

City of Coquitlam

Contract Documents 51138-1

2021 Laneways Rehabilitation



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Contract No. 51138-1

2021 Laneways Rehabilitation

Project Construction Documents

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Invitation to Tenderers



INVITATION TO TENDER

DATE OF ISSUE: May 4, 2021

Tender No. 51138-1

2021 Laneways Rehabilitation

The City of Coquitlam invites tenders for **Contract 51138-1 - 2021 Laneways Rehabilitation**, generally consisting of the following, but not limited to:

- Pavement rehabilitation and asphalt paving of lanes located in different City areas.
- Other miscellaneous and incidental works as further described in the Contract Documents.

Tender Documents and Drawings are available for downloading from the City of Coquitlam website: www.coquitlam.ca/BidOpportunities

Printing of Tender documents and drawings is the sole responsibility of the Tenderers.

Tenders submitted must be accompanied by a copy of the original specified 10% Bid Bond and will be received:

On or Before 2:00 pm local time Tuesday, May 25, 2021 ("Closing Date and Time*)

Instructions for Tender Submission

Tender submissions are to be consolidated into one (1) .pdf file and uploaded electronically through QFile, the City's file transfer service accessed at website: qfile.coquitlam.ca/bid

- 1. In the "Subject Field" enter: Tender Number and Name
- Add consolidated Tender file in PDF format, and Appendix 1 in XLS format, and Send (Ensure your web browser remains open until you receive 2 emails from Ofile to confirm upload is complete.)

Tenders will not be opened in public. The unevaluated Tender results will be forwarded to all participants by email.

Inquires

All inquiries are to be submitted in writing by email, no later than 3 full business days prior to Tender Closing Time quoting the Tender Name and Number sent to:

Email: bid@coquitlam.ca

<u>Addenda</u>

Tenderers are required to check the City's website for any updated information and Addenda issued before the Closing Date at: www.coquitlam.ca/BidOpportunities

Any changes to the Tender documentation will be issued by means of written Addenda and posted on the City's website and will form part of the Tender. No amendment of any kind to the Tender is effective unless it is posted in a formal written Addendum on the City website. Upon submitting a Tender, Tenderers will be deemed to have received notice of all Addenda that are posted on the City's website and deemed to have considered the information for inclusion in the Tender submitted.

The City does not retain a bidder's list or bidder's registry. Tenderers are encouraged to register as plan takers and may view the Tender Documents and Drawings by contacting the Vancouver Regional Construction Association (VRCA), website: www.my.vrca.ca, ph: 604-294-3766, or email wrca@vrca.ca, quoting the Coquitlam Tender Reference Number.

Should there be any discrepancy in the documentation provided, the City's original file copy shall prevail.

Tenders shall remain open for acceptance for 60 days following the submission Closing Date.

The City reserves the right to accept or reject any or all Tenders and the lowest or any Tender may not necessarily be accepted. The City also reserves the right to cancel any request for Tender at any time without recourse by the Tenderer.

The City, prior to award of any Tender, may negotiate with the Tenderer presenting the lowest price compliant Tender, for changes in the Work, materials, specifications or conditions without having any duty or obligation to advise any other Tenderers or to allow them to modify their Tenders, and the City will have no liability to any Tenderer as a result of such negotiations or modifications.

The City will not be responsible for any costs incurred by the Tenderer in preparing the Tender.

Procurement of goods and services is conducted in accordance with Chapter 5 of the Canadian Free Trade Agreement (CFTA) and the New West Partnership Trade Agreement (NWPTA).

M. Pain Purchasing Manager

Instructions to Tenderers

Tender 51138-1

2021 Laneways Rehabilitation

INSTRUCTIONS TO TENDERERS

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INSTRUCTIONS TO TENDERERS

(FOR USE WHEN UNIT PRICES FORM THE BASIS OF PAYMENT - TO BE USED ONLY WITH THE GENERAL CONDITIONS AND OTHER STANDARD DOCUMENTS OF THE UNIT PRICE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS.)

The City of Coquitlam

Contract: 2021 Laneways Rehabilitation

Reference No. **51138-1**

1.0 Introduction

- 1.1 These Instructions apply to and govern the preparation of tenders for this *Contract*. The *Contract* is generally for the following work:
 - Pavement rehabilitation and asphalt paving of lanes located in different City areas.
 - Other miscellaneous and incidental works as further described in the Contract Documents.
- 1.2 All inquiries regarding this Tender are to be submitted in writing referencing the **Tender Name and Number** sent to:

E-mail <u>bid@coquitlam.ca</u>

All inquiries will be received a minimum of 3 full business days prior to Tender Closing Time.

Inquiries received after that time may not receive a response.

2.0 Tender Documents

- 2.1 The Tender Documents which a Tenderer should review to prepare a Tender consist of all of the *Contract Documents* listed in Schedule 1 entitled "Schedule of Contract Documents". Schedule 1 is attached to the Agreement which is included as part of the Tender Package. The *Contract Documents* include the drawings listed in Schedule 2 to the Agreement, entitled "List of Contract Drawings".
- A portion of the Contract Documents are included by reference. Copies of these documents have not been included with the tender package. These documents are the General Conditions, Specifications and Standard Detail Drawings. They are those contained in the publication entitled "Master Municipal Construction Documents General Conditions, Specifications and Standard Detail Drawings". Refer to Schedule 1 to the Agreement or, if not specified in Schedule 1, then the applicable edition shall be the most recent edition as of the date of the *Tender Closing Date*. All sections of this publication are by reference included in the *Contract Documents*.
- 2.3 Any additional information made available to Tenderers prior to the Tender Closing Time by the Owner or representative of the Owner, such as geotechnical reports or as-built plans, which is not expressly included in Schedule 1 or Schedule 2 to the Agreement, is not included in the Contract Documents. Such additional information is made available only for the

assistance of Tenderers who must make their own judgments about its reliability, accuracy, completeness and relevance to the *Contract*, and neither the Owner nor any representative of the Owner gives any guarantee or representation that the additional information is reliable, accurate, complete or relevant.

3.0 Submission of Tenders

Tenders must be submitted on the Tender Form provided, accompanied by a copy of the original 10% Bid Bond quoting the Tender Name and Number, and be uploaded to the City's file transfer website.

Tenders must be received on or before:

Tender Closing Time: 2:00 p.m. local time
Tender Closing Date: May 25, 2021

For the purpose of the Tender submission, digital copies of original documents and signatures sent electronically are accepted. Original documents are required upon request by the City.

Instructions for Tender Submission

3. 2 Tender submissions are to be consolidated into one (1) PDF file and uploaded electronically through QFile, the City's file transfer service accessed at website: http://gfile.coquitlam.ca/bid

- 1. In the "Subject Field" enter: Tender Number and Name
- 2. Add consolidated Tender file in PDF format and Appendix 1 in XLS format, and Send (ensure your web browser remains open until you receive 2 emails from Qfile to confirm upload is complete and was sent to email: bid@coquitlam.ca)

Tenderers are responsible to allow for ample time to complete the submission process. For assistance, phone 604-927-3037 or Fax 604-927-3035.

- 3.3 Tenders submitted shall be deemed to be received when displayed as a new email in the in-box of the above email address. The City will not be responsible for any delay or for any Tenders not received for any reason, including technological delays or issues by either party's network or email program, and the City will not be liable for any damages associated with Tenders not received.
- The City reserves the right to accept late Tenders to allow for technological delays. The City also reserves the right to accept Tenders received by fax (604-927-3035) or email: bid@coquitlam.ca.

Please Note: Due to Covid-19 prevention measures, in-person tender submissions will not be accepted. It is also reasonable to consider that City staff may be given a work from home mandate. Under this scenario, Fax submissions may not be received. Be advised that filing electronically through Qfile will be the most reliable method during these uncertain times.

3.5 Tenders will not be opened in public. The unevaluated results will be forwarded to participants by email.

3.6 Tender submissions are subject to the Freedom of Information and Protection of Privacy Act and contents may be disclosed if required to do so, pursuant to the Act.

4.0 Additional Instructions to Tenderers

Additional Instructions to Tenderers

Obtaining Documents

- 4.1 The following documents which are referred to and form part of the Contract Document package may be obtained as follows:
 - Copies of the Master Municipal Construction Documents Volume II (2009), General Conditions, Specifications and Standard Detail Drawings are available separately from:

Support Services Unlimited
Suite 102
211 Columbia Street
Vancouver BC V6A 2R5
Tel: 604-681-0205

Tel: 604-681-0295 Fax: 604-305-0424

 City of Coquitlam Supplementary Specifications and Detailed Drawings to the MMCD 2009 Edition.

City of Coquitlam Engineering & Public Works Department 3000 Guildford Way Coquitlam, BC V3B 7N2

Tel: 604-927-3500 Fax: 604-927-3525

Copies of the City of Coquitlam Supplementary Specifications and Detailed Drawings to the MMCD 2009 Edition are available for viewing and downloading off the City of Coquitlam website:

Supplementary Specifications and Detailed Drawings to MMCD

Test Excavations

4.2 Prior to the excavation of test holes on road allowances or privately owned property the Tenderer shall obtain permission from the Municipality or Owner of the property and comply with their requirements for restoration of disturbed surfaces and utilities. Failure to comply with Municipal by-laws restricting this practice may result in prosecution of the offending party.

Business License

4.3

4.4

The successful Tenderer shall provide evidence of a City of Coquitlam Business License or Tri-Cities Intermunicipal Business License prior to commencement of work or supply of materials. For more information, contact Business License Division Ph: 604-927-3085 or apply online at website:

City of Coquitlam Business License

No Claim

Except as expressly and specifically permitted in these Instructions to Tenderers, no Tenderer shall have any claim for any compensation of any kind whatsoever, as a result of participating in this Tender, including accepting a

non-compliant bid and by submitting a Tender, each Tenderer shall be deemed to have agreed that it has no claim.

No Cost

4.5 The City will not under any circumstances be responsible for any costs incurred by the Tenderer in preparing the Tender.

Right to Accept or Reject any Tender

The City reserves the right to accept or reject any or all Tenders and the lowest or any Tender may not necessarily be accepted. In its sole discretion, the City may reject or retain for its consideration, tenders which are nonconforming because they do not contain the content or form required by the instructions to tenderers or for failure to comply with the process for submission set out in these instructions to tenderers.

The City specifically reserves the right to reject all Tenders if none is considered to be satisfactory and, in that event, at its option, to call for additional Tenders.

Negotiation

4.7 The City, prior to award of any Tender, may negotiate with the Tenderer presenting the lowest price compliant Tender, for changes in the Work, materials, specifications or conditions without having any duty or obligation to advise any other Tenderers or to allow them to modify their Tenders, and the City will have no liability to any Tenderer as a result of such negotiations or modifications.

Cancellation of Tender

4.8 The City reserves the right to cancel any request for Tender at any time without recourse by the Tenderer. The City has the right to not award this work for any reason including choosing to complete the work with the City's own forces.

Conflict of Interest

4.9 Tenderers shall disclose any actual or potential conflicts of interest and existing business relationships it may have with the City, their elected or appointed officials or employees.

Collusion

4.10 Tenderers will not discuss or communicate with one another in regards to the preparation of their Tenders. Each Tenderer will ensure that its participation in the Tender process and that of its team members is conducted without collusion or fraud. Failure to comply with this requirement may lead to disqualification without further notice or warning.

Instruction to Tenderers – Part II

Delete Instructions to Tenderers – Part II Contained in the Edition of the Publication "Master Municipal Construction Documents 2009" and replace with the following:

5.0 Tender Requirements

5.1 A tender should be on the Form of Tender as provided and be signed by the authorized signatory(s) as follows:

5.1.1 if the tenderer is a partnership or joint venture then the name of the partnership or joint venturer should be included, and each partner or joint venturer should sign personally; if a partner of joint venture is a corporation then such

- corporation should sign as indicated in paragraph 5.1.3 below; and
- 5.1.2 if the tenderer is a corporation then the full name of the corporation should be included, together with the names and signatures of authorized signatories.
- 5.1.3 For the purpose of the Tender submission, digital copies of original documents and electronic signatures are accepted. Original documents are required upon request by the City.
- 5.2 A tender must be accompanied by tender security ("Bid Security") in the form of:
 - 5.2.1 a copy (digital or Electronic copy is acceptable) of the original bid bond in an amount equal to 10% of the Tender Price, issued by a surety licensed to carry on the business of suretyship in British Columbia in a form reasonably satisfactory to the *Owner*;
- 5.3 Tenderer should be competent and capable of performing the various items of work. Tenderer shall complete the following statement sheets appended to the Form of Tender:
 - 5.3.1 Appendix 1 the Schedule of Quantities and Prices;
 - 5.3.2 Appendix 2 a "Preliminary Construction Schedule", generally in the form attached as Appendix 2 to the Form of Tender, and showing Substantial Performance by the date or within the duration, shown in paragraph 2.2 of the Form of Tender.
 - 5.3.3 Appendix 3 name and brief description of the previous experience of the *Superintendent* the tenderer will use for the *Work*;
 - 5.3.4 Appendix 4 a list of previous comparable work, including a brief description of that work, approximate contract value, and references (with phone numbers);
 - 5.3.5 Appendix 5 a complete list of all subcontractors, if any, that the tenderer will use for the *Work* including full names.; and
 - 5.3.6 Appendix 7 is provided for information only, to indicate the Contract Insurance is to be submitted by the successful Tenderer upon Notice of Award.
- The successful tenderer will, within 15 *Days* of receipt of the written *Notice of Award*, be required to deliver to the *Owner* the items listed in FT 5.1.1, including a Performance Bond and a Labour and Material Payment Bond as described in FT 5.1.1(a), failing which the provisions of FT 6.1 will apply.
- 6.0 Qualifications, Modifications, Alternative Tenders
- 6.1 Tenders which contain qualifications, or omissions, so as to make comparison which other tenders difficult, may be rejected by the *Owner*.
- 6.2 A tenderer may, at the tenderer's election, submit an alternative tender ("Alternative Tender") which varies the materials, products, designs or equipment by the Owner as Approved Equals as the case may be, but an

<u>Alternative Tender must be in addition to, and not in substitution for a tender</u> which conforms to the requirements of the *Contract Documents*.

6.3 The only Alternative Tender that the Owner may accept is an Alternative Tender submitted by that tenderer whose conforming tender, submitted as required by paragraph 6.2 of these Instructions to Tenderers, would have been accepted by the Owners in the preference to other conforming tenders, if no Alternative Tenders had been invited.

7.0 Approved Equals

- 7.1 Prior to the *Tender Closing Time and Date*, a tenderer may request the *Owner* to approve materials, products, or equipment ("*Approved Equal*") to be included in a tender in substitution for items indicated in the Contract Documents.
- 7.2 Applications for an *Approved Equal* must be in writing, and supported by appropriate supporting information, data, specifications, and documentation.
- 7.3 If the *Owner* decides in its discretion to accept an *Approved Equal*, then the *Owner* will issue an addendum to all tenderers.
- 7.4 The *Owner* is not obligated to review or accept an application for an *Approved Equal*.

8.0 Inspection of the Place of the Work

- 8.1 All tenderers, either personally or through a representative, are responsible to examine the *Place of the Work* before submitting a tender. A tenderer has full responsibility to be familiar with and make allowance in the tender for all conditions at the *Place of the Work* that might affect the tender, including any information regarding subsurface soil conditions made available by the *Owner*, the location of the *Work*, local conditions, topographical soil conditions, weather and access. Unless otherwise specified in the *Contract Documents*, a tenderer is not required to do subsurface investigations. By submitting a tender, a tenderer represents that the tenderer has examined the *Place of the Work*, or specifically elected not to. No additional payments or time extensions shall be claimable or due because of difficulties relating to conditions at the *Place of the Work* which were reasonably foreseeable by a contractor qualified to undertake the *Work*.
- 8.2 Tenderers are referred to GC 11.2.1 regarding **Concealed or Unknown Conditions.**

9.0 Interpretation of Contract Documents

- 9.1 If a tenderer is in doubt as to the correct meaning of any provision of the Contract Documents, the tenderer may request clarification as instructed in paragraph 1.2 of the Instructions to Tenderers.
- 9.2 If a tenderer discovers any contradictions or inconsistencies in the *Contract Documents* or its provisions, or any discrepancies between a provision of the *Contract Documents* and conditions at the *Place of the Work as* observed in an examination under paragraph 8 of the person named in paragraph 1.2 of the Instructions to Tenderers.

- 9.3 If the *Owner* considers it necessary, the *Owner* may issue written addenda to provide clarification (s) of the *Contract Documents*.
- 9.4 No oral interpretation or representations from the *Owner* or any representative of the *Owner* will affect, alter, or amend any provision of the *Contract Documents*.

10.0 Prices

10.1

- The Tendered Price will represent the entire cost excluding GST to the Owner of the complete Work based on the estimated quantities in the Schedule of Quantities and Prices of the Form of Tender. Notwithstanding the generalities of the above, tenderers shall include in the tendered prices (including unit prices, lump sum prices, or other forms of pricing) sufficient amounts to cover:
 - 10.1.1 the costs of all labour, equipment and material included in or required for the *Work*, including all items which, whole not specifically listed in the *Schedule of Quantities and Prices*, are included in the *Work* specifically or by necessary inference from the *Contract Documents*:
 - 10.1.2 all assessments payable with respect to labour as required by any statutory scheme such as unemployment insurance, holiday pay, insurance, CPP and all employee benefits and the Workers Compensation Act;
 - 10.1.3 all overhead costs, including head office and on-site overhead costs, and all amounts for the *Contractor's* profit.
- The tendered prices and all subcontracts must allow for compliance with all applicable laws regarding trade or other qualifications of employees performing the *Work*, and payment of appropriate wages for labour included in or required for the *Work*.

11.0 Taxes

11.1 The tendered prices shall cover all taxes and assessments of any kind payable with respect to the *Work*, but shall not include *GST*. *GST* shall be listed as a separate line item as required by GC 19.3.

12.0 Amendment of Tenders

- A tenderer may amend or revoke a tender by giving written notice, delivered by Email or fax, to the office referred to in paragraph 3.4 of the Instructions to Tenderers at any time up until the *Tender Closing Date and Time*. An amendment or revocation that is received after the *Tender Closing Date and Time* shall not be considered and shall not affect a tender as submitted.
- An amendment or revocation must be signed by an authorized signatory of the tenderer in the same manner as provided by paragraph 5.1 of these Instructions to Tenderers.
- Any amendment that expressly or by inference discloses the tenderer's *Tender Price* or other material element of the tender such that, in the opinion of the *Owner*, the confidentiality of the tender is breached, will invalidate the entire tender.

12.4

An acceptable form of a tender amendment which tenderers may, but are not

			required to, use is	as follows:
			"Contract:	(TITLE OF CONTRACT)
			Reference No.	
			TO:	(OWNER'S CONTRACT REFERENCE NO.) (NAME OF OWNER)
			•	ed wish to amend our tender which we submitted for the deleting the following tendered prices or items from our
			(TEDNERED PRICES AND/OR TE	ENDER ITEMS IN THE TENDER THAT ARE TO BE AMENDED)
			and substituting t	he following revised tendered prices or items:
			(REVISED TENDERED PRICES OF	R TENDER ITEMS)
			Price as set out in Schedule of Quant excluding GST. W	our tender should be adjusted accordingly, and our <i>Tender</i> Appendix 1 of our submitted Form of Tender , and on the <i>ities and Prices</i> , increased / decreased by \$, e have not included our revised <i>Tender Price</i> in order to dentiality of our tender.
			Signed and delive	red the day of, 20"
		12.5	entire risk that eq of the Instructions amendment or rev Owner assumes no received as require	ment or revocation is sent by fax, the tenderer assumes the uipment and staff at the office referred to in paragraph 3.4 is to Tenderers will properly receive the fax containing the vocation before the <i>Tender Closing Date and Time</i> . The prisk or responsibility whatsoever that any fax will be led by paragraph 12.1 of these Instructions to Tenderers, and to any tenderer if for any reason a fax is not properly
13.0	Duration of Tenders	13.1		losing Time, a tender shall remain valid and revocable as set 5.1 of the Form of Tender.
14.0	Qualifications of Tenderers	14.1		ender a tenderer is representing that it has the competence, relevant experience required to do the <i>Work</i> .
15.0	Award	15.1	provided in the Ap	scretion, the <i>Owner</i> will have regard to the information pendices to the Form of Tender as described under IT5.3 en experience of the tenderer, and any listed do the <i>Work</i> .

