of Nanaimo Manual of Engineering Standards and Specifications (MOESS), as well as any specifications referenced on the contract documents or drawings.

The Standard Construction Contract Document for this project is CCDC 18.

ARTICLE 4. DEPOSIT FOR CONTRACT DOCUMENTS

There is no cost for the Contract Documents in digital format.

ARTICLE 5. EXAMINE

The Tenderer must carefully examine the Contract Documents and the site of the proposed works, judging for and satisfying themselves as to the probable conditions to be encountered. Should a Tenderer find discrepancies in, or omissions from, the drawings or other documents, or should they be in doubt as to their meaning, they should at once notify the Consultant. The Tenderer may not claim, after the submission of a tender, that there was any misunderstanding with respect to the conditions imposed by the documents.

Although provision is made in the General Conditions for certain unforeseen site conditions, Tenderers shall make allowances in their bids for such conditions as in the sole opinion of the Tenderer are warranted. It is expected that Tenderers will visit the site before tendering and shall satisfy themselves as to the nature and location of the Work, the means of temporary access, and shall obtain all necessary information as to risks, contingencies and circumstances which may affect his Tender. The Tenderer is responsible for obtaining all information required for the preparation of the Tender.

The Tenderer's attention is drawn to the Supplementary General and Special Conditions of the documents, which contain any changes or additions to the General Conditions. The Tenderer's attention is also drawn to any addenda, which may be issued prior to the time of tender closure.

No verbal agreement or conversation made or had at any time with any officer, agency, or employee of the Owner or the Consultant shall affect or modify any of the terms or obligations neither herein stated, nor deemed to be any representation or warranty.

ARTICLE 6. TREE REMOVAL

City of Nanaimo Tree Removal Permitting to be completed by Regional District of Nanaimo.

ARTICLE 7. TREE REPLACEMENT RECOMMENDATIONS

There are two sections of tree planting:

1. Boulevard: Between the road curb and the trailway
2. Enhancement Project : North of the trailway in the riparian area

Tree planting for Item #1 (boulevard) is noted incorrectly on the Landscape design drawing L1. The correct species is *Acer Truncatum* 'Ruby Sunset' (Ruby Sunset Purplebow Maple).

Tree Replacement Recommendations for Item #2 (enhancement project) are noted in the 'Tree Replacement and Riparian Enhancement for GNPCC Frontage Works' prepared by EDI, dated March 30, 2020 and is included in **Appendix B**.

The Tenderer is advised that Regional District of Nanaimo will retain a qualified professional, Environmental Dynamics Inc. (EDI) to assist contractor in the implementation of the enhancement project (plant selection, trees and shrubs planting, invasive species removal, and maintenance).

ARTICLE 8. LANDSCAPING

The Tenderers are advised that the Landscaping Sub-contractor must submit qualifications, experience and references that meet the following minimum requirements:

1. Boulevard
 - a) The contractor shall have experience installing and maintaining Municipal (public) landscapes.
 - b) The contractor shall be familiar with the most current edition of the City of Nanaimo (City) Engineering Standards & Specifications (MOESS) Section 14 – Landscape and Details P-1& P-2 available on the City's website.
2. Riparian Area
 - a) The contractor shall have experience installing and maintaining riparian area enhancement projects.
 - b) The contractor shall be familiar with the most current edition of the City of Nanaimo Engineering Standards & Specifications (MOESS) Section 14 – Landscape and Details P-1 & P-2 available on the City website .This specification will be used to guide the implementation of the riparian area work.

ARTICLE 9. QUERIES/ADDENDA

Direct all questions in writing only to **Patrick Ryan, P.Eng., Project Manager**, Herold Engineering Limited, 3701 Shenton Road, Nanaimo, BC, V9T 2H1 or by email to pryan@heroldengineering.com.

Addenda may be issued during bidding period. All Addenda become part of the Contract Documents. Changes in cost from Addenda items are to be included in the bid price. Verbal answers are only binding when confirmed by written addenda.

Addenda will be posted to BC BID and on the Regional District of Nanaimo website <https://www.rdn.bc.ca/current-bid-opportunities>.

Clarifications requested by Tenderers must be in writing not less than five (5) days before date set for receipt of Bids.

ARTICLE 10. FORM OF SUBMISSION

Tenders, clearly marked 'Tender 20-027 Greater Nanaimo Pollution Control Centre Frontage Works' will be received by email to pryan@heroldengineering.com on or before 15:00 hours, May 15, 2020. The owner and consultant will not be responsible for any technological delays. Submissions will be opened in private at that time.

Electronically submitted Tenders will be deemed to be successfully received when the time as posted on the incoming email is at or before the established closing date and time.

It is the Tenderer's sole responsibility to ensure their Tender is received when, where and how it is specified in this document.

ARTICLE 11. SCHEDULE OF COMPLETION

The Regional District of Nanaimo requires that this contract be completed by November 15, 2020. Further to the total project completion by November 15, 2020, Regional District of Nanaimo requires that all works on Shores Drive be completed by August 31, 2020 in advance of the 2020-2021 school year.

ARTICLE 12. TENDER SIGNING

If the Tenderer is an individual, a corporation or a partnership, the Tender shall be executed by the individual or a partner authorized to legally bind the tenderer to the statements made in the Tender.

If the Tenderer is a joint venture, each party to the joint venture shall execute the Tender under seal in the manner appropriate to such party.

ARTICLE 13. QUANTITIES

The quantities inserted against the various items in the Schedule of Quantities and Prices of the Tender Form have been stated for the purpose of comparing tenders on a uniform basis, but it must be distinctly understood that any quantities shown in the said Schedule are approximate only and that neither the Owner nor the Consultant expressly or by implication represent that the actual quantities will even approximately correspond therewith.

No variation in the quantities actually handled shall give rise to any claim against the Owner or the Consultant.

ARTICLE 14. TENDER PRICE

Unit and lump sum prices shall be filled in where indicated in the Schedule of Quantities and Prices of the Tender Form. The unit prices shall be extended in accordance with the quantities shown and the extensions shall be inserted in the space provided. The total tender must be an accurate extension of the unit and lump sum prices submitted and the quantities shown.

In the event of a discrepancy between the unit prices and extended totals, the unit prices will govern and the Consultant will correct the extended totals accordingly.

In the event of a discrepancy between a maximum allowable lump sum price and the submitted lump sum price, the maximum allowable price shall govern and the Consultant will correct the price and extend totals accordingly.

The prices tendered shall include the supply of all materials except those specified to be supplied by others, all supervision, labor and equipment and a provision for overhead and profit, and shall represent the entire cost to the Owner for the completed works as specified and shown on the drawings.

ARTICLE 15. FEES FOR CHANGES IN WORK

Unless otherwise agreed between Owner and Contractor, the allowance for overhead and profit for the payment for approved COST PLUS WORK shall be calculated as follows:

1. For Contractor, for overhead and profit, 10% of the actual cost of the Contractor's work.
2. For Contractor, for overhead and profit, 5% of the amount for Subcontractor's work, being the actual costs of the subcontractors work plus the amount set out in .3 below.
3. For Subcontractor, for overhead and profit, 10% of the actual cost of the Subcontractor's work.

ARTICLE 16. TENDERER'S QUESTIONNAIRE

The Tenderer must furnish evidence that he has the necessary experience and is prepared to use the necessary personnel and equipment to carry out the work satisfactorily and within the time stated in the Tender Form. The Tenderer's Questionnaire shall be completed in order that his capabilities in this regard can be assessed by the Owner. Failure to complete the Questionnaire may result in the Tender being considered incomplete.

ARTICLE 17. LIST OF SUBCONTRACTORS

The Tenderer must indicate, in the List of Subcontractors in the Tender Form, the names of all subcontractors he proposes to employ on the work. Subcontractors shall not be changed or additional subcontractors employed without the written authorization of the Consultant. Failure to submit a complete list may result in the Tender being considered incomplete.

ARTICLE 18. SCHEDULE OF FORCE ACCOUNT RATES

The Tenderer must indicate, in the Schedule of Force Account Rates of the Tender Form, all personnel and equipment hourly rates likely to be used on the project. All rates are to be in line with 'Blue Book' rates.

These rates will form the basis for payment for force account work carried out in accordance with the General Conditions. Failure to adequately complete the schedule may result in the Tender being considered incomplete.

ARTICLE 19. LIST OF MANUFACTURERS AND SUPPLIERS

The Tenderer must indicate in the List of Manufacturers and Suppliers in the Tender Form, the manufacturer or product brand name of the items listed together with the name of the supplier or distributor from which each item will be purchased.

Where more than one supplier or manufacturer is listed or specified, the name of the selected supplier or manufacturer shall be inserted. Manufacturers and suppliers will not be changed from those shown in the Tender Form without the written authorization of the Consultant. Failure to complete the list may result in the Tender being considered incomplete.

ARTICLE 20. PROPOSED ALTERNATE MATERIALS

The Tenderer may propose to use materials other than that specified or shown on the drawings by providing the required information in the list of Proposed Alternate Materials in the Tender Form. Evaluation of proposed alternate materials will be made by the Owner following the closing of tenders. However, the Total amount of Tender must be based on the use of specified materials.

ARTICLE 21. SECURITY REQUIREMENTS

Bid Bonds:

The Tender must be accompanied by a Bid Bond in an amount **not less than ten percent (10%) of the Tender Price**. The Bid Bond must be issued by a surety company licensed to conduct business in the province or territory wherein the work is located, and must be accompanied with a Surety's Consent. The Bid Bond must be a digital bond only, no photocopied or scanned copies of the bond are permissible. Failure to comply will result in an incomplete submission.

If the successful Tenderer fails for any reason to execute the Contract Agreement and to provide the surety bonds stipulated in the General Conditions within the time agreed to in the Tender Form, and such extension of time as may be granted by the Owner, that portion of his Bid Bond will be forfeited to and retained by the Owner in the amount of the difference in money between the Total Tender and the amount for which the Owner may legally contract with another party to perform the work, if the latter amount be in excess of the former.

The Bid Bonds submitted by unsuccessful Tenderers will be returned to them as soon as the successful Tenderer has delivered to the Owner a fully executed Performance Bond for the Work or the period for which tenders are irrevocable has elapsed, whichever shall first happen.

Labour and Material Payment Bonds and Performance Bonds:

The successful Tenderer shall provide a digital Performance Bond and a digital Labour and Material Payment Bond each in the amount of FIFTY PERCENT (50%) of the CONTRACT PRICE.

These bonds must be provided within fourteen (14) days of contract award and must be maintained in good standing until the fulfilment of the Contract, including the requirements of the Warranty provided for in GC 12.3 - Warranty and the payment of all obligations arising under the Contract. Should the successful Tenderer fail to provide these required bonds; the Bid Bond may be forfeited.

All such bonds shall be issued on a form approved by the Insurance Bureau of Canada and issued by a Surety acceptable to the Owner.

The costs attributed to providing such bonds shall be included in the Total Amount of Tender. The obligee on the bonds must be the Owner.

Submit with the Tender and Bid bond, a "Consent of Surety" stating that the Surety is willing to supply the Performance and Labour and Material Payment Bonds required.

ARTICLE 22. TENDER WITHDRAWAL

A Tenderer may, without prejudice to himself, withdraw his tender on written request received by the Consultant (Patrick Ryan, Herold Engineering) any time prior to the time set for the closing of tenders.

ARTICLE 23. REVISIONS TO TENDER

Any revision to the tender by the Tenderer must be in writing by letter, properly executed, and received by the Consultant (Patrick Ryan, Herold Engineering) at the closing location before the closing time.

1. Email

Email revisions must be received as a new email by the Consultant (Patrick Ryan, Herold Engineering) prior to the established closing time. The Tenderer assumes all responsibility for the timely and effective delivery of any emailed revision.

The revision must substantially comply with the following requirements:

- a. state the tender number and description;
- b. state the closing time; and,
- c. state the amount by which the tender is to be increased or decreased AND the increase or decrease to each unit price affected.

2. Amount of Bid Bond

The Tenderer must ensure that the total amount of the Bid Bond is not less than ten percent (10%) of the total tender price. The Tenderer should consider the effect of revisions on the tender price and the bid bond requirements.

3. Multiple Revisions

Where a Tenderer submits multiple revisions to the original tender price, each revision should be numbered sequentially by the Tenderer. Unless the Tenderer clearly stipulates to the contrary on the face of the revision, each successive revision will nullify and replace any previous revision to the identified item or tender price.

4. Unclear or Ambiguous Revisions

If in the opinion of the Owner or Consultant, any revision is unclear, ambiguous as to meaning or intent, or does not comply with the requirements of Article 14, that revision will be disregarded and the original tender price, or the tender price determined by consideration of any other revisions will prevail.

The Owner or Consultant, their employees and agents will not assume any responsibility for timely receipt of any revisions.

ARTICLE 24. TENDER REJECTION

The Owner reserves the right to reject any or all tenders; the lowest will not necessarily be accepted.

Without limiting the generality of the foregoing, any tender may be disqualified or rejected which is incomplete, obscure or irregular, which has erasures or corrections in the Tender Form, which has prices that are omitted or are unbalanced, which contains an escalator clause or other qualifying conditions or has an insufficient or irregular Surety.

A tender shall also be rejected if there is any evidence that the Tenderer has any legal connection with any other company, firm or person submitting a tender for this work, any knowledge of the tender prices to be submitted for this work by others, or any undisclosed connection or arrangement with any other company, firm, or person having a financial interest in the proposed Contract.

The Owner reserves the right to reject any or all tenders, to accept the tender deemed most favourable in the interests of the Owner, and to re-issue the tender with the same or different terms. Acceptance of any tender is based on the availability of adequate funds to the Owner and regulatory approvals.

ARTICLE 25. AWARD

Preference will be given to tenders that give the greatest value based on quality, service and price.

The Owner will, upon selection of an acceptable tender, issue in writing a Notice of Award to the successful Tenderer. This notice will be given as soon as possible following the closing of tenders and, unless otherwise agreed to by the Tenderer, not later than sixty (60) days following the closing of tenders.

ARTICLE 26. WORKSAFE BC AND SAFETY

1. The Tenderer is advised the workplace may have the following known operations and/or site conditions that could present a potential hazard to workers and other persons at the workplace.

Other hazards may exist, such as:

Asbestos Pipe	Energized Equipment
Confined Space	Traffic
Underground Utilities	Tree Removal
Excavations	Hazardous Materials
Overhead Utilities	Mobile Equipment

2. If the excavation and removal of asbestos cement pipe is required, the Contractor will be required to complete a risk assessment and develop the necessary safework procedures in accordance with WorkSafeBC regulations.
3. The work will require excavation around and near buried electrical, communication and gas utilities. The Contractor will be required to complete a risk assessment and develop the necessary safework procedures in accordance with Worksafe BC regulations.
4. The successful Tenderer will be designated as the Prime Contractor and must be qualified and willing to undertake the and shall fulfill the **Prime Contractor** responsibilities as defined in:
 - a. WorkSafeBC *Occupational Health and Safety Regulation*, Notice of project, Section 20.2, and Coordination of multiple employer workplaces, Section 20.3;
 - b. *Workers Compensation Act* (BC), Coordination at multiple-employer workplaces, Section 118, Subsections (1) & (2); and
 - c. General Requirements, Section 3.10 WorkSafe BC.

5. The Prime Contractor will be required to coordinate the safety of all workers on the work site, including their employees, their subcontractors, Regional District, work crews and their contractors, and private utilities, (BC Hydro, Telus, Shaw and FortisBC).
6. Prior to commencing work, the successful Tenderer will be required to forward a copy of their current OH&S Safety Program document, WorkSafeBC Notice of Project, and WorkSafeBC Clearance Letter.
7. Prior to commencing work, the successful Tenderer will be required to review and complete the Regional District of Nanaimo's 'ISO 14001 Contractor and Supplier Environmental Performance Package' in **Appendix D**.

ARTICLE 27. TESTING

The Regional District of Nanaimo will employ a Materials Testing Consultant during the work to test all work and materials deemed necessary and determine whether they are in accordance with the Specifications. The Contractor shall coordinate his work with the Consultant to ensure that the testing is done efficiently and no delays are caused.

ARTICLE 28. DFO PERMITTING

Submission of The Request for Review for the Department of Fisheries and Oceans has been submitted and is pending.

ARTICLE 29. COVID 19

Tenderers are advised that the Regional District of Nanaimo acknowledges both the challenges and uncertainty in managing the Coronavirus (COVID-19) in BC's construction industry going forward. Portions of this tender contains specific starting and completion dates that may or may not be achievable, depending on future restrictions and the duration of these restrictions. Additional risk may be realized from supply chain issues and potential construction site slowdowns, resulting in a delay in delivery of the project.

The successful Tenderer will be required to provide the Owner and Consultant with a COVID-19 management plan including safe work plans that meet current Federal and Provincial Government and WorksafeBC requirements.

Regional District of Nanaimo
20-027: Greater Nanaimo Pollution Control
Centre (GNPCC) Frontage Works
Nanaimo, BC

PART III

SUPPLEMENTARY GENERAL AND SPECIAL CONDITIONS

REGIONAL DISTRICT OF NANAIMO

20-027: Greater Nanaimo Pollution Control Centre (GNPCC) Frontage Works

Nanaimo, BC

PART III

SUPPLEMENTARY GENERAL AND SPECIAL CONDITIONS

1. Supplementary General Conditions.....	SC2
2. Special Conditions	SC3
3. Pay Item Descriptions (For all Scheduled Works)	SC10

1. SUPPLEMENTARY GENERAL CONDITIONS

1. General

These Supplementary Conditions shall be read in conjunction with the General Conditions of the Contract and shall govern over them.

The Standard Construction Contract Document the project is CCDC 18.

2. Article A-2 Agreements and Amendments

Add paragraph 2.3:

Counterpart

This Agreement may be executed in any number of counterparts, each of which will be deemed to be an original and all of which taken together will be deemed to constitute one and the same instrument. Delivery by electronic transmission in portable document format (PDF) of an executed counterpart of this Agreement is as effective as delivery of an originally executed counterpart of this Agreement.

3. GC 1.1 Contract Documents

a) **Replace** 1.1.7 with:

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 Tender Documents,
 - the Drawings,
 - technical Specifications,
 - the General Conditions,
 - Material and finishing schedules.

b) Paragraph 1.1.9 after the words are and shall remain in the first sentence, **add** 'as between the Engineer and the Contractor'

4. GC 1.4 Assignment

After neither party to the Contract shall assign the Contract or a portion thereof without the written consent of the other, **delete** 'which consent shall not be unreasonably withheld.'

5. GC 3.5 Construction Schedule

Revise clause 3.5.1.2 to include "and submit to the Owner and Consultant in PDF format and native file format."

6. GC 3.7 Layout Of The Work

The Contractor will be responsible for the project layout. Temporary bench marks and digital AutoCAD files will be provided by the Owner. The Contractor must satisfy himself before commencing any work as to the meaning and correctness of all stakes and marks, and no claim will be entertained by the Owner for or on account of any alleged inaccuracies, unless the Contractor notified the Consultant of such inaccuracies in writing before commencing the Work.

The Contractor shall assume full responsibility for alignment, elevations, and dimensions of all parts of the Work, regardless of whether the Contractor's work has been checked by the Consultant.

7. GC 3.12 Use of the Work

Add paragraph 3.12.3: The Contractor shall maintain the place of Work in a tidy condition and free from accumulation of debris. Waste material must be promptly removed from site.

8. GC 5.5 Applications For Progress Payment

Add paragraph 5.5.7: With each and every application for payment after the first progress payment, a Statutory Declaration on CCDC 9A-2001 Form shall be completed and sworn before a Notary Public or a Commissioner for Oaths for the Province of British Columbia.

9. GC 5.6 Progress Payment

Revise clause GC 5.6.2 as follows:

The Owner will, within Thirty (30) days of the date of the Consultant's Certificate, make Agreement. The actual amount paid is subject to the Owner's rights under law or this Contract to make deductions. Payment to the Contractor on account in accordance with the provisions of Article A-5 of the agreement. The actual amount paid is subject to the Owner's rights under law or this Contract to make deductions.