Tenders received will be evaluated to provide the City with greatest value based on quality, service, price and experience. Evaluation Criteria will include but is not limited to:

- 1. Ability to meet specifications and required completion date
- 2. Contractor's past experience, references, reputation and compliance to specifications
- 3. Demonstrated successful experience on similar projects and specific equipment installation
- 4. Price: purchase price, maintenance costs, availability of parts and service, warranty and compatibility with existing equipment and/or conditions
- 5. Any other criteria, the City deems, at its sole discretion, necessary to evaluate Tenders;
- 6. Lowest price will not necessarily be accepted.

The City may, in its absolute discretion, not award to a Tenderer if the Tenderer, or any officer or director of a corporate Tenderer, is or has been engaged, either directly or indirectly through another corporation or legal entity, in a legal action against the City and its elected and appointed officers and employees or any of them in relation to:

- a) any other contract or services; or
- b) any matter arising from the City's exercise of its powers, duties or functions under the Local Government Act, the Community Charter or any other enactments; within five years of this Tender Offer.

For purposes of this section, the words "legal action" includes, without limitation, mediation, arbitration, hearing before an administrative tribunal or lawsuit filed in any court.

Without limiting the City's sole discretion, in determining whether or not to award to a Tenderer pursuant to this clause, the City will consider such factors as whether the legal action is likely to affect the Tenderer's ability to work with the City and its employees, agents, consultants and representatives or any of them and whether the City's past experience with the Tenderer in the matter that resulted in the legal action indicates that the City is likely to incur increased staff and legal costs or either of them in the administration of this contract if it is awarded to the Tenderer.

In the event that the lowest total Tender Price by two or more Tenderers is the same amount, the City will select a Tenderer with an overall satisfactory performance record in having completed work on previous relevant projects that are provided as references, and on City projects. Information obtained from references will not be disclosed or discussed with any Tenderer. If all references are equal, selection will be determined by a coin toss in a manner to be directed by the City.

Where only one Tender is received the City may reject such and re-tender on a selected basis.

- 15.2 The *Owner* will notify the successful tenderer in writing.
- 15.3 If there are any discrepancies in the *Schedule of Quantities and Prices* between the unit prices and the extended totals then the unit prices shall be deemed correct, and corresponding corrections shall be made to the extended totals. If a unit price or extended total has been omitted, the following shall apply:
 - a) If a unit price is given but the corresponding extended total has been omitted, then the extended total shall be calculated from unit price and the estimated quantity, and inserted as the extended total;
 - b) If an extended total is given but the corresponding unit price has been omitted, then the unit price shall be calculated from the extended total and estimated quantity, and inserted as the unit price;
 - c) If both the unit price and the corresponding extended total for a tender item have been omitted, then the following test shall he applied to determine whether the tender shall be rejected as incomplete:
 - the highest of the unit prices tendered by other tenderers for that tender item shall be used as the test unit price, and the corresponding test extended total shall be calculated from the test unit price and the estimated quantity;
 - (ii) if the test extended total for the tender item exceeds 1% of the revised total *Tender Price*, including the test extended total, or if the revised total *Tender Price*, including the test extended total, alters the ranking of the tenderers according to the lowest *Tender Price*, then the omitted unit price for that tender item is deemed to materially affect the *Tender Price* relative to other tenders and the tender shall be rejected;
 - (iii) if the tender is not rejected under subparagraph (ii) of this IT 15.3 (c), then the unit price and the extended total for that tender item shall both be deemed to be, and the costs for that tender item shall be zero deemed to be included in other tender items prices;
 - d) In no event shall page totals in the Schedule of Quantities and Prices or the total Tender Price be used to calculate missing extended totals or unit prices.
- 15.4 Upon receiving notification of being the successful Tenderer, the Tenderer shall submit a Pandemic Prevention Policy and Procedures (4P) document detailing occupational health and safety policies to prevent the spread of Covid-19 to the public, the Tenderer's employees, and sub-contractors during construction operations. The Owner reserves the right to require additions or changes to the 4P document prior to the execution of the Contract. After the Contract is in place, the Contractor will be expected to enforce the 4P document to the satisfaction of the Contract Administrator. If the Contract Administrator deems the 4P document is not being satisfactorily followed, the

16.1

Contract Administrator may stop work at the sole expense of the Contractor until the Contractor's employees and sub-contractors have been provided proper training and orientation in regard to the 4P document.

16.0 Subcontractors

The Owner reserves the right to object to any of the subcontractors listed in a tender. If the Owner objects to any of the subcontractor(s) then the Owner will permit a tenderer to, within 5 days, propose a substitute subcontractor(s) acceptable to the Owner provided that there is not resulting adjustment in the Tender Price or the completion date set out in paragraph 2.2 of the Form of Tender. A tenderer will not be required to make such substitution and, if the Owner objects to a listed Subcontractor(s), the tenderer may, rather than propose a substitute subcontractor(s), consider its tender rejected by the Owner and by written notice withdraw it tender. The Owner shall, in the event, return the tenderer's bid security

17.0 Optional Work

- 17.1 If the Schedule of Quantities and Prices includes any tender prices for Optional or Provisional Work, as defined in GC 7.4.1, the tenderers must complete all the unit prices for such Optional or Provisional Work. Such tender prices shall not include any general overhead costs, or other costs, or profit, not directly related to the Optional or Provisional Work.
- 17.2 Notwithstanding that the *Owner* may elect not to proceed with the *Optional* or *Provisional Work*, the tender prices for any *Optional or Provisional Work*, including the extended totals for *Optional or Provisional Work* unit prices, shall be included in the *Tender Price* for the purpose of any price comparisons between tenders.

Form of Tender



Form of Tender

Tender No. 51138-1

2021 Laneways Rehabilitation

Summary

Name of <i>Contractor</i> :	
Tender Price (exclude GST):	\$
	(FROM APPENDIX 1 OF FORM OF TENDER)

Tender submitted must be accompanied by a copy of the original 10% Bid Bond and will be received.

On or before 2:00 pm (local time) Tuesday, May 25, 2021

Instructions for Tender Submission

Tender submissions are to be consolidated into one (1) .pdf file and uploaded electronically through QFile, the City's file transfer service accessed at website: qfile.coquitlam.ca/bid

- 1. In the "Subject Field" enter: Tender Number and Name
- 2. Add consolidated Tender file in PDF format, and Appendix 1 in XLS format, and Send (ensure your web browser remains open until you receive 2 emails from Qfile to confirm upload is complete and was sent to the correct email address: bid@coquitlam.ca)

Tenderers are responsible to allow ample time to complete the Tender submission process. If assistance is required, phone 604-927-3037 or fax 604-927-3035.

THE CITY OF COQUITLAM 3000 Guildford Way Coquitlam BC V3B 7N2 (FOR USE WHEN UNIT PRICES FORM THE BASIS OF PAYMENT - TO BE USED ONLY WITH THE GENERAL CONDITIONS AND OTHER STANDARD DOCUMENTS OF THE UNIT PRICE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS.)

Contract Name: 2021 Laneways Rehabilitation

Reference No. 51138-1

TO OWNER:

1 WE,	THE UND	ERSIGNED:
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have received and carefully reviewed all of the <i>Contract Documents</i> , including the Instructions to Tenderers, the City of Coquitlam Supplementary General Conditions, the City of Coquitlam Supplementary Contract Specifications, the specified edition of the "Master Municipal Construction Documents – General Conditions, Specifications and Standard Deta Drawings" and the following Addenda:					
Drawings and the following Addenda:					
;					
/ ADDENIDA JE ANIV.\					
(ADDENDA, IF ANY)					

- 1.3 have full knowledge of the *Place of the Work*, and the *Work* required; and
- 1.4 have complied with the Instructions to Tenderers; and

2 ACCORDINGLY WE HEREBY OFFER:

- to perform and complete all of the *Work* and to provide all the labour, equipment and material all as set out in the *Contract Documents*, in strict compliance with the *Contract Documents*; and
- to achieve Substantial Performance of the Work on or before August 20, 2021; and
- to do the *Work* for the price, which is the sum of the products of the actual quantities incorporated into the *Work* and the appropriate unit prices set out in Appendix 1, the "*Schedule of Quantities and Prices*", plus any lump sums or specific prices and adjustment amounts as provided by the *Contract Documents*. For the purposes of tender comparison, our offer is to complete the *Work* for the "*Tender Price*" as set out on Appendix 1 of this Form of Tender. Our *Tender Price* is based on the estimated quantities listed in the *Schedule of Ouantities and Prices*, and excludes *GST*.

3 WE CONFIRM:

- that we understand and agree that the quantities as listed in the *Schedule of Quantities and Prices* are estimated, and that the actual quantities will vary.
- 3.2 that we understand and agree that the owner is in no way obliged to accept this Tender.

4 WE CONFIRM:

- 4.1 that the following Appendices are attached to and form a part of this tender:
 - 4.1.1 the Appendices as required by paragraph 5.3 of the Instructions to Tenderers Part II; and
 - 4.1.2 the *Bid Security* as required by paragraph 5.2 of the Instructions to Tenderers Part
 - 4.1.3 the Certificate of Compliance on the form provided in Appendix 7 of this Form of Tender.

5 WE AGREE:

- that this tender will be irrevocable and open for acceptance by the *Owner* for a period of <u>60</u> calendar days from the day following the *Tender Closing Date and Time*, even if the tender of another Tenderer is accepted by the *Owner*. If within this period the *Owner* delivers a written notice ("*Notice of Award*") by which the *Owner* accepts our tender we will:
 - 5.1.1 within **15** Days of receipt of the written *Notice of Award* deliver to the *Owner*:
 - a) a Performance Bond and a Labour and Material Payment Bond, each in the amount of 50% of the *Contract Price*, issued by a surety licensed to carry on the business of suretyship in the province of British Columbia, and in a form acceptable to the *Owner*;
 - b) a "clearance letter" indicating that the Tenderer is in WCB compliance; and
 - c) a copy of the insurance policies as specified in SGC Section 24 indicating that all such insurance coverage is in place and;
 - d) a letter confirming the *Contractor* as "Prime Contractor" for the Contract as specified in SGC Section 21.2.1.
 - 5.1.2 within **2** Days of receipt of written "Notice to Proceed", or such longer time as may be otherwise specified in the Notice to Proceed, commence the Work; and
 - 5.1.3 sign the Contract Documents as required by GC 2.1.

6 WE AGREE:

- that, if we receive written *Notice of Award* of this *Contract* and, contrary to paragraph 5 of this Form of Tender, we:
 - 6.1.1 fail or refuse to deliver the documents as specified by paragraph 5.1.1 of this Form of Tender: or
 - 6.1.2 fail or refuse to commence the *Work* as required by the *Notice to Proceed*,

then such failure or refusal will be deemed to be a refusal by us to enter into the Contract and the Owner may, on written notice to us, award the Contract to another party. We further agree that, as full compensation on account of damages suffered by the Owner because of such failure or refusal, the Bid Security shall be forfeited to the Owner, in an amount equal to the lesser of

- 6.1.3 the face value of the *Bid Security*; and
- 6.1.4 the amount by which our *Tender Price* is less than the amount for which the *Owner* contracts with another party to perform the *Work*.

Phone	 e:						
Fax:							
Email	:						
Atten	tion:						
This T	ender is e	xecuted this	day of	, 20_	·		
Contr	actor:						
		ME OF CORPORATI	ION, PARTNERS	HIP OR INDIV	/IDUAL)		
(AUTI	HORIZED S	IGNATORY)	ION, PARTNERS	SHIP OR INDIV	/IDUAL)		
(AUTI	HORIZED S		ION, PARTNERS	HIP OR INDIV	/IDUAL)		
(AUTI	HORIZED S HORIZED S	IGNATORY)			<u> </u>	·	
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CITY OF COQUITLAM FORM OF TENDER FT. 5
Contract No. 51138-1

Appendix 1 FORM OF TENDER

Contract 51138-1 2021 Laneways Rehabilitation

SCHEDULE OF QUANTITIES AND PRICES

(see paragraph 5.3.1 of the Instruction to Tenderers)

(All prices and quotations including the Contract Prices shall Exclude GST)

(Should there be any discrepancy in the information provided, the City's original file copy shall prevail)

ITEM NO.	MMCD Ref./ (SS)	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	EXTENDED AMOUNT		
1.00	01 55 00	TRAFFIC CONTROL, VEHICLE ACCESS AND PARKING						
1.01	(1.5.1)	Traffic Control and Management		Inc	idental to Contra	act		
2.00	01 57 01	ENVIRONMENTAL PROTECTION						
2.01	(1.6.1)	ESC supply & installation, maintenance and removal		Incidental to Contract				
3.00	01 58 01	PROJECT IDENTIFICATION						
3.01	(1.3.1)	Construction Zone Information Signs	ea.	13				
4.00	03 30 20	CONCRETE WALKS, CURBS AND GUTTERS						
4.01	(1.4.3)	Concrete Extruded Curb (COQ-C6) (excl. gravel base)	l.m	11				
4.02	(1.4.5)	Monolithic Concrete Sidewalk, W.C Letdown & Walkway - 100mm Thick (incl.gravel base, broom finished)	sq.m	25				
4.03	(1.4.5)	Concrete Driveway - 100mm Thickness (incl. gravel base)	sq.m	33				
5.00	31 11 01	CLEARING AND GRUBBING						
5.01	(1.4.1)	Remove/Trim Ex. Vegetation (Trees, Hedges, Shrubs etc.)	l.s.	1				
5.02	(1.4.3)	Cleaning of of vegetation in ditches and swales to reinstate draiange paths	l.s.	1				
6.00	31 22 16	RESHAPING GRANULAR ROADBED						
6.01	(1.4.1)	Reshaping Existing Roadbed	sq.m	6,200				
6.02	(1.4.1)	Shoulder Grading	sq.m	1,320				
7.00	31 24 13	ROADWAY EXCAVATION, EMBANKMENT AND COMPACTION						
7.01	(1.8.5)	Common Excavation	cu.m	260				
7.02	(1.8.4)	Remove Existing Concrete - Driveway Letdowns, Driveways, & S/W Panels (Sawcut, Removal and Offsite Disposal)	sq.m	46				
7.03	(1.8.4)	Removal of Existing Concrete Curb	l.m	28				
7.04	(1.8.4)	Remove Existing Asphalt Flatwork (Sawcut, Removal and Offsite Disposal)	sq.m	565				
7.05	(1.8.10)	Over Excavation (including Disposal, Backfill, & Compaction) - (Provisonal)	cu.m	320				
8.00	32 01 16.7	COLD MILLING						
8.01	(1.5.4)	Full Depth Milling & Removal Including Granular Materials (Up to 100mm)	sq.m	6,360				
8.02	(1.5.4)	Full Depth Milling & Removal Including Granular Materials (Up to 125mm)	sq.m	180				
9.00	32 11 16.1	GRANULAR SUBBASE						
9.01	(1.4.3)	75mm Crushed Minus Granular Sub Base (Provisional)	tonne	250				
10.00	32 11 23	GRANULAR BASE						
10.01	(1.4.3)	25mm Crushed Minus Granular Base (2.1.1) - Shoulders Variable Thickness	tonne	149				
10.02	(1.4.3)	19mm Crushed Minus Granular Base (2.1.1) - Variable Thickness	tonne	780				
11.00	32 12 16	HOT-MIX ASPHALT CONCRETE PAVING						
11.01	(1.5.1)	Asphaltic Concrete Paving - Upper Course #1 (75mm)	tonne	1,245				
11.02	(1.5.3)	Asphaltic Concrete Driveway -(60mm Thick MMCD UC#2) (excl. Base Gravel)	sq.m	691				
11.03	(1.5.4)	Asphalt Drainage Curb (50mm/25mm Height)	l.m	624				
11.04	(1.5.4)	Asphalt Speed Hump (50mm Height)	l.m	13				

CITY OF COQUITLAM
Contract No. 51138-1

ITEM NO.	MMCD Ref./ (SS)	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	EXTENDED AMOUNT
12.00	32 91 21	TOP SOIL & FINISH GRADING				
12.01	(1.4.1)	Imported Topsoil - 150mm thick	cu.m	88		
13.00	32 92 23	SODDING				
13.01	(1.8.1)	Sodding to Nursery Sod Specifications (Provisional)	sq.m	500		
14.00	33 40 01	STORM SEWERS				
14.01	(1.6.2)	Storm Service Tie-In - 100mm SDR28 PVC	l.m	1		
14.02	(1.6.12)	Exfiltration Trench c/w Drain Rock, Perforated Pipe, Geogrid and Backfill as shown on 20- 0955-N	Lump Sum	1		
15.00	33 44 01	MANHOLES AND CATCHBASINS				
15.01	(1.5.1.1)	1050mm MH Sump (MMCD S1) c/w Open Grate, all tie in pipes, removals as shown on drawing and fence protection	ea.	1		
15.02	(1.5.2)	Top-Inlet Catch Basin (MMCD S11)	ea.	1		
15.03	(1.5.2)	Cleanout (250mm) (MMCD S6)	ea.	1		
15.04	(1.5.3.1)	Manhole Frame and Lid Replacement as Directed by CA(Provisional)	ea.	18		
15.05	(1.5.3.2)	Water/Gas Valve Frame and Cover Replacement & Adjustments - (Provisional)	ea.	5		
15.06	(1.5.4)	Catch Basin Frame and Grate Replacement & Adjustments (Provisional)	ea.	10		

	ea.	10		
Total Tend	ered Price (e	exclude GST):		
	(Trans	fer the amount	t to Form of Te	nder Summary Page 1)
	Name o	f Contractor:		

FORM OF TENDER

Contract 51138-1 2021 Laneways Rehabilitation

PRELIMINARY CONSTRUCTION SCHEDULE

(See paragraph 5.3.2 of the Instructions to Tenderers)

INDICATE SCHEDULE WITH BAR CHART WITH CONSTRUCTION DURATIONS

CONSTRUCTION		JUNE			JU	LY			AUGUST	
ACTIVITY	2	3	4	1	2	3	4	1	2	3

Substantial Completion Date: August 20, 2021	
Pronosed Disnosal Site	

FORM OF TENDER

Contract 51138-1 2021 Laneways Rehabilitation

EXPERIENCE OF SUPERINTENDENT

(See paragraph 5.3.3 of the Instructions to Tenderers)

Proposed Project Super	rintendent	
List of Project Experie	<u>ence</u>	
PROJECT:	Dat	es:
Work Description:		
Responsibility:		
Owner/Reference:	Phone I	No:
PROJECT:	Dat	es:
Work Description:		
Responsibility:		
Owner/Reference:	Phone I	NO:
PROJECT:	Dat	es:
Work Description:		
Responsibility:		
Owner/Reference:	Phone I	No:

FORM OF TENDER

Contract 51138-1 2021 Laneways Rehabilitation

CONTRACTOR'S COMPARABLE WORK EXPERIENCE

(See paragraph 5.3.4 of the Instructions to Tenderers)

PROJECT:	VALUE (\$):	
OWNER:	Phone Number:	
Work Description:		
PROJECT:	VALUE (\$):	
OWNER:	Phone Number:	
Work Description:		
PROJECT:	VALUE (\$):	
OWNER:	Phone Number:	
Work Description:		
PROJECT:	VALUE (\$):	
OWNER:	Phone Number:	
Work Description:		

FORM OF TENDER

Contract 51138-1 2021 Laneways Rehabilitation

SUBCONTRACTORS

(See paragraph 5.3.5 of the Instructions to Tenderers)

Trade:	Tender Item:	
Work Description:		
Subcontractor:	Phone No:	
Trade:	Tender Item:	
Work Description:		
Subcontractor:	Phone No:	
Trade:	Tender Item:	
Work Description:		
Subcontractor:	Phone No:	
Trade:	Tender Item:	
Work Description:		
Subcontractor:	Phone No:	
Trade:	Tender Item:	
Work Description:		
Subcontractor:	Phone No:	

FORM OF TENDER

Contract 51138-1 2021 Laneways Rehabilitation

		Bid Bond		
NO				\$
	KNOV	W ALL MEN BY THESE	PRESENTS THAT	
	As Princi	pal, hereinafter called	the Principal, and	
	As Surety, hereinafte	er called the Surety, a	re held and firmly bou	nd unto
	As Obligee, he	reinafter called the O	bligee, in the amount o	of
			Dollars (\$) lawful money of
	ayment of which sum, well administrators, successors a		, the Principal and the	Surety bind themselves, their
	ncipal has submitted a writ			
accepted within s enter into a forma of the Contract, th the difference in r legally contracts v	ixty (60) days from the Clos al contract and give good an nen this obligation shall be	sing Date of Tender a nd sufficient bonds to null and void; other nt of the bid of the sai rm the work if the lat	nd the said Principal wo becure the performan vise the Principal and S d Principal and the am ter amount be in exces	ncipal shall have the Tender ill, within the time required, ice of the terms and conditions surety will pay unto the Oblige ount for which the Obligee ss of the former.
-	is Bond must be instituted l	·		the date of this Bond.
	aled with its corporate seal		signature of its Attorne	he Surety has caused these ey-In-Fact,
SIGNED, SEALED A				
)))	PRIN	ICIPAL	

SURETY

FORM OF TENDER

Contract 51138-1 2021 Laneways Rehabilitation

CERTIFICATE OF COMPLIANCE for CONTRACT INSURANCE

This is provided for information to certify that the Tenderer does hereby undertake and agree to supply to the City of Coquitlam, upon award, contract insurance listed below for the project requirements indicated:

Contract Number: 51138-1

Contract Name: 2021 Laneways Rehabilitation

Description of Work:

- Pavement rehabilitation and asphalt paving of lanes located in different City areas.
- Other miscellaneous and incidental works as further described in the Contract Documents.

Commercial General Liability:	\$5,000,000 limit
Special Coverage Required: YES NO Special Coverage Description () (X) Shoring and Underpinning Hazar () (X) Pile Driving and Vibrations () (X) Excavation Hazard () (X) Demolition () (X) Blasting	
Conditions Section 24 – Insurance, included as	vill meet the requirements of the Supplementary General spart of the Contract Documents, and that the proof of itlam Certificate of Insurance form, without amendments,
Name of Tenderer (printed)	Authorized Signature
 Date	

Agreement

Contract No. 51138-1

AGREEMENT

Between Owner and Contractor

(FOR USE WHEN UNIT PRICES FORM THE BASIS OF PAYMENT - TO BE USED ONLY WITH THE GENERAL CONDITIONS AND OTHER STANDARD DOCUMENTS OF THE UNIT PRICE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS.)

THIS AGREEMENT made in duplicate this day of 2021.		
Contract:	2021 Laneways Rehabilitation	
Reference	No. 51138-1	
BETWEEN	:	
30 C	he City of Coquitlam 000 Guildford Way oquitlam BC V3B 7N2 :he " <i>Owner</i> ")	
(t	he "Contractor")	
The <i>Owne</i>	er and the Contractor agree as follows:	

1 THE WORK - START/COMPLETION DATES

- 1.1 The *Contractor* will perform all *Work* and provide all labour, equipment and material and do all things strictly as required by the *Contract Documents*.
- The Contractor will commence the Work in accordance with the Notice to Proceed. The Contractor will proceed with the Work diligently, will perform the Work generally in accordance with the construction schedules as required by the Contract Documents and will achieve Substantial Performance of the Work on or before August 20, 2021, subject to the provisions of the Contract Documents for adjustments to the Contract Time.
- 1.3 Time shall be the essence of the Contract.

2 CONTRACT DOCUMENTS

- The "Contract Documents" consist of the documents listed or referred to in Schedule 1, entitled "Schedule of Contract Documents", which is attached and forms a part of this Agreement, and includes any and all additional and amending documents issued in accordance with the provisions of the Contract Documents. All of the Contract Documents shall constitute the entire Contract between the Owner and the Contractor.
- The *Contract* supersedes all prior negotiations, representations or agreements, whether written or oral, and the *Contract* may be amended only in strict accordance with the provisions of the *Contract Documents*.

3 CONTRACT PRICE

- 3.1 The price for the Work ("Contract Price") shall be the sum in Canadian dollars of the following:
 - a) the product of the actual quantities of the items of *Work* listed in the *Schedule of Quantities* and *Prices* which are incorporated into or made necessary by the *Work* and the unit prices listed in the *Schedule of Quantities and Prices*; plus
 - b) all lump sums, if any, as listed in the *Schedule of Quantities and Prices*, for items relating to or incorporated into the *Work*; plus
 - c) any adjustments, including any payments owing on account of *Changes* and agreed to *Extra Work*, approved in accordance with the provisions of the *Contract Documents*.
- 3.2 The Contract Price shall be the entire compensation owing to the Contractor for the Work and this compensation shall cover and include all profit and all costs of supervision, labour, material, equipment, overhead, financing, and all other costs and expenses whatsoever incurred in performing the Work.

4 PAYMENT

- 4.1 Subject to applicable legislation and the provisions of the *Contract Documents*, the *Owner* shall make payments to the *Contractor*.
- 4.2 If the *Owner* fails to make payments to the *Contractor* as they become due in accordance with the terms of the *Contract Documents* then interest calculated at 2% per annum over the prime commercial lending rate of the Royal Bank of Canada on such unpaid amounts shall also become due and payable until payment. Such interest shall be calculated and added to any unpaid amounts monthly.

5 RIGHTS AND REMEDIES

- The duties and obligations imposed by the *Contract Documents* and the rights and remedies available hereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law.
- 5.2 Except as specifically set out in the *Contract Documents*, no action or failure to act by the *Owner*, Contract Administrator or Contractor shall constitute a waiver of any of the parties' rights or duties

Contract No. 51138-1

afforded under the *Contract*, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach under the *Contract*.

6 NOTICES

6.1 Communications among the *Owner*, the *Contract Administrator* and the *Contractor*, including all written notices required by the *Contract Documents*, may be delivered by email, by hand or by fax, or by pre-paid registered mail to the addresses as set out below:

The Owner:

The City of Coquitlam 3000 Guildford Way Coquitlam, BC V3B 7N2

Tel: 604-927-3500 Fax: 604-927-3505

The Contractor:

Tel:

Fax:

Email:

Attention:

The Contract Administrator:

The City of Coquitlam 3000 Guildford Way Coquitlam BC V3B 7N2

Tel:

Fax:

Email:

Attention:

- 6.2 A communication or notice that is addressed as above shall be considered to have been received:
 - a) immediately upon delivery, if delivered by hand; or
 - b) immediately upon transmission if sent or received by email or fax; or
 - c) after 5 days from date of posting if sent by registered mail.
- 6.3 The Owner or the Contractor may, at any time, change its address for notice by giving written notice to the other at the address then applicable. Similarly if the Contract Administrator changes its address for notice then the Owner will give or cause to be given written notice to the Contractor.

6.4 The sender of a notice by email or fax assumes all risk that the fax will be received properly, and the provisions of paragraph 12.5 of the Instructions to Tenderers Part II apply to the sender.

7 GENERAL

Contractor

- 7.1 This *Contract* shall be construed according to the laws of British Columbia.
- 7.2 The *Contractor* shall not, without the express written consent of the *Owner*, assign this *Contract*, or any portion of this *Contract*.
- 7.3 The headings included in the *Contract Documents* are for convenience only and do not form part of this *Contract* and will not be used to interpret, define or limit the scope or intent of this *Contract* or any of the provisions of the *Contract Documents*.
- 7.4 A word in the *Contract Documents* in the singular includes the plural and, in each case, vice versa.
- 7.5 This agreement shall enure to the benefit of and be binding upon the parties and their successors, executors, administrators and assigns

This agreement shall enure to the benefit of and be binding upon the parties and their successors, executors, administrators and assigns.

IN WITNESS WHEREOF the parties hereto have executed this Agreement the day and year first written above.

Contractor.
(FULL LEGAL NAME OF CORPORATION, PARTNERSHIP OR INDIVIDUAL)
(AUTHORIZED SIGNATORY)
(AUTHORIZED SIGNATORY AND POSITION - PRINT)
Owner:
The City of Coquitlam
(MANAGER, DESIGN AND CONSTRUCTION)
Representative as Per G.C. 17

(MANAGER, CAPITAL PROJECTS AND INSPECTIONS)

2021 Laneways Rehabilitation

Reference No: 51138-1

Schedule 1

Schedule of Contract Documents

(INCLUDE IN LIST <u>ALL</u> DOCUMENTS INCLUDING, IF ANY, SUPPLEMENTARY GENERAL CONDITIONS, SUPPLEMENTARY SPECIFICATIONS, SUPPLEMENTARY STANDARD DETAIL DRAWINGS)

The following is an exact and complete list of the *Contract Documents*, as referred to in Article 2.1 of the Agreement.

<u>NOTE</u>: The documents noted with "*" are contained in the "Master Municipal Construction Documents – General Conditions, Specifications and Standard Detail Drawings", edition dated 2009. All sections of this publication are included in the *Contract Documents*.

- 1. Agreement, including all Schedules;
- 2. Supplementary General Conditions, if any;
- 3. General Conditions*;
- 4. Supplementary Specifications, if any;
- 5. Detail Specifications, if any;
- 6. Specifications*;
- 7. Supplementary Detail Drawing, if any;
- 8. Standard Detail Drawings*;
- 9. Executed Form of Tender, including all Appendices;
- 10. Drawings listed in Schedule 2 to the Agreement "List of Drawings", if any;
- 11. Instructions to Tenderers;
- 12. The following Addenda:
 - As issued
- 13. COQUITLAM "Supplementary Specifications Master Municipal Construction Documents" March 2016

2021 Laneways Rehabilitation

Reference No: 51138-1

Schedule 2

LIST OF DRAWINGS

(Complete Listing of All Drawings, Plans and Sketches That Are Part of the Contract Documents)

Bound in this Document:

- Appendix A: Traffic Management Plan
- Appendix B: As-Built Record
- Appendix C: Standard Detailed Drawings

Bound Separately:

• Contract Drawings (R.F. Binnie and Associates Ltd.):

TITLE	SHEET NO.	REVISION NO.	DATE
2021 LANEWAY REHABILITATION CONTRACT 51138-1	COVER	1	-
2021 LANE REHABILITATION GENERAL NOTES AND DETAILS	1 of 24	А	May 3/21
LANE WEST OF CLARKE ROAD COMO LAKE AVE TO WESTLEY AVE ROADWORKS	2 of 24	А	May 3/21
LANE WEST OF CLARKE ROAD COMO LAKE AVE TO WESTLEY AVE ROADWORKS	3 of 24	А	May 3/21
LANE WEST OF CLARKE ROAD COMO LAKE AVE TO WESTLEY AVE ROADWORKS	4 of 24	А	May 3/21
LANE WEST OF CLARKE ROAD COMO LAKE AVE TO WESTLEY AVE CROSS SECTIONS	5 of 24	А	May 3/21
LANE WEST OF CLARKE ROAD COMO LAKE AVE TO WESTLEY AVE CROSS SECTIONS	6 of 24	А	May 3/21
LANE EAST OF CLARKE ROAD MILLER AVE TO CATHERINE AVE ROADWORKS	7 of 24	А	May 3/21
LANE EAST OF CLARKE ROAD MILLER AVE TO CATHERINE AVE ROADWORKS	8 of 24	А	May 3/21

TITLE	SHEET NO.	REVISION NO.	DATE
LANE EAST OF CLARKE ROAD MILLER AVE TO CATHERINE AVE ROADWORKS	9 of 24	А	May 3/21
LANE NORTH OF ADIRON AVENUE ROBINSON ST TO EAST END ROADWORKS	10 of 24	А	May 3/21
LANE NORTH OF ADIRON AVENUE ROBINSON ST TO EAST END CROSS SECTIONS	11 of 24	А	May 3/21
LANE SOUTH OF STANTON AVENUE STANTON AVE TO 40m SOUTH ROADWORKS	12 of 24	А	May 3/21
LANE SOUTH OF STANTON AVENUE STANTON AVE TO 40m SOUTH CROSS SECTIONS	13 of 24	А	May 3/21
LANE SOUTH OF MILFORD AVENUE SCHOOLHOUSE AVE – POIRIER AVE ROADWORKS	14 of 24	А	May 3/21
LANE SOUTH OF MILFORD AVENUE SCHOOLHOUSE AVE – POIRIER AVE ROADWORKS	15 of 24	А	May 3/21
LANE SOUTH OF MILFORD AVENUE SCHOOLHOUSE AVE – POIRIER AVE ROADWORKS	16 of 24	А	May 3/21
LANE SOUTH OF MILFORD AVENUE SCHOOLHOUSE AVE – POIRIER AVE CROSS SECTIONS	17 of 24	А	May 3/21
LANE SOUTH OF COMO LAKE AVE GROVER AVE TO SCHOOLHOUSE ST ROADWORKS	18 of 24	4	May 3/21
LANE SOUTH OF COMO LAKE AVE GROVER AVE TO SCHOOLHOUSE ST ROADWORKS	19 of 24	А	May 3/21
LANE SOUTH OF COMO LAKE AVE GROVER AVE TO SCHOOLHOUSE ST ROADWORKS	20 of 24	А	May 3/21
LANE SOUTH OF COMO LAKE AVE GROVER AVE TO SCHOOLHOUSE ST CROSS SECTIONS	21 of 24	А	May 3/21
LANE SOUTH OF COMO LAKE AVE GROVER AVE TO SCHOOLHOUSE ST CROSS SECTIONS	22 of 24	А	May 3/21
LANE EAST OF JOHNSTON STREET LN5005 & LN5014 TO NORTH END ROADWORKS	23 of 24	А	May 3/21
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Supplementary General Conditions

SUPPLEMENTARY GENERAL CONDITIONS

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1.0 DEFINITIONS

1.1 Abnormal Weather 1.1.1 (Replace clause 1.1.1 as follows):

Abnormal Weather" means temperature, precipitation, wind or other weather conditions in which the monthly average, differs from the statistical average for that condition in that period by more than one standard deviation, calculated based on data available from Environment Canada. Coquitlam's Burke Mountain Rain Gauge will be used to compare the rainfall summary versus the available data from Environment Canada.

City of Coquitlam Rainfall

2.0 DOCUMENTS

2.2 Interpretation 2.2.4 (1) (Replace clause 2.2.4 (1) as follows):

The Contract Documents shall govern and take precedence in the following order as listed in Schedule 1 of the Agreement, taking precedence over all Contract Documents.

4.0 CONTRACTOR

4.1 Control of the Work 4.1.1 (Add to clause 4.1.1 as follows):

The *Contractor* is responsible for all survey layout for the construction of the Work to the design specifications and/or elevations as shown on the contract drawings or as amended on site by the Contract Administrator.

4.1.2 (Add to clause 4.1.2 as follows):

The Contractor shall not deposit any material upon any street, sidewalk, boulevard or other property, without the Contract Administrator's or the Owner's permission, nor shall he allow the same to remain longer than necessary. All surplus spoil and rubbish and other waste material shall be removed from the site so that the area of work is cleaned up and restored to as clean a condition as it was before the Contract started, within four days of the Contract Administrator's written request to do so, failing which the Owner may carry out the work or have the work carried out by others and recover the costs from the Contractor or may deduct the cost from any monies due or that may become due to the Contractor.

4.1.3 (Add new clause 4.1.3 as follows):

Work can be performed during the normal weekday working hours of 0700h to 1900h, unless specified otherwise in Supplementary Specifications - Appendix A: Traffic Management Detail Specifications. Written permission from the Contract Administrator will be required for any works to be performed outside of the normal working days of Monday to Friday.

No Sunday work will be permitted, except in case of emergency and then only with the written permission of the Contract Administrator and to such extent as he deems necessary.

In case the Contractor decides to work on a day which is a Statutory Holiday, he shall provide the Contract Administrator in writing at least (4) days in advance of such holiday, stating those

places where said work is to be conducted. In case the Contractor fails to give such notice in advance of any Statutory Holiday, no work within the terms of the contract shall be done on such holiday.

The cost of inspections on a Sunday or on a Statutory Holiday by City staff/s will be at Contractor's expense.

4.2 Safety

4.2.2 (Add new clause 4.2.2 as follows):

In an emergency, gas pipeline rupture or leak, Contact FortisBC's 24 Hour Emergency Line (1-800-663-9911) and Coquitlam Fire (911) immediately and then City Coquitlam Utility Control Centre (604-927-6287).

4..3 Protection of Work, Property and the Public

4.3.1 (Replace clause 4.3.1 as follows):

In performing the Work, the Contractor shall protect the Work and the Owner's property and other person's property from damage. The Contractor shall at the Contractor's own expense make good any such damage which arises as the result of the Contractor's operations. If the Contractor causes damage to private property, the Contactor must obtain a written release from the owner of the damaged property.

4.3.5.1 (Add clause 4.3.5.1 as follows):

The Contractor shall notify the Contract Administrator immediately if damage occurs to any City or third party utility or structure.

4.3.7 (Add new clause 4.3.7 as follows):

Any lands other than those upon which the work is to be performed, which may be required for temporary facilities, storage purposes or access to the work site, other than those provided by the *Owner*, shall be provided by the *Contractor* at his own cost, with no liability to the *Owner*.

4.6 Construction Schedule 4.6.1

(Replace clause 4.6.1 as follows):

The Contractor shall within the time set out in the Form of Tender prepare and submit to the Contract Administrator for his approval a construction schedule (the Baseline Construction Schedule) indicating the planned start and completion dates of major activities of the Work. The Baseline Construction Schedule shall be in more detail than the Preliminary Construction Schedule and shall indicate completion of the Work in compliance with any specified Milestone Dates, including Substantial Performance.

4.6.6 (Replace clause 4.6.6 as follows):

The time for the performance of the Work shall commence on the date specified in the Notice to Proceed, or if not so specified, on the date the Notice to Proceed is issued. The Notice to Proceed will not be issued until the documentation required under paragraph 5.1.1 of the Form of Tender has been submitted and the construction schedule has been approved.

4.6.8 (Add new clause 4.6.8 as follows):

Any requests to lengthen the work schedule shall be made in writing by the Contractor within five working days of knowledge

of the reason for the extension. The Contract Administrator will adjust the schedule at his discretion upon receipt of a written request.

4.7 Superintendent 4.7.4 (Add new clause 4.7.4 as follows):

The key personnel named in the Contractor's Tender response, shall remain in these key positions throughout the project. In the event that key personnel leave the Contractor's firm, or for any unknown reason are unable to continue fulfilling their role, the Contractor must propose a suitable replacement, and obtain written consent from the Owner. Acceptance of the proposed replacement is at the sole discretion of the Contract Administrator and the Owner.

4.8 Workers 4.8.2 **(Add new clause 4.8.2 as follows):**

The Contractor shall, upon the request of the Contract Administrator, remove any person employed by him for the purposes of the Contract who, in the opinion of the Contract Administrator, is incompetent or has conducted himself improperly, and the Contractor shall not permit a person who has been removed to return to the Place of Work.

4.9 Materials 4.9.3 (Add new clause 4.9.3 as follows):

The Contractor shall, at his cost,

- a) Be responsible for storing all of the materials supplied for the Work either by himself or the Owner, until it has been incorporated into the completed Work;
- b) Store all materials in a manner which will prevent damage from the weather, dirt, foreign matter, vandalism and theft;
- c) Arrange for and/or verify the time of delivery of all materials to be supplied by himself or the Owner to ensure that delivery will coincide with his work schedules.
- Examine with the Contract Administrator the quantities and details of all materials supplied by the Owner at the time and place of delivery or those materials already at the Place of Work, and prepare and sign a Statement of Materials Acceptance, specifically noting and rejecting any defective material;
- e) Replace all materials supplied by himself or the Owner which are found to be stolen, missing or damaged while under his care:
- f) Replace all materials found to be defective in manufacture which have been supplied by himself.

4.11 Subcontractors 4.11.3 (Replace clause 4.11.3 as follows):

The Contractor shall, upon notice of the Contract Administrator, remove any Subcontractor employed by him for the purposes of the Contract who, in the opinion of the Contract Administrator, is incompetent or has conducted himself improperly, and the Contractor shall not permit the Subcontractor who has been removed to return to the Place of Work. The removal of a Subcontractor under this clause shall not be considered a Change and the Contract Price and the Contract Time shall not be adjusted.

4.12 Test and Inspections 4.12.1 (Replace clause 4.12.1 as follows):

The Contractor shall perform or cause to be performed all tests, inspections and approvals of the Work as described in the Contract Documents or a required by the Contract Administrator as part of Quality Control. The Contractor shall complete all the necessary testing at the frequencies described in the Contract Document unless otherwise approved by the Contract Administrator.

Acceptable test and inspection results will not relieve the Contractor of its obligations under the Contract to correct defects or deficiencies in the Work.

4.12.11 (Add clause 4.12.11 as follows):

Failure to follow DFO/FLNRO BMPs and the approved permit for Instream Works or as instructed by Contract Administrator will result in shut-down of the work. The Contractor must take all steps to mitigate impacts to aquatic resources, environment and habitats before work can re-start on site. No claim will be accepted by the Owner for costs associated with this work shutdown.

4.14 Final Clean-up 4.14.1 (Replace clause 4.14.1 as follows):

Prior to applying for Substantial Performance, the Contractor shall remove all surplus products, tools, construction machinery and equipment relating to the Work that is not required for the performance of the remaining Work. The Contractor shall also remove waste, debris and waste products other than caused by the Owner or Other Contractors, and leave the Place of Work clean and suitable for occupancy by the Owner unless otherwise specified in the Contract Documents or directed by the Contract Administrator.