Add paragraph 5.6.4: Before any payment is made by the Owner to the Contractor, the Consultant or the Owner may by written notice require that the Contractor furnish such further detailed information as the Consultant or the Owner may determine is necessary to establish compliance by the Contractor with the Contract Documents.

10. GC 5.7 Substantial Performance Of Work

Add paragraph 5.7.1.1: There will be no progressive Substantial Performance of Portions of the Work.

11. GC 5.9 Progressive Release Of Holdback

Paragraph 5.9.1: **Delete** entire paragraph **and replace** with the following: '*There will be no progressive release of holdback funds.*'

12. GC 5.13 Interest

Add GC 5.13: Notwithstanding the provisions of Article A-5 PAYMENT, paragraph 5.3, the Owner is not liable to pay interest on any amount which may at any time become payable to the Contractor under this Contract whether or not the payment is in default and whether or not any action or other proceeding has been commenced in respect thereof.

13. GC 6.7 Quantity Variations

Delete entire section.

2. SPECIAL CONDITIONS

1. Scope of Work

The project site is the frontage of 4600 Hammond Bay Road between McGuffie Road and Shores Drive. The work consists of: removal of trees , stumps, clearing existing vegetation, removal of chain link fence, concrete and asphalt sidewalk, concrete curb; installation of approximately 400m of 3.0m wide asphalt trailway, curb and gutter, street lighting, boulevard tree planting, habitat fencing, riparian area enhancements, and all works incidental thereto as shown on the drawings.

2. Herold Engineering (HEL) – Consultant

Herold Engineering acting on behalf of the Regional District of Nanaimo will provide Contract Administration and Construction Field Review services.

3. Materials

Imported gravels: imported granular fill, subbase gravel, base course gravel, asphaltic concrete pavement, concrete (curbs, sidewalk) must meet City of Nanaimo specifications.

4. Meetings

In addition to a pre-construction meeting with the HEL staff, regular weekly meetings will be held to discuss project progress and address any scope of work updates. Meeting frequency may be adjusted based on project progress and work happening at that time. Meeting location to be determined prior to construction.

5. Notice to Residents and Businesses

Regional District of Nanaimo staff will supply and deliver copies of letters advising affected residents of the construction.

The Contractor will provide all information requested to support public notifications in a timely manner.

Vehicle and pedestrian access shall be maintained at all times to all residences within the Construction area.

6. Traffic Control and Access

Tenderer is advised of the following:

- a) A Traffic Management Plan (accommodating vehicles, cyclists and pedestrians) must be submitted for approval prior to the pre-construction meeting. The Plan must be prepared by a qualified Traffic Management Company or Subcontractor, and be in accordance with the BC Traffic Control Manual for work on Roadways, current edition and as amended.
- b) The contractor must maintain single – lane alternating traffic at all times,
- c) Allowance for pedestrian traffic must be maintained at all times.
- d) Accommodation or relocation of existing bus stop with approval of BC Transit.
- e) Traffic must be restored to normal pattern at the end of each day of work.
- f) Access to residences must be maintained at all times.
- g) The contractor must maintain safe driving conditions at all stages of construction.
- h) Wait times to go through the site to be limited to a maximum of 15 minutes.
- i) The provision of two (2) PCMS boards shall be included to notify both eastbound and westbound traffic in advance of the project site.

7. Hours of Work

Hours of work for the project will be in accordance with the City of Nanaimo bylaws. Requests for exemptions will be considered based on scheduling requirements.

8. Dust Control

Dust shall be controlled by the Contractor at all times for the duration of the Contract. The application of used oil or "cut back" bitumen products shall not be used. Aqueous magnesium chloride or calcium chloride can be used, provided the application is not made in an environmentally harmful manner.

Temporary connection to fire hydrants by the contractor requires prior approval from the City of Nanaimo.

9. Pavement Protection

The Contractor is cautioned that any damage done to the road wearing surface, for existing road surfaces that are to be in place after construction is complete, such as scoring, teeth marks, track marks, etc., shall be completely reinstated in a manner acceptable to the Consultant and City of Nanaimo and no extra payment shall be made.

10. Water Service for Irrigation

Irrigation water service (38 mm dia) is required off the existing 150 mm dia PVC plant service as shown on the drawing C02.

11. Gas Main

There is an existing 88mm dia. PE gas main along the north side of Hammond Bay Road, as well as two crossings between Sta. 3+100 and Sta. 3+150. FortisBC requirements are that 600mm clearance be maintained between the gas main and the rootball of the proposed boulevard trees. The Contractor is to locate the gas main at each proposed tree location to confirm the gas main alignment in advance of railway construction and utility installation.

12. Work in the Vicinity of Overhead Utility & Power Lines

Telus, Shaw Cable and BC Hydro guidelines for working around overhead power lines are to be followed at all times.

These include, but are not limited to:

Equipment shall not be operated where it is possible to bring such equipment or any part of the equipment within 3 metres of any energized electrical conductor unless the following safety precautions are taken by the Contractor:

The utility company is notified, the line de-energized, or effectively guarded against contact, or displaced or re-routed from the work area.

WorksafeBC, prior to commencement of construction, is notified in accordance with their required procedure.

For high-voltage transmission lines, a greater clearance is provided, as determined by the utility company.

13. Site Security

Immediately upon completion of the clearing and grubbing and until Substantial Completion the Contractor shall supply, install, maintain and remove 1.8m high temporary construction fence on the north side of the project construction limit.

14. Record Drawings

- a. Contractor to maintain a complete set of 'redline' record drawings for the duration of the project.
- b. Drawings shall include all information as specified elsewhere for the construction drawings, but shall be corrected upon completion of construction to note all works removed or abandoned during construction. This information shall be retained in a digital point file.
- c. All dimensions, elevations and inverts shown shall reflect the As-Built conditions of the construction and all references to "Proposed" shall be removed. As-Built drawings shall be to scale in accordance with the As-Built dimensions shown. The Revision Table shall be completed indicating the drawings are As-Built. All changes and notes marked in "red ink" on the IFC drawings.
- d. All As-Built features shall be surveyed and survey points recorded in a digital point file with all changes marked on the IFC drawings in red ink. The As-Built drawing shall reflect the true elevation and location of all constructed features, in both the plan and profile views.

15. Construction Survey Layout

The Contractor is to provide all necessary construction layout. The Consultant will supply the Contractor with the necessary survey control points and AutoCAD baseplan digital files to enable the Contractor to control the final layout of the work. The Contractor shall be responsible for the conformance of the finished work to this data even though it may be checked by the Consultant. Any known or suspected discrepancies or deviations from the plans are to be reported immediately to the Consultant.

16. Tree Protection

The trees within the project area not being removed and required protection are marked on the drawings. Care is to be taken when working around these trees and the cutting of any roots.

The Regional District of Nanaimo will retain an appropriately qualified arborist to provide tree health and safety advice and guidance when needed throughout construction.

17. Environmental Mitigation

The Contractor is advised that the proposed works involve activities within an identified riparian area of Walley Creek, a known fish bearing stream.

Environmental Mitigation measures must be in accordance with the Erosion and Sediment Control Plan as shown on the drawing C06, and the EDI report 'Environmental Protection Plan for GNPCC Frontage Works' dated March 30, 2020, in **Appendix B**.

18. Submittals:

- a. Boulevard Soil

- i. During the construction stage, completion of soil samples and testing to be done in accordance with MOESS Section 14.14. A copy of the report must be sent to the City and Project Engineers for approval prior to installation.
- ii. Boulevard soil must meet the properties outlined for Level 2 “Groomed” for Growing Medium Type 1L – Low Traffic Lawn Areas, Trees and Large Shrubs.
- iii. All soils and bulk organic amendments supplied by the Contractor shall be tested by a soil testing laboratory agreed to by both the Contractor and the City and Project Engineers, at the Contractor's expense. The Contractor shall arrange for such testing in a timely fashion to meet the requirements set out in the MOESS Section 14.14.

b. Riparian Soil

- i. During the construction stage, completion of soil samples and testing to be done in accordance with Section 14.14 of the MOESS. A copy of the report must be sent to the project Landscape Architect for approval prior to installation.
- ii. Boulevard soil must meet the properties outlined for Level 4 “Background and Natural Areas” for Growing Medium Type 3L – All Lawn Areas, Trees & Large Shrubs.
- iii. All soils and bulk organic amendments supplied by the Contractor shall be tested by a soil testing laboratory agreed to by both the Contractor and the Consultant, at the Contractor's expense. The Contractor shall arrange for such testing in a timely fashion to meet the requirements set out in the Section 14.14

19. Landscape

1. Inspections

a. Boulevard

- i. Give 72 hours' notice to the City and Consultant for an inspection of plant material at a single plant material assembly point. The City and Consultant must give approval of plant material in advance of commencement of planting work.
- ii. Acceptance of plant material by the City and Consultant at its assembly point does not prevent rejection on-site prior to or after planting operation if, in the opinion of the City and Consultant, the plant material has been damaged by the act or omission of the Contractor.
- iii. Give 24 hours prior notice to the City and Consultant for each following required inspections:
 - 1. Prior to commencement of landscape work, give notice to the City and Consultant and make the project landscape supervisor available for an on-site inspection of marked locations for planting and as-built conditions and site work by others. The Consultant may alter the locations of plant material in the field.
 - 2. After excavation of plant locations, but prior to placement of sub-soil and installation of plant material, give notice to the City and Consultant for inspection of the subgrades.
 - 3. The City and Consultant, at their discretion, may waive one or more of the pre-planting inspections, but this shall not impair the right to reject work or materials which have been damaged or in any way do not conform to the specifications.
- iv. At the end of the Maintenance Inspection, prior to bond release, the following must be completed:
 - 1. Final inspection of all landscaping.

2. As-built drawings, with any revisions noted must be provided to the City and Consultant.
 - b. Riparian Area
 - i. Planting: Environmental Dynamics Inc. (EDI) has been retained to be on site during planting and invasive species removal activities to provide oversight and direction as warranted. The project landscape architect will be contacted by an EDI representative for inspections if deemed necessary.
 - c. Irrigation
 - i. MacDonald Gray Consultants has been retained to provide the following irrigation system inspections:
 1. Review of uncovered, pressurized irrigation mainline and laterals.
 2. Review of complete irrigation installation and coverage.
2. Planting times
- a. Boulevard
 - i. Plant trees and seed only during periods that or normal for such work as determined by local weather conditions, and when seasonal conditions are conducive to successful adaptation of plants to their new location.
 - b. Riparian
 - i. Riparian area an area planting shall take place in the fall season (between October 1 and November 15) as recommended in the report prepared by EDI.
3. Maintenance Period
1. Boulevard
 - a) The maintenance period shall be from the time of planting until one year from the date of Notice of Acceptance of the landscape works or at the discretion of the City and Consultant or will be the subject to a separate agreement .
 - b) The maintenance scope of work shall be per Section 14 –Landscape Maintenance of the MOESS.
 2. Riparian Area
 - a) The maintenance period for the planting and irrigation system for the Riparian Area is as outlined in the report prepared by EDI.
 - b) The maintenance scope of work shall be per Section 14 – Landscape Maintenance of the MOESS.

3. PAY ITEM DESCRIPTIONS (FOR ALL SCHEDULED WORKS)

1. General Requirements

1. Location of Existing Underground Utilities

Payment will made for locates of existing utilities at the lump sum price bid and will include, at a minimum, paint marking locates of all utilities within the project area and physical locates of all tie – in connection points and crossings including watermain, sanitary sewer, storm drain and gas. This includes locating the existing main and crossings in advance of trailway construction and utility installation as per SC11.

This shall be done well in advance of the required tie – in to allow for design modifications if the existing utilities are in different location or at different depth than expected.

2. Environmental Mitigation

Payment for Environmental Mitigation will be made at the lump sum price as shown in the Tender Form. The price shall include all work incidental thereto for the implementation of the recommendations made in the Environmental Protection Plan for GNPCC Frontage Works` by EDI, dated March 30, 2020, included in the Appendix C and Erosion & Sediment Control Plan, Drawing C06 .The Contractor will be required to maintain the works until Total Performance of the Contract or as directed by the environmental consultant.

3. Control of Public Traffic

This item is for all costs associated with the preparation of Traffic Management Plan, control of public traffic as required for the work, as outlined in Item 6, Special Conditions of the Contract, all in accordance with the TAC Uniform Traffic Control Devices and the approved Traffic Management Plan. Payment will be made at the lump sum amount tendered for this item.

4. Project Layout

This item is for all of the Contractor's costs related to survey layout of trailway, road works, utilities, and other items required for construction of the works. The Consultant will provide the digital layout information. Payment will be made at the lump sum amount tendered for this item.

5. Tree Removal, Clearing and Grubbing

Payment for clearing and grubbing will be made at the lump sum price as shown in the Tender Form. The price shall include all work incidental thereto for the removal of trees, stumps, invasive shrubs plants, blackberry infestations including excavation (average depth 150 mm) and offsite disposal of soil infested with seeds within the project limits and as outlined in the EDI March 30, 2020 `Tree Replacement Recommendations for GNPCC Frontage Works`, included in the **Appendix B** and as shown on the drawings. Removals are to be taken offsite.

6. Temporary Security Fence

This Item is for the supply, installation, maintenance and removal of the 1.8m high temporary security fence, along the entire north construction limit length. Payment will be made at the lump sum price tendered, as shown in the Tender Form.

7. Removal of Existing Structures

Payment for the removal and disposal of the structures, as designated on the drawings, will be made at the lump sum price shown in the tender form.

8. Enhancement Project

This item is for the trees and shrubs replacement, supply and placement of the 144 m3 of the topsoil including seeding and straw mulch as outlined in the EDI March 30, 2020 `Tree Replacement and Riparian Enhancement for GNPCC Frontage Works`, included in the **Appendix B** and as shown on the drawings.
Payment will be made at the lump sum amount tendered for this item.

9. Habitat Wood Rail Fence

This item is for the supply and installation of the Habitat Wood Rail Fence as per City of Nanaimo drawing CS -19 and as shown on the drawings.

Payment will be made at the lump sum amount tendered for this item

2. Site Work, Rough Grading and Backfill

1. Common Excavation and Disposal Offsite

Payment for the common excavation will be made at the lump sum price as shown in the Tender Form. The price shall include equipment, labour, and all work incidental thereto for the removal and disposal offsite of all material below grade as shown on the drawings.

2. Over excavation and Placement of Granular Fill (Provisional)

Payment for authorized over excavation and placement of the imported granular fill material will be made at the unit rates per tonne of granular material placed as shown in the Tender Form. This price shall include over excavation and disposal of the unsuitable material, placement and compaction of the specified granular material, and all work incidental thereto. Payment for this work will only be made when, in the opinion of the Consultant, it is necessitated by the natural existence of unsatisfactory soil conditions. No payment will be made for unauthorized over excavation which has resulted from acts, neglects, or delays of the Contractor.

3. Imported Granular Fill

Payment for imported granular fill material will be made at the unit price per tonne shown in the Tender Form. This price shall include the supply, placement, and compaction of the material.

Payment will be based on weigh slips and checked in the field by the Consultant.

3. Trench Excavation and Backfill

1. Over excavation and Placement of Granular Material (Provisional)

Payment for authorized overexcavation and placement of subbase gravel material will be made at the unit price per tonne of base gravel material placed as bid.

This price shall include supply of materials, overexcavation and disposal of the unsuitable material, placement and compaction of the specified base gravel material, special bracing and sheeting as may be required, and all work incidental thereto. Payment for this work will only be made when, in the opinion of the Consultant, it is necessitated by the natural existence of unsatisfactory soil conditions. No payment will be made for unauthorized over excavation which has resulted from acts, neglects, or delays of the Contractor.

2. Imported Granular Fill

Payment for the imported granular fill will be made at the unit price per tonne as shown in the Tender Form. This price shall include supplying, loading, hauling, placing, compacting imported granular material, disposal of excavated material and all work incidental thereto.

Payment by weight will be based on weigh certificates for material actually incorporated into the work. **Water Distribution System**

3. Irrigation Water Service

Payment for the 38mm irrigation service connection will be made at the lump sum price as shown in the Tender Form.

The price shall include installation of the 38mm dia. Corporation stop and saddle, 38mm dia. Service pipe, 38mm dia, bronze gate valve, testing flushing, chlorination, standard concrete service box as per MOESS W-1

4. Storm Sewer System

1. Storm Sewer Piping

Payment for piping and fittings will be made at the unit price per linear metre shown in the Tender Form for the various sizes and class of pipe. Measurement will be made horizontally along the centreline of the installed pipe, including fittings, from centre-to-centre of manholes or to the end of the pipe, whichever is applicable. This price shall include materials, excavation, dewatering, bracing & sheeting, bedding, pipe installation, backfill with import granular material, video inspection, testing as specified, and all work incidental thereto except those items for which payment is specified additional to that for gravity sewer pipe.

2. Connections to existing piping

Payment for connections to existing main piping will be made at the unit price per proposed pipe size per connection shown in the Tender Form. This price shall include materials and all work incidental thereto.

3. Catch Basins

Payment for catch basins will be made at the unit price as shown in the Tender Form for the specified type of catch basin. This price shall include materials, installation, brickwork, concrete, grouting, adjustment to grade and all work incidental thereto.

5. Curbs and Sidewalk

1. Curbs

Payment for curbs will be made at the unit price per linear metre per curb type shown in the Tender Form. This price shall include materials, base preparation, forming, jointing, reinforcing, finishing, curing, curb and all work incidental to the completed installation.

Payment for the granular base materials will be made at the unit price per material type shown in the Tender Form.

2. Concrete Pedestrian Ramp

Payment for concrete pedestrian ramp crossing will be made at the lump sum price shown in the Tender Form.

The price shall include materials, base preparation and all work incidental to the complete installation. Payment for import fill, excavation, subgrade preparation, granular subbase materials will be made at the unit price for material type shown in the Tender Form.

3. Cutting of Existing Sidewalk

Payment for cutting of existing sidewalk will be made at the unit price per lineal metre of sidewalk cut, regardless of thickness, as shown in the Tender Form.

4. Removal of existing Sidewalk

Payment for removal of existing sidewalk will be made at the unit price per square meter of sidewalk pavement removed, regardless of thickness, shown in the Tender Form. This price shall include loading, hauling, and disposal of all unwanted material.

5. Cutting and Removal of Existing Curb

Payment for cutting and removal of existing concrete curb or curb and gutter will be made at the unit price per lineal metre of curb or curb and gutter removed regardless of thickness measured on the curb face as shown in the Tender Form.

This price shall include sawcutting, loading, hauling and disposal of all unwanted material.

6. Trailway

1. Asphalt Pavement

Payment for asphaltic concrete pavement will be made at the unit price per tonne as shown in the Tender Form.

The price shall include final base preparation, supply of aggregate and asphaltic cement, mixing, weighing, transporting, placing, compacting and all other work incidental thereto. Payment by weight will be based on weighing certificates for mix actually incorporated into the work.

2. Base Gravel

Payment for base course gravel material will be made at the unit price per tonne as shown in the Tender Form.

This price shall include the supply, placement, compaction, of 150mm of base course of approved 20mm minus crushed gravel base. Payment will be based on weight slips and checked in the field by the Consultant.

3. Gravel Shoulder

Payment for gravel shoulder base course will be made at the unit price per tonne shown in the Tender Form. This price shall include supply and placement of base course of 100 mm thick of approved 20mm minus crushed gravel base. Payment will be based on weight slips and checked in the field by the Consultant.

7. Streets

1. Sub-grade Preparation

This item is for fine grading, compacting, and proof rolling of the existing surface to the approval of the Consultant. Payment to be made at the unit rate per square meter tendered for this item. Surface preparation is to be measured from edge to edge. Existing surface will be defined as the road surface immediately below asphalt removal or stripping and common excavation.

2. Subbase

Payment for subbase will be made at the unit price per tonne as shown in the Tender Form. This price shall include the supply, placement, and compaction of 250 mm approved 75mm minus pit run gravel sub-base. Payment will be based on weight slips and checked in the field by the Consultant.