4.16 Notice of Disruption 4.16.2 (Add new clause 4.16.2 as follows):

Written notice must be provided to all properties which may be physically affected by the construction not less than one week and not more than two weeks prior to construction.

Notify occupants directly affected by the work 48 hours in advance of commencement of construction. Cost of notifying area occupants of ensuing construction and delivery of the notices is incidental to the Contract.

7.0 CHANGES

7.1 Changes 7.1.3 (Replace clause 7.1.3 as follows):

Additional work that the Owner may wished performed that does not satisfy the requirements of subparagraphs (a) and (b) of GC 7.1.1 is extra work (Extra Work) and is not a Change. Pursuant to GC 8, Extra Work may be declined by the Contractor or may, upon agreement between the parties, be undertaken as Extra Work.

7.4 Optional Work 7.4.2 (Add new clause 7.4.2 as follows):

If there are Optional items or Provisional items included in the *Schedule of Quantities and Prices*, those items shall be used only

as directed and at the sole discretion of the Contract Administrator through the issue of a Change Order. These items will be paid at the contract unit price as part of regular progress payments. Only quantities used will be eligible for payment. No claim will be accepted for unused Optional or Provisional quantities. Clause 9.4 Quantity Variations will not be applicable for these items.

9.0 VALUATION OF CHANGES AND EXTRA WORK

9.2 Valuation Method

9.2.4 (Replace clause 9.2.4 as follows):

Once a quotation is accepted by the Contract Administrator, or other agreement reached between the Contract Administrator and the Contractor regarding adjustments to the Contract Price or Contract Time on account of a Change or Extra Work, the Contractor shall not be entitled to claim or receive additional payment, or adjustment to the Contract Time on account of a Change or Extra Work.

9.4 Quantity Variation

9.4.1 *(Replace clause 9.4.1 as follows):*

If for any reason, including an addition or deletion under GC 7.1.1(1) or 7.1.1(2) respectively, the actual quantity of a unit price item varies by more than plus or minus the Variance Threshold Percentage from the estimated quantity for that unit price item listed in the Schedule of Quantities and Prices (the "Tender Quantity") or as otherwise agreed to pursuant to these Contract Documents, then either the Owner or the Contractor may by written notice request the other party to agree to a revised unit price, considering the change in quantities. A party shall make a request for a revised unit price as soon as reasonably possible after the party concerned becomes aware of the quantity variation.

9.4.2 (Delete clause 9.4.2 (2)

10.0 FORCE ACCOUNTS

10.1 Force Account Costs

10.1.1(1) (Add to clause 10.1.1(1) as follows):

Costs for the Contractor's Superintendent, Project Managers, Health and Safety Personnel, and Office/Administration Staff are not eligible for labour costs as those costs are considered incidental to the mark up owing for overhead and labour.

10.1.1(4) (Replace clause 10.1.1(4) as follows):

Force Account Work performed by a subcontractor shall be paid for in the lesser of: (i) the amount provided by subparagraphs (1), (2) and (3) of this GC, plus a mark-up of 5%, or (ii) the actual amount the Contractor pays the subcontractor including a mark-up of 10% on such actual costs to cover all overhead and profit.

CITY OF COQUITLAM
Contract No. 51138-1

12.0 HAZARDOUS MATERIALS

12.2 Discovery of

12.2.2 (Replace clause 12.2.2 as follows):

If the Contract Administrator observes any materials at the Place of Work that the Contract Administrator knows or suspects may be Hazardous Materials, then the Contract Administrator shall immediately give written notice to the Contractor and the Contractor shall immediately stop the Work or portion of the Work as required by GC 12.2.1(1).

13.0 DELAYS

13.1 Delay by Owner or Contract Administrator

Hazardous Materials

13.1.2 (Add new clause 13.1.2 as follows):

The Owner may at any time suspend the work or any portion thereof provided he gives the Contractor five (5) days' written notice of delay. The Contractor shall resume work upon written notice from the Owner. The Contractor shall be entitled to:

- a) An extension of the Contract time equivalent to the length of suspension of work.
- Reimbursement by the Owner for directly related out-of-pocket additional costs, reasonably and necessarily incurred by the Contractor as a result of such suspension. No additional payment will be made to the Contractor for any loss of profits or overhead.

13.3 Unavoidable Delay

13.3.1 (Add to clause 13.3.1 as follows):

Beyond the reasonable control of the Contractor also includes pandemic or community outbreak

13.8 Direction to Stop or Delay

13.8.3 (Add new clause 13.8.3 as follows):

The Contract Administrator may order the Contractor to stop work if at any time the Contract Administrator is of the opinion that there exists a danger to life or property.

13.9 Liquidated Damages for Late Completion

13.9.1 (Replace clause 13.9.1 as follows):

If the Contractor fails to meet the Milestone Date for Substantial Performance as set out in the Form of Tender, paragraph 2.2 as may be adjusted pursuant to the provisions of the Contract Documents, then the Owner may deduct from any monies owing to the Contractor for the Work:

- (1) An amount of \$1,000.00 for each calendar day the actual Substantial Performance is achieved after the Substantial Performance Milestone Date; plus
- (2) All direct out of pocket costs, such as costs for safety, security or equipment rental, reasonably incurred by the Owner as a direct result of such delay.

If the monies owing to the Contractor are less than the total amount owing by the Contractor to the Owner under (1) and (2) then any shortfall shall immediately, upon written notice from the Owner, and upon Substantial Performance, be due and owing by the Contractor to the Owner.

CITY OF COQUITLAM Contract No. 51138-1		Supple	mentary General Conditions SGC-9
18.0	PAYMENT		
18.1	Preparation of Payment Certificate	18.1.1	(Replace clause 18.1.1 as follows): The Contract Administrator shall prepare and issue a certificate for the period ending the last calendar day of the month.
18.4	Holdbacks	18.4.2	(Add to clause 18.4.2 as follows): At the sole discretion of the Contract Administrator, an amount equivalent to 10% of the contract award value or 200% of a reasonable estimate, whichever is higher, may be held without interest until all deficiencies have been remedied and accepted by the Contract Administrator.
18.6	Substantial Performance	18.6.5	(Replace clause 18.6.5 as follows): The Owner may release any builders lien holdback on the 56th day following the date of Substantial Performance, or other date as required by law, but the Owner may hold back the amounts for any deficiencies or filed builders liens as provided in GC 18.4.2, 18.4.3 and 18.4.4.

18.6.6 *(Replace clause 18.6.6 as follows):*

The Contract Administrator, as defined herein, shall be the Payment Certifier responsible under Section 7 of the Builders Lien Act for certifying Substantial Performance of the Work of the Contractor, but not the Work of Subcontractors. The Contractor shall cooperate with and assist the Contract Administrator by providing information and assistance in a timely manner as the Contract Administrator considers necessary to carry out the duties of the Payment Certifier for the Contract.

The Contractor shall be the Payment Certifier responsible under Section 7 of the Builders Lien Act for certifying Substantial Performance of the Work of each Subcontractor. Prior to certifying completion for a Subcontractor, the Contractor shall consult the Contract Administrator and obtain the Contract Administrator's comments on the status of completion by the Subcontractor, including any deficiencies or defects in the Subcontractor's Work noted by the Contract Administrator. The Contractor will indemnify and save the Owner harmless from any and all liability the Owner may have to anyone arising out of the certification by the Contractor of Substantial Performance for that Subcontractor.

Notwithstanding any other provision of the *Contract*, no payments will be due or owing to the *Contractor* so long as a Lien filed by anyone claiming under or through the *Contractor* remains registered against the Project of any lands, or interest therein, on which *Work* for the project was performed. Failure of the *Contractor* to remove all Liens promptly will entitle the *Owner* to damages.

21.0 WORKERS COMPENSATION REGULATIONS

CITY OF COQUITLAM Su Contract No. 51138-1		Supple	Supplementary General Conditions	
21.2	Contractor is "Prime Contractor"	21.2.1	(Add to clause 21.2.1 as follows): Prior to the issuance of the "Notice to Proceed" the must provide a signed "Prime Contractor Designatio provided in Appendix IV of these Supplementary Ger Conditions.	n" form as
24.0	INSURANCE		(Replace section 24.0 as follows):	
24.1	General	24.1.1	Importance of Prompt Attention to Insurance Requ The Contractor shall provide the Owner with evidence that the insurance required to be provide GC is in full force and effect.	satisfactory

24.1.2 Acceptable Insurance Carriers:

The insurer issuing any policy, or other document which is evidence of insurance to the Contractor, shall be an insurer licensed by the Superintendent of Insurance in the Province of British Columbia and registered with the Department of Insurance for Canada in Ottawa, except the Insurance Corporation of British Columbia, which is not subject to this condition.

24.1.3 Owner's Right to Change Terms:

Notwithstanding anything contained in the Contract Documents, the Owner will have the right to request a change to the specified terms and conditions respecting insurance at the sole option of the Owner. The Contractor will be notified in writing of any changes required by the Owner and will provide a quotation for such work.

24.1.4 **Delivery of Insurance Documents:**

All insurance policies or other acceptable specified documents shall be delivered to, and accepted by, the Owner before the Contract Documents are signed. No work shall be commenced by the Contractor or by anyone acting on the instructions of the Contractor, until the required Insurance Documents have been accepted by the Owner and the Contract Documents have been duly signed by the Owner and the Contractor.

24.1.5 Owner's Right to Insure:

Should the Contractor for any reason not comply with the specified requirements with respect to the insurance, the Owner will, at the Owner's option, have the right to purchase all or any part of such insurance which, in the opinion of the Owner, may be required to provide the specified insurance, and, in the event of so doing, the Owner will have the right to pay the premiums for such insurance and to withhold the amount of premiums so paid from any amount due and payable to the Contractor under the Contract.

24.2 Required Insurance 24.2.1 General

Damage to work (excluding Building Contracts where Section 24.3, Paragraph 24.3.1, Further Responsibilities of Contractor, applies).

The Contractor shall be responsible for any and all loss, or damage, whatsoever which may occur on or to the works, completed or otherwise, until such time as the entire works have been completed and the Notice of Acceptance has been issued by the Owner, except that loss or damage caused solely by an act of the Owner. In the event of any loss or damage occurring, the Contractor shall, on notice from the Contract Administrator, immediately put the works into the condition it was immediately prior to such loss or damage, all at the

Contractor's expense, except where such loss or damage was caused solely by an act of the Owner.

The Contractor shall be responsible for any and all loss or damage whatsoever which may occur on or to the works, completed or otherwise, arising out of the negligence of the Contractor, any subcontractors, and the employees or agents of any of them.

24.2.2 **Public Liability Insurance:**

(Other than Automobile Third Party Liability Insurance):

Evidence of Insurance:

The Contractor shall deposit with the Owner, before the work commences, a Certificate of Insurance, signed by an authorized representative of the insurer, such certificate to be as shown in Appendix III.

Effective Dates and Terms:

The effective date of the Certificate of Insurance shall be the date of the execution of the Contract Agreement and the term of this policy shall be from such effective date until a date not less than twelve (12) months after the date of Substantial Performance completion of all work under the Contract.

Limits of Liability:

For bodily injury and for property damage shall be inclusive limits not less than \$5,000,000.

24.2.3 **Public Liability Insurance (Automobile):**

The Contractor shall deposit with the Owner before the work commences a Certificate of Insurance with respect to owned automobiles on ICBC Form No. APV 47 entitled "Confirmation of Insurance Coverage" and with respect to Non-Owned Automobiles including hired automobiles and Contractual Liability on ICBC non-owned automobile policy Form APV 29 (if non-owned automobile coverage is not included under the comprehensive general liability coverage) each signed by an authorized representative of the Insurance Corporation of British Columbia.

24.3 Physical Loss or Damage With Respect to New Buildings under Construction and/or Major Additions to Existing Structures

24.3.1 Responsibility for Placing Insurance:

The types of insurance required under this section will be provided and maintained at the expense of the City of Coquitlam during the term of the Contract and will be as follows unless otherwise changed by specific endorsement to these Insurance Specifications.

24.3.2 Insurance Coverage Required:

Builders Risk Completed Value "All Risks" Course of Construction Insurance. This policy will be written in the names of the City of Coquitlam and the Contractor with loss payable as their respective interests may appear.

24.3.3 Responsibility of Contractor – Limitations of cover and deductibles:

The insurance provided by the City of Coquitlam as described herein will not provide the Contractor with full protection against any and all kinds of loss or damage which may arise out of the Contract. It is, therefore, the responsibility of the Contractor to fully understand the scope of the cover provided with particular attention to the exclusions, limitations of cover and deductible provisions contained in the Insuring Agreements of the policies and it is further the responsibility of the Contractor to take out at the Contractor's expense, whatever other additional insurance the Contractor may consider necessary or desirable for his protection subject as hereinafter provided. The Contractor shall act in the same manner on insurance made available through the City of Coquitlam as he would if he had arranged such insurance himself.

24.3.4 Responsibility of Contractor – Direct Damage Insurance:

If the Contractor fails to do all or anything that is required of him concerning insurance, the City of Coquitlam may do what is required and any monies expended by the City of Coquitlam for that purpose shall be repayable and recoverable from the Contractor. Should any action, failure or negligence of the Contractor result in higher insurance costs being incurred by the City of Coquitlam, such additional costs shall be payable or recoverable from the Contractor.

24.3.5 Responsibility of Contractor – Machinery and Equipment Belonging to Others:

Unless otherwise directed by the City of Coquitlam in writing, the Contractor shall carry insurance covering loss or damage to construction machinery, tools and equipment owned by and/or on bare rental from a third party or parties and used by the Contractor in performing the work, which insurance shall be in a form satisfactory to the City of Coquitlam and having coverage in accordance with the actual cash value of such construction machinery, tools and equipment. Such policies shall also provide for subrogation to be waived against the City of Coquitlam. A copy of the policy shall be delivered to the City of Coquitlam not later than thirty days after the commencement of work under the Contract.

24.3.6 **Contractor's Waiver of Liability to Coquitlam:**

The Contractor hereby releases the City of Coquitlam from any and all liability for damages to the extent that such damages are covered by the course of construction insurance referred to in Section 24.3 of these specifications.

24.3.7 **Liability of Contractor:**

Neither the providing of insurance by the Contractor or the City of Coquitlam in accordance with the requirements hereof, nor the insolvency, bankruptcy, nor failure of any insurance company to pay any claim accruing shall be held to waive any of the provisions of this Contract with respect to the liability of the Contractor or otherwise.

24.3.8 Responsibility of Contractor for protection of work, persons and property:

The Contractor and all persons employed by the Contractor or under his control, and all employees and subcontractors, shall use due care that no person or property is injured, and that no rights are infringed in the prosecution of the work. Contractors shall take particular care to protect the work against loss or damage caused by riot, vandalism or malicious mischief and shall be at the expense of the Contractor provide all necessary safeguards in the form of watchmen and/or watch dog protection to prevent loss or damage of this type. The payment of deductibles is the responsibility of the Contractor and if not paid by the Contractor such amounts shall be deducted by the City of Coquitlam from payment due to the Contractor. These deductibles will normally be \$250.00 each claim.

24.3.9 Action to be taken in the event of loss or damage to the work covered by the Contract:

When any loss or damage occurs to the work or to any materials and supplies on the site of the work, the Contractor shall remove any and all damaged or destroyed property and shall rebuild or replace the damaged or destroyed work, materials, or supplies and complete the work to the satisfaction of the Owner. For such removal, rebuilding, or replacing, the Contractor shall be entitled to receive from the Owner the amount of insurance monies received by the Owner pursuant to the said adjustment which amount shall be paid to the Contractor as the work of rebuilding or replacing proceeds, and in accordance with the Agreement. Damage or destruction of the whole or any part of the work shall not affect the rights and obligations of either party under the Agreement, except that in such event the Contractor shall be entitled to such reasonable extension of time to complete the work as the Architect and/or Contract Administrator may decide.

24.3.10 Further responsibility of Contractor:

Other than with respect to loss or damage arising out of insured risks and herein before specified, the Contractor shall be responsible for all loss or damage whatsoever which may occur on or to the works completed or otherwise, until such time as the entire works have been completed and the Notice of Acceptance has been issued by the Owner, except that loss or damage caused solely by an act of the Owner.

In the event of any loss or damage occurring, the Contractor shall on notice from the Owner immediately put the works into the condition it was immediately prior to such loss or damage, all at the Contractor's expense except as previously stated.

24.3.11 Owner Not Responsible for Loss or Damage or Loss of Use of Property of Contractors and their Employees:

The Owner will not be responsible for securing or paying for insurance of any kind other than as specified in Section 24.3 of these specifications nor will the Owner have any responsibility whatsoever for loss or damage from whatever cause occurring to property owned, leased, or otherwise in the possession of the Contractor, subcontractors or their employees including, without restricting the generality of the foregoing, machinery, equipment, tools, supplies, and clothing at the construction site or elsewhere including loss of use of same.

24.4 Additional Insured 24.4.1 The Contractor shall ensure the following are named as "additional insured" on the liability policy for this contract:

The City of Coquitlam

The City may identify private properties that are directly affected by construction. If so, the Contractor shall include the legal owners of these properties named as "additional insured" on the liability policy for this contract.

25.0 MAINTENANCE PERIOD

25.1 Correction of Defects 25.1.4 (Add new clause 25.1.4 as follows):

The Owner is authorized to make repairs to defects or deficiencies if, ten days after giving written notice, the Contractor has failed to make or undertake with due diligence the required repairs. However, in the case of emergency where, in the opinion of the Owner, delay is not reasonable, repairs may be made without notice being sent to the Contractor. All expenses incurred by the Owner in connection with repairs made pursuant to GC 25 shall be paid by the Contractor or may be deducted from the Maintenance Security, or other holdbacks. The Contractor shall promptly pay any shortfall.

CITY OF COO	UITLAM
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Supplementary General Conditions

SGC-15

27.0 CONTRACTOR PERFORMANCE EVALUATION

27.1 (Add new clause 27.1 as follows):

After the completion of the Contract, the Contractor will be evaluated on their performance of the Work. The evaluation will provide percentage scores on the following categories:

- 1. Contract Administration
- 2. Construction Management
- 3. Schedule Management
- 4. Communications
- 5. Resource Management and Contractor Performance
- 6. Quality Management

An evaluation summary report may be issued to the Contractor with scores for each of these categories. Upon request, the Contractor may attend a meeting with the City to discuss the evaluation.

This internal evaluation may be reviewed for reference on subsequent tenders with the City. Evaluation scores can form part of the tender analysis and influence contract award decisions. Evaluation Scores in categories that are below 50% may result in a suspension of tendering privileges with the City.

APPENDIX I

PERFORMANCE BOND

NO.	. <u> </u>	
	KNOW ALL MEN BY THESE PRESENTS THAT	
	As Principal, hereinafter called the Principal, and	
	As Surety, hereinafter called the Surety, are held and firmly bound unto	
	As Obligee, hereinafter called the Obligee, in the amount of	
_	Dollars	
	ada, for the payment of which sum, well and truly to be made, the Principal and the Sureters, executors, administrators, successors and assigns, jointly and severally, firmly by these	
WHEREAS, the Princip	pal has entered into a written contract with the Obligee, dated the	
day of	20, for	

in accordance with the drawings and specifications submitted, therefore, which contract, drawings and specifications and addenda thereto, to the extent provided for, are by reference made part hereof and are hereinafter referred to as the Contract.

NOW THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if the Principal shall promptly and faithfully perform said Contract (including any addenda thereto, provided such addenda do not collectively increase the amount to be paid to the Principal by more than twenty per cent (20%) of the amount of the Contract except with the written consent of the Surety) then this obligation shall be null and void; otherwise, it shall remain in full force and effect.

Whenever the Principal shall be, and declared by Obligee to be, in default under the Contract, the Obligee having performed Obligee's obligations thereunder, the Surety may promptly remedy the default, or shall promptly:

- 1. Complete the Contract in accordance with its terms and conditions, or
- 2. Obtain a bid or bids for submission to Obligee for completing the Contract in accordance with its terms and conditions, and upon determination by Obligee and Surety of the lowest responsible bidder, arrange for a contract between such bidder and Obligee and make available as work progresses (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this

CITY OF COQUITLAM
Contract No. 51138-1

Supplementary General Conditions

SGC-17

paragraph) sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term 'balance of the contract price', as used in this paragraph, shall mean the total amount payable by Obligee to Principal under the Contract less the amount properly paid by Obligee to Principal.

Any suit under this Bond must be instituted before the expiration of two (2) years from date on which the Notice of Acceptance under the Contract is issued.

The Surety shall not be liable for a greater sum than the specified penalty of this Bond.

No right of action shall accrue on this Bond to or for the use of any person or corporation other than the Obligee named herein or the heirs, executors, administrators, or successors of Obligee.