3. Base Course

Payment for base course material will be made at the unit price per tonne as shown in the Tender Form.

This price shall include the supply and placement of base course of 100 mm of approved 20mm minus crushed gravel base. Payment will be based on weight slips and checked in the field by the Consultant.

4. Pavement Markings

Payment for street markings as shown on the Contract drawings will be made as a lump sum price as shown in the Tender Form. All markings are to be thermoplastic paint. These prices will include all materials, pre-marking, preparation, application and all work incidental thereto.

5. Traffic Signs

Payment for street traffic, name sign and bus stop signage will be made at the lump sum price for removal, storage, relocation of existing signs, supply, and installation of new signs as shown on the Contract Drawings. This price shall include all materials, erection of the sign post and sign and all work incidental thereto. Payment will be made as a lump sum price as shown in the Tender Form.

8. Asphaltic Concrete Paving

1. Cutting of Existing Asphalt Pavement

Payment for cutting of existing asphaltic concrete pavement will be made at the unit price per linear meter of cut shown in the Tender Form, regardless of pavement thickness. This price shall include cutting and all work incidental thereto.

No payment will be made for cutting of existing pavement except where a neat vertical edge is required for paving operations. No payment will be made where cutting has been necessitated by the Contractor's operations.

2. Removal of Existing Pavement

This item is for removal and offsite disposal of existing asphalt pavement. Payment will be made at the unit rate per square metre as shown in the Tender Form, and shall include grinding or ripping, loading, hauling, disposal and all work incidental to the removal of asphaltic concrete pavement.

3. Lap Joint

All cut asphalt thicker than 75 mm shall have a 38mm lap joint as shown on the drawings and as per MOESS T- 4A detail. Payment will be made at the unit price per lineal meter shown in the Tender Form.

Measurement will be made horizontally along the cut line, width to be 300mm minimum. This price shall include cutting, grinding, tack coat and all work incidental thereto.

4. Asphaltic Concrete

This item includes all costs to the Contractor for the supply and placement of "Hot Mix

Asphalt” to the thicknesses and extents shown on the Contract Drawings. Measurement for payment will be in tonnes of asphalt placed, in accordance with the MOESS Specifications and requirements and as shown in the Tender Form. Limits of paving shall be as shown on the Contract drawings and as directed by the Consultant. Payment will be based on weigh slips and checked in the field by the Consultant.

5. Adjustment of Utilities

Payment for the adjustment of existing water valve boxes, catch basins, manholes, and other structures within the area to be paved will be made at the lump sum price shown in the Tender Form.

9. Roadway Lighting

1. Electrical Scope of Work.

This pay item is for the scope of electrical work carried out by the electrical contractor and includes supply of all labour, materials, tools, equipment, transportation required for the complete installation, wiring and testing of the system shown on the Drawing E-1. Payment for the electrical scope of work will be made at the lump sum shown in the Tender Form.

10. Landscaping

1. Boulevard Trees

This pay item is for supply and installation of boulevard trees in accordance with the drawing L1, Article 6.1 and planting detail P-2. Payment for the boulevard trees will be made at the unit price as shown in the Tender Form.

2. Top Soil

Payment for the 150 mm thickness of the top soil will be made at the unit price per square metre as shown in the Tender Form.

This price shall include testing, supply and placement of the Growing Medium Type 1L, Level 2 Groomed, top soil (boulevard) and Growing Medium Type 3 L (riparian area) soils (MOESS, Section 14) as per tender drawings and specifications.

Riparian area soil to include seed and mulch.

3. Hydroseeding

This pay item is for grass seeding by slurry of seed, mulch and fertilizer applied over the boulevard top soil and trail embankment top soil. Payment will be based on the unit price per square metre as measured in the field by the Consultant.

4. Irrigation

Payment for the irrigation works will be made at the lump sum price as shown in the Tender Form, complete with couplers to 38mm service.

The price shall include installation and commissioning of all works shown on drawings I1 & I2, including MOESS Section 14.

5. Maintenance

This pay item is for one year maintenance period for the boulevard landscaping and riparian areas.

Regional District of Nanaimo
20-027: Greater Nanaimo Pollution Control
Centre (GNPCC) Frontage Works
Nanaimo, BC

PART IV

CIVIL WORKS CONTRACT
CCDC 18

Regional District of Nanaimo
20-027: Greater Nanaimo Pollution Control
Centre (GNPCC) Frontage Works
Nanaimo, BC

PART V

TENDER FORM, CCDC 18 UNIT PRICE CONTRACT

civil works contract

Project:

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.



Canadian Construction Documents Committee

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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

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 _____

insert above the title of the Work

located at _____

insert above the Place of the Work

for which the Agreement has been signed by the parties, and for which _____

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 _____ day of _____ in the year _____ and, subject to adjustment in *Contract Time* as provided for in the *Contract Documents*, attain *Substantial Performance of the Work*, by the _____ day of _____ in the year _____

ARTICLE A-2 AGREEMENTS AND AMENDMENTS

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

ARTICLE A-3 CONTRACT DOCUMENTS

- 3.1 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
- *

- * (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 _____ percent (_____ %), 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 _____ 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 _____

street and number and postal box number if applicable

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 _____

street and number and postal box number if applicable

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

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.



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400 - 75 Albert Street
Ottawa, Ontario K1P 5E7
Tel: (613) 236-9455
Fax: (613) 236-9526
www.ccdc.org

REGIONAL DISTRICT OF NANAIMO**20-027: Greater Nanaimo Pollution Control Centre (GNPCC) Frontage Works****Nanaimo, BC****PART V****TENDER FORM**

The undersigned Tenderer, having carefully examined the Contract Documents and the locality of the proposed work, and having full knowledge of the work required and of the materials to be furnished and used, hereby agrees to provide all necessary materials, supervision, labour, and equipment and to perform and complete all work and fulfil everything as set forth and in strict accordance with the Contract Documents and Addenda numbered _____* for the prices stated in the Tender Form Schedule of Quantities and Prices.

The undersigned also agrees:

1. That the Instructions to Tenderers form part of this tender and agrees to be bound by the requirements set forth in the Instructions to Tenderers.
2. That the Owner is not bound to accept the lowest or any tender.
3. That this tender is irrevocable for sixty (60) days after the closing date for receipt of tenders and that the Owner may at any time within such period accept this tender whether any other tender has previously been accepted or not.
4. To commence and proceed actively with the work after Notice to Proceed is received, and to attain Substantial Performance, as defined by the Builders Lien Act, subject to the provisions of the General Conditions for extension of Contract time.
5. To do all extra work not reasonably inferable from the specifications or drawings but called for in writing by the Consultant and to accept as full compensation therefore payment in accordance with the provisions of the General Conditions.
6. That the estimates of quantities shown in the Tender Form are estimates only for the purpose of comparing tenders on a uniform basis and that neither the Owner nor the Consultant represent that the actual quantities will correspond therewith and that we will be paid at the tendered unit prices for the actual quantities handled.
7. That the Owner may delete from the Contract a portion or portions of the Work without any change in the unit prices provided such deletion is not for the purpose of allowing someone else to perform the deleted portion during the Contract Time.

* To be Completed by Tenderer

Name of Contractor

Business Address

City, Postal Code

Date

Phone No.

Total Amount of Tender \$

Signature of Authorized Representative

The above tendered sum **includes all taxes**, duties and any other additional charges on any or all material, equipment and labour, and it is understood that payment will be made for the completion of all work specified in this Contract on the basis of the unit prices tendered only and that any approved extras or refunds shall be made by mutual agreement between the Consultant and the Contractor.

Completion of Work

If the undersigned be notified in writing of the acceptance of this proposal, within ten (10) days following such acceptance, he agrees to execute and Agreement for the above stated sum in the form of the specimen submitted to guarantee completion of the Contract in accordance with the documents and within the time stated in the Specifications.

Security Deposit and Surety's Consent

Accompanying this tender please find our security deposit in the form of a **bid bond in the amount of \$_____ being ten percent (10%)** of the tender price (including taxes), and a "Surety's Consent" to provide a Performance Bond and a Labour and Materials Bond each in the amount to 50% of the tender price. This security deposit for unsuccessful Tenderers will be refunded within (30) days from the tender opening date. The security deposit for the successful tender will become the property of the Owner if the Tenderer fails or refuses to execute a contract bond within ten (10) days after notification that he is the successful Tenderer.

Signatures

The undersigned agrees that the Owner reserves the right to reject the tender on any one or all projects.

I.

Witness

Legal Name of Tenderer

Title

Date

II.

Witness

Title

Date

Signature of Authorized Representative

Greater Nanaimo Pollution Control Centre Frontage Works

PART V

TENDER FORM

The following are our tendered prices for the cost of the work for each item as outlined in the respective payment clauses in the specification.

Item	Description	Est.Qty.	Units	Unit Price	Total
Section 1	General Requirements				
1.1	Location of Underground Utilities	1	LS	_____	_____
1.2	Environmental Mitigation	1	LS	_____	_____
1.3	Control of Public Traffic	1	LS	_____	_____
1.4	Project Layout	1	LS	_____	_____
1.5	Tree Removal, Clearing and Grubbing	1	LS	_____	_____
1.6	Temporary Security Fence - 1.8 m High	1	LS	_____	_____
1.7	Removal of Existing Structures				
	a) Chain Link Fence	1	LS	_____	_____
	b) Catch Basin	1	LS	_____	_____
1.8	Enhancement Project	1	LS	_____	_____
1.9	Habitat Wood Rail Fence	1	LS	_____	_____
	Total Section 1				=====
Section 2	Site Work, Rough Grading and Backfill				
2.1	Common Excavation and Disposal offsite	1,000	m ³	_____	_____
2.2	Overexcavation and Placement of Subbase Gravel Fill	100	tonne	_____	_____
2.3	Imported Granular Fill	2,500	tonne	_____	_____
	Total Section 2				=====

Item	Description	Est.Qty.	Units	Unit Price	Total
Section 3	Trench Excavation and Backfill				
3.1	Overexcavation and Placement of Base Gravel Material (Provisional)	10	tonne		
3.2	Imported Granular Fill	300	tonne		
	Total Section 3				
Section 4	Water Distribution System				
4.1	Irrigation Water Service - 38mm dia.	1	LS		
	Total Section 4				
Section 5	Storm Sewer System				
5.1	Storm Sewer Piping a) 200mm dia. PVC SDR35 - CB Lead	10	m		
5.2	Connection to existing piping a) Connection to Existing 525 mm dia. Concrete Pipe	1	LS		
5.3	Catch Basin SW-3	1	LS		
	Total Section 5				
Section 6	Curbs and Sidewalk				
6.1	Concrete Curb CS-1	365	m		
6.2	Concrete Pedestrian Ramp a) Station 3+020 b) Station 3+ 380	1 1	LS LS		
6.3	Cutting of Existing Sidewalk	10	m		

Item	Description	Est.Qty.	Units	Unit Price	Total
6.4	Removal of Existing Sidewalk				
	a) Removal of Existing Asphalt Sidewalk	540	m ²		
	b) Removal of Existing Concrete Sidewalk	165	m ²		
6.5	Cutting and Removal of Existing Concrete Curb	300	m		
Total Section 6					
Section 7	Trailway				
7.1	Asphalt Pavement - 60 mm Thick	180	tonne		
7.2	Base Course	670	tonne		
7.3	Gravel Shoulder - 100 mm Thickness]	100	tonne		
Total Section 7					
Section 8	Streets				
8.1	Subgrade Preparation				
	a) Roads	560	m ²		
	b) Trailway	1,600	m ²		
8.2	Subbase	400	tonne		
8.3	Base Course	180	tonne		
8.4	Pavement Markings	1	LS		
8.5	Traffic Signs	1	LS		
Total Section 8					
Section 9	Asphaltic Concrete Paving				
9.1	Cutting of Existing Asphalt	350	m		
9.2	Removal of Existing Pavement	200	m2		
9.3	Lap Joint	400	m		
9.4	Asphaltic Concrete				

Item	Description	Est.Qty.	Units	Unit Price	Total
	a) 75mm (Hammond Bay Road)	60	tonne		
	b) 50mm (Shores Drive)	20	tonne		
9.5	Adjustment of Utilities	1	LS		
	Total Section 9				
Section 10	Roadway Lighting				
10.1	Electrical Scope of Work Drawing E1	1	LS		
	Total Section 10				
Section 11	Landscaping				
11.1	Boulevard Trees	23	ea		
11.2	Topsoil - 150mm thickness				
	a) Boulevard	800	m ²		
	b) Trail Embankment	1,100	m ²		
	c) Riparian Enhancement c/w Seed & Mulch	960	m ²		
11.3	Hydroseed Grass	1,900	m ²		
11.4	Irrigation	1	LS		
11.5	Maintenance (1 year)	1	LS		
	Total Section 11				

Item	Description	Est.Qty.	Units	Unit Price	Total
Summary					
Section 1	General Requirements				
Section 2	Site Work, Rough Grading and Backfill				
Section 3	Trench Excavation and Backfill				
Section 4	Water Distribution System				
Section 5	Storm Sewer System				
Section 6	Curbs and Sidewalk				
Section 7	Trailway				
Section 8	Streets				
Section 9	Asphaltic Concrete Paving				
Section 10	Roadway Lighting				
Section 11	Landscaping				
TOTAL ALL SECTIONS					
GST					5%
TOTAL					

We provide the following information in order that the Owner may judge our ability to fulfil the Contract requirements.

- [illegible]

LIST OF SUBCONTRACTORS

It is our intention that the following work will, subject to the Consultant's approval, be subcontracted to the firms indicated below. All other work will be performed by our own forces, except as authorized in writing by the Consultant.

Trade / Payment Method	Name and Address of Subcontractor
Project Layout	
Traffic Control	
Tree Removal	
Concrete Works	
Asphalt Paving	
Paint Markings	
Landscaping	

The name, qualifications, experience and references of the Landscape Contractor that we propose to place on the project is as follows:

LIST OF MANUFACTURERS AND SUPPLIERS

The following is a list of suppliers from whom we intend to purchase the various items of material indicated, together with the product brand name or the name of the manufacturer of each.

We will alter neither products nor suppliers from those listed below without the written authorization of the Consultant.

Item	Product Brand Name or Manufacturer	Supplier
Imported Gravels		
Concrete		
Asphalt		

SCHEDULE OF FORCE ACCOUNT RATES

The following personnel and equipment rates will form the basis of payment for force account work carried out in accordance with Article 17 of the General Conditions. (Complete Schedule or attach similar information).

Personnel:

List by Occupation	Hourly Rate	Overtime Rate
Superintendent		
Foreman		
Pipelayer		
Labourer		
Flagger/TCP		
Others		
(Specify)		

Equipment: (to be as per current 'Blue Book' rates).

Description	Hourly Rate	Model and Size
Track Excavator		
Rubber Tired Backhoe		
Dump Truck		
Truck and Pump		
Compactor		
Others		
(Specify)		

PROPOSED ALTERNATE MATERIALS

We propose using the following materials as alternates to those specified and shown on the drawings. Should any of these proposed alternates be accepted, we will adjust our Total Tender in accordance with the price variation shown below. These prices will represent the total cost difference to the Owner for supply and installation of the proposed alternate products in lieu of those specified.

Item	Product Brand Name or Manufacturer	Supplier	Price Variation

APPENDIX A

Regional District of Nanaimo

20-027: Greater Nanaimo Pollution Control Centre (GNPCC) Frontage Works

Nanaimo, BC

SCHEDULE OF DRAWINGS
(Drawings bound separately)

SCHEDULE OF DRAWINGS

(Drawings bound separately)

RDN Drawing No.	Project Drawing No.	Title	Rev. No.
GN-GEN-G-221	C01	Key Plan , Drawing List & General Notes	F
GN-C-GEN-221	C02	Proposed Trailway – Plan /Profile STA 3+000 TO 3+150	F
GN-C-GEN-222	C03	Proposed Trailway – Plan / Profile STA 3+150 TO 3+ 300	F
GN-C-GEN-223	C04	Proposed Trailway – Plan / Profile STA 3+ 300 TO STA 3+420	F
GN-C-GEN-224	C05	Cross Sections	F
GN-C-GEN-225	C06	Erosion & Sediment Control Plan	F
GN-C-GEN-226	XS-1	Cross Sections – Sta. 3+010 to 3+100	F
GN-C-GEN-227	XS-2	Cross Sections – Sta. 3+110 to 3+200	F
GN-C-GEN-228	XS-3	Cross Sections – Sta. 3+210 to 3+300	F
GN-C-GEN-229	XS-4	Cross Sections – Sta. 3+310 to 3+420	F
GN-E-GEN-221	E1	Street Lighting Layout	5
GN-L-GEN-221	L1	Landscape Planting	1
GN-L-GEN-222	I1	Irrigation Plan	0
GN-L-GEN-223	I2	Irrigation Details	0

APPENDIX B

Regional District of Nanaimo

20-027: Greater Nanaimo Pollution Control Centre (GNPCC) Frontage Works

Nanaimo, BC

Tree Replacement and Riparian Enhancement for GNPCC Frontage Works
Prepared by EDI, March 30, 2020

March 30, 2020

EDI Project No: 20N0118

Regional District of Nanaimo
6300 Hammond Bay Road
Nanaimo, BC V9T 6N2

Attention: James Haddou, Project Engineer, Engineering Services, Regional and Community Utilities

RE: Tree Replacement and Riparian Enhancement for GNPCC Frontage Works

BACKGROUND

EDI Environmental Dynamics Inc. (EDI) has been retained by the Regional District of Nanaimo (RDN) to review tree replacement and riparian enhancement considerations with respect to the proposed frontage works at the Greater Nanaimo Pollution Control Centre (GNPCC) along Hammond Bay Road, Nanaimo. In general, the proposed frontage works along Hammond Bay Road include construction of a new multi-use trail and boulevard at and north of the existing sidewalk (see attached drawings). The trail will also extend north along Shores Drive to connect with an existing access path to Neck Point Park.

The proposed works involve activities within the riparian area of Walley Creek, a known fish bearing stream. An existing chain link fence marks the south edge of the naturally vegetated riparian area, which was officially established when Walley Creek was relocated several years ago under a Department of Fisheries and Oceans (DFO) Authorization. The new 3 m wide trail will be located approximately 2 to 4 m to the north of the existing fence. The new trail footprint (including footprint of trail embankment material) will be approximately 15 to 20 m from the south bank of Walley Creek.

The undersigned conducted the initial site review on March 22, 2018 to review tree replacement considerations associated with the planned works. A final tree replacement report was submitted and accepted by RDN and City of Nanaimo (dated December 16, 2019). Site visits in March 2020 were conducted to finalize the planned tree removal and enhancement plans. This Tree Replacement and Riparian Enhancement report has been prepared to provide an updated plan for the purposes of planned construction to occur in 2020 and to address some important changes:

- The footprint of the new trail was staked and flagged and, based on that location it was determined that several healthy-looking trees would not likely need to be removed and that a couple additional trees would need to be removed. This report provides an updated list of trees that are planned for removal. Note that a hazard tree assessment was not conducted.



- RDN plans to conduct additional riparian enhancement activities near the trail. This includes removal of Himalayan blackberry infestations and replacement plantings at three locations adjacent to the trail. This report provides details on removal of blackberry/soil, replacement soil and replanting.

Note that this tree replacement and riparian enhancement plan is not a landscape plan. Landscaping aspects associated with the boulevard and trail as well as irrigation for the riparian area (and water bags for the boulevard trees) are the responsibility of the landscape architect, MacDonald Gray Consultants. Planned mitigation measures and best practices to be implemented during construction to avoid unnecessary adverse environmental impacts will be detailed in a separate Environmental Protection Plan prepared by EDI.