· · · · · · · · · · · · · · · · · · ·	•	its hand and affixed its seal, and the Surety has caus sted by the signature of its Attorney-in-fact, this	
SIGNED, SEALED and DELIVERED In the presence of			
ото р. состос от)	PRINCIPAL	
)	SURETY	

APPENDIX II

LABOUR AND MATERIAL PAYMENT BOND

(Private Contracts – Trustee Form)

NO		\$	
Note: This Bond is issued si		er Bond in favour of the C nance of the Contract.	Obligee conditioned for the full and
	KNOW ALL MEN B	Y THESE PRESENTS THAT	
	As Principal, hereinaf	ter called the Principal, a	nd
As Surety, hereinafter cal		t to the conditions herein und unto	nafter contained, held and firmly
	ed the Obligee, for the use utors, administrators, suc		nants, their and each of their heirs, e amount of
			Dollars
		yment of which sum well	and truly to be made, the Principal ors and assigns jointly and severally,
SIGNED AND SEALED this	day of	, 20	
, 2	0, for	tract with the Obligee da	ted theday of
which contract is by reference	e made a part hereof, and	d is hereinafter referred t	o as the Contract.
Claimants for all labour and r	material used or reasonab	ly required for use in the	ncipal shall make payment to all performance of the Contract, then effect, subject, however, to the

1. A Claimant for the purpose of this Bond, is defined as one having a direct contract with the Principal for labour, material, or both, used or reasonably required for use in the performance of the Contract, labour and material being construed to include the part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment directly applicable to the Contract provided that a person, firm or corporation who rents equipment to the Principal to be used in the performance of the Contract under a contract which provides that all or any part of the rent is to be applied towards the

These Supplementary General Conditions must be read in conjunction with the General Conditions contained in the Master Municipal Construction Documents, Volume II, Printed 2009

following conditions:

purchase price thereof shall only be a Claimant to the extent of the prevailing industrial rental value of such equipment for the period during which the equipment was used in the performance of the Contract. The prevailing industrial rental value of equipment shall be determined, insofar as it is practical to do so, in accordance with and in the manner provided for in the latest revised edition of the publication of the Canadian Construction Association entitled "Rental Rates on Contractors' Equipment" published prior to the period during which the equipment was used in the performance of the Contract.

- 2. The Principal and the Surety hereby jointly and severally agree with the Obligee as Trustee that every Claimant who has not been paid as provided for under the terms of his contract with the Principal before the expiration of a period of ninety (90) days after the date on which the last of such Claimant's work or labour was done or performed or materials were furnished by such Claimant, may as a beneficiary of the trust herein provided for, sue on this Bond, prosecute the suite to final judgment for such sum or sums as may be justly due to such Claimant under the terms of his said contract with the Principal and have execution thereon. Provided that the Obligee is not obliged to do or take any act, action or proceeding against the Surety on behalf of the Claimants or any of them to enforce the provisions of this Bond. If any act, action or proceeding is taken either in the name of the Obligee or by joining the Obligee as a party to such proceedings then such act, action or proceeding shall be taken on the understanding and basis that the Claimants or any of them who take such act, action or proceeding shall indemnify and save harmless the Obligee against all costs, charges and expense or liabilities incurred thereon and any loss or damage resulting to the Obligee by reasons thereof. Provided still further that subject to the foregoing terms and conditions, the Claimants or any of them may use the name of the Obligee to sue on and enforce the provisions of this Bond.
- 3. No suit or action shall be commenced hereunder by any Claimant:
 - unless such Claimant shall have given written notice within the time limits hereinafter set forth to each of the Principal, Surety and Obligee, stating with substantial accuracy the amount claimed. Such notice shall be served by mailing the same by registered mail to the Principal, Surety and Obligee at any place where an office is regularly maintained for the transaction of business by such persons or served in any manner in which legal process may be served in the Province or other part of Canada in which the subject matter of the contract is located. Such notice shall be given (i) in respect of any claim for the amount or any portion thereof required to be held back from the Claimant by the Principal under either the terms of the Claimant's contract with the Principal or under the Mechanic's Liens Legislation applicable to the Claimant's contract with the Principal whichever is the greater within one hundred and twenty (120) days after such Claimant should have been paid in full under the Claimant's contract with the Principal; (ii) in respect of any claim other than for the holdback or portion thereof referred to above within one hundred and twenty (120) days after the date upon which such claimant did or performed the last of the work or labour or furnished the last of the materials for which such claim is made under the Claimant's contract with the Principal.
 - b) after the expiration of one (1) year following the date on which Principal ceased work on the Contract including work performed under guarantees provided in the Contract.
 - c) Other than in a court of competent jurisdiction in the Province or District of Canada in which the subject matter of the Contract or any part thereof is situated and none elsewhere, and the parties hereto agree to submit to the jurisdiction of such court.
- 4. The amount of this Bond shall be reduced by and to the extent of any payments made in good further and in accordance with the provisions which may be filed of record against the subject matter of the Contract, whether or not claim for the amount of such lien be presented under and against this Bond.
- 5. The Surety shall not be liable for a greater sum than the specified penalty of this Bond.

IN TESTIMONY WHEREOF, the Principal has hereto set its hand and affixed its seal, and the Surety has caused these presents to be sealed with its corporate seal duly attested by the signature of its Attorney-in-fact the day and year first above written.

SIGNED, SEALED and DELIV	ERED		
In the presence of			
)	PRINCIPAL	
)		
)		
)	SURETY	
)		

APPENDIX III

CERTIFICATE OF INSURANCE

This Certificate issued to the City of Coquitlam is to certify that policies of insurance, as described below, have been issued to the Insured named below and are in force at this time. It is understood and agreed that thirty (30) days' prior written notice by registered mail of any material alterations, transfer, assignment or cancellation of any of the policies listed below, either in part or in whole, will be given to the holder of this Certificate.

A.	This Cer	tificate is iss	ued to:	Named Insured and Mailing Address:
			oquitlam Idford Way n, BC V3B 7N2	
В.	CONTRA	CT NUMBER	AND/OR NAME	Description of the Work:
C.	INSURA	NCE POLICY		
	Name of			
	Policy Nu Effective			Liability Limit: Expiry Date:
D.	with the a	above-describ e minimum li	L LIABILITY coverage is required to ins sed project, including liability arising o mit shall be \$5,000,000.00 inclusive	per occurrence against bodily injury, personal injury and property damage.
D.2				olunteers are added as Additional Insureds, but only with respect to operations conducted the above-described project, operations or work.
D.3 D.4	Any dedu			uitlam, its employees, officers, agents and volunteers as Additional Insureds. policy shall not apply to the City of Coquitlam and shall be the sole responsibility of
D.5	The insur D.5.1 D.5.2 D.5.3 D.5.4 D.5.5 D.5.6	rance shall in Cross Liab Non-Own Unlicense Blanket Co Broad Fori Owner's &	clude the following coverages: ility Clause ed Automobile Liability d Automobile Liability ontractual Liability m Property Damage Liability & Contractor's Protective Liability	
D.6	D.5.7 Indicate YES		& Completed Operations Liability pecial coverage for this project as r Special Coverage Description	equired by the City:
D.7	() () () ()	(X) (X) (X) (X) (X)	Shoring and Underpinning Ha Pile Driving and Vibrations Excavation Hazard Demolition Blasting PROFESSIONAL LIABILITY INSI	JRANCE for Consultant Service Agreements
				For the duration of the <i>Services</i> as described in the Agreement, at its own cost, and from an insurer satisfactory to the City of Coquitlam.
				shall insure the <i>Consultant's</i> legal liability for errors, omissions and negligent acts, per Claim and \$1,000,000.00 Aggregate.
				Authorized Signature and Stamp



APPENDIX IV

PRIME CONTRACTOR DESIGNATION

Subject: Contract Contract	: #:	Prime Contractor 51138-1 2021 Laneways R	_	"Project")			
		(the	"Contractor") repr	esents, acknowled	lges and agrees t	hat:	
1.	Comper		Contractor shall be	•		6, c. 492 (the "Workers lified to act as the "Prim	ıe
2.	with the	e Workers Compen	nsation Act and fur	ther agrees that it	will do everythin	h and safety in accordar ng necessary to establish Compensation Act and	า
3.		tractor shall fulfill nsation Act in respo	_		der section 119 o	of the Workers	
4.		e City of Coquitlam Insation Act, in resp		_	wner" under sect	ion 119 of the Workers	
Prime Co	ontracto	r Name & Address:	:				
Prime Co	ontracto	r Signature		Date			
Print Na	me						
		igned copy of this I I Safety Advisor at	•	of Coquitlam. If yo	u have any quest	tions, please contact the	?

Supplementary Contract Specifications

Supplementary Contract Specifications

to the
MASTER MUNICIPAL SPECIFICATIONS
Volume II – Platinum Book

2021 LANEWAYS REHABILITATION

CONTRACT 51138-1

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The following Supplementary Specifications are to be considered part of the Specifications. These Supplementary Specifications take precedence over the Master Municipal Specifications.

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CONTRACT SPECIFICATIOI	NS	CONTRACT SPECIFIC NOTATIONS 202:
1.00	CONTRACT SPECIFIC INSTRUCTIONS	CONTINUE OF LETTER OF A TIONS
1.01	Coordination of Work	The Contractor shall be responsible to consult with the Coast Mountain Bus Company (CMBC) regarding delays, detours, temporary bus stop closures and any other works affecting the transit service in the area.
1.02	Outside Agency Approval	In accordance with the Contract Documents, the Contractor is responsible to consult with and obtain any approval required to meet and comply with all the conditions required from outside agency such as, but not limited to, BC Hydro, FORTIS BC GAS, Telus, Trans Mountain Pipeline in the area of the place of Work where applicable.
1.03	Cooperation with Emergency and Maintenance Activities	The Contractor will be responsible to cooperate with regular maintenance or emergency vehicles and staff for access to the site when required including: • Fire, Police, and Ambulance • Waste Management (garbage pick-up) • City Utilities Maintenance (or representatives) • City Parks and Recreation Maintenance (or representative) • Other City Contractors
1.04	FORTIS BC Emergency Protocol	In an emergency, gas pipeline rupture or leak, Contact Fortis BC 24 Hour Emergency Line (1-800-663-9911) & Fire Department (911) immediately and then City Coquitlam Utility Control Centre (604-927-6287).
1.05	Lane Closure Restrictions	The contractor shall refer to Contract Supplementary Specifications Section 01 05 55 00S.
1.06	Hours of Work	The contractor shall refer to Contract Supplementary Specifications Section 01 05 55 00S.
1.07	Schedule of Work	All work under this Contract is to be completed within the designated Contract Duration. The Contractor must provide sufficient resources in a <u>continuous effort and site presence</u> to complete all the work within the allotted time.
1.08	Location of Existing Utilities	The contractor is responsible to verify the depth and location of all utilities (watermains, storm mains, sanitary mains & etc.), including outside agency utilities (i.e. Terasen Gas Mains & etc.) and service connections (water, storm & sanitary services at the mains & property lines) by hand digging or by Hydro-Vac in the presence of the Inspector.
		Pre-locates must be completed as soon as possible after award of the contract so changes can be completed by the Engineer prior to site construction. Contact BC One for location of outside agency utilities. The contactor will not receive any compensation or allowance for delays if work is halted due to utilities & services connections not located prior to commencing construction.
		City of Coquitlam does not guarantee water, storm or sanitary services connections are perpendicular to the mains or property lines, the contractor will not receive any compensation for the time to locate these connections or for exposing hidden services at the property lines.
		Payment for this work will be treated as incidental to payment for work described in other Sections.
1.09	Manholes & Valves	Access to manholes and valves must be maintained at all time for city utilities crews and external utility companies. In case of an emergency the cost for exposing any buried manhole or valve covers during construction will be paid by the contractor.

SECTION 00 72 43S

SUPPLEMENTARY

1.10 Utility Adjustments City Infrastructure and/or Other Agency Infrastructure

The Contractor is responsible for adjusting all utilities, belonging to Coquitlam and/or other agencies that are affected by the works. All adjustments to utilities must be completed to the satisfaction of the utility owner. Utility adjustment will be considered incidental to the contract unless otherwise noted in the Contract Documents.

The Contractor should note that certain utility owners may decide to complete their own adjustments. The Contractor will be required to cooperate with any utility company providing their own adjustments.

The Contractor shall be responsible to contact the appropriate utility company with in minimum of seventy-two (72) hours of the work. No adjustment shall be made without the written approval of the utility company.

All manholes must be vertically adjusted a minimum of twenty-four (24) hours prior to paving.

1.11 Temporary Asphalt Pavement Restoration

The Contractor will be required to backfill all trenches (in paved areas) and place a temporary patch (50mm of hot mix asphalt), as per Coquitlam Standard Drawing COQ-G4, the same day excavation is made, unless otherwise approved by the Contract Administrator.

1.12 Accesses

The Contractor is responsible to maintain all business/residential vehicles and pedestrian accesses open at all times, the contractor may provide temporary accesses if the affected owner agrees. All costs associated with temporary accesses will be at the contractor's expense.

1.13 Precautions

Protect areas under construction from damage caused by excessive erosion, flooding, heavy rains, etc. Repair or replace unprotected damaged areas as directed by the Contract Administrator at no cost to the Owner.

2.00 CONSTRUCTION ACTIVITY

2.01 Construction Materials in Sewer Manholes and Pipe

The Contractor is responsible to ensure that construction activities do not deposit construction materials (e.g. gravels) into the storm sewer or sanitary sewer manholes or pipe. The City has a video record of the pipe before construction. Prior to Substantial Completion, the City may again video inspect the lines to ensure no problems exist due to construction activities under this contract. If problems are encountered, the Contractor will be responsible for the cost of the video and all costs associated with the cleaning of the pipe.

2.02 Site Clean-up During Construction and End of Construction

The Contractor will be responsible for the complete clean-up of the work site during construction & at the end of construction <u>and prior to the Substantial Performance review</u>. This work is considered incidental to the Contract.

The work will include cleaning of all catch basins periodically or as directed by the Contract Administrator within the Work area, or nearby location as affected by the Work. All cleaning is to be performed by <u>vacuum truck to the satisfaction of the Contract Administrator</u> and will include off-site disposal of waste material.

Payment for this work will be treated as incidental to payment for work described in other Sections.

2.03 Asphalt Milling Operations

Asphalt milling activities shall be done in such manner to cause the least disruption and inconvienience to traffic and the area residents.

The contractor will be required to provide a plan and schedule for milling sections and subsequent paving activities and have that approved by the Contract Administrator. The schedule is to be updated as required and take into consideration weather

conditions and weather forecasts to ensure work subsequent to milling can be completed in appropriate weather.

MILLING OUT EXTENSIVE AREAS THAT CANNOT BE PAVED WITHIN A 48 HOUR PERIOD (2 DAYS) WILL NOT BE PERMITTED.

3.00 MANDATORY MEETINGS AND CONTRACTOR REPRESENTATIVES AND SUBCONTRACTORS

3.01 Pre-Construction Meeting Requirements

After the Award of the Contract, the Contractor (Project Manager & Superintendent) will be required to attend a Pre-Construction Meeting with the Contract Administrator and provide all necessary information required by the Contract Administrator prior to provision of a Notice to Proceed. Items required to be provided at the meeting include:

- A Detailed Construction Schedule showing the start date & completion date and the durations of major work components showing how all work will be completed within the Contract Duration.
- 2. Proof of insurance
- 3. Performance Bond and Labour and Materials Payment Bond
- 4. WCB Clearance Letter and copy of Notice of Project
- 5. City of Coquitlam Business License
- A copy of portions of your Health and Safety Plan including the Title Page, Table of Contents, and portion showing latest revision date. Also include COVID-19 Pandemic Prevention Policy and Procedures (4P) document as detailed in IT 15.4.

3.02 Contract Schedule, Contract Duration, and Charges

A detailed, realistic construction schedule for this project will be required to be presented at the pre-construction meeting. The schedule must show major components and durations.

All work under this project is to be completed within the designated Contract Duration as contained in the signed **Contract Agreement**, or as formally amended.

3.03 Pre-Paving Site Meeting

The Contractor will be required to have a pre-paving meeting with their paving staff, on-site, just prior to paving to provide instruction regarding the existing grading and requirements for the paving process and the end product.

The Contractor must provide information to the Contract Administrator, for review, regarding proposed paving elevation control method, mat thickness control method, and rolling patterns.

The Contractor Administrator must be in attendance at this meeting.

It will be the responsibility of the Contractor's Contract Superintendent to ensure continuity between the base preparation and the paving process.

3.04 Contract Superintendent and Subcontractors

In compliance with the **MMCD General Conditions, Section 4.7, Superintendent**, the Contractor shall have a competent senior representative, (the "Superintendent") **in FULL TIME attendance** at the Place of Work while work is being performed for the duration of the contract.

This (FULL TIME) attendance is also required when work is being performed by Subcontractors.

SUPPLEMENTARY		SECTION 00 72 43S
CONTRACT		SS 5
SPECIFICATIONS	CONTRACT SPECIFIC NOTATIONS	2021

Work done by Subcontractors is to be directed by the Superintendent and monitored on site ensuring conformance to the Contract Documents and other particular direction to the Superintendent by the Contract Administrator.

The Owner is not responsible for the direction of Subcontractors.

3.05 Changes of Contractor Representatives & Subcontractors The Superintendent and Subcontractors indicated in the Form of Tender shall not be changed unless:

- 1. The Owner requests a replacement.
- 2. The Contractor submits an application for a change, in writing, to the Contract Administrator with the change being approved in writing.

END OF SECTION

SUPPLEMENTARY

CONTRACT

SPECIFICATIONS

PROJECT RECORD DOCUMENTS

SECTION 01 33 01S

1.0 GENERAL

1.3 Submission Delete 1.3.2 a replace with t

Delete 1.3.2 and replace with the following

Submit one copy of an accurate project record document in final form prior to applying for Substantial Performance including any video report. Record documents to include changes in the Issued for Construction Drawings, new elevation & location of all walkways/sidewalks, all utilities, manhole rim, catchbasin rim, vaults, valve boxes and inverts affected by the work.

The Contract Administrator will not authorize the release of holdbacks until record documents have been submitted and accepted.

END OF SECTION

1.0 QUALITY

The Contractor shall provide a final product conforming to the Contract Documents and the intent of the work.

The work is to be accurate to the dimensional and tolerance requirements of the contract.

Payment will be subject to adjustments based on quality assurance tests performed by the Contract Administrator.

1.01 Quality Control (QC) by Contractor

The MMCD (2009) definition of "Quality Control" is the process by which the *Contractor* checks specific materials, products, and workmanship to ensure strict conformance with the Contract Documents.

The Contractor is fully responsible for quality control of the materials, production, and construction processes.

Quality control tests shall be performed by the Contractor, at their own expense, to ensure that products meet the contract specifications.

Failure by the Contractor to conduct adequate quality control testing during production and construction will negate the Contractor's ability to appeal the quality assurance tests used for acceptance/rejection of the work.

Under no circumstances will QC test results produced after completion of the Quality Assurance (QA) results be considered for appeal purposes.

Any changes in the Work with respect to the location, grade, or line shall be approved in advance by the Contract Administrator. Failure to notify the Contract Administrator of changes in writing may result in rejection of Work.

1.02 Inspection of Work, Quality Assurance, and Material Testing, by the Owner

The MMCD (2009) definition of "Quality Assurance" means the process by which the Owner evaluates if the work is being constructed in accordance with the Contract Documents. This definition will be used for this contract

The *Contract Administrator* will provide construction review through spot inspections and spot materials testing for Quality Assurance.

Any materials testing results indicating a non-conformance to the Contract Documents will require construction corrective action by the *Contractor*.

All subsequent testing to corrective action to verify conformance to the Contract Documents will be the full responsibility of the Contractor.

Inspection review by the Owner will not relieve the Contractor from providing a product that meets or exceeds the requirements of the Contract Documents.

1.1 Inspection

Materials testing shall be as described in MMCD General Conditions, Section 4.12 with the following change:

Delete Section 4.12.2(a) and insert the following:

Where the MMCD specification clauses for Inspection and Testing indicate the Contract Administrator will arrange for all testing for work described in this section will be amended to read The Contractor will arrange for and pay for all testing for work described in this section. The testing shall take place at the following prescribed rates and as directed by the contract administrator. The contract administrator has the authority to call for testing, up to the rates and frequencies specified, at the Contractors cost.

All testing covered under this item shall be performed by a CSA certified laboratory and technicians with copies of all test results to be sent directly to the Contract Administrator. Re-testing resulting from failed first tests shall be at the Contractors expense.

1.2 Survey Layout

All Survey Layout will be completed by the Contractor in accordance with the Contract Drawings and Coordinate System set out within them. The Contractor will be provided digital AutoCAD files but shall be responsible to confirm elevations and tie in locations and report any discrepancies prior to construction.