SITE CHARACTERISTICS

The location of the proposed trail is typically located approximately 15 to 20 m from the south bank of Walley Creek. Riparian vegetation between the current chain link fence varies across the site but most of the site can be described as young, mixed forest. There are some patches of larger, older trees interspersed throughout the area. In general, the western half of the riparian area at the site consists of approximately half older, mixed forest and half young (pole/sapling) forest. The eastern half of the riparian area at the site is more uniform and consists of young forest. Throughout the riparian area, invasive shrubs occur regularly, including Daphne (spurge) laurel and English holly in more shaded areas and Himalayan blackberry and Scotch broom in more open areas (including some areas that appear to have been more recently and heavily impacted from past disturbances). Other than the areas that are densely vegetated with Himalayan blackberry or Daphne laurel infestations, much of the understory is relatively open and sparse in comparison to natural, less disturbed forests that occur in similar sites within this general area.

The vast majority of trees that will need to be removed to accommodate the trail (see Table 1) are relatively small (less than 30 cm diameter at breast height - or DBH). Many of the trees – both small and large – have been compromised by previous pruning and topping activities. It is assumed that these activities were needed to manage vegetation growth adjacent to the sidewalk and powerlines along Hammond Bay Road. Topping often eventually leads to health issues associated with rot and causes the tree to die prematurely. As many of the trees have been compromised and as they are located well back from the creek, they are generally considered to be of less ecological value than other trees in the riparian area closer to the creek.

SUMMARY OF TREE REMOVAL REQUIRED

The portion of the riparian area that overlaps with the proposed new trail varies as it transitions through the different forest characteristics. The proposed trail will require the removal of several small to large native trees (including stumps), a small number of native shrubs, several invasive shrub plants and/or patches and some other non-native trees and shrubs. Most required tree removal will occur where the trail will overlap with forested areas; however, it is recognized that some tree removal will also be necessary to accommodate the fill slope needed in some locations to support the trail. To avoid removing some individual, larger, healthy trees it is assumed that stacked rock or brick will be used selectively in some locations to minimize the



footprint of the fill slope. It is anticipated that up to 5 small rock/brick features to retain soil away from tree trunks or primary roots may be needed. Table 1 provides a list of all native trees that are likely to require removal to accommodate the proposed trail (43 in total). Non-native trees such as recently planted leylandii cypress hedges and several laurel spp. (a small hedge tree) were not included in the tables as it was not considered to be necessary to replace these small, non-native trees that occur along the existing fence. The cherry trees encountered were assumed to be native cherry trees, but this may not be the case. The site assessments (three visits) were conducted when there were no leaves or flowers, so an accurate identification of the cherry trees was not feasible.

The Owner (RDN) will retain an appropriately qualified arborist to provide tree health and safety advice and guidance when needed throughout construction. When trail construction occurs, the arborist will be responsible for addressing hazardous trees in consideration of both construction needs/risks and future trail use. In addition, some minor adjustments and field-fit decisions might be made during construction to avoid the removal of individual trees that are very close to the footprint of the trail or to remove nearby trees that are deemed hazardous. Table 1 represents an accurate tally of trees to be removed based on proximity/overlap with the flagged footprint, but some field-fit decisions may result in some minor adjustments to this tally. Table 2 provides the total number of trees and shrubs to be planted for each area shown on the attached drawings.

The suggested tree replacement numbers provided in the following table are consistent with the attached Schedule G from the City of Nanaimo's Bylaw for the Management and Protection of Trees (as requested by City of Nanaimo staff). The recommended number of shrubs to be planted are consistent with the recommendations of a previous draft report, which was based on a different tree replacement criteria, and are provided to further mitigate the loss of trees and to replace some invasive species that will be removed to construct the trail. The size of trees to be replaced (see recommendations section) are not consistent with Schedule G and it is our understanding that the City has accepted the proposed smaller tree sizes to avoid the need for a more substantial irrigation plan.

Table 1. Summary of trees to be removed to accommodate trail and the recommended minimum replacement plants.

Species	Diameter at Breast Height (mm)	Number	Minimum Number of Replacements Trees	Number of Shrubs Recommended
Douglas fir	60 to 300	5	5 trees	2 shrubs
(<i>pseudotsuga menziesii</i>)	301 to 799	4	8 trees	
Western redcedar	60 to 300	10	10 trees	8 shrubs
(<i>thuja plicata</i>)	301 to 799	1	2 trees	
Bigleaf maple	60 to 300	16	16 trees	28 shrubs
(<i>acer macrophyllum</i>)	301 to 600	3	6 trees	
Cherry (spp)	60 to 300	4	4 trees	0
Total		43	47 trees	38 shrubs



Table 2. Total number of trees and shrubs to be planted in each identified treatment area.

Type	Common Name	Scientific Name	Treatment Area									Stock Size	Totals
			1	2	3	4	5	6	7	8	9		
Tree	Red alder	<i>Alnus rubra</i>				5	3	6	7	8	7	2-gallon	36
Tree	Bigleaf maple	<i>Acer macrophyllum</i>					3	7	3	3	3	2-gallon	19
Tree	Douglas fir	<i>Pseudotsuga menziesii</i>	10	10	6				10	11	10	2-gallon	57
Tree	Shore pine	<i>Pinus contorta</i>				5						2-gallon	5
Shrub	Tall Oregon grape	<i>Mahonia aquifolium</i>							20	22	20	1-gallon	62
Shrub	Ocean spray	<i>Holodiscus discolor</i>				5	3	5	40	45	40	1-gallon	138
Shrub	Red-flowering currant	<i>Ribes sanguineum</i>				5	3	5				1-gallon	13
Shrub	Saskatoon	<i>Amelanchier alnifolia</i>				5	3	4				1-gallon	12
Shrub	Salal	<i>Gaultheria shallon</i>							20	22	20	1-gallon	62
Total # of Plants			10	10	6	25	15	27	100	111	100		404

ADDITIONAL ENHANCEMENT

As previously discussed, RDN is planning to conduct additional riparian enhancement measures to improve the condition of the riparian area adjacent to the new trail. This includes maintaining the previous number of replacement trees (55) even though it has been determined that 6 less trees are likely to be removed. It also includes enhancement efforts within three areas substantially infested with Himalayan blackberry. The three areas approximately identified on the attached drawings total 560 m². Enhancement will include removal of blackberry thickets along with roots and infested soil. Topsoil will then be placed to create a suitable growing medium in which trees will be planted at 3 m spacing and shrubs will be planted at 1.5 m spacing. In total, an additional 62 trees and 249 shrubs will be planted.

DETAILED SPECIFICATIONS AND PROCEDURES

The following sections outline detailed specifications and procedures for the planned tree replacement and riparian enhancement works. The locations of recommended plantings are shown on the attached design drawings showing planting locations. EDI has been retained to be on site during planting and invasive species removal activities to provide oversight and direction, as warranted.

Plant Selection

- Planting locations and recommended species have been selected based on site characteristics (sun, shade, estimated soil moisture, proximity to trail etc.).
- All trees shall be 2 Gallon pot size and all shrubs shall be 1 Gallon pot size.



- Individual areas for planting occur where there is a lack of vegetated cover, areas where invasive shrub infestations occur within 3 m of the trail work site, and within the three additional enhancement areas.
- While western redcedar is common at the site it is not recommended as previously planted redcedar trees generally do not appear to be thriving and are typically being heavily browsed by deer, whereas other species appear to be in much better condition.
- Minor deviations from the plan may be acceptable provided they are reviewed by the undersigned or another appropriately qualified professional. Once the trail is complete, it may make sense to make some adjustments to suit actual site conditions.
- EDI shall review and approve the nursery order before it is finalized to ensure it meets or exceeds project requirements and expectations.

Invasive Species Removal

Invasive species removal is a significant and important enhancement measure for this site. Removal of invasive shrubs will improve the ecological condition of the site and will provide additional areas for planting native trees and shrubs. We recommend the following invasive species removal measures:

- During trail construction and tree removal works it is recommended that invasive species be removed from the riparian area within 3 metres from the limit of disturbance associated with trail construction. This area, which is immediately adjacent to the trail construction site, is also the area in which most invasive species occur.
- Invasive species to be removed and disposed following the guidance provided by TIPS Factsheets (<http://bcinvasives.ca/resources/tips/>). A combination of hand removal of individual plants and grubbing with an excavator for larger patches is recommended.
- In the three additional enhancement areas north of the trail (560 m² total area), blackberry infestations shall be grubbed with an excavator.
- Areas grubbed shall be grubbed to an average of 150 mm deep to remove roots and soil infested with seeds. Additional effort (machine and/or hand tools) shall be taken to remove any remaining roots from these areas.
- All invasive plant material and infested soil must be disposed of at a facility that will accept invasive plant material.

Topsoil Placement

- In areas that are grubbed, topsoil shall be placed to a depth of 150 mm and then thoroughly mixed with the underlying subsoil (using teeth of excavator digging bucket).
- For the additional enhancement areas, it is estimated that 84 m³ of topsoil will be needed.
- For the heavily infested areas within 3 m of the trail, it is estimated that up to 60 m³ of topsoil will be needed.



- Topsoil shall be in accordance with the City of Nanaimo's 2020 Version of the Manual of Engineering Standards and Specifications (MoESS), which is currently undergoing the final review.
- Upon completion of trail construction in late summer/early fall, the topsoil shall be seeded with fall rye (25 kg/ha), then covered with 100 mm of straw mulch. Hand broadcasting the seed and mulch is an acceptable methodology.

Planting Recommendations

- All planting to be conducted in the fall season, following trail construction (ideally between Oct. 1 and Nov. 15).
- Target spacing for trees is 3.0 m. Trees to be planted no closer than 2.5 m (including spacing from any existing trees within the riparian area). Trees shall also be planted at least 2.5 m away from the edge of the trail so that they do not interfere with future trail use.
- Target spacing for shrubs is 1.5 m. Shrubs to be planted no closer than 1 m from adjacent planted or natural vegetation.
- All trees and shrubs to be planted such that the level of the soil from the pot is approximately 2 cm below the adjacent soil elevation. Soil excavated to create a hole for each plant shall then be used to cover the surface of the potting soil (to prevent potting soil from drying out or becoming oversaturated).

Maintenance and Inspection

A three-year maintenance and inspection period will occur as described below. The first year will be the responsibility of the contractor constructing the trail. The second two years will be the responsibility of the landscaping subcontractor, under separate contract.

Year 1 Maintenance and Inspection (Trail Construction Contractor):

- Contractor to verify irrigation functioning and operating as intended during growing season.
- Hand removal of any new invasive shrubs and weeds within planted areas shall occur at least twice: mid-spring (April 15 to May 15, 2021) and late summer (August 15 to September 15, 2021). More frequent removal may make each removal period easier.
- Organic, non-toxic browsing deterrent (such as Plantskydd) should be applied to the planted stock immediately after planting (or pre-treated), and the following spring and late-summer when invasive species removals occur.
- EDI along with the Contractor's appropriately qualified staff or sub-consultant(s) shall inspect plants in August 2021. Any dead or unhealthy plants shall be identified, and a nursery order shall be made to replace any such plants in accordance with EDI recommendations (substitutions, relocations or other such adjustments may be needed depending on observations).
- Replacement plants shall be installed between September 15 and 30, 2021.



- EDI shall inspect the site upon completion (near end of September 2021) to verify that the maintenance and enhancement requirements have been achieved. Maintenance and Inspection shall be considered complete if:
 - All trees and shrubs planted are healthy.
 - Little or no invasive plants are present (<5% coverage in areas enhanced).

General Maintenance and Inspection (Landscaping Contractor):

- 1) Watering during the summer dry periods (generally July to mid-September, depending on seasonal conditions) will consist of a simple irrigation system designed by the landscape architect.
- 2) Implement monitoring and maintenance to ensure that survival targets are met, and that invasive species colonization is controlled.
 - A three-year maintenance period is considered to be appropriate. Maintenance and inspection may be extended if survival targets are not achieved after the first three years.
 - Appropriately qualified staff or consultant(s) to inspect plants bi-annually and maintain/replace plants each fall as needed during the maintenance period.
 - Hand removal of any new invasive shrubs and weeds should occur at least twice per year: (April 15 to May 15) and the second shall occur late summer (August 15 to September 15).
 - Invasive species removal and riparian planting could both be achieved efficiently by organizing volunteers from local stream keeper groups such as Walley Creek Streamkeepers; however, all such works need to be overseen by an appropriately Qualified Environmental Professional (QEP).
 - The Regional District of Nanaimo shall retain EDI or another QEP to inspect the site in the late summer of the final year of the 3-year maintenance period. The inspection shall include:
 - An estimate of percent survival of trees and percent survival of shrubs.
 - An estimate of percent area coverage of invasive plants.
 - Provided that the results of the inspection are favorable, a brief letter shall be submitted to the RDN and the City of Nanaimo confirming that the riparian enhancement project is complete, or
 - If replacement plants are needed, they can be ordered and planted in the fall of that year as per any recommendations made by the QEP. Once it is confirmed that replacements have been planted (and maintained, if warranted) to that satisfaction of the QEP, a brief letter shall be submitted to the RDN and the City of Nanaimo confirming that the enhancement project is complete.
 - The enhancement plan shall be considered to be successful if:
 - At least 80% of trees and 80% of shrubs are established and healthy.
 - Little or no invasive shrubs are present (<10% coverage in areas enhanced).



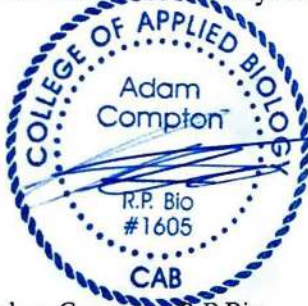
STATEMENT OF LIMITATIONS

This report was prepared exclusively for the RDN by EDI Environmental Dynamics Inc. The quality of information, conclusions and estimates contained therein are consistent with the level of effort expended and is based on: i) information available at the time of preparation; ii) data collected by EDI Environmental Dynamics Inc. and/or supplied by outside sources; and iii) the assumptions, conditions and qualifications set forth in the report. The report is intended to be used by the RDN for the intended purpose as outlined by this report. Any other use or reliance on this report by any third party is at that party's sole risk.

Any material changes to either site conditions or the proposed activities as described in the report may invalidate the conclusions and recommendations made. The undersigned should be contacted if the trail construction plans change to determine if the report needs to be revised or updated.

Yours truly,

EDI Environmental Dynamics Inc.



*Original signed +
sealed Mar. 30, 2020*

Adam Compton, R.P.Bio.

Senior Biologist/Project Manager

Attachments: Tree Replacement Criteria
Design Drawings with Planting Locations

SCHEDULE G

TREE REPLACEMENT GUIDELINES

A person who cuts or removes a tree, including cutting or removal contrary to the Bylaw, shall replace the tree by planting one or more replacement trees as set out below and maintain the replacement trees for a minimum of at least two years:

- (a) Table 1 in the case of a broad leaf deciduous tree; and
- (b) Table 2 in the case of coniferous trees.

Table 1

Dbh of trees cut or removed	Replacement Criteria
60 mm to 300 mm	1 replacement tree (60 mm min dbh)
301 mm to 600 mm	2 replacement trees (60 mm min dbh)
601 mm or greater	3 replacement trees (60 mm min dbh)

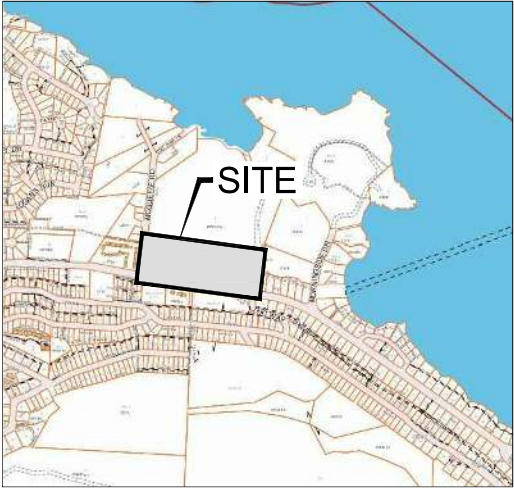
Table 2

Dbh of trees cut or removed	Replacement Criteria
60 mm to 300 mm	1 replacement tree (min height of 1.5m)
301 mm to 799 mm	2 replacement trees (min height of 1.5m)
800 mm or greater	3 replacement trees (min height >2.0m)

File: H:\Projects\0837-047 GNPC Frontage Works\04c Drawings\0837-047 Civil Drawings.dwg Plot Time: Oct. 24, 17 5:06 AM User: Evan Pearce

LEGEND

EXISTING	PROPOSED	DESCRIPTION	EXISTING	PROPOSED	DESCRIPTION
		EDGE OF PAVEMENT			REDUCER
		CURB AND GUTTER			FENCE
		EDGE OF GRAVEL			DITCH/SWALE
		TOP/BOTTOM OF BANK			WATERMAIN (SIZE AND MATERIAL NOTED)
		CATCH BASIN			SANITARY SEWER (SIZE AND MATERIAL NOTED)
		WATER VALVE			STORM DRAIN (SIZE AND MATERIAL NOTED)
		FIRE HYDRANT			UNDERGROUND TELEPHONE
		CAPPED END			UNDERGROUND HYDRO
		UTILITY POLE AND STREET LIGHT (LABELED PP,TP,PP/LS ETC.)			MONUMENT
		MANHOLE			PROPERTY LINE
		CLEANOUT			CENTERLINE AND STATIONING
		SANITARY/STORM INSPECTION CHAMBER (200# RISER)			SANITARY SEWER SERVICE CONNECTION AT MAIN
		JUNCTION BOX			ELEVATIONS
		AIR VALVE			PAVEMENT REMOVAL
		WATER METER			NEW ASPHALT



LOCATION PLAN
NTS

GENERAL NOTES:

1. ALL WORK AND MATERIALS ARE TO BE AS DESCRIBED IN THE CITY OF NANAIMO ENGINEERING STANDARDS & SPECIFICATIONS LATEST EDITION OR AS OTHERWISE APPROVED BY THE CITY ENGINEER.
2. CONNECTION TO, OR ALTERATION OF, EXISTING CITY-OWNED UTILITIES, REQUIRES AUTHORIZATION BY THE CITY ENGINEER.
3. A "PERMIT TO INSTALL WORKS WITHIN STREETS, LANES AND CITY PROPERTY AREAS" WILL BE REQUIRED WHERE CONSTRUCTION IS TO BE UNDERTAKEN IN CITY OF NANAIMO RIGHT-OF-WAYS AND/OR CITY OF NANAIMO-OWNED UTILITIES OR PROPERTIES.
4. UPON APPROVAL OF THE PERMIT, THE CITY OF NANAIMO'S CONSTRUCTION DIVISION SHALL BE NOTIFIED 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
5. THE ENGINEER SHALL BE NOTIFIED 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
6. CONTRACTOR TO COMPLY WITH ALL APPLICABLE MINISTRY OF ENVIRONMENT AND DEPARTMENT OF FISHERIES & OCEANS CANADA REQUIREMENTS AT ALL TIMES DURING CONSTRUCTION.
7. CONTRACTOR TO CONFIRM LOCATION OF EXISTING UTILITIES AT ALL CROSSINGS AND CONNECTIONS AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
8. CONTRACTOR TO CONFIRM THAT ELEVATION, LOCATION AND GRADIENT OF ASPHALT MATCH EXISTING PRIOR TO PLACEMENT OF ASPHALT OR CONCRETE.
9. ALL TREES NOT BEING REMOVED IN THE CONSTRUCTION AREA SHALL BE PROTECTED.
10. ADJUST ALL MANHOLES, WATER VALVES, HYDRO VAULTS, ETC. TO MATCH NEW CONSTRUCTION.
11. ALL LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY AND SHOULD BE CONFIRMED BY USE OF A PIPE LOCATOR AND MANUAL DIGGING. ALL OR ANY STRUCTURES NOT NECESSARILY SHOWN.
12. ALL ELEVATIONS ARE TO GEODETIC DATUM AND ARE REFERENCED TO MONUMENT 82H5677 AT THE INTERSECTION OF MCGUFFIE ROAD & HAMMOND BAY ROAD. ELEVATION = 31.807m
13. DATA SOURCES:
 - TOPOGRAPHIC SURVEY COMPLETED BY 3D GEOMATICS INC. IN JUNE 2017.
 - ASBUILTS PROVIDED BY THE CITY OF NANAIMO.

ROAD NOTES:

1. ALL CURB AND GUTTER TO BE C.O.N. TYPE CS-1 UNLESS OTHERWISE NOTED.

UTILITY NOTES:

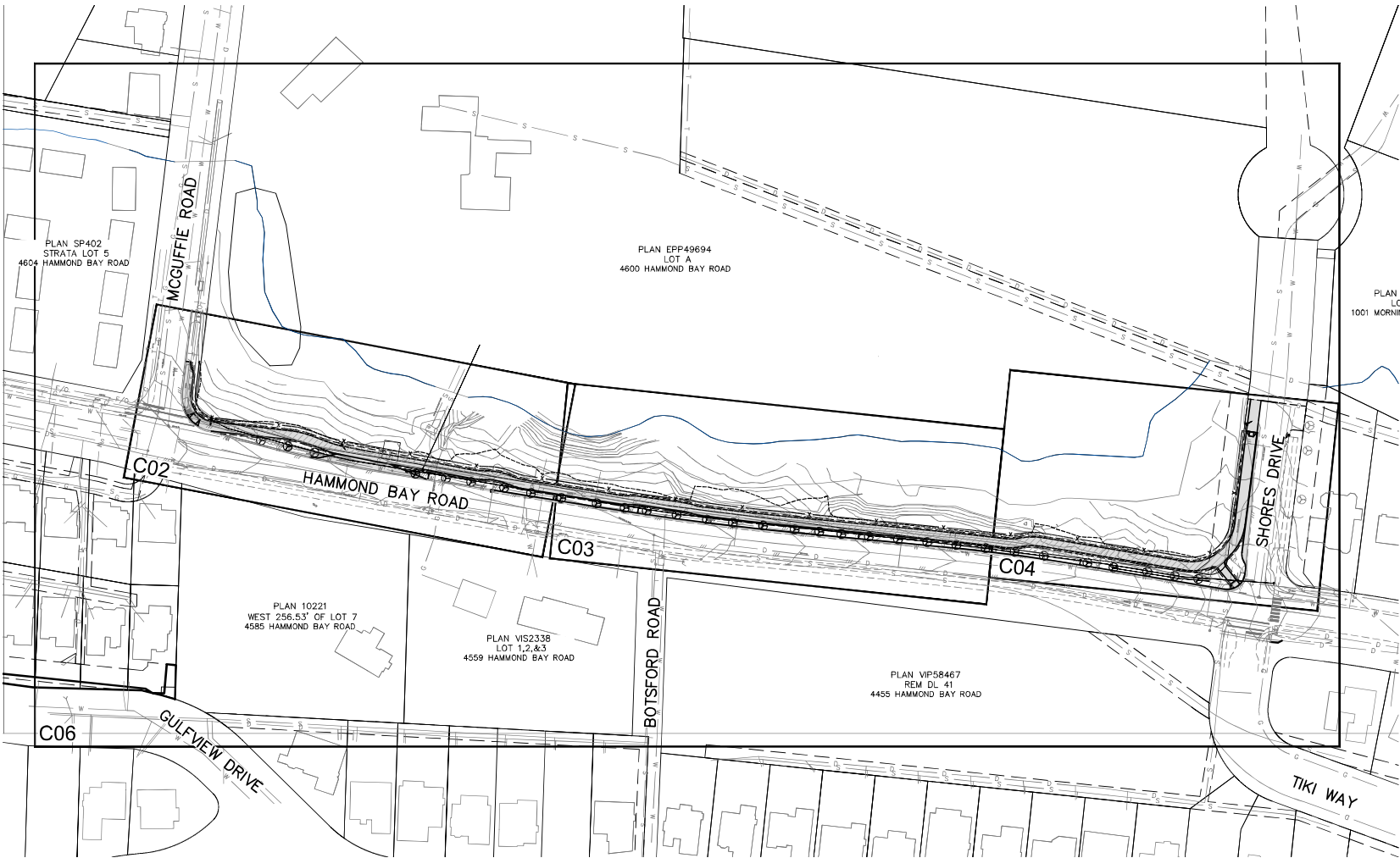
1. GAS MAIN AND SERVICE LOCATIONS ARE APPROXIMATE ONLY AND ARE BASED ON FORTIS BC INFORMATION.
2. BC HYDRO, TELUS AND SHAW CABLE INFORMATION IS BASED ON BC ONE CALL INFORMATION.

STORM SEWER NOTES:

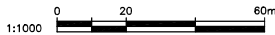
1. ALL CATCH BASINS TO BE C.O.N. TYPE 1 UNLESS OTHERWISE NOTED.
2. ALL CATCH BASIN LEADS TO BE 200# PVC SDR35 UNLESS OTHERWISE NOTED.

LIST OF DRAWINGS

DWG No.	DESCRIPTION
C01	KEY PLAN, DRAWING LIST, & GENERAL NOTES
C02	PROPOSED TRAIL WAY - PLAN/PROFILE STA. 3+000 TO 3+150
C03	PROPOSED TRAIL WAY - PLAN/PROFILE STA. 3+150 TO 3+300
C04	PROPOSED TRAIL WAY - PLAN/PROFILE STA. 3+300 TO 3+420
C05	CROSS SECTIONS
C06	EROSION & SEDIMENT CONTROL PLAN



KEY PLAN
1:1000



ISSUES		
No.	DATE	ISSUED FOR
A	2017.07.28	ISSUED FOR 75% REVIEW
B	2017.08.31	ISSUED FOR 95% REVIEW
C	2017.09.07	BUS PULLOUT ADDED
D	2017.10.24	ISSUED FOR APPROVAL
CLIENT		

GREATER NANAIMO POLLUTION CONTROL CENTRE
FRONTAGE WORKS

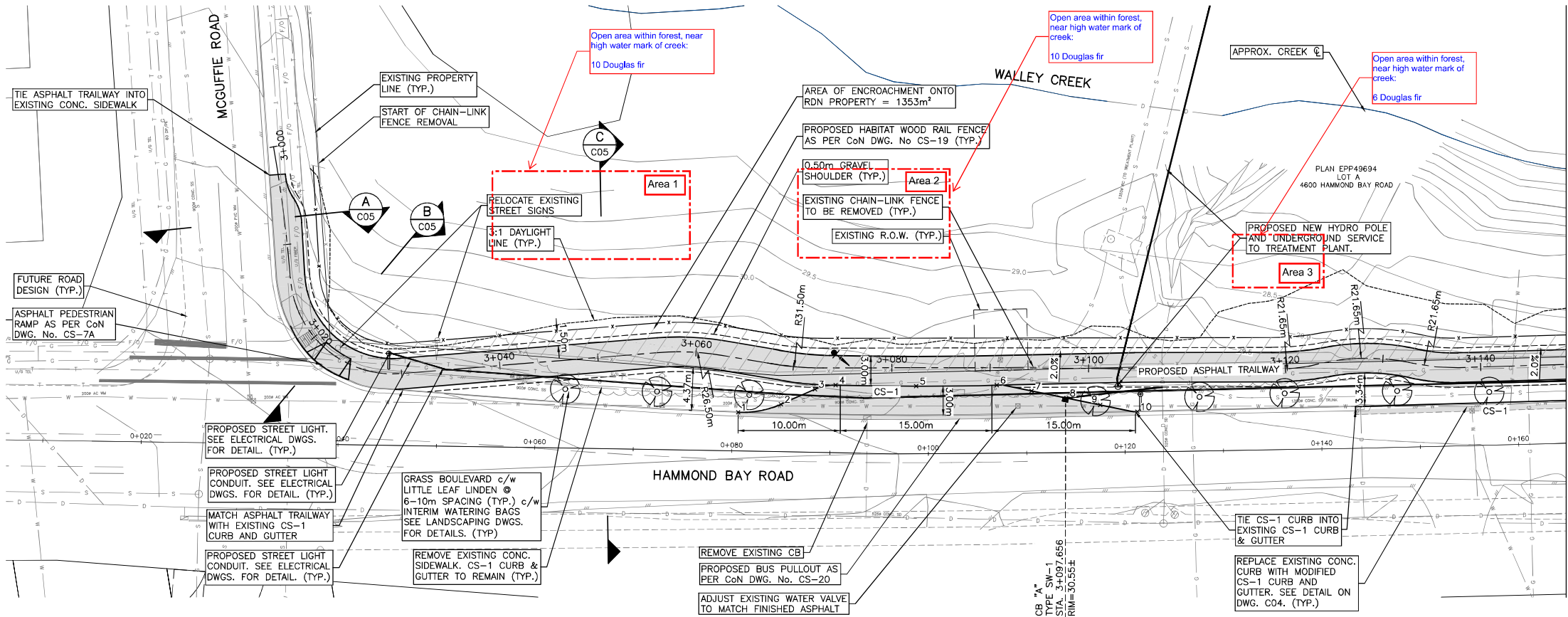
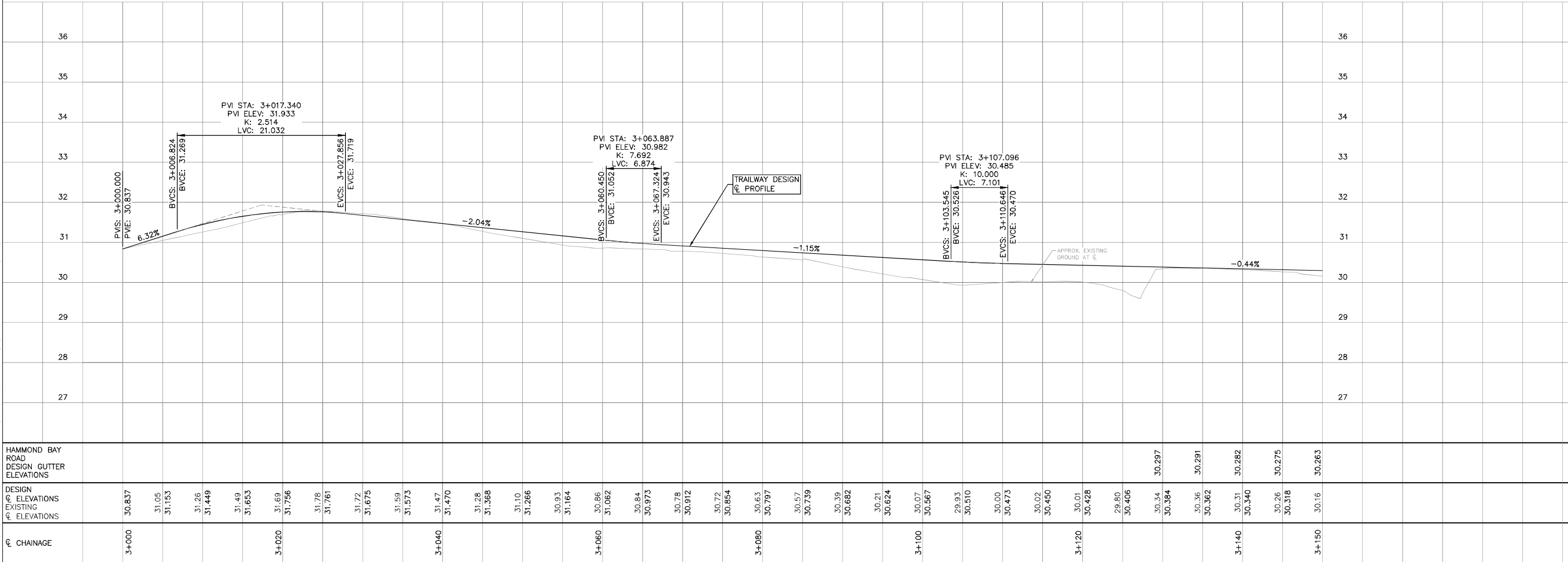
4600 HAMMOND BAY ROAD, NANAIMO, BC
REGIONAL DISTRICT OF NANAIMO

HEROLD ENGINEERING
3701 Shenton Rd, Nanaimo, BC V9T 2H1
Tel: 250-751-8558 Fax: 250-751-8559
Email: mail@heroldengineering.com

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KEY PLAN, DRAWING LIST, & GENERAL NOTES	
DESIGNED PGR	ENGINEER'S SEAL
DESIGN REVIEW	
DRAFTED EGAP	
DRAFTING REVIEW	
PROJECT No. 0837-047	CLIENT DRAWING No.
SCALE H: 1:1000 V: NA	PERMIT No.
HEL DRAWING No. C01	REVISION 1 OF 6 D

File: H:\Projects\0837-047 GRPCC Frontage Works\04c Drawings\0837-047 Civil Drawings.dwg Plot Time: Oct. 24, 17 5:06 AM User: Evan Pearce



NOTES:
1. FOR GENERAL NOTES SEE DWG. No. C01.

CURB RETURN ELEVATIONS:

1 - 31.074	6 - 30.647
2 - 30.989	7 - 30.597
3 - 30.906	8 - 30.579
4 - 30.872	9 - 30.593
5 - 30.759	10 - 30.562

ISSUES

No.	DATE	ISSUED FOR
A	2017.07.28	ISSUED FOR 75% REVIEW
B	2017.08.31	ISSUED FOR 95% REVIEW
C	2017.09.07	ADDED BUS PULLOUT
D	2017.10.24	ISSUED FOR APPROVAL

CLIENT

GREATER NANAIMO POLLUTION CONTROL CENTRE
FRONTAGE WORKS

4600 HAMMOND BAY ROAD, NANAIMO, BC
REGIONAL DISTRICT OF NANAIMO

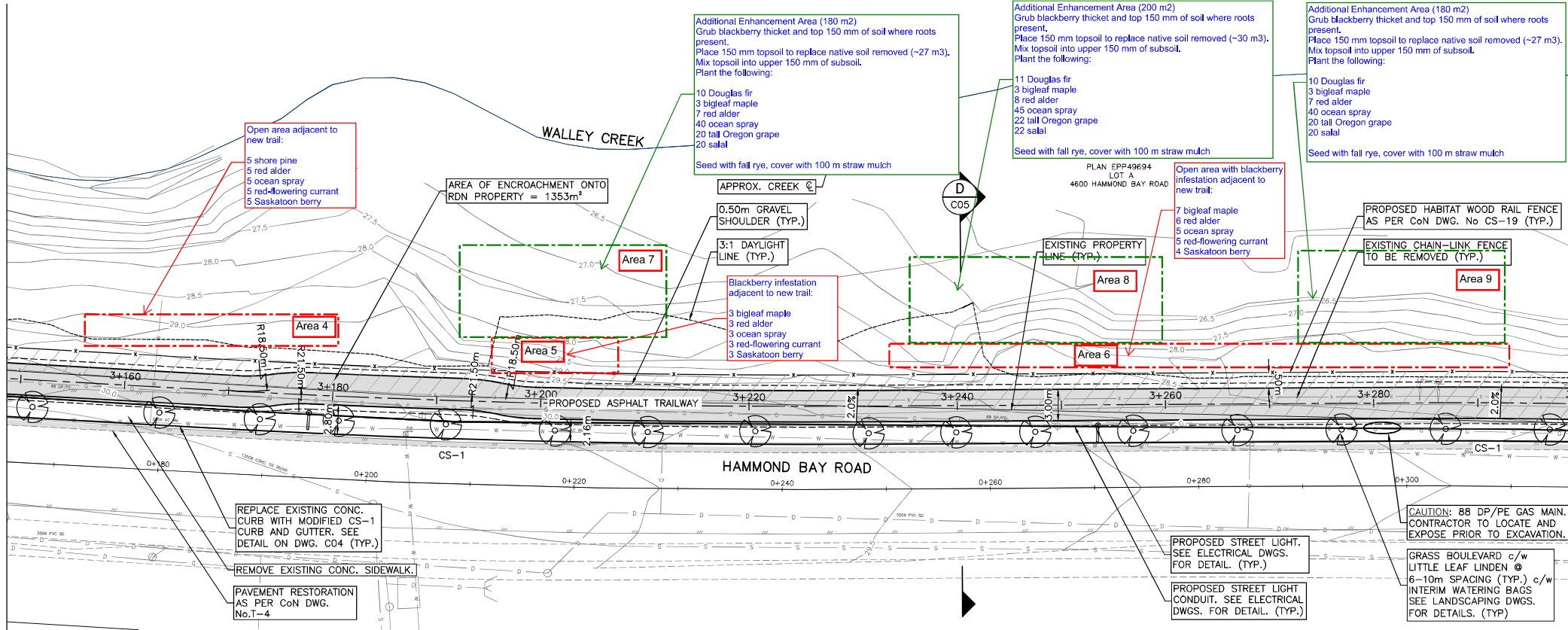
HEROLD ENGINEERING
3701 Shenton Rd, Nanaimo, BC V9T 2H1
Tel: 250-751-8558 Fax: 250-751-8559
Email: mail@heroldengineering.com

PROPOSED TRAILWAY
PLAN/PROFILE
STA. 3+000 TO 3+150

DESIGNED PGR	ENGINEER'S SEAL
DESIGN REVIEW	
DRAFTED EGAP	
DRAFTING REVIEW	
PROJECT No. 0837-047	CLIENT DRAWING No.
SCALE H: 1:250 V: 1:50	PERMIT No.
HEL DRAWING No. C02	REVISION 2 OF 6 D

File: H:\Projects\0837-047 GRPCC Frontage Works\04c Drawings\0837-047 Civil Drawings.dwg Plot Time: Oct. 24, 17 5:06 AM User: Evan Pearce

FOR CONTINUATION SEE
DWG. No. C02

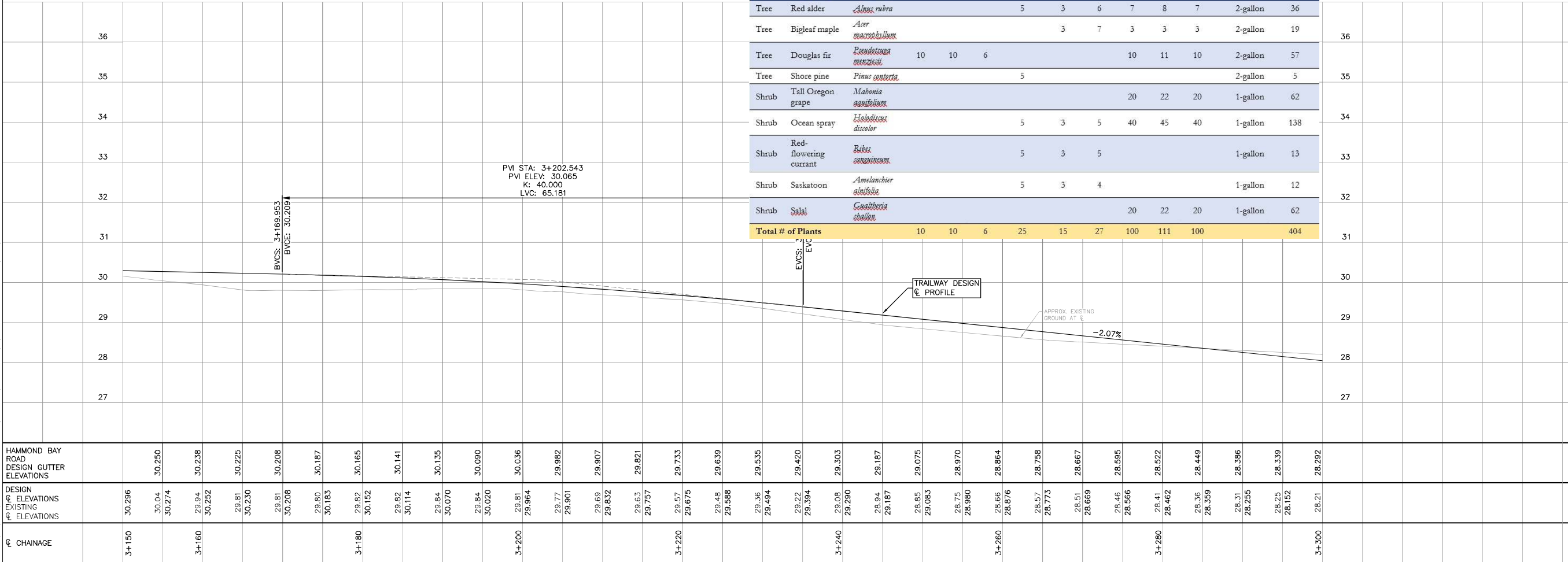


- NOTES:
- FOR GENERAL NOTES SEE DWG. No. C01.