1.3 Testing

Contractor shall carry out inspection and testing (QC) to ensure compliance with Contract Documents. Contractor shall submit test results within one week of testing to the Contract Administrator.

The Contractor shall provide test results prior to the preparation of the payment certificate.

1.4 Contractors Responsibilities

Furnish labour and facilities to:

- 1. Provide access to work to be inspected
- 2. Facilitate inspections and tests
- 3. Make good work disturbed by inspection and tests

1.5 Access to Work

Allow inspection testing agencies access to Work.

1.6 Tests

Test rates and frequencies (excluding failed tests), when not defined in the MMCD or Detail Specifications Sections shall be at the following frequencies:

1. Trench Backfilling and Compaction

1.1 Compaction: 1 test / 10 lm / 300mm lift
 1.2 Sieve: 1 test / placed material / 50 m³

2. Granular Base

2.1 Compaction: 1 test / 500m² / 0.15m depth of granular base 2.2 Sieve: 1 test / placed material / 250 TONNES

3. Granular Subbase

3.1 Compaction: $1 \text{ test/}500\text{m}^2 \text{ / } 0.15\text{m}$ depth of granular subbase

3.2 Sieve: 1 test / placed material / 250 TONNES

4. Embankment (Subgrade)

4.1 Compaction: 1 test/50m²/0.15m depth of fill
4.2 Sieve: 1 test / placed material / 100 TONNES

5. Asphalt

5.1 Marshall test: test per 250 TONNES placed, per mix specified, min. 1 / day

ASTM D1559, D3203, C117, C136

5.2 Superpave: test per 250 TONNES placed, per mix specified, min. 1 / day

CAI-SP2, ASTM D3203, C117, C136

5.3 Cores: 1 per 500 m²/lift

5.4 Continuous asphalt density testing during paving.

6. Subgrade Preparation

6.1 Compaction & Moisture: 1 test / 500 m²

7.Concrete Tests

7.1 Air, Slump & 1 Set Cylinders: 1 test / 10 m³, min. 1 set / day

1.7 Measurement for Payment

Payment for all work performed under this section will be incidental to payment for work described in other Sections.

END OF SECTION

SUPPLEMENTARY		SECTION 01 55 00S
CONTRACT		SS 9
SPECIFICATIONS	TRAFFIC CONTROL, VEHICLE ACCESS AND PARKING	2021

1.0 GENERAL Add 1.0.6

The *Contractor* is responsible for all temporary traffic control on the streets required for completion of the work. The *Contractor* will be responsible to provide a Traffic Management Plan (TMP) for approval (5) five working days prior to any lane closures taking place. TMP is to be prepared by a professional certified by the American Traffic Safety Services Association.

The TMP shall outline the approach to traffic management, show recognition and minimization of risks indicates signing locations, identify Traffic Control Persons (TCP) stations, show lane shifting and proposed closures.

The Contractor shall ensure safe passage of vehicles, cyclists and pedestrian through the work zone.

Add 1.0.7

A Road and Sidewalk Closure Permit is required from Coquitlam for all work affecting pedestrian and traffic flow related to construction. A permit is required for each specific construction interference with pedestrian and traffic flow. The road and sidewalk closure permit form can be obtained for use from the City's website at http://www.coquitlam.ca. The Contractor must follow the approved TMP. Any changes to this TMP must be submitted to City's Traffic Operations for approval.

Add 1.08

Refer to Appendix A – Traffic Management Detail Specifications

1.4 Traffic Control

Delete 1.4.1 and replace with the following

The Contractor shall conduct his operations so as to cause the minimum obstruction and inconvenience to traffic and to places of business and residences adjacent to the Place of Work. No greater quantity of work shall be undertaken at any one time than can be properly conducted with due regard to the rights and interests of the public as may be determined by the Contract Administrator.

The Contractor is to provide at all times safe and convenient means of approach and entrance to adjoining lanes, driveways, buildings and property both for vehicles and pedestrians to the satisfaction of the Contract Administrator. For this purpose, he shall construct and maintain suitable and safe platforms, approaches, structures, bridges, diversions or other works.

Where traffic must cross open trenches, the Contractor shall provide suitable bridges. Where trenches have been backfilled or where road improvements are incomplete the Contractor shall take any steps necessary to prevent potholes or other traffic hazards. Where the Contract Administrator so instructs or where Contract Specifications so require, the Contractor shall provide temporary asphalt patching of such hazards.

Add 1.4.9.3.1

The *Contractor*, as required by the *Contract Administrator* and the City, is to supply Construction Zone information signs (stationary), refer to MMCD 01 58 01 for the required identification signage.

The *Contractor* is responsible for the removal of the signs at the completion of the work.

Delete 1.4.10.1.3 and replace with the following

When workmen or equipment are employed over travelled way over brow of hills, around sharp curves or at other locations where oncoming traffic would not otherwise have adequate warning.

These Supplementary Contract Specifications must be read in conjunction with the Specifications contained in the Master Municipal Construction Documents, Volume II, Printed 2009 and the City of Coquitlam Supplementary Specifications and Detailed Drawings

SUPPLEMENTARY		SECTION 01 55 00S
CONTRACT		SS 10
SPECIFICATIONS	TRAFFIC CONTROL, VEHICLE ACCESS AND PARKING	2021

1.5 Measurement for Payment Delete 1.5.1 and replace with the following

Payment for all work, unless included in the Schedule of Quantities and Prices, performed under this section will be incidental to payment for work described in other Sections.

SUPPLEMENTARY		SECTION 01 57 01S
CONTRACT		SS 11
SPECIFICATIONS	ENVIRONMENTAL PROTECTION	2021

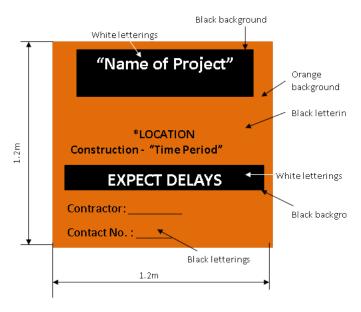
1.0	GENERAL		
1.0.3	Erosion and Sediment Control Supervisor	Add 1.03	The Erosion and Sediment Control (ESC) Supervisor is the Qualified Professional who is experienced in implementing ESC Plans and who is responsible for the inspection and monitoring of ESC Facilities to ensure these are installed and maintained in accordance with the ESC Plan, and if necessary, are modified during construction to ensure compliance with the Stream and Drainage System Protection Bylaw No. 4403, 2013.
1.2	Temporary Erosion and Sediment Controls	Delete 1.2.1 and replace with the following	Properly drain all portions of the site. Protect the site and the watercourses to which it drains, directly or indirectly, against erosion and siltation in accordance with a Sediment Control Plan under the City of Coquitlam Stream and Drainage System Protection Bylaw No. 4403, 2013 during construction and until the maintenance period is completed. Ensure no silt, gravel, debris or other deleterious substance resulting from construction activity discharges into existing drainage systems or watercourses or onto highways or adjacent property. The <i>Contractor</i> is responsible for all damage that may be caused by water backing up or flowing over, through, from or along any part of the work or otherwise resulting from his operations.
			Keep existing culverts, drains, ditches and watercourses affected by the work clear of excavated material at all times. When it is necessary to remove or alter any existing drainage structure, provide suitable alternative measures for handling the drainage. Adequately support culverts and drainpipes across trenches to prevent displacement and interference with the proper flow of water due to trench settlement.
			Sweep streets, and clean catch basins, manhole sumps, detention tanks, and maintain siltation controls as often as the <i>Contract Administrator</i> and the City deems necessary.
			Follow all Federal and Provincial regulations and guidelines respecting protection of fish, fish habitat, and watercourses.
		Delete 1.2.2.2 and replace with the following	Do not operate construction equipment in watercourses.
		Add 1.2.2.9	All work must be carried out during favorable and low water conditions.
		Add 1.2.2.10	Any fill used on this project shall be certified inert and from a source which is confirmed to be free of contaminants.
		Add 1.2.2.11	All work within a watercourse must be undertaken and completed in isolation of all flowing water to maintain downstream water quality and unrestricted flows.
1.4	Environmental Protection	Add 1.4.3.5	Immediately contain and clean up any leaks and spills of prohibited materials at the <i>Place of Work</i> .
		Add 1.4.3.6	Ensure that a well-stocked spill kit is on-site at all times and that the <i>Contractor's</i> employees are familiar with appropriate spill response techniques.
		Add 1.4.3.7	Immediately notify the <i>Contract Administrator</i> and the City of any leaks or spills of prohibited materials that occur at the <i>Place of Work</i> .

SUPPLEMENTARY CONTRACT SPECIFICATIONS		ENV	SECTION 01 57 01S SS 12 IRONMENTAL PROTECTION 2021
		Add 1.4.3.8	Ensure that any fuel stored on-site is located at least 15 metres from the nearest stream, and is placed within a bermed and lined area, in order to prevent leaks or spills into the environment.
		Add 1.4.3.9	Ensure that no equipment fueling or servicing is conducted within 15 metres of a stream.
1.6	Measurement and Payment	Delete 1.6.1 and replace with the following	Erosion and Sediment Control (ESC) will include silt fencing, interceptor channel/swale/ditch construction, interceptor drain pipe, check dams, catchbasin socks, includes supply of materials to complete the work as shown on the Contract Drawings or as directed by the Contract Administrator. Works performed under this section will be incidental to payment for work described in other Sections.
		Add 1.6.2	Payment for this item as directed by the Contractor Administrator includes supply, placement, maintenance, materials, removal and incidentals required for environmental protection.
1.8	Clean Up	Add 1.8.2	The work will include cleaning of all catch basins within the work area, or nearby location as affected by the Work and all manholes and/or sewers affected by work done under this contract. All cleaning is to be performed by vacuum truck to the satisfaction of the Contract Administrator and will include off-site disposal of waste material.
1.9	Archaeological / Historical Resources	Add 1.9	Immediately cease work and inform the <i>Contract Administrator</i> and the City, if any archaeological or historical resources are encountered during construction. Leave these resources in place and do not disturb them in any way.

1.3 Measurement and Payment Delete 1.3.1 and replace with the following

Payment for the installation of 1.2m x 1.2m static construction notification signs (shown below) includes supply, placement & removal. Unless idenitifed in the Schedule of Quanities, payment will incidential to work described in other sections.

Signs must be removed prior to the Contractor applying for Substantial Performance.



END OF SECTION

1.4	Measurement and Payment	Delete 1.4.3 and replace with the following	Payment for machine placed or hand formed C5 wide base concrete curb & gutter, excluding granular base, includes removal of existing curb and gutter if specified in the schedule of quantities, supply and placing of the concrete curb and gutter and will cover all straight and curve sections and will be made separately for each specified type.
		Delete 1.4.5 and replace with the following	Payment for concrete sidewalks, driveways, walkways, infills and all concrete ramps, including granular base, includes removal of existing curb and gutter if specified in the schedule of quantities, supply and placing of the concrete, subgrade preparation under the concrete sidewalks, in-fills, driveways and walkways and will be made separately for each specified thickness and type of finish.
		Delete 1.4.6 and replace with the following	Payment for driveway crossings including gravel base will be made on square meter basis as shown on Coquitlam Standard drawing COQ-C7 or as specified in Schedule of Quantities and Prices/Contract Drawings.
		Add 1.4.10	Payment for Detectable/Tactile Warning Surface Tile includes supply and placing of a Truncated Dome Detectable Warning Tactile Surface 2'x4' replaceable cast in place - Yellow Color and installation as per the Manufacture's Specifications.
2.0	PRODUCTS		
2.1	Materials	Delete 2.1.5.1 and	Hand-formed and hand-placed concrete:
		replace with the following	Slump: 80 mm Air entrainment: 5 to 8%. Maximum aggregate size: 20 mm. Minimum cement content: 335 kg/m3. Minimum 28 day compressive strength: 32 MPa.
		Add 2.1.7	Tactile warning surface tile shall be replaceable cast-in-place style. Truncated domes shall be in square grid pattern with a 5 mm nominal raised height, base diameter of 23 mm and top diameter of 11.5 mm. Dome spacing range shall be between 40 mm – 60 mm.
			Color of the panel shall be Federal Yellow (Y) per US Federal Standard 595B Table IV, Color No. 335.
			Minimum size of the panel shall be 600 mm by 1200 mm.
3.0	EXECUTION		
3.5	Concrete Placement	Delete 3.5.9 and replace with the following	The <i>Contractor</i> is responsible for adjusting all utility manhole frames and valve boxes, belonging to Coquitlam and/or other agencies that are affected by the road works. All adjustments to utilities must be completed to the satisfaction of the utility owner. Riser rings will not be accepted.
			The Contractor should note that certain utility owners may decide to complete their own adjustments. The Contractor will be required to

cooperate with any utility company providing their own adjustments.

The Contractor shall be responsible to contact the appropriate utility company within a minimum of seventy-two (72) hours of the work. No adjustment shall be made without the written approval of the utility company. All manholes must be vertically adjusted a minimum of twenty-four (24) hours prior to concrete placement.

SUPPLEMENTARY		SECTION 03 30 20S
CONTRACT		SS 15
SPECIFICATIONS	CONCRETE WALKS, CURBS AND GUTTERS	2021

3.9 Expansion Joints

Delete 3.9.1 and replace with the following

Form transverse expansion joints at both ends of curb returns and at maximum spacing of 9.0 m for sidewalks, 30.0 m of curb and gutter, at each end of driveway crossing, at tangent point of circular work, and on either side of catch basins.

2.0	PRODUCTS		
2.3	Pit Run Gravel	Add to 2.3.2	The use of recycled concrete shall be approved by the <i>Contract Administrator</i> and the City prior to use.
		Add 2.3.3	Asphalt millings free from contaminated and other extraneous material, conforming to the specified gradations may be used as pit run gravel. The use of asphalt millings shall be approved by the <i>Contract Administrator</i> and the City prior to use.
2.7	Granular Pipe Bedding and Surround Material	Add to 2.7.1	All recycled or other extraneous materials shall be approved by <i>Contract Administrator</i> and the City prior to use.
2.10	Granular Base	Delete 2.10.2	
		Add 2.10.3	All 25 mm minus granular base is to conform to the following

gradation specifications for Collector/Arterial Roads.

Sieve Designation (mm) Percent Passing (9)

Sieve Designation (mm)	Percent Passing (%)
25	100
19	80-100
12.5	75-90
9.5	50-85
4.75	35-70
2.36	25-50
1.18	15-35
0.30	5-20
0.075	0-5

Add 2.10.4

The intention of the Gradation Chart is to identify the desired mix of size of aggregate in the granular base. The Target Percentage Passing is the middle of the shown Range.

Tests that show sieve values of Percent Passing that are consistently low or consistently high in two (2) or more consecutive tests will be considered to be non-conforming.

2.11 Recycled Aggregate Material

Delete 2.11.1 and replace with the following

Aggregates containing recycled material may be utilized if approved by the Contract Administrator and the City. In addition to meeting all other conditions of the specifications, recycled material should not reduce the quality of the construction achievable with quarried materials. Recycled material shall consist only of aggregates, crushed portland cement concrete, or asphalt that is free of impurities.

SUPPLEMENTARY		SECTION 31 11 01S
CONTRACT		SS 17
SPECIFICATIONS	CLEARING AND GRUBBING	2021

1.4 Measurement and Payment

Delete 1.4.1 and replace with the following

Payment for all clearing and grubbing includes removal and disposal of all branches, stumps, timbers and vegetation to complete the work as shown on the Contract Drawings, as described in the Schedule of Quantities & Prices, or as directed by the Contract Administrator.

Add 1.4.3

Payment includes clearing of drainage ditches of vegetation, shrubs, and branches. rough grading and reoval of debris to provide clear path for unrestricted flow of water

SUPPLEMENTARY		SECTION 31 22 16S
CONTRACT		SS 18
SPECIFICATIONS	RESHAPING GRANULAR ROADBEDS	2021

1.4	Measurement and Payment	Delete 1.4.1 and replace with the following	Payment for reshaping existing roadbed, shoulders, and driveways, includes all spreading and grading of materials, adjustment of moisture content, compaction, boning and disposal of excess material offsite to establish the road cross-section as specified.
		Delete 1.4.2 and replace with the following	Payment for additional granular based material required for reshaping described above will be made under Section 32 11 23S Granular Base.
		Delete 1.4.3 and replace with the following	Payment for excavation of unsuitable materials including disposal off-site prior to reshaping granular roadbed will be made under Section 31 24 13 $-$ 1.8.10S Roadway Excavation, Embankment and Compaction.

1.8 Measurement and Payment

Delete 1.8.4 and replace with the following

Payment under this item will only apply to removal of the components included in this item under a separate operation as shown on the Contract Drawings or as directed by the Contractor Administrator. No payment will be made under this item for removal of these components as part of the operation for common excavation.

Payment will be made at the respective unit prices bid in the Schedule of Quantities and Prices and will include all labour, and equipment required to complete the work, including offsite disposal. It is the responsibility of the contractor to locate and verify all utilities.

Delete 1.8.5 and replace with the following

Payment for Common Excavation includes:

- Unless noted in the Schedule of Quantities and Prices as removal in square meters, common excavation will be measured in cubic metres calculated from measurements taken by the Contract Administrator in the areas of excavation (stripping inclusive).
- Cross-sections will be taken after clearing and grubbing and stripping of existing topsoil immediately prior to excavation of material to be incorporated into work.
- 3. Cross-section will be taken after excavation to deisgn elevation and prior to placement of fill.
- Where determined by the Contract Administrator that truck box volume will be used to determine excavation quantities, the table below will be used.

Truck Type	Material Type	Volume (cu.m)
Tandem	ordinary material	7
Tandem	asphalt/concrete/pipe	4
Triaxle	ordinary material	8
Triaxle	asphalt/concrete/pipe	5
Tandem and Pony	ordinary material	11
Tandem and Pony	asphalt/concrete/pipe	7.5
Triaxle and Pony	ordinary material	13
Triaxle and Pony	asphalt/concrete/pipe	9
Tandem and Transfer	ordinary material	19
Tandem and Transfer	asphalt/concrete/pipe	13

- Contractor to provide truck slips detailing location type of common excavation, time loaded and location of dump site. The slips are to be given to Contract Administrator by the end of shift or Contract Administrator can deny quantities subsequently submitted.
- Payment for on-site reuse includes grading, adjustment of moisture content and compaction of the reused material.

Payment will be made at the respective unit prices bid in the Schedule of Quantities and Prices and will include all labour, and equipment required to complete the work, including offsite disposal. It is the responsibility of the contractor to locate and verify all utilities.

SUPPLEMENTARY CONTRACT SPECIFICATIONS ROADWAY EXCAVATION, EMBANKMENT AND COMPACTION				31 24 13S SS 20 2021
2.0	PRODUCTS	Delete 1.8.10 and replace with the following	Payment for replacement of areas of unsuitable gra granular subbase or sub-grade revealed during proof include excavation with off-site disposal, supply & congranular base material (19 mm minus unless otherwise and all remedial work required to achieve a suitable bas with be based on the cubic metre volume removed.	rooling will mpaction of specified),
2.2	Specified Materials	Delete 2.2.1.3	Pit Run Sand	
		Delete 2.2.1.4	River Sand	
		Delete 2.2.2		

1.1 Related Work Add 1.1.3 Excavating, Trenching and Backfilling Section 31 23 01S
 1.4 Measurement and Add to 1.4.1 Payment includes all labor, material and equipm

Payment includes all labor, material and equipment required to complete the installation as shown on Contract Drawings and specified under this Section. Payment includes rip rap placement and keyed into place.

1.0 PRODUCTS

Payment

2.1 Materials Delete 2.1.2 and replace with the following

.2 and Graded Riprap:

.1 Size gradation for graded riprap.

	Rock Gradation		
Class of Riprap (kg)	(Percentage Smaller than Given Rock Mass, kg)		
	15%	50%	85%
10	1	10	30

Class of	Approximate Average Dimension (mm))
Riprap (kg)	15%	50%	85%	<100%
10	90	195	280	330

Maximum dimension of any riprap piece not to be more than 2.5 times its least dimension.

3.0 EXECUTION

3.2 Placement Add 3.2.8

Placement of riprap shall be done in a manner which maintains a well graded material and does not cause particular segregation, maintaining a minimum practical percentage of voids. Stones are not to be dropped from a height of more than 600mm to avoid damage / puncturing of underlying geotextile. The Contractor shall, at their own cost, repair or replace geotextile if the geotextile is deemed damaged / punctured due to placement of riprap, in the opinion of Contract Administrator.