FOR CONTINUATION SEE
DWG. No. C04



			Treatment Area												
Type	Common Name	Scientific Name	1	2	3	4	5	6	7	8	9	Stock Size	Totals		
Tree	Red alder	<i>Alnus rubra</i>				5	3	6	7	8	7	2-gallon	36		
Tree	Bigleaf maple	<i>Acer macrophyllum</i>					3	7	3	3	3	2-gallon	19		
Tree	Douglas fir	<i>Pseudotsuga menziesii</i>	10	10	6				10	11	10	2-gallon	57		
Tree	Shore pine	<i>Pinus contorta</i>				5						2-gallon	5		
Shrub	Tall Oregon grape	<i>Mahonia aquifolium</i>							20	22	20	1-gallon	62		
Shrub	Ocean spray	<i>Holodiscus discolor</i>				5	3	5	40	45	40	1-gallon	138		
Shrub	Red-flowering currant	<i>Ribes cereum</i>				5	3	5				1-gallon	13		
Shrub	Saskatoon	<i>Amelanchier alnifolia</i>				5	3	4				1-gallon	12		
Shrub	Salal	<i>Gaultheria shallon</i>							20	22	20	1-gallon	62		
Total # of Plants			10	10	6	25	15	27	100	111	100		404		



ISSUES		
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C	2017.09.07	BUS PULLOUT ADDED
D	2017.10.24	ISSUED FOR APPROVAL

GREATER NANAIMO POLLUTION CONTROL CENTRE
FRONTAGE WORKS

4600 HAMMOND BAY ROAD, NANAIMO, BC

REGIONAL DISTRICT OF NANAIMO

HEROLD ENGINEERING
3701 Shenton Rd, Nanaimo, BC V9T 2H1
Tel: 250-751-8558 Fax: 250-751-8559
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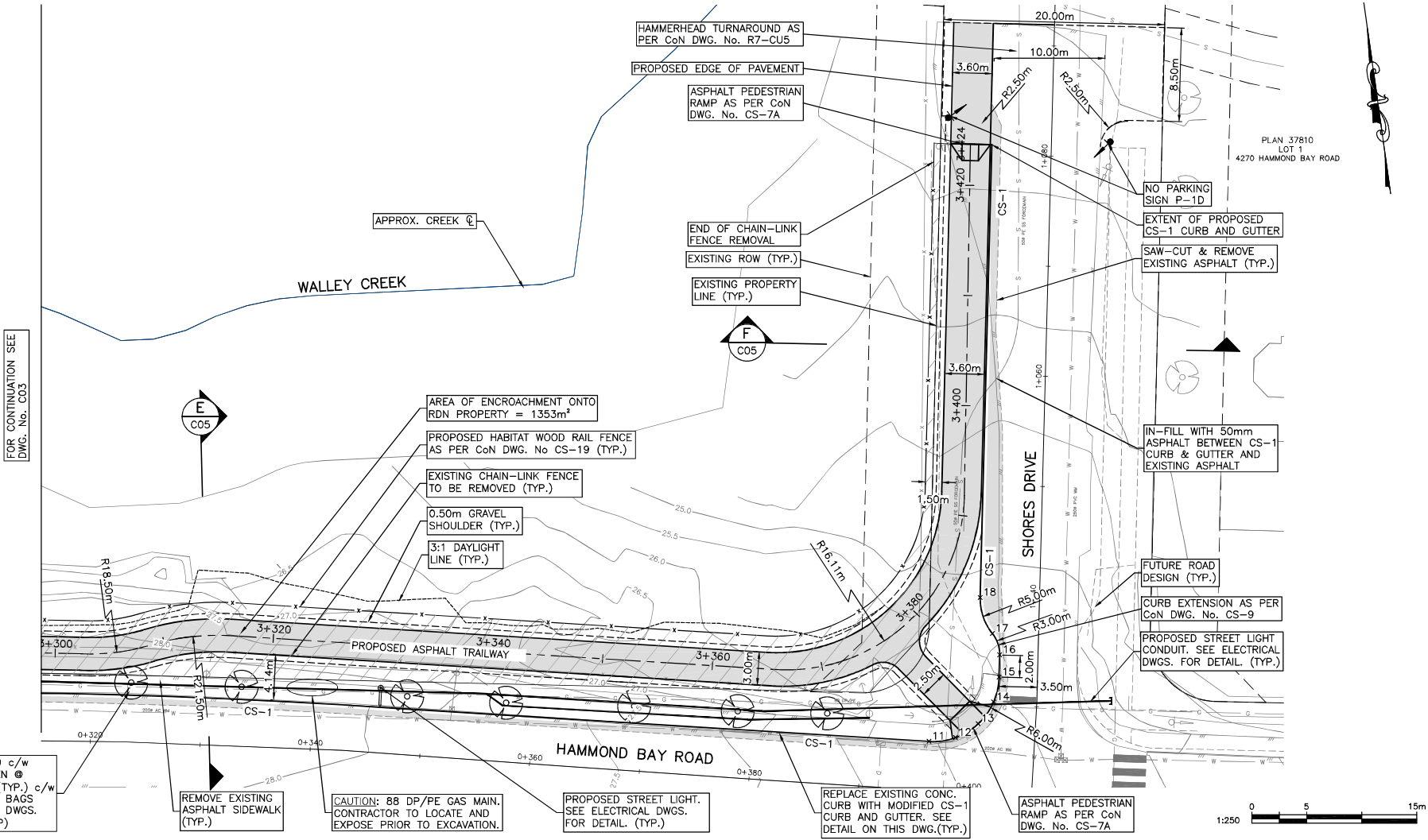
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PLAN & PROFILE
PLAN/PROFILE
STA. 3+150 TO 3+300

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DRAFTING REVIEW	
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HEL DRAWING No. C03	REVISION 3 of 6 D

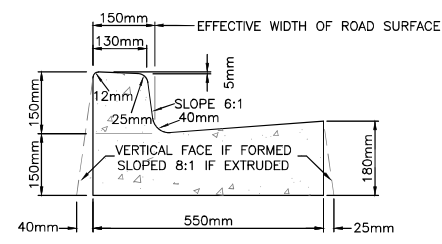
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FOR CONTINUATION SEE
DWG. No. C03



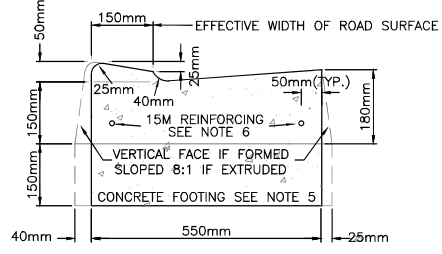
SIGNS SCHEDULE - THIS DRAWING		
SIGN	QTY.	LOCATION
P-10	2	STA. 3+420 (EITHER SIDE OF ENTRANCE/EXIT TO TURNAROUND)

CURB RETURN ELEVATIONS:			
11	-	26.214	16 - 25.437
12	-	26.087	17 - 25.294
13	-	25.946	18 - 25.113
14	-	25.770	
15	-	25.584	



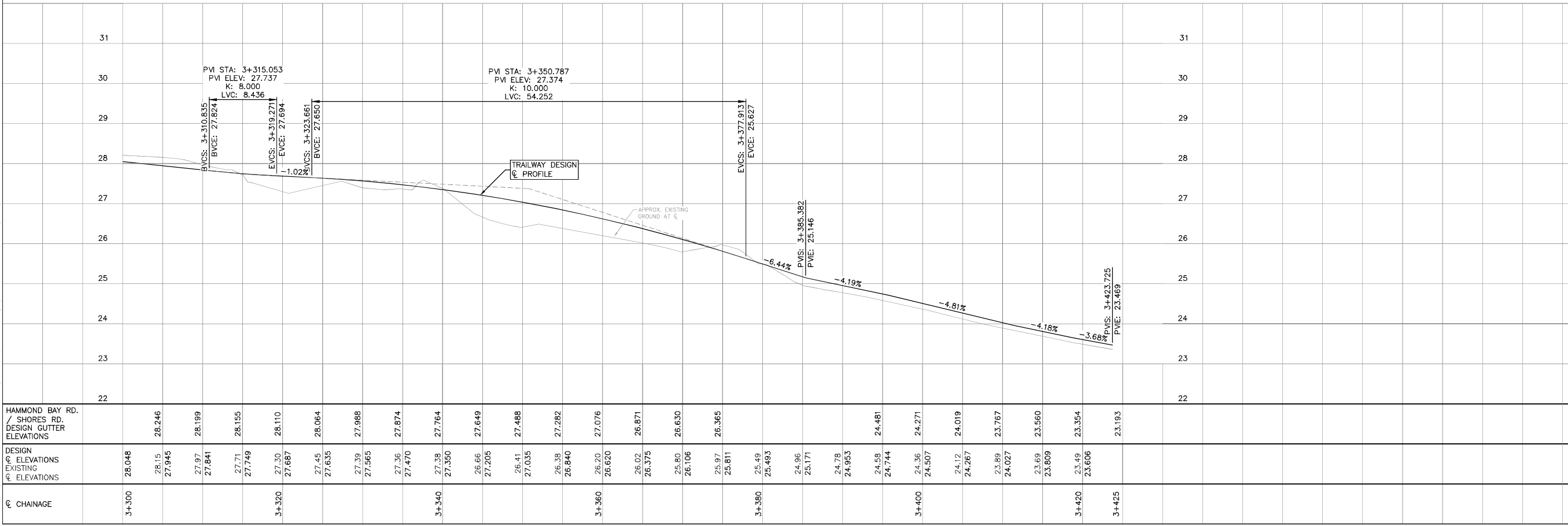
MODIFIED 'CS-1' CURB WITH LARGER GUTTER PAN*
NTS

*TO BE READ IN CONJUNCTION WITH CoN DWG. No. CS-1, GUTTER WIDTH TO MATCH EXISTING



MODIFIED 'CS-1' DROP CURB WITH LARGER GUTTER PAN*
NTS

*TO BE READ IN CONJUNCTION WITH CoN DWG. No. CS-1, GUTTER WIDTH TO MATCH EXISTING



ISSUES	
No.	DATE
A	2017.07.28
B	2017.08.31
C	2017.09.07
D	2017.10.24
ISSUED FOR	
ISSUED FOR 75% REVIEW	
ISSUED FOR 95% REVIEW	
BUS PULLOUT ADDED	
ISSUED FOR APPROVAL	
CLIENT	

GREATER NANAIMO POLLUTION CONTROL CENTRE
FRONTAGE WORKS

4600 HAMMOND BAY ROAD, NANAIMO, BC
REGIONAL DISTRICT OF NANAIMO

**HEROLD
ENGINEERING**

3701 Shenton Rd, Nanaimo, BC V9T 2H1
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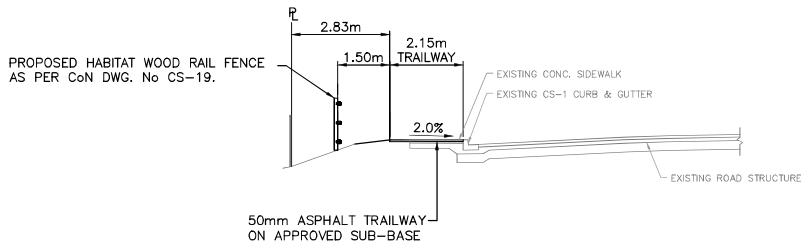
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PROPOSED TRAILWAY
PLAN/PROFILE
STA. 3+300 TO 3+420

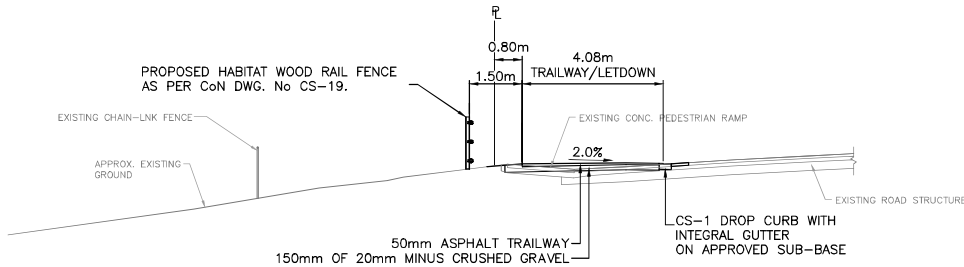
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DESIGN REVIEW	
DRAFTED EGAP	
DRAFTING REVIEW	
PROJECT No. 0837-047	CLIENT DRAWING No.
SCALE H: 1:250 V: 1:50	PERMIT No.
HEL DRAWING No. C04	REVISION 4 OF 6 D

NOTES:

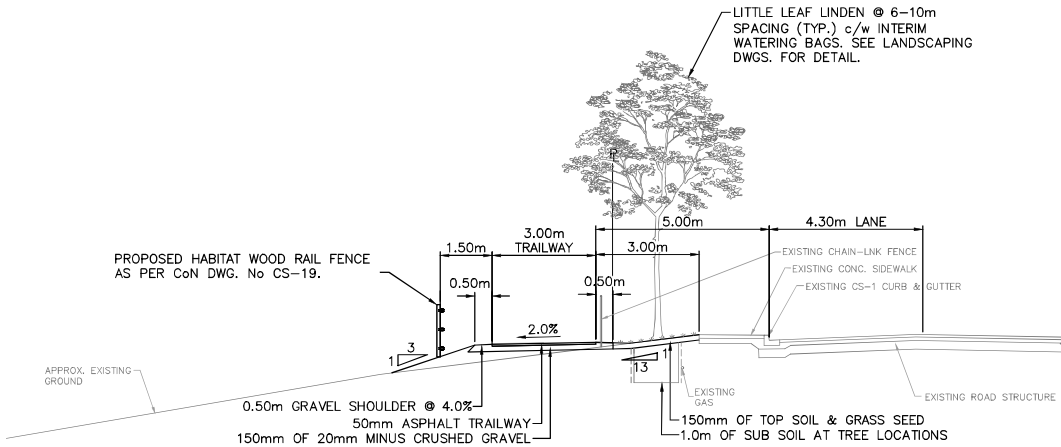
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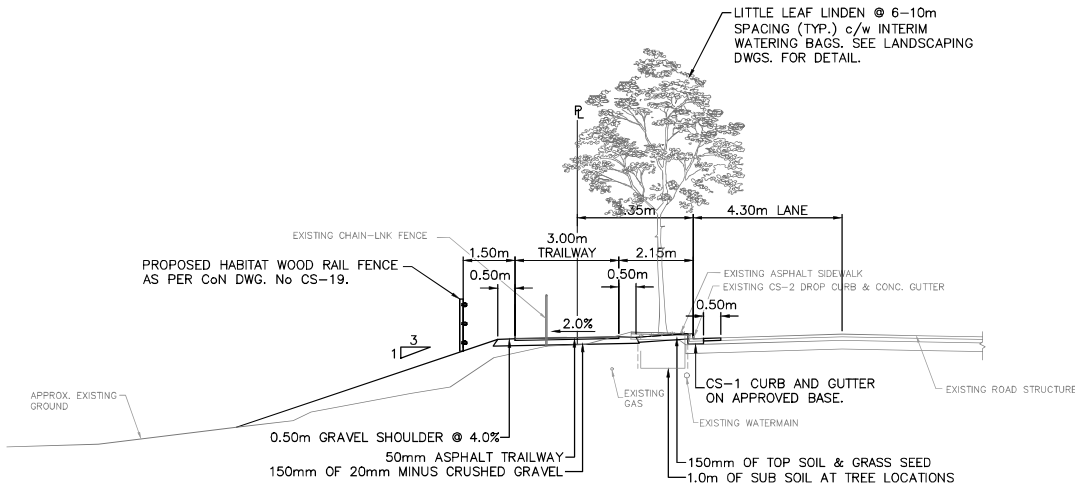
A SECTION
C02 NTS



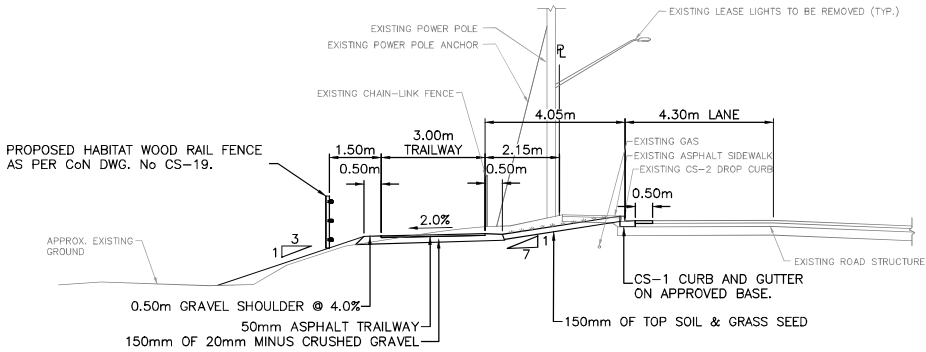
B SECTION
C02 NTS



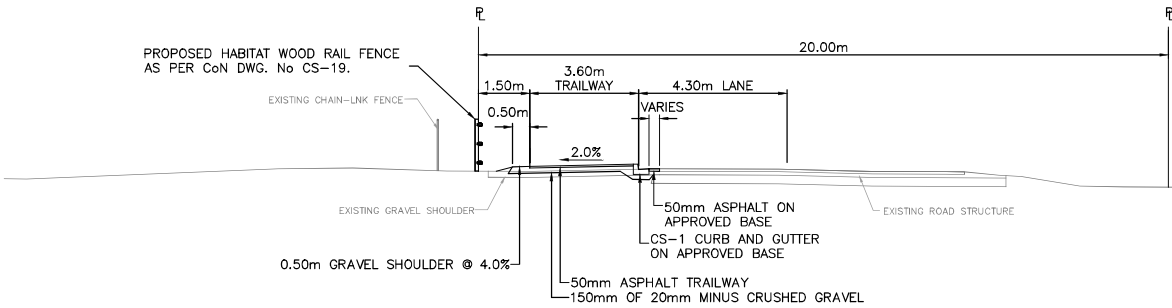
C SECTION
C02 NTS



D SECTION
C03 NTS



E SECTION
C04 NTS



F SECTION
C04 NTS

ISSUES		
No.	DATE	ISSUED FOR
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CLIENT