The entire mass of the stones shall be placed in conformance with the grades and thickness shown on the plans, using small machinery to minimize disturbance. Material shall be placed to its minimum thickness in one operation in a manner to avoid displacement of underlying material. Placing material in layers or by dumping into chutes is not permitted. Rearranging of individual stones by small mechanical equipment may be required to the extent necessary to secure the results specified.

SUPPLEMENTARY		SECTION 32 01 16.7S
CONTRACT		SS 22
SPECIFICATIONS	COLD MILLING	2021

1.5 Measurement and Add 1.5.4 Payment

Payment for this item will be made for the depth specified in the Schedule of Quantities in the Form of Tender and is for the removal of existing asphalt, granular & native materials within the roadway to the depth specified, as detailed in the Contract Documents, regardless of removal method, as conditions of the existing asphalt pavement may or may not be suitable for removal by cold milling operations. If asphalt removal is done by excavation methods, there will be no common excavation quantity associated with the removal of granular to the removal depths indicated below design elevations.

Payment will be made for each square metre of asphalt removed, to the depths indicated in the Form of Tender, and includes the off-site disposal of all milled material. Payment includes mobilization, demobilization, demonstration milling test section, the cost of transport & disposal off-site, saw cutting, street sweeping or cleaning to allow for the placement of required thickness of asphaltic concrete. Saw cutting and milled key at project limits will be incidental under payment item 32 12 16 — Hot Mix Asphaltic Concrete Paving.

MILLING OF EXTENSIVE AREAS THAT CANNOT BE PAVED WITHIN 48 HOUR PERIOD (2 DAYS) WILL NOT BE PERMITTED.

No additional payment will be made for multiple passes or remobilization, as required, to mill to the depth(s) specified in the Schedule of Quantities in the Form of Tender.

No payment will be made for asphalt curbs, speed humps etc and this work will be considered as incidental work.

SUPPLEMENTARY CONTRACT SPECIFICATIONS			SECTION 32 11 16.1S
1.4	Measurement and Payment	Delete 1.4.1 and replace with the following	Measurement for granular subbase of variable thickness will be for actual quantity placed based on weigh tickets provided to Contract Administrator as loads are delivered.
		Delete 1.4.2 and replace with the following	Measurement for granular subbase for each specified thickness will be for the actual area placed.
		Delete 1.4.3 and replace with the following	Payment for Subsection 1.4.1 & 1.4.2 above includes supply placement and compaction of granular subbase material adjustment of moisture content, and boning to establish the road cross-section, shall be included in the unit price bid in the Schedule of Quantities and Prices.
		Delete 1.4.4 and replace with the following	Payment for removal of unsuitable subgrade including disposal offsite prior to direct placement of granular subbase will be made under Section 31 24 13 $-$ 1.8.10 Over excavation.
2.0	PRODUCTS		
2.1	Specified Materials	Delete	2.1.1.1: Select Granular Subbase2.1.1.2: 75 mm Pit Run Gravel2.1.1.4: Pit Run Sand2.1.1.5: Approved Native Material

2.1.1.7: River Sand

SPECIFICATIONS			GRANULAR BASE	2021
1.4	Measurement and Payment	Delete 1.4.1 and replace with the following	Measurement for granular base of variable thickness actual quantity placed based on weigh tickets provide Administrator as loads are delivered.	
		Delete 1.4.2 and replace with the following	Measurement for granular base for each specified thic for the actual area placed.	kness will be
		Delete 1.4.3 and replace with the following	Payment for Subsection 1.4.1 & 1.4.2 above included placement and compaction of granular base material adjustment of moisture content, and boning to establish cross-section, shall be included in the unit price bid in of Quantities and Prices.	, or pathway lish the road
		Delete 1.4.4 and replace with the following	Payment for removal of unsuitable subgrade including site prior to direct placement of granular subbase will be Section 31 24 13 – Clause 1.8.10.	
2.0	PRODUCTS			
2.1	Granular Base	Add 2.1.1.3	25 mm minus crushed gravel conforming to the specifications for Collector/Arterial Roads under Sect – 2.10.3.	-
3.0	EXECUTION			
3.5	Proof Rolling	Delete 3.5.1 and replace with the following	For proof rolling, use fully loaded single axle, to 80 KI minimum, dump truck.	l (18, 000 lb)
		Add 3.5.7	Prior to paving with asphalt concrete, the base sur checked by the <i>Contract Administrator</i> and the City, for utilizing a Benkelman Beam, in order to insure that the requirements can be obtained with the asphalt pave event that such deflection are in excess of those requires the final standards, than the base shall be adequately by additional gravel or asphalt concrete to insur deflections as follows are not exceeded.	or deflections final rebound ment. In the ed to produce strengthened
			The Benkelman spring rebound value of the complet surface shall not at any point exceed 0.75 mm for arteroads and lanes, 1.15 mm for collector roads, and 1.5 roads and lanes as determined in the procedures out an appropriation association of Canada publication Management Guide."	rial industrial mm for local itlined in the

END OF SECTION

SECTION 32 11 23S

SS 24

SUPPLEMENTARY

CONTRACT

SUPPLEMENTARY CONTRACT SPECIFICATIONS			SECTION 32 12 13.1S SS 25 ASPHALT TACK COAT 2021	
Payment work in			Pavement surface cleaning, as per section 32 01 11, and all othe work incidental to the application of tack coat is deemed to be included in the unit price bid for tack coat.	
3.0	EXECUTION			
3.2	Application	Add to 3.2.3	Asphalt tack coat to be applied using a truc unless otherwise approved by the <i>Contract A</i> City. Contractor shall demonstrate, to the <i>C</i> and the City, prior to application that a operational and providing a consistent application	Administrator and the contract Administrator II spray nozzles are

1.0 **GENERAL** 1.4 Submission of Mix Delete 1.4.1 and Submit asphalt concrete mix design, including RAP content and trial Design replace with the mix test results to Contract Administrator for review at least two following weeks prior to commencing work. 1.5 Measurement and Delete 1.5.1 and Payment for asphaltic concrete paving includes all construction joint **Payment** replace with the preparation, asphaltic surface milling to tie into existing asphalt, saw following cutting, supply and placing of the asphaltic concrete, compaction and cleaning frames, covers and lids of castings affected and taped temporary pavement markings. Measurement for asphaltic concrete paving for the specified design

mixes will be made at the respective unit prices bid in the Schedule of Quantities and Prices and incorporated into Work will be asphalt concrete actually based on weigh tickets provided to the Contract Administrator as loads are delivered.

The contractor will not receive any additional compensation above the respective unit prices bid in the Schedule of Quantities and Prices for Hand Work, Special Equipment & Machinery to complete the Hot Mix Asphaltic Paving Work as shown on the Contract Drawings or as directed by the Contract Administrator.

For measurement and payment purposes, Contract Administrator may calculate payment on actual area paved to the thickness specified in in the Schedule of Quantities and Prices and as shown on the Contract Drawings.

Delete 1.5.3 and replace with the following

Payment for asphaltic concrete sidewalks, pathways, driveways, and infill strips paving includes all construction joint preparation, saw cutting, supply and placing of the asphaltic concrete, compaction and cleaning frames, covers and lids of castings affected.

Measurement for asphaltic concrete paving for the specified design mixes for will be made at the respective unit prices bid in the Schedule of Quantities and Prices and incorporated into Work will be asphalt concrete actually based on weigh tickets provided to the Contract Administrator as loads are delivered.

Payment for this item includes all applicable materials and work described in 1.5.1. Work includes all necessary adjustments on site during construction to achieve proper tie-in to existing driveways as directed by Contract Administrator. Adjustments performed under this section shall be incidental to payment for work described in other Sections.

Delete 1.5.4 and replace with the following

Payment for extruded 50mm or 150mm asphalt concrete curb, 25mm depth at driveway crossings, will include asphaltic concrete, all preparatory & construction preparation, pavement cleaning, milling key, tack coat and placing by extrusion.

The Contractor is responsible for the protection of the newly placed curb until it can accept vehicle traffic, the contractor will not receive any compensation for protecting the curb and the Contract Administrator may reject any curb that is not protected and damaged.

SPECIFICATIONS		HOT-MIX ASPHALT CONCRETE PAVING		2021
			Payment for this item includes all applicable materials described in 1.5.1.	s and work
1.6	Inspection and Testing	Add 1.6.3	Test cores will be taken by the <i>Contract Administrator</i> in new paving and will include cores along construction join compliance with the required design and compaction.	
2.0	PRODUCTS			
2.1	Materials	Add 2.1.2.1	Usage of recycled asphalt shingles will not be permitted.	
		Add 2.1.2.2	Usage of softening agents, rejuvenators, or recycling age be permitted.	ents will not
2.2	Mix Design	Delete 2.2.2 and replace with the following	Mix may contain up to a maximum of 15 % by mass of RAP Course Asphalt and 20 % by mass of RAP for Lower Couwithout a special mix design. The <i>Contract Administra</i> City may approve higher proportion of RAP if demonstrates ability to produce mix meeting requirem specification.	tor and the Contractor
		Delete 2.2.3.2 Marshall Stability and replace with the following	Marshall Stability at 60°C for both lower and upper cours KN min.	ses to be 10
3.0	EXECUTION			
3.3	Preparation	Delete 3.3.3 and replace with the following	The <i>Contractor</i> is responsible for adjusting all utility mand and valve boxes, belonging to Coquitlam and/or other agare affected by the road works. All adjustments to utilit completed to the satisfaction of the utility owner. Utility within the paved surface will be considered incidental tunless otherwise noted in the <i>Contract Documents</i> .	gencies that ies must be adjustment
			The <i>Contractor</i> should note that certain utility owners may complete their own adjustments. The <i>Contractor</i> will be cooperate with any utility company providing adjustments.	required to
			The <i>Contractor</i> shall be responsible to contact the appropropropropropropropropropropropropro	of the work.
			All manholes must be vertically adjusted a minimum of to (24) hours prior to paving. The use of riser rings for manhole frames and value boxes will not be permitted.	
3.7	Joints	Delete 3.7.5 and replace with the following	Construct butt joints at locations as shown on the <i>Control</i> and as directed in the field by the <i>Contract Administra</i> City.	_

END OF SECTION

SECTION 32 12 16S

SUPPLEMENTARY

CONTRACT

1.0 GENERAL

1.0 General Requirements

Delete 1.0.1 and replace with the following

.1 Section 32 91 21 refers to those portions of the Works that are unique to the supply, placement and finish grading of Growing Medium. This section must be referenced to and interpreted simultaneously with all other sections pertinent to the Works described herein.

For the purpose of this specification, the term "Growing Medium" shall mean a soil produced offsite by homogeneous blending of mineral particulates, micro-organisms and organic matter which provides suitable medium for supporting intended plant growth and the term "Topsoil" shall mean onsite native or surface soil material which may be used as Growing Medium provided it meets standards set for imported material Growing Medium and can be modified to meet the requirements set out for specified Growing Medium.

Add 1.0.3

.3 For the purpose of this specification, the term 'Soil-Testing Laboratory' shall mean an independent laboratory, recognized by the landscape nursery industry, with the experience and capability to conduct the testing indicated and that specializes in types of tests to be performed.

1.4 Measurement and Payment

Delete 1.4.1 and replace with the following

Payment for all work performed under this Section will be incidental to payment for work described in other Sections unless shown otherwise in the Schedule of Quantities and Prices. Payment includes supply and installation of growing medium, boulevard tree trench and imported top soil that is free from any noxious weeds, fungal growth, mushroom, and any contaminants. Payment will be made separately and includes supply of material, on-site handling, preparing the landscape area subgrade, placing, grading, raking, compacting top soil and application of fertilizers. Payment for top soil will be for actual volume placed onsite at specified thickness.

1.5 Inspection and Testing

Delete 1.5 and replace with the following

- 1 The Contractor is responsible for testing imported Growing Medium and all related cost incurred. Testing shall be carried out by an approved Soil Testing Laboratory.
- The sample analysis shall be of tests done on the proposed Growing Medium from samples taken at the supply source within a minimum of 14 days in advance of Growing Medium placement. Allow 7 days for soil testing by the laboratory for each sample. The sample shall be picked up by the Soil Testing Laboratory from the supply source. The Growing Medium sample shall be a composite of at least three (3) samplings for the proposed source and shall be at least one (1) litre in volume.
- .3 Forward a copy of all test results directly to the Contract Administrator and the City for review. The analysis shall outline the testing laboratory's required amendments such as sand, organic matter, fertilizers and lime to achieve adequate growing conditions.
- .4 The Contractor shall not deliver any Growing Medium to the site until the test results have been reviewed and approved by the Contract Administrator and the City.

- .5 All submitted soil analysis must be dated and include supplier name and phone number, project location and submitted to Contract Administrator and the City for approval prior to commencing work. Soil analysis shall include measurements of:
 - .1 Percent sand, fines, silt and clay
 - .2 Organic matter to 100%
 - .3 pH, acidifying additive required to achieve noted herein
 - .4 Water soluble salts
 - .5 Total carbon to nitrogen ration
 - .6 Total nitrogen and available levels of phosphorus, potassium, calcium & magnesium
- .6 At the discretion of the *Contract Administrator* and the City submit up to two (2) additional samples, at intervals outlined by the *Contract Administrator* and the City, of *Growing Medium* taken from material delivered to the site. Samples shall be taken form a minimum of three (3) random locations and mixed to create a single uniform sample of testing. Results of these tests shall be forwarded to the *Contract Administrator* and the City for review.
- .7 The Contractor is responsible for soil analysis and requirements for amendments to supply Growing Medium as specified. Failure to satisfy these contractual requirements could result in the Contractor being required to remove unacceptable Growing Medium at their expense.
- .8 Notify the Contract Administrator at least forty-eight (48) hours prior to Growing Medium placement for inspection.
- .9 Refer to General Conditions, Clause 4.12 Tests and Inspections.
- .1 All materials to be handled and adequately protected to prevent damage. Do not handle *Growing Medium* in an excessively wet, extremely dry, frozen condition or in any manner in which structure may be adversely affected. *Growing Medium* whose structure has been damaged by handling under these conditions shall be rejected and shall be replaced by the *Contractor* at their expense.
- .2 Stockpile materials in bulk form in paved areas or in preapproved areas of the site. Provide additional protection of storage under roof or tarpaulins.
- .3 Take all precautions to prevent contamination of Growing Medium and amendments from windblown soil particles, weed seeds and from insects. Contamination of the Growing Medium and amendments may result in their rejection for use.
- .4 Store fertilizer and chemical amendments in the manufacturer's original containers.
- .5 All *Growing Medium* shall be delivered to site <u>premixed</u> from a recognized *Growing Medium* source ensuring consistency throughout the mix.

2.0 PRODUCTS Delete 2.0 and replace with the following 2.1 Materials

.1 Growing Medium Preparation

- .1 Shall be prepared from Compost Material with Sand and other Soil Amendments as required to meet the specifications herein.
- .2 Ensure commercial processing and mixing of Growing Medium components are done thoroughly by a mechanized screening process. Do not mix the

These Supplementary Contract Specifications must be read in conjunction with the Specifications contained in the Master Municipal Construction Documents, Volume II, Printed 2009 and the City of Coquitlam Supplementary Specifications and Detailed Drawings

1.6

Product Handling

Add 1.6

components by hand. Ensure the resulting product is a homogeneous mixture having the required properties throughout free of stones 25 mm or larger in any dimension, woody plant parts, toxic materials, foreign object and other extraneous materials harmful to plant growth. Provide composted soil free from crabgrass, couch grass, equisetum, convolvulus, or other noxious weeds or seed or parts thereof.

.2 Inorganic Soil Amendments

.1 Sand: Imported pit sand or river pump sand, free of impurities, chemicals, horsetails, and other noxious weeds. The saturation extract electrical conductivity of salinity shall not be greater than 3.0 millimhos/cm at 25 degrees C.

Sieve Size (mm)	Percent passing (%)
4.75	95-100
0.50	0-40
0.050	0-5

- .2 Fertilizers: Uniform in composition, free flowing and dry, granular, pill form, or pelleted commercial product with 50% of total nitrogen (if applicable) derived from natural organic material in a slowly available form delivered in unopened water proof containers with the manufacturer's guaranteed N-P-K analysis, type and trade name attached to each container. The planting soil test results will specify a formulation and application rate to achieve the levels of nitrogen, phosphorous and potassium required. Fertilizer to meet the requirements of the Canada Fertilizer Act.
 - .1 Lime: ASTM C 602, agricultural limestone containing a minimum 80 percent calcium carbonate equivalent and as follows:
 - .1 Class: Class T, with a minimum 99 percent passing through No. 8 (2.36 mm) sieve and a minimum 75 percent passing through No. 60 (0.25 mm) sieve.
 - .2 Provide lime in form of dolomitic limestone.
- .3 <u>Perlite:</u> Horticultural perlite, soil amendment grade.

.3 Organic Soil Amendments

- .1 Compost: Well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight; 100 percent passing through 25 mm sieve; soluble salt content of 5 to 10 decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings; and as follows:
 - .1 Organic Matter Content: 50 to 60 percent of dry weight containing no cedar, redwood, wood or bark.
 - .2 Colour: dark brown to black in colour.

.2 <u>Peat:</u>

.1 Finely divided or granular texture, with a pH range of 6 to 7.5, containing partially decomposed moss peat, native peat, or reed-sedge peat and having a waterabsorbing capacity of 1100 to 2000 percent.

Wood Residual

Content of wood residuals such as Fir or Hemlock sawdust present in the Growing Medium shall not cause the total carbon to total Nitrogen ration to exceed 40:1.

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Cedar or redwood sawdust shall not be present in Growing Medium.

Manure

- .1 Well-rotted, unleached, stable or cattle manure containing not more than 25 percent by volume of straw, sawdust, or other bedding materials; free of toxic substances, stones, sticks, soil, weed seed, and material harmful to plant growth and free from salt or other harmful chemicals, such as any used to artificially hasten decomposition.
- .2 All particles in manure to pass a 6.35 mmm sieve.
- Salt content shall give a reading of less than 0.5 millimhos/cm at 25 degrees C.

2.2 Nutrient Requirements

- Nutrient requirements shall meet the BCSLA/BCNTA Landscape Standard Growing Medium requirements for nitrogen, phosphorus, potassium, calcium, magnesium, boron, sodium cation exchange capacity, carbon to nitrogen ratio.
 - Boron: not to exceed 1.0ppm
 - .2 Sodium: Sodium absorption ratio(SAR) not to exceed 8.0
 - .3 Total Nitrogen: to be 0.2-0.4% by weight
 - .4 Available Phosphorous: to be 50-100 ppm
 - .5 Available Potassium: to be 50-70 ppm
 - .6 Cation Exchange Capacity: to be 30 to 50 meq.
 - Carbon to nitrogen ratio: Maximum 40:1.

2.3 Salinity

The electrical conductivity of the liquid taken from the soil pH evaluation shall not exceed 3.0 millimhos/cm at 25 degrees C before additions of fertilizers and/or liming agents.

2.4 **Drainage Rate**

Percolation shall be such that mixing, handling and placement to be done in such a manner that the minimum saturated hydraulic conductivity show on Table - 'Growing Medium Properties for Different Applications' (found herein these specifications) is achieved and no standing water is visible 60 minutes after at least 10 minutes of moderate to heavy rain or irrigation.

2.5 **Growing Medium** Source

- Import planting medium or manufactured planting medium from off-site sources. Do not obtain from agricultural land, bogs or marshes.
- Supplier of Growing Medium shall be as per the Coquitlam .2 Approved Products List.

2.6 **Bark Mulch**

- Mulch backfilled surfaces of planting beds and other areas indicated on drawings.
 - .1 Organic Mulch: Apply 50 mm average thickness of organic mulch, and finish level with adjacent Finish Grades. Do not place mulch against plant stems.
- .2 Supplier of Bark Mulch shall be as per the Coquitlam Approved
- .3 Dark brown in colour and free of all soil, stones, roots or other extraneous matter, and free of weeds, seeds and spores.