GREATER NANAIMO POLLUTION CONTROL CENTRE
FRONTAGE WORKS

4600 HAMMOND BAY ROAD, NANAIMO, BC

REGIONAL DISTRICT OF NANAIMO

HEROLD ENGINEERING

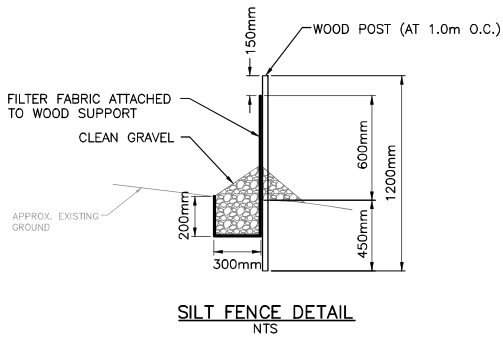
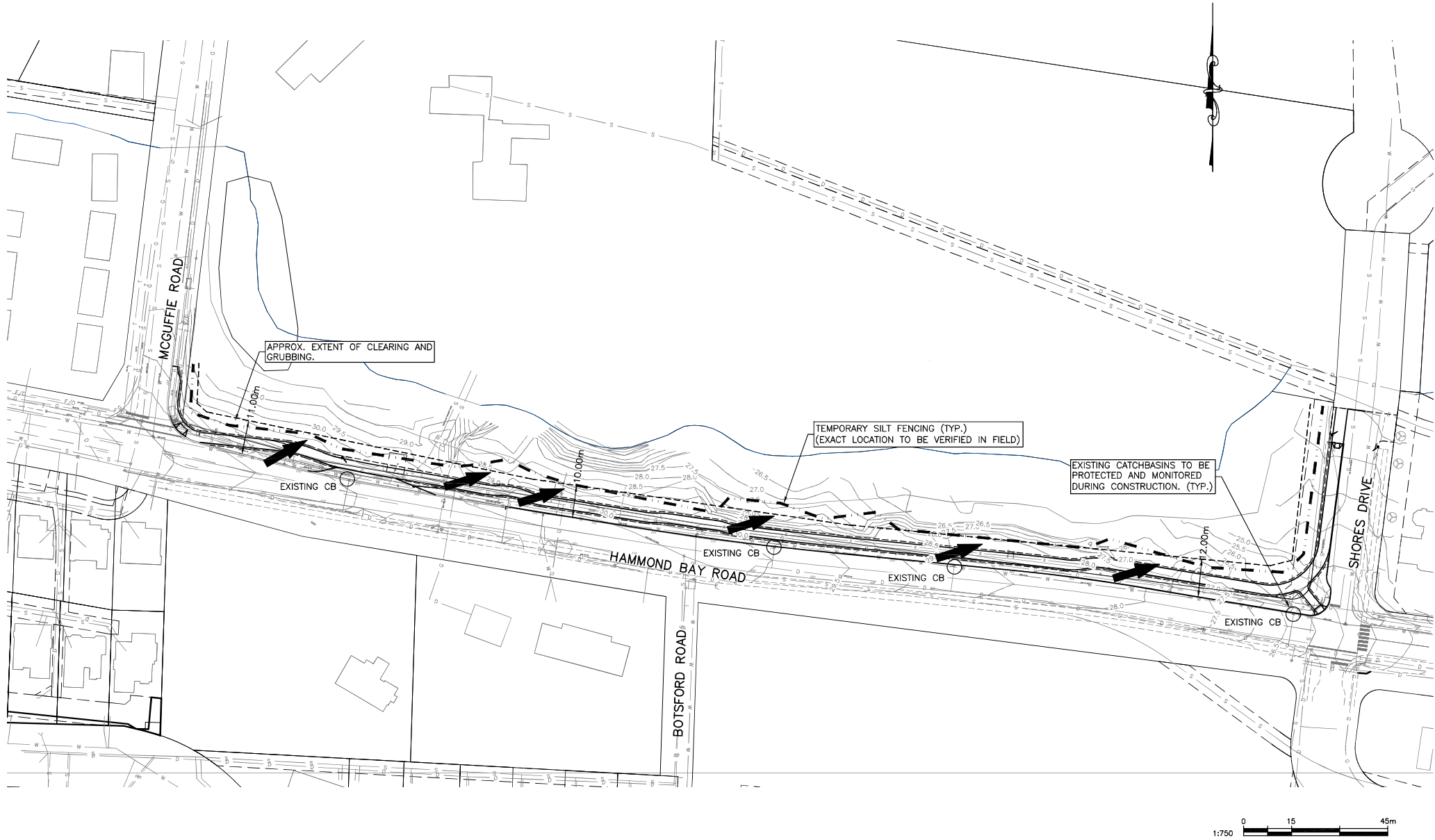
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SECTIONS	
DESIGNED PGR	ENGINEER'S SEAL
DESIGN REVIEW	
DRAFTED EGAP	
DRAFTING REVIEW	
PROJECT No. 0837-047	CLIENT DRAWING No.
SCALE H: NA V: NA	PERMIT No.
HEL DRAWING No. C05	REVISION 5 OF 6 D

DESTROY ALL DRAWINGS SHOWING PREVIOUS REVISION

File: H:\Projects\0837-047 GNPCC Frontage Works\04c Drawings\0837-047 Civil Drawings.dwg Plot Time: Oct. 24, 17 9:06 AM User: Evan Pearce



EROSION & SEDIMENT CONTROL NOTES:

1. EROSION AND SEDIMENT CONTROL FOR THIS PROJECT WILL BE AS OUTLINED IN THE FISHERIES AND OCEANS CANADA & MINISTRY OF WATER, LANDS AND AIR PROTECTION HANDBOOK ENTITLED "LAND DEVELOPMENT GUIDELINES FOR THE PROTECTION OF THE AQUATIC HABITAT, SEPTEMBER 1993" AND "ENVIRONMENTAL BEST MANAGEMENT PRACTICES FOR URBAN AND RURAL LAND DEVELOPMENT IN BRITISH COLUMBIA, JUNE 2004" AND "EROSION & SEDIMENT CONTROL GUIDELINE" BY THE CITY OF NANAIMO. IT IS INCUMBENT UPON THE CONTRACTOR TO ACQUIRE THESE GUIDELINES AND FAMILIARIZE HIMSELF WITH THE REQUIREMENTS WITHIN.
2. SPECIFIC ENVIRONMENTAL REQUIREMENTS FOR THIS PROJECT, WITHIN THE RIPARIAN AREAS, TO BE AS PER THE SECTION 11 NOTIFICATION DOCUMENTS PREPARED BY THE CITY OF NANAIMO.
3. THE CONSULTANT ASSUMES NO RESPONSIBILITY FOR DAMAGES RESULTING FROM IMPROPER EROSION AND SEDIMENT CONTROL MEASURES UNDERTAKEN BY THE CONTRACTOR.
4. ANY DIRECTION GIVEN BY THE CONSULTANT OR CITY TO THE CONTRACTOR FOR EROSION AND SEDIMENT CONTROL AND NOT FOLLOWED BY THE CONTRACTOR IS TO BE REPORTED TO THE CITY IMMEDIATELY.
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE NO MUD, DIRT, SOIL, SILT OR ANY OTHER SUBSTANCES ARE SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS OF WAY, OR AREAS THAT LEAD TO CATCH BASINS CONNECTED TO PUBLIC SYSTEMS. THE CONTRACTOR IS TO CLEAN ANY SUCH MATERIAL IMMEDIATELY. I.e. STREETS ARE TO BE SWEEPED WITH A VACUUM STREET SWEEPER AFTER WORK STOPPAGE EACH DAY.
6. PRIOR TO CONSTRUCTION, INSTALL A TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT TO LIMIT TRACKING OF SITE SOILS ONTO OFFSITE ROADWAYS. THE WIDTH OF THE PAD SHOULD NOT BE LESS THAN THE FULL WIDTH OF POINT OF INGRESS OR EGRESS IN ANY CASE SHOULD NOT BE LESS THAN 6m WIDE WITH A LENGTH OF THE PAD NOT LESS THAN 20m AND HAVING A MINIMUM THICKNESS OF 200mm (8") OF COARSE GRANULAR MATERIAL. COARSE GRANULAR MATERIAL SUCH AS 75mm PLUS SHOT ROCK OR FRACTURED DRAIN ROCK UNDERLAIN WITH GEO-TEXTILE FABRIC IS RECOMMENDED.
7. THE ENTRANCE SHOULD BE MAINTAINED FOR THE DURATION OF CONSTRUCTION, IN A CONDITION THAT WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHT OF WAYS, OR AREAS THAT LEAD TO CATCH BASINS CONNECTED TO PUBLIC SYSTEMS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL MATERIAL AS CONDITIONS DEMAND. THE PAD MAY BE REMOVED ONCE PERMANENT PAVEMENTS ARE IN PLACE AT THE SITE. A WHEEL WASH MAY BE REQUIRED IF THE TEMPORARY GRAVEL PAD IS NOT WORKING.
8. PRIOR TO CONSTRUCTION, CONTRACTOR TO CLEARLY FLAG OR FENCE AREAS OF NO DISTURBANCE AS WELL AS ANY DESIGNATED TREES AND SHRUBS THAT ARE TO BE PRESERVED. MARKINGS SHALL REMAIN IN PLACE THROUGHOUT CONSTRUCTION.
9. CONTRACTOR TO STRIP AND GRUB ONLY THOSE AREAS NECESSARY FOR THE CURRENT CONSTRUCTION. STAGE CONSTRUCTION OPERATIONS TO LIMIT DISTURBANCE AND DO NOT STRIP ANY AREA UNTIL REQUIRED.
10. IF GRADED AREAS WITHIN THE PROJECT WILL NOT BE COMPLETED OUTSIDE OF THE WET SEASON (OCTOBER TO APRIL), REVEGETATION OPERATIONS SHOULD BE CARRIED OUT WITHIN ONE WEEK OF GRADING COMPLETION OR NO LATER THAN SEPT. 15th.
11. SILT FENCING IS TO BE INSTALLED AROUND ALL STOCK/SPOIL PILES, OR PILES ARE TO BE OTHERWISE COVERED TO LIMIT EROSION AND SEDIMENT GENERATION.
12. ROUTINE INSPECTION AND MAINTENANCE OF THE SYSTEM COMPONENTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHOULD DESIGNATE AN ON-SITE PERSON TO BE RESPONSIBLE FOR DAY-TO-DAY MANAGEMENT OF THE ESOP. AT A MINIMUM, INSPECT ALL BMP'S WEEKLY TO ENSURE PROPER FUNCTION WITH INSPECTION REPORTS PROVIDED TO THE ENGINEER AND THE CITY OF NANAIMO FOR REVIEW.
13. DURING AND/OR FOLLOWING EACH SIGNIFICANT STORM EVENT, THE DESIGNATED SITE PERSON SHOULD OBSERVE THE SETTLEMENT POND AND STORM DRAIN TO CONFIRM THAT TURBID WATERS FROM SOURCES ASSOCIATED WITH CONSTRUCTION ARE NOT ENTERING THE STORM DRAINAGE SYSTEM. TAKE IMMEDIATE CORRECTIVE ACTION IF INSPECTION INDICATES A PROBLEM. RECORD INSPECTION DATES, ANY SIGNIFICANT OBSERVATIONS, AND ACTIONS TAKEN, THEN INFORM THE CONSULTANT IN CHARGE AND THE CITY OF NANAIMO.
14. CITY OF NANAIMO STANDARD EROSION & SEDIMENT CONTROL SIGNAGE IS REQUIRED TO BE PLACED ON-SITE PRIOR TO THE START OF CONSTRUCTION AND MAINTAINED IN PLACE UNTIL LANDSCAPING IS COMPLETED.

LEGEND

- ➔ OVERLAND FLOW
- - - - - TEMPORARY SILT FENCE

ISSUES	
No.	DATE ISSUED FOR
A	2017.07.28 ISSUED FOR 75% REVIEW
B	2017.08.31 ISSUED FOR 95% REVIEW
C	2017.09.07 BUS PULLOUT ADDED
D	2017.10.24 ISSUED FOR APPROVAL

CLIENT

GREATER NANAIMO POLLUTION CONTROL CENTRE FRONTAGE WORKS

4600 HAMMOND BAY ROAD, NANAIMO, BC

REGIONAL DISTRICT OF NANAIMO

HEROLD ENGINEERING

3701 Shenton Rd, Nanaimo, BC V9T 2H1
Tel: 250-751-8558 Fax: 250-751-8559
Email: mail@heroldengineering.com

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EROSION & SEDIMENT CONTROL PLAN

DESIGNED PGR	ENGINEER'S SEAL
DESIGN REVIEW	
DRAFTED EGAP	
DRAFTING REVIEW	
PROJECT No. 0837-047	CLIENT DRAWING No.
SCALE H: 1:750 V: NA	PERMIT No.
HEL DRAWING No. C06	REVISION 6 OF 6 D

APPENDIX C

Regional District of Nanaimo

20-027: Greater Nanaimo Pollution Control Centre (GNPCC) Frontage Works

Nanaimo, BC

**Environmental Protection Plan for GNPCC Frontage Works
Prepared by EDI, March 30, 2020**

March 30, 2020

EDI Project No: 20N0118

Regional District of Nanaimo
6300 Hammond Bay Road
Nanaimo, BC V9T 6N2

Attention: James Haddou, Project Engineer, Engineering Services, Regional and Community Utilities

RE: Environmental Protection Plan for GNPCC Frontage Works

INTRODUCTION

EDI Environmental Dynamics Inc. (EDI) has been retained by Herold Engineering Ltd. – on behalf of the Regional District of Nanaimo (RDN) – to review tree replacement and riparian enhancement considerations with respect to the proposed frontage works at the Greater Nanaimo Pollution Control Centre (GNPCC) along Hammond Bay Road, Nanaimo. In general, the proposed frontage works along Hammond Bay Road include construction of a new multi-use trail and boulevard at and north of the existing. The trail will also extend north along Shores Drive to connect with an existing access path to Neck Point Park.

The proposed works involve activities within the riparian area of Walley Creek, a known fish bearing stream. The new trail footprint (including the footprint of trail embankment material) will be approximately 15 to 20 m from the south bank of Walley Creek (~15 m to the high water mark at the closest point). An existing chain link fence marks the south edge of the naturally vegetated riparian area, which was officially established when Walley Creek was relocated several years ago under a Department of Fisheries and Oceans (DFO) Authorization. The new 3 m wide trail will be located approximately 2 to 4 m to the north of the existing fence and will require removal of vegetation, including 43 native trees along with some domestic trees and native/non-native shrubs. Several areas adjacent to the trail that are infested with invasive species will be grubbed. To mitigate the loss of trees, several trees and shrubs will be planted near the trail, in sparsely vegetated areas north of the trail and in areas where invasive species will be removed. A tree replacement and riparian enhancement plan prepared by EDI (dated March 30, 2020) describes those aspects in detail.

This Environmental Protection Plan (EPP) has been prepared to provide the relevant environmental requirements for the project. The contractor completing the clearing and construction works will be required to adhere to this EPP. It is expected that this EPP will be submitted to/reviewed by regulatory agencies as warranted, including submission of a Request for Review to the Department of Fisheries and Oceans. The goals of this EPP are to:



- Describe the site characteristics and environmental sensitivities.
- Describe identified environmental concerns of the project and the planned general and site-specific measures to avoid or minimize environmental impacts.
- Provide environmental protection procedures for routine activities and unplanned events.
- Confirm the commitment of this project to sound environmental management.
- Confirm that if the described measures are implemented, the planned project is not expected to result in a Harmful Alteration, Disruption or Destruction (HADD) of fish habitat as defined by the Federal Fisheries Act.

SITE CHARACTERISTICS & ENVIRONMENTAL SENSITIVITIES

The proposed trail is located approximately 15 to 20 m from the south bank of Walley Creek. Riparian vegetation between the current chain link fence varies across the site but most of the site can be described as young, mixed forest. There are some patches of larger, older trees interspersed throughout the area. In general, the western half of the riparian area at the site consists of approximately half older, mixed forest and half young (pole/sapling) forest. The eastern half of the riparian area at the site is more uniform and consists of young forest. Throughout the riparian area, invasive shrubs occur regularly, including *Daphne* (spurge) laurel and English holly in more shaded areas and Himalayan blackberry and Scotch broom in more open areas (including some areas that appear to have been more recently and heavily impacted from past disturbances). Other than the areas that are densely vegetated with Himalayan blackberry or *Daphne* laurel infestations, much of the understory is relatively open and sparse in comparison to natural, less disturbed forests that occur in similar sites within this general area.

North of the existing sidewalk, the riparian area typically slopes gently towards the south bank of the creek. There is a stormwater outfall located at ~2+108 and flow is conveyed from the headwall to the stream via a short, ditched channel.

Walley Creek is a known fish-bearing creek that provides suitable habitats for salmonids. More recent fish sampling conducted between 2007 and 2010 in this portion of Walley Creek resulted in the capture of cutthroat trout (*Oncorhynchus clarkii*) and three-spined stickleback (*Gasterosteus aculeatus*)¹.

While all planned works associated with trail construction, tree removal and riparian enhancement are well back from the stream and are therefore less likely to result in adverse impacts, there are several potential impacts that could occur, but that can be mitigated; for example, the introduction of sediment laden runoff from the construction areas into the creek. Care must be exercised throughout construction to avoid adverse environmental impacts to Walley Creek, aquatic life (fish and amphibians) and the riparian area outside of the construction limits.

¹ Current Environmental. 2011. Effectiveness Evaluation Compendium 2007-2010 Walley Creek Daylighting Project. Prepared for Department of Fisheries and Oceans & Regional District of Nanaimo.



REPRESENTATIVE SITE PHOTOS



Photo 1. Representative view of Walley Creek north of the proposed trail.



Photo 2. View of forested vegetation to be cleared for trail construction.



Photo 3. View of forested vegetation to be cleared for trail construction (right) and an open part of riparian area (centre).



Photo 4. View of forested vegetation to be cleared for trail construction (left and centre)



Photo 5. View of Himalayan blackberry infestation that will be grubbed and planted with native species.



Photo 5. View of Himalayan blackberry infestation that will be grubbed and planted with native species.



PLANNED WORKS

A general summary of the primary works include:

- Remove the existing chain link fence.
- Clearing of trees and other vegetation immediately north of the existing sidewalk.
- Earthworks including grubbing and stripping north of the existing sidewalk (for the new trail area and to remove blackberry and underlying soil), excavation of asphalt sidewalk, placement of granular material to build up the new trail embankment, placement of topsoil over new trail's granular fill slope and within areas of blackberry removal.
- Construct grass boulevard and related infrastructure (curb, gutter, streetlights, irrigation). Install boulevard trees.
- Pavement works along new trail and portions of Hammond Bay Road damaged by construction.
- Construct wood rail fence north of existing trail.
- Plant native riparian trees and shrubs near trail, within identified sparsely vegetated areas and within areas of blackberry removal.

ENVIRONMENTAL MONITORING

EDI has been retained to conduct periodic environmental monitoring during construction. The Environmental Monitor shall be responsible for ensuring that contractors are aware of their respective roles and responsibilities as they relate to the requirements of this EPP. The Environmental Monitor will conduct periodic site visits and be on site during critical periods (all works identified during construction as environmentally sensitive). During these periodic site visits the Environmental Monitor will document compliance with the requirements of this EPP and will provide advice as needed to maintain compliance with the objectives of the EPP. If compliance issues are identified, the Environmental Monitor will be responsible for communicating any environmental deficiencies to the appropriate personnel. The Environmental Monitor will strive to ensure that environmental protection objectives are met.

The Environmental Monitor will:

- Review this EPP with the Construction Superintendent prior to construction commencement during a pre-work meeting.
- Ensure that Contractors are aware of the significant environmental aspects of the project and the impact mitigation measures required.
- Be on site during critical periods including blackberry clearing and grubbing works in the 3 larger riparian enhancement areas.



- Participate in periodic tailgate meetings with Contractors to review environmental aspects and requirements.
- In consultation with the Construction Superintendent and Owner Representative(s): delineate boundaries around any key sensitive areas that are not to be disturbed (such as the 3 blackberry infestations to be removed).
- Ensure that adequate and appropriate materials and supplies are maintained on site and in good condition for sediment and erosion control and spill prevention and recovery.
- In the event that adverse environmental conditions or incidences occur: provide advice to the Construction Superintendent and Owner Representative(s) about altering or ceasing certain construction activities and/or implementing remedial / mitigative measures.
- Notify the Construction Superintendent, Owner Representative(s), and appropriate regulatory agency in the event of a reportable spill or significant environmental incident.
- Implement corrective action as required in the event of an environmental incident, and direct construction personnel and equipment accordingly.
- Assist with developing the communications plan during the pre-work meeting.
- Provide a brief email summary to the Construction Superintendent, Owner Representative(s), and other relevant members of the project team after each site visit.
- Take photos of construction progress and environmental mitigation measures implemented.
- Periodically inspect and oversee riparian planting works.

CONSTRUCTION MITIGATION MEASURES

The following recommended mitigation measures outlined in Table 1 are provided to avoid causing unnecessary harm to aquatic and riparian habitat and water quality values at and downstream of the crossings.

Table 1. Summary of Primary Potential Impacts of Concern and Recommended Mitigation Measures

Potential Impact	Mitigation Measures
Disturbance to vegetation and soils adjacent to the identified project area.	<ul style="list-style-type: none"> • Crews and equipment are to remain within the predetermined construction footprint (staked and flagged trail boundary) and the identified enhancement sites (within 3 m of the trail and within the 3 larger blackberry infestations). • Larger, healthy looking trees along or just outside the flagged trail boundary that are to be retained (unless deemed hazardous) have been flagged with red ribbon. Otherwise, all trees and vegetation within the flagged trail boundary will be removed. • When trail construction occurs, a qualified arborist will be responsible for addressing hazardous trees in consideration of both construction needs/risks and future trail use following construction. • The arborist shall also be responsible for addressing tree health/stability for works at and adjacent to primary roots of larger trees (>20 cm diameter) adjacent to the edge of the trail. All works (excavation and soil placement) within the drip line of adjacent trees needs to be done with the utmost care to avoid unnecessary damage to tree roots. Removal of primary tree roots shall only occur where entirely necessary and roots to be removed shall be cut rather than shattered by digging. • Adjustments to grubbing and fill placement shall be made to avoid adjacent trees and their roots. This will include methods to steepen the trail embankment at select locations to avoid



Potential Impact	Mitigation Measures
	<p>damage to trees by excavation or placement of fill. Stacked rock or brick may be used to achieve this.</p> <ul style="list-style-type: none"> • A mandatory pre-work meeting with the arborist shall occur prior to grubbing and stripping to review all requirements to avoid damage to adjacent healthy trees that are not hazardous. • Prior to clearing and grubbing within the 3 larger enhancement sites where blackberry infestations occur (as generally identified on the drawings), a Qualified Environmental Professional from EDI shall flag the boundaries and review the required works with the Contractor. • To avoid disturbing naturally vegetated areas, no material excavated during construction shall be stockpiled outside of the identified trail footprint. Upon completion of clearing and grubbing, temporary fencing (1.8 m high metal fencing) shall be installed throughout to prevent worker and public encroachment into the riparian area. • Any branches of trees that are adjacent to planned development that are at risk of being damaged or that would impede use of the trail shall be cleanly pruned, so they are not broken or shattered by equipment or other construction activities.
Generation of suspended sediment during construction.	<p>Works shall be done in accordance with Drawing C06 (Erosion & Sediment Control Plan) and as per the complementary requirements listed below:</p> <ul style="list-style-type: none"> • Construction activities must not cause the introduction of sediment or sediment laden runoff to enter the watercourses. • Earthworks and the bulk of construction are planned for a low-risk time of year (August/September), greatly limiting the potential for causing sediment laden runoff to enter the creek. • Earthworks shall not occur during or immediately prior to forecast rainfall events that are >25 mm in 24h or during prolonged periods of wet weather that result in saturated soil conditions. • All stormwater inlets along this portion of Hammond Bay Road lead to Walley Creek (stormwater outfalls at 3+110 and where Walley Creek crosses Morningside Drive east of the project area). The road shall be swept regularly, whenever sediment accumulates to ensure rainfall runoff does not carry sediment into stormwater inlets. • Upon completion of grubbing near the stormwater outfall at 3+110 silt fencing shall be installed from approximately 3+100 to 3+120. This will prevent sediment from migrating into the stormwater channel leading to Walley Creek. Other potential areas for silt fencing shall be verified in the field (as indicated on Drawing C-06). • After placement of topsoil in the areas north of the trail, topsoil shall be seeded and mulched or otherwise revegetated as per the landscape plan and riparian enhancement plan.
Hydrocarbon spills	<ul style="list-style-type: none"> • All machinery and equipment working shall be maintained in good working order and free of fluid leaks. • All construction machinery will carry oil spill kits. • All machinery and equipment shall be refueled at least 15 m from a stormwater inlet (catch basin). • If any accidental spills occur, they shall be immediately contained, cleaned up and reported to Emergency Management BC: 1 800 663-3456 (if reportable amount/type). Any spill that introduces regulated substances into a watercourse is reportable. Contact EDI immediately in the event of any spill and EDI will advise if it is reportable.
Concrete Works	<ul style="list-style-type: none"> • Any concrete works must be conducted such that concrete wash water is not introduced into the stormwater inlets along Hammond Bay Road.
Disturbance to nesting birds.	<ul style="list-style-type: none"> • Section 34(c) of the Wildlife Act prohibits the disturbance of a bird, egg or nest while the nest is occupied. The destruction of eggs and active nests of migratory birds is also prohibited by the Migratory Birds Convention Act. The site may have active nest sites during the breeding period. • It is recommended that all required clearing and danger tree works to accommodate the development occur outside of the typical breeding period which, for this site is March 1st to August 31st.



Potential Impact	Mitigation Measures
	<ul style="list-style-type: none">Any clearing of trees and shrubs that occurs within the period of March 1st to August 31st shall be preceded by a bird nest site survey conducted by a Qualified Environmental Professional from EDI. Any active nest sites shall be identified and flagged so that nest sites can be left undisturbed until the young birds have fledged and left the nest.
General	<ul style="list-style-type: none">EDI has been retained to conduct periodic environmental monitoring during construction. visit the site at least once when construction of the drain/outfall are underway. EDI shall advise if any addition measures or precautions are needed and EDI shall confirm that the measures described herein are being adhered to.EDI shall be available on short notice to assist on an as-needed basis throughout construction. The following is a list of potential reasons to contact the environmental monitor and determine whether an additional site visit is warranted:<ul style="list-style-type: none">Hydrocarbon spillsGeneration of sediment laden runoff into the watercourseIf at any time sediment laden water or any other deleterious substances (such as hydrocarbons or uncured concrete) enters the aquatic receiving environment, EDI can be contacted immediately and can advise on the appropriate response/notification. Alternatively, if any such environmental emergencies occur, contact Emergency Management BC at 1 800 663-3456.

CONCLUSIONS

Given the minimal footprint of the project, the distance from Walley Creek (typically 15 to 20 m) and the required mitigation measures (including tree replacement and riparian enhancement), the magnitude of resulting effects and permanent impacts to riparian habitats from the construction of the trail are predicted to be low. Consequently, these habitat effects are not expected to limit or diminish the ability of fish to carry out their life process or to result in adverse effects to fish populations in Walley Creek, and are not expected to result in a Harmful Alteration, Disruption or Destruction (HADD) of fish habitat as defined by the Federal Fisheries Act.

STATEMENT OF LIMITATIONS

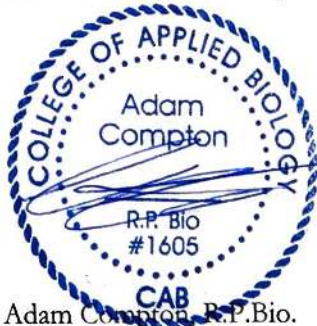
This report was prepared exclusively for Herold Engineering Ltd. – on behalf of the Regional District of Nanaimo (RDN) by EDI Environmental Dynamics Inc. The quality of information, conclusions and estimates contained therein are consistent with the level of effort expended and is based on: i) information available at the time of preparation; ii) data collected by EDI Environmental Dynamics Inc. and/or supplied by outside sources; and iii) the assumptions, conditions and qualifications set forth in the report. The report is intended to be used by Herold Engineering Ltd. and RDN for the intended purpose as outlined by this report. Any other use or reliance on this report by any third party is at that party's sole risk.

Any material changes to either site conditions or the proposed activities as described in the report may invalidate the conclusions and recommendations made. The undersigned should be contacted if the development plans change to determine if the report needs to be revised or updated.



Yours truly,

EDI Environmental Dynamics Inc.



*Original signed +
sealed Mar. 30, 2020*

Adam Compton, R.P.Bio.
Senior Biologist/Project Manager

APPENDIX D

Regional District of Nanaimo

20-027: Greater Nanaimo Pollution Control Centre (GNPCC) Frontage Works

Nanaimo, BC

Wastewater Services Contractor-Supplier Package

Document #:	WWS-COM-10.1
Revision #:	17
Effective Date:	31 January 2020
Reviewed by:	L. Mueller, EMS Coordinator
Approved by:	I. Lundman, Operations Sup't

WWS-COM-10.1 Contractor-Supplier Package

The purpose of this package is to convey the requirements of Regional District of Nanaimo Wastewater Services' (WWS) Environmental Management System (EMS) to contractors and suppliers. This package is applicable to all wastewater treatment facilities and pump stations.

As a contractor or supplier to WWS, you have a responsibility to comply with all provisions identified in the Contract Documents regarding Environmental Protection. Where Contract Documents do not exist, the service provider will comply with Sections Two, Three and Four.

Please retain a copy for your records.

PACKAGE CONTENTS:

1.0 General Overview: ISO 14001

- 1.1 Environmental Management System (EMS)
- 1.2 Environmental Policy and ISO Clause
- 1.3 Environmental Aspects and Impacts
- 1.4 Environmental Objectives and Targets

2.0 Operating Procedures

3.0 Emergency Preparedness and Response Procedures

4.0 Environmental Specifications

- 4.1 Air Emissions
- 4.2 Cleaning Equipment
- 4.3 Dust Control
- 4.4 Energy Consumption
- 4.5 Hazardous Materials
- 4.6 Noise
- 4.7 Sensitive Areas
- 4.8 Spills
- 4.9 Surface Water Control
- 4.10 Waste Management - Solid Non-Hazardous Waste

5.0 Attachments

- Environmental Policy
- ISO Clause

I, _____ of _____
(please print name) (please print company name)

acknowledge that I have received a Contractor-Supplier Package (ISO 14001 Contractor Supplier Environmental Performance Requirements) containing the materials listed above.

(Date)

(Supplier/Contractor Employee's Signature)

(Date)

(WWS Project Manager's Signature)

Document #:	WWS-COM-10.1
Revision #:	17
Effective Date:	31 January 2020
Reviewed by:	L. Mueller, EMS Coordinator
Approved by:	I. Lundman, Operations Sup't

1.0 GENERAL OVERVIEW: ISO 14001

1.1 Environmental Management System (EMS)

- An EMS is the part of an organization's management system, used to develop and implement its environmental policy and manage its environmental aspects.
- It includes organizational structure, planning activities, responsibilities, practices, procedures, processes and resources.

1.2 Environmental Policy and ISO Clause

- An Environmental Policy is a statement by the organization of its overall intentions and direction related to its environmental performance. It provides a framework for action and for the setting of environmental objectives and environmental targets.
- It is a driver for implementing and maintaining our EMS and reflects commitment to continual improvement, legal compliance and prevention of pollution
- The Environmental Policy is posted at each of the WWS wastewater treatment facilities and pump stations, and is available on the RDN website: www.rdn.bc.ca
- Uncontrolled copy of the Environmental Policy attached (Section 5.0 of this package)
- Uncontrolled copy of WWS' ISO Clause (Section 5.0 of this package)

1.3 Environmental Aspects and Impacts

- Environmental Aspect: element of an organization's activities, products or services that can interact with the environment.
- Environmental Impacts: any changes to the environment whether adverse or beneficial, wholly or partially resulting from an organization's environmental aspects.
- Environmental impacts include:
 - Air Pollution and Odour
 - Depletion of Natural Resources (Energy Use)
 - Landfill (Garbage)
 - Noise
 - General Repairs-Construction (Sensitive Areas)
 - Sewage Bypass (Leak/Spill)
 - Treatment Disposal (Hazardous Waste)

1.4 Environmental Objectives and Actions

- Environmental Objective: overall environmental goal consistent with the environmental policy, that an organization sets itself to achieve.
- Environmental Target: a detailed performance requirement that arises from the environmental objectives and that needs to be set and met in order to achieve those objectives.
- Objective and Targets are set to minimize environmental impacts.
- Any legal requirements that must be met by the organization (i.e. permit requirements) help create the objectives and targets.

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Approved by:	I. Lundman, Operations Sup't

2.0 OPERATING PROCEDURES

- All WWS wastewater treatment facilities have Operating Procedure Manuals.
- Procedures applicable to contractors and suppliers will be supplied by the WWS Project Manager at pre-construction meetings or prior to the work commencing.
- Contractors and Suppliers will be required to sign a Procedure Checklist acknowledging that they have received copies of applicable procedures at a pre-construction meeting or prior to commencing work on site.
- The WWS Project Manager will ensure that a site induction is completed prior to work commencing as per the ISO Clause attached. (Section 5.0 of this package)

3.0 EMERGENCY PREPAREDNESS AND RESPONSE PROCEDURES

- All WWS wastewater treatment facilities have Emergency Preparedness and Response Procedure Manuals.
- Procedures applicable to contractors and suppliers will be supplied by the WWS Project Manager at pre-construction meetings or prior to the work commencing.
- Contractors and Suppliers will be required to sign a Procedure Checklist acknowledging that they have received copies of applicable procedures at a pre-construction meeting or prior to commencing work on site.
- The WWS Project Manager will ensure that a site induction is completed prior to work commencing as per the ISO Clause (Section 5.0 of this package).

4.0 ENVIRONMENTAL SPECIFICATIONS

Contractors and suppliers must abide by the following environmental specifications while working on site, as applicable.

4.1 Air Emissions

- Contractors and Suppliers will ensure that excess vehicle idling is minimized.
- Contractors will ensure that their staff are trained in the proper use and handling of all materials and chemicals to ensure air emissions/odours are minimized.
- No open burning of waste materials is permitted.

4.2 Cleaning Equipment

- Do not clean equipment in streams/rivers or lakes.
- Clean construction equipment prior to entering roadways.
- Do not clean equipment in locations where debris can gain access to sewers, watercourses or aquifers.

4.3 Dust Control

- Transport dusty materials in covered haulage vehicles.
- Public roadways shall be kept clean and free of mud.

4.4 Energy Consumption

- Contractors and Suppliers will use energy efficient equipment when undertaking any work on a job site, where practical.
- Contractors and Suppliers staff will turn off lights and equipment when not in use and where practical when on a job site.

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4.5 Hazardous Materials

- Hazardous materials brought on site and removed shall be managed in accordance with current MOE Regulations current at the time of work.
- Governing Ministry of Labour Regulations respecting protection of works, remedial handling and disposition of Designated Substances encountered shall be followed.
- Do not empty fuel, lubricants, herbicides, pesticides, fungicides, paint materials, solvents or other chemicals into sewers or watercourses (only legally acceptable disposal methods are acceptable).

4.6 Noise

- Use vehicles and equipment with efficient muffling devices.
- Provide and use devices that will minimize noise levels in construction areas.
- Minimize noise resulting from activities while on-site whenever practical.

4.7 Sensitive Areas

- Inform WWS staff in writing of the particular schedule for each river crossing, channelizing or other work in the designated sensitive areas.
- Avoid encroachment on unique natural areas and establish boundary protection and signage to avoid encroachment.
- Do not disturb habitats of rare or endangered species. Agree and implement mitigative measures with WWS staff.
- Protect wetland sites used as feeding or breeding areas by migratory fowls or as habitats for other animals and establish boundary protection and signage to avoid such encroachment.
- Schedule construction in sensitive areas so that there will be minimal interference with water uses including fish migration or spawning, or disruption of incubation periods for eggs.
- Keep removal of vegetation to a minimum.
- Contain and deposit on land all aquatic plants uprooted or cut prior to or during construction.

4.8 Spills

- If requested, the contractor will provide to the WWS Project Manager for approval an Environmental Plan which addresses spill prevention, and spill response and communication.
- The contractor will be provided with a WWS Spill Response procedure in the event an Environmental Plan is not requested by WWS. If the contractor is provided with a WWS Spill Response procedure, the contractor will be required to follow instructions assigned to 'operator' in the procedure.
- Spill containment must be provided for any equipment containing fuel.
- Be prepared at all times to intercept, clean up and dispose of any spillage that may occur whether on land or water.
- Keep all materials required for clean-up of spills readily accessible on-site (e.g. spill kit)
- The contractor must dispose of all spillage and contaminated material the contractor generates. Contaminated material may not be stored on site.
- Report spills to EMBC at 1-800-663-3456 as per the *BC Spill Reporting Regulation*, which applies for the purposes of the *BC Environmental Management Act*.
- Notify WWS staff immediately if there are any spills and provide the EMBC confirmation number, where one has been provided.
- Results of all spill investigations must be forwarded to the WWS Project Manager and Chief Operator of the facility at which the spill occurred.

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- Reporting of releases is also a requirement of federal and other provincial legislation, including the Canadian Environmental Protection Act, and the Transportation of Dangerous Goods Act.

4.9 Sediment and Erosion Control

- The contractor, where ground work is required, will follow the project's sediment and erosion control plans.
- If no sediment and erosion control plan is in place the following procedures should be used :
 - Control all surface water and groundwater including rainfall and run-off. Ensure that erosion is controlled and that flooding of excavations or damage to structures does not occur.
 - Intercept surface drainage as far back from excavations as practical by means of ditches, berms or other interception methods as may be required for effective control.
 - Direct pumped water or run-off to settling ponds or sediment basins prior to discharge to adjacent storm sewers or watercourses as per provincial and federal regulations
 - The contractor is to discharge only to RDN approved discharge point(s).
 - Intercept and divert concentrated run-off from unstable areas under sheet flow conditions, as directed by the Engineer.
 - Do not direct any flow of water across or over pavements, except through approved pipes or properly constructed troughs.
 - Keep gutters and drainage ditches open at all times to provide adequate surface drainage.
 - Maintain all existing storm sewers clean and free of deleterious materials and blockages.
 - Provide splash pads where water is discharged to the watercourse.
 - Dispose of water so as not to be injurious to public health or safety, to property or to any part of work completed or under construction.
- The contractor must follow any other requirements identified in the contract document with WWS.

4.10 Waste Management – Solid Non-Hazardous Waste

- No open burning is permitted.
- All wastes generated by contractors will be cleaned-up and disposed of as per BC Ministry of Environment Regulations.
- Whenever possible Contractors and Suppliers should utilize recycling opportunities for the disposal of waste.

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5.0 ATTACHMENTS



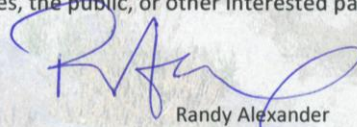
RDN Wastewater Services Environmental Policy

The Regional District of Nanaimo's (RDN) Wastewater Services (WWS) Environmental Policy reflects the values and priorities of the RDN's Board Strategic Plan 2019 - 2022, Regional Growth Strategy and Liquid Waste Management Plan.

The RDN's WWS is committed to providing reliable, high quality, and cost-effective wastewater services to the people and communities we serve. We strive to optimize our treatment and re-use processes and employ proven pollution prevention strategies at our facilities to protect and enhance the natural environment for future generations. In fulfillment of this commitment, it is the WWS policy:

- To do our utmost to comply with the letter and spirit of relevant environmental laws and regulations. There shall be thorough and accurate measurement and reporting of our environmental compliance.
- To prevent pollution. This includes improving the quality of treated wastewater and avoiding or reducing environmental pollution produced directly from WWS operations, or indirectly by the consumption of power, fuel, chemicals, and other resources.
- To identify and monitor environmental impacts and set measurable objectives and targets to reduce those impacts on the environment.
- To foster openness and dialogue with employees, First Nations and the public, including community engagement and public outreach, and respond to their concerns about potential hazards and impacts of our operations.
- To continually improve our performance relevant to this environmental policy.

This policy will be communicated regularly to all WWS staff and will be made available to regulatory agencies, the public, or other interested parties upon request.



Randy Alexander

General Manager, Regional and Community Utilities

Date: 20 November 2019

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ISO CLAUSE

Whereas the Regional District of Nanaimo's Wastewater Services (WWS) is operating to the ISO 14001:2015 standard, it is a condition of this contract that the Contractor comply with the WWS' Environmental Management System (EMS).

As per PM-08.0 Element 7.2 Competence and Element 7.3 Awareness, paragraph 5.11 of the WWS' EMS Policy and Procedure Manual:

1. Any contracted personnel whose activities can create a significant impact (as defined by the WWS' EMS) on the environment are required to undergo training. Such training will require one session of approximately one half hour.
2. While the Regional District of Nanaimo (the RDN) will provide the initial training to a representative Contractor, it is the responsibility of the Contractor to train the Contractor's own personnel, as well as any personnel of the Contractor's Subcontractor who will be working on a site of WWS.
3. The Contractor hereby warrants that it will provide any ISO 14001 related training which the RDN deems necessary to the Contractor's own personnel and any personnel of the Contractor's Subcontractor and will forward records thereof to the RDN at no additional charge to the RDN.