These Supplementary Contract Specifications must be read in conjunction with the Specifications contained in the Master Municipal Construction Documents, Volume II, Printed 2009 and the City of Coquitlam Supplementary Specifications and Detailed Drawings

2.7 Growing Medium Properties for Different Applications

Properties	Low Traffic Lawn Areas, Trees and Large Shrubs	High Traffic Lawn Areas	Planting Areas, Planters Shrubs & Groundcover	
Texture: Particle size classes by Canadian System of Soil Classification	Percent of Dry Weight Mineral Fraction (%)			
Gravel (greater than 2 mm less than 75 mm)	0-10	0	0	
Sand (greater than 0.05 mm and less than 2 mm)	50-70	80-90	50-70	
Silt (larger than 0.002 mm and less than 0.5 mm)	10-30	5-20	10-30	
Clay (less than 0.002 mm)	7-20	2-5	7-20	
Organic Content Percent of Dry Weight	5-10	3-5	25-30	
Drainage Minimum saturated hydraulic conductivity (cm/hr) in place	2.0	7.0	2.0	
Acidity (pH)	6.0-6.5	6.0-6.5	5.0-6.0	

2.8 Miscellaneous Products

- .1 Root Barrier: 400x610 mm linear root barrier, copolymer polypropylene, 50% recycled plastic, black in colour. Supplier of Root Barrier shall be as per the Coquitlam Approved Products List.
- .2 Construction Adhesive shall be as per the Coquitlam Approved Products List.
- .3 Drain Mat: Light duty, uv stable, impermeable cuspated core bonded to a layer of non-woven filter fabric with the following minimum properties:
 - .1 Compressive Strength -718 kN/m2 as per ASTM D-1621
 - .2 Flow Rate 188 l/min/Metre as per ASTM D-4716
 - .3 Approximate profile thickness of 10 mm.
 - .4 Supplier of Drain Mat shall be as per the Coquitlam Approved Products List.
- .4 Filter Fabric: Install root barriers in accordance with manufacturer's reviewed installation instructions where indicated on reviewed drawings with vertical root directing ribs facing inwards towards trees or plants; connect panels together as required.
 - Supplier of Filter Fabric shall be as per the Coquitlam Approved Products List.
- .5 Drain Rock: Shall consist of clean round stone or crushed rock. Acceptable material includes 19 mm drain rock or torpedo gravel conforming to the following gradations.

	Percent Passing				
Sieve Designation	Coarse	Fine (Torpedo gravel)			
25 mm	100				
19 mm	0-100				
9.5 mm	0-5	100			
4.75 mm	0	50-100			
2.36 mm		10-35			
1.18 mm		5-15			
0.60 mm		0-8			
0.30 mm		0-5			
0.15 mm		0-2			

2.9 Structural Soil

- .1 Soil stabilizer shall be friable, containing a minimum of 4% and maximum of 6% organic matter by dry weight, free from stones and debris over 30 mm. Acidity (ph.) shall be in the range 5.5-7.5. Carbon to nitrogen ratio shall not exceed 40:1, and salinity shall not exceed 3.0 milliohms at 25 deg C. Gravel greater than 2 mm shall not exceed 10% of total weight.
- .2 Supplier of Structural Soil shall be as per the Coquitlam Approved Products List.
- .3 *Growing Medium* to be a gap-graded mixture.

.4	Texture of Growing Media mixture	Percentage of
	Gravel: greater than 2 mm-less than 75 mm	0%
	Sand: greater than 0.0 5mm-less than 2 mm	max 60%
	Silt: greater than 0.002-less than 0.0 5mm	max 35%
	Clay: less than 0.002mm	max 15%
	Clay and silt combined	max 40%
	Acidity (pH)	6.0-7.0
	Drainage: minimum saturated hydraulic	3.0
	Conductivity (cm/hr) in place	
	Salinity: saturated extract conductivity	
	shall not exceed	3.0 milliohms/cm
	at 25 deg C.	
	Organic content: percent of dry weight	8-12%

- 5 Stone ballast: Clean inert stone of high angularity is preferred over washed gravel. Stone dimension aspect ratio should be 1:1:1 with a maximum 2:1:1 length: width: depth. Single size stone, 60 mm-75 mm clear sieve designation: Blasted Quarry Rock. Aggregate to be used for structural soil shall be free of any foreign elements or material.
- .6 Structural Geotextile

Shall be installed as a structural filter layer directly above the compacted structural soil mixture. Do not install fabric until adequate compaction of the structural soil mixture has been confirmed. Filter fabric shall be selected and deigned to withstand wear and tear during construction without deterioration of its strength and filtering properties.

- .1 Supplier of Geotextile shall be as per the Coquitlam Approved Products List.
- .7 Ground dolomite limestone containing no less than 85% of its total weight as calcium carbonate and magnesium carbonate

shall be used to control ph level. The degree of grind for the limestone shall allow 100% of the total weight to pass a #10 (2 mm) sieve, 90% to pass a #18 (1 mm) sieve and 20% to pass a #40 (0.105 mm) sieve. Spread-easy fertilizer shall be used as a slow release fertilizer source of calcium and magnesium.

.8 Mixing of structural soil:

Blend as per following ratios:

- .1 5 metric tones (MT) of aggregate
- .2 1 cubic meter of growing media
- .3 2 kg soil stabilizer
- .9 Moisten mixture with fine spray of clean potable water while mixing to activate soil stabilizer product. Do not over mix. Place mixture in 300 mm lifts through entire area of structural soil mixture. Compact each lift to 95% MPD prior to placement of next lift. Install filter fabric such to ensure a minimum of 60 cm overlap of all fabric seams and beyond edge of structural soil.

3.0 EXECUTION

3.2 Preparation of Subgrade

Delete 3.2.4 and replace with the following

Remove debris, roots, branches, stones in excess of 50 mm diameter and other deleterious materials, soil contaminated with calcium chloride, toxic materials and petroleum products, and debris which protrudes more than 25 mm above the surface. Dispose of all removed material off site to approved offsite disposal area at no additional cost to the *Owner*.

Delete 3.2.5 and replace with the following

Course cultivate entire area which is to receive *Growing Medium* to depth of 250mm. Cross cultivate those areas where equipment used for hauling and spreading has compacted soil.

Add 3.2.6

Grade transitions shall be smooth and even and shall blend into surrounding areas as determined by the *Contract Administrator* and the City.

Add 3.2.7

Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

3.3 Processing Growing Medium

Add 3.3.4

Growing Medium shall be imported and stockpiled on site in a location approved by the Contract Administrator and the City.

- .1 Carry out stock piling operation such that the *Growing Medium* structure is not compromised through compaction, vibration or other actions.
- .2 Stock piled Growing Medium shall be protected from rain, drying and contaminants.
- .3 Growing Medium shall be free of subsoil, pests, roots, wood, construction debris, undesirable grasses including crabgrass or couch grass, noxious or weeds and weed seeds or parts thereof foreign objects and toxic materials. Presence of these contaminates shall be grounds for rejection of Growing Medium and replacement at no cost to the Owner.

3.4 Placing Growing Medium

Delete 3.4.2 and replace with the following

Place *Growing Medium* to the required finished grades with adequate moisture, in uniform lifts of 100 mm to 150 mm compacted to 80 MPD during dry weather, over dry, unfrozen *Sub Grade* where planting is indicated free of any standing water.

SUPPLEMENTARY CONTRACT SPECIFICATIONS		SECTION 32 91 21S SS 35 TOP SOIL AND FINISH GRADING 2021		
		Delete 3.4.5 and replace with the following Add 3.4.6	Minimum depths after settlement and 80% compaction: .1 Trees pits: 900 mm .2 Shrub beds: 450 mm .3 Ground cover areas: 300 mm .4 Lawn areas: 300 mm .5 Blvd. areas: 150 mm Increase sand content to 90% in the planting soil below lawns where heavy wear by pedestrians or maintenance equipment is anticipated Increase sand content in a 1.5m wide strip at the bottom of swales, banks or other wet areas and as directed by the Landscape Architec On steep south or west facing banks, reduce sand content in lawns and planting beds to 50 - 60% for better moisture retention.	
3.5	Applying Fertilizers	Delete 3.5 and replace with the following	 Addition of amendment components shall be at the rates indicated in the <i>Growing Medium</i> analysis recommendations with following methods: 1 Lime: Applied with mechanical spreaders over entire planting areas and contained planters. .1 Do not apply by hand. .2 Mix thoroughly into the top 100 mm of <i>Growing Medium</i>. .3 Do not allow lime to come into direct contact with nitrogen - phosphate - potash fertilizers. .2 Fertilizer: Applied with mechanical spreaders over entire planting areas and contained planters. Do not apply by hand. Do not mix into <i>Growing Medium</i>. 	
3.6	Finish Grading	Delete 3.6.1 and replace with the following	Manually fine grade <i>Growing Medium</i> installation to contours and elevations shown on drawings or as directed by <i>Contract Administrator</i> and the City. Eliminate rough spots and low areas to ensure positive drainage.	
		Add 3.6.3	Finish Grade of Growing Medium shall be 25 mm from finished elevation of adjacent curb or planter wall unless otherwise noted or drawings.	

removed.

Medium.

starting weed removal operations.

Refer to 2.9 in this specification and as shown on the Contract Drawings.

END OF SECTION

Ensure all paved areas, tops of planters, adjacent surfaces have

been thoroughly cleaned. Ensure all discoloration of adjacent surfaces as a result of *Growing Medium* installation have been

Dispose of materials not required and repair any damage to adjacent surfaces (as determined by the *Contract Administrator*

Ensure all weeds and weed roots that have germinated during the

course of work of this section have been eliminated from Growing

Provide the City Representative and Consultant with a written outline of weed removal methodology seven (7) days prior to

and the City) off site at no additional cost to the Owner.

.1

.2

.1

3.9

3.10

3.11

Clean-up

Weed Control

Structural Soil

Delete 3.9 and add

the following

Add 3.10

Add 3.11

SUPPLEMENTARY CONTRACT				SECTION 32 92 23S SS 36
SPECIFICA		SODDING		
1.0	GENERAL	Delete 1.0.2 and replace with the following	and the	tion is based on the "British Columbia Landscape Standards B.C. Nursery Trades Association. This standard is intended to el of quality which is equalled or bettered in the construction ints.
1.4	Handling and Storage	Delete 1.4.3 and replace with the following		e sod deliveries such that sod installation occurs within our (24) hours of being lifted from the source sod farm.
		Delete 1.4.4 and replace with the following		be neatly stacked or rolled at the source sod farm, delivered aded on sturdy pallets which are no more than 3 pallets high.
1.5	Drainage Control	Delete 1.5.1 and replace with the following	work of erosion of as their a become	for proper water management and drainage of site during this section. Water management shall include silt traps, control measures, temporary water collection ditches, as well adequate maintenance to ensure that storm water which may laden with soil, growing medium or hydraulic seed is detained ned prior to discharge from <i>Place of Work</i> .
1.6	Samples	Add 1.6.2	the City	one (1) square meter of sod to the <i>Contract Administrator</i> and for review. Ensure sample is complete with name of sod farm, type, seed mix percentage.
		Add 1.6.3	approva	Administrator and the City shall review sod sample for prior to installation. The sample accepted by the review will standard by which the project will be supplied.
		Add 1.6.4	during the Contract shall be sample a	the <i>Contractor</i> require the source of sod supply to change the construction a written request must be provided to the <i>Administrator</i> and the City 48 hours in advance. The request followed up by submission of proposed sod substitution and include the name of sod farm, base soil type, seed mix ge for <i>Contract Administrator</i> and the City review prior to the
1.8	Measurement and Payment	Delete 1.8.1 and replace with the following	to paym otherwis nursery Contract grass ma	for all work performed under this Section will be incidental tent for work described in other Sections unless shown e in the Schedule of Quantities and Prices. Payment for sod includes supply and placing of sod as shown on the Drawings or as directed by the Contract Administrator and intenance to meet Conditions of Total Performance. Payment protection from damage caused by any living creature.
2.0	PRODUCTS		includes	protection from dumage caused by any living creature.
2.1	Sod	Delete 2.1.1 and replace with the following	be nurse Sod Grov be qualit	e approved by the <i>Contract Administrator</i> and the City and to cry grown, true to type, conforming to standards of nursery evers' Association and their Nursery Sod Specifications. Sod to cry, cultured turf grass grown from seed approved by Canada ent of Agriculture, free of disease, clovers, stones, pests and
		Add 2.1.1.1	Nursery .1	sod: Shall be No. 1 Premium grade and contain only species of grass indicated on the supplier's certificate. Sod shall be 'non-netted'

		Add 2.1.1.2	Table Guideline of Approved Sod Mix Ratios
			Supreme Soil Base Sod
			(Elka II) Perennial Ryegrass 40%
			(Shamrock) Kentucky Bluegrass 30%
			(Cindy) Chewing Red Fescue 30%
			Seed Rate:
			50g per square metre
		Add 2.1.8	All sod shall be completely free of invasive and/or noxious broadleaf weeds, grasses including but not limited to poa annua, disease, fungi, detrimental nematodes and detrimental insects.
2.2	Water	Delete 2.2.1 and replace with the following	Potable, free of impurities that would inhibit seed germination. Contractor to ensure adequate water is available to maintain seeded areas during germination and in a vigorously growing, healthy state until Total Performance of work of this section.
2.3	Fertilizer	Add 2.3.2	Fertilizer shall be complete synthetic slow release fertilizer. Type and application shall be as required by the growing medium analysis report.
2.4	Wooden Pegs	Add 2.4	.1 Wooden Pegs shall be 19 mm x 19 mm x 150 mm long No. 1 grade or better Hem/fir.
2.5	Binder Twine	Add 2.5	.1 Binder Twine shall be hemp based multiple strand string.
2.6	Flagging Tape	Add 2.6	.1 Flagging Tape shall be 30 mm wide, biodegradable ribbon tape made of non-woven cellulosic material, and red color, or an approved equivalent.
3.0	EXECUTION		
3.1	Finish Grade Preparation	Delete 3.1.2 and replace with the following	Prior to the placement of sod <i>Contract Administrator</i> and the City to review and direct minor adjustments and refinements of finish grades prior to the <i>Contractor</i> proceeding. Review includes grades, growing medium depth and condition of finished surface. Subsequent to the <i>Contract Administrator</i> and the City review the <i>Contractor</i> shall regrade, add growing medium and make adjustments as directed by <i>Contract Administrator</i> and the City.
		Delete 3.1.5 and replace with the following	Fine grade growing medium to lines and levels shown on Contract Drawings. Ensure that all low spots, humps and irregularities are eliminated prior to review by <i>Contract Administrator</i> and the City.
3.2	Sodding	Delete 3.2 and replace with the following	.1 Sod shall not be placed during hot dry summer periods, at freezing temperatures, or over frozen growing medium.
			.2 Allow sod to dry sufficiently during wet weather to prevent tearing during lifting and handling.
			.3 Handle sod carefully to minimize tearing and dropping of soil.
			.4 Placement of Sod: .1 Lay sod in rows smooth and flush to adjoining grass areas

and paving and top surfaces of curbs unless shown otherwise on *Contract Drawing*. Ensure there is a full roll width between the new sod and any adjoining surfaces. Small cut pieces from a full roll will not be accepted.

- .2 Stagger joints and ensure that sod sections are butted closely together without overlapping or leaving gaps between sections.
- .3 Cut out irregular or thin sections with a sharp knife.
- .4 Cut sod to fit tight around landscape elements.
- .5 Cut sod to create clean, smooth lines along all plant beds.

.5 Placement of Sod on Slopes:

- .1 Lay sod with the length of each sod section parallel to slope taking extra care to ensure that sod sections are butt tight and each sod section is set in a staggered formation.
- .2 On slopes exceeding 3:1 gradient ensure sod is secured with wooden pegs at intervals of not more than 450 mm along the center of each section. Ensure wooden pegs are driven flush with the sod.
- .3 Prior to acceptance of sod areas that have been secured with wooden pegs either remove the wooden pegs or drive each wooden peg at least 50 mm below finished grade.
- .4 Where required, place erosion control mesh or netting and secure with stakes or staples sunk firmly into ground to a minimum depth of 150 mm at maximum intervals of 4 meters along pitch of slope. Place stakes or staples horizontally across slope at intervals equal to width of mesh or netting minus 150 mm and drive flush with top of sod.
- .6 Use a light roller to ensure that there is full, close contact between sod and growing medium. Use of a heavy roller to correct irregularities in grade is not permitted.
- .7 Ensure all sodded areas are watered immediately after installation. Verify that water applied to has penetrated through sod into top 100 mm of growing medium. Continue watering operations as needed to ensure that adequate moisture content is maintain to encourage deep root growth and healthy, vigorous leaf growth.
- .8 Protect newly placed sod from heavy foot traffic during installation and until acceptance by the Contract Administrator and the City. Protection shall include but is not limited to placement of wood planks or plywood of sufficient thickness to bear the imposed weight and prevent damage to sod or displacement and/or compaction of sod/growing medium.
- .9 Sod that has been damaged by construction operation, construction / site personnel or construction traffic shall be replaced at no cost to the *Owner*. Replacement shall include removal of growing medium, regarding of sub grade, replacing growing medium and sod as required.
- .10 Water sod area immediately with sufficient amounts to saturate sod and upper 100 mm of growing medium. Do not allow the sod to dry out so that the joints become visible.

3.4 Grass Maintenance

Delete 3.4 and replace with the following

.1 Maintenance of sodded areas shall begin immediately after sodded operation and shall continue until all deficiencies noted in the Substantial Performance review have been rectified to the satisfaction of the Contract Administrator and the City and conditions for Total Performance have been achieved. The Contractor is to notify the Contract Administrator and the City in

- writing forty eight hours (48) prior to stopping maintenance operations.
- .2 Sod Cutting: After the 'first' cut of sodded lawn areas cutting operations shall be carried out on a weekly (seven day) basis until Total Performance by Contract Administrator and the City:
 - .1 First cut of sodded lawn areas shall occur when a uniform grass height of 75 mm has been attained. First cut shall be to a height of 65 mm.
 - .2 Continue regular weekly cutting at a height of 65 mm until *Total Performance*.
 - .3 Cutting operations shall be such that each cut is at right angles to the previous cut.
 - .4 Contractor to remove grass clippings after each cut and dispose of offsite.
 - .5 Roll when required to remove any minor depressions or irregularities.
 - .6 Immediately repair seeded areas that show deterioration or bare spots. Top-dress all areas showing shrinkage due to lack of watering and seed with seed mix that matches the original seed mix.
- .3 Fertilizer analysis shall conform to recommendations provided with growing medium analysis. Application of fertilizer shall follow manufacturers' recommendations noting that after October 1 lawn areas shall not be fertilized until April 15th of the following spring.
- .4 Sodded lawn areas shall be kept free of invasive and/or noxious broadleaf weeds, grasses including but not limited to poa annua, disease, fungi, detrimental nematodes and detrimental insects.
- .5 All maintenance equipment and practices are to conform to the BC Landscape Standard Level 2 'Groomed'.
- .6 Protect all sodded areas against trespassing and from damage at all times clearly marked, staked, string and flagging tape.
 - .1 Perimeter Protection: Where directed by the Contract Administrator and the City, sodded areas shall be surrounded by a 900 mm high barrier made up of the following components:
 - .1 Wood posts placed at 1.8 meters on centre.
 - .2 Wood Posts to be driven to a depth of 300mm.
 - .3 String two (2) strands of hemp based binder twine (or equal product) between posts. Insure one full wrap of twine around each post.
 - .4 Tie 300 mm strands of 'red' flagging tape at 450 mm intervals along the entire length of both strands of twine.
 - .5 Maintain perimeter protection until Total Performance issued. Upon acceptance by Contract Administrator and the City, remove perimeter fence and dispose of off site.

3.5 Condition for Total Performance

Delete 3.5.1 and replace with the following

Conditions for *Total Performance* of Sodded areas:

- .1 Sodded areas exhibit fully established root systems.
- .2 No seams are visible between sod sections.
- .3 Sod areas are smooth and evenly graded. No depressions, foot marks or vehicle tracks.

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- .4 Sod is free of bare and dead spots and does not have any broadleaf weeds, noxious grasses including but not limited to poa annua.
- .5 No surface growing medium is visible when grass has been cut to height of 65 mm.
- .6 Sodded areas have been cut a minimum of two (2) times, at seven (7) day intervals.
- .7 Sodded areas are a uniform green colour with no discoloured sections or patches.
- .8 Sodded areas exhibit a thick, dense, uniform and healthy appearance.

Add 3.5.2

Lawns sodded after September 30th will be not be reviewed for *Total Performance* until April 30th the next year.

3.6 Guarantee / Maintenance

Delete 3.6.1 and replace with the following

The Contractor hereby guarantees that the sod will remain free of weeds and defects for a period of one (1) year from the date of Substantial Performance. The Contractor shall make all corrections, adjustments and replacements required as a result of failure of all products in this section. During the Maintenance Period, the Contractor will replace sodded areas, determined by Contract Administrator and the City, to be dead or failing at the end of the Maintenance Period. Replacements to be made at next appropriate season and, conditions of guarantee will apply to all replacement seeding for one full growing season.

Delete 3.6.2 and replace with the following

The Owner reserves the right to extend the *Contractor's Maintenance Period* and responsibilities for one (1) additional year if, at end of the initial guarantee period, the development and growth of the sod is not sufficient to ensure future survival.

1.6 Measurement and Payment

Delete 1.6.1 and replace with the following

Delete 1.6.2 and replace with the following

Payment for storm sewer will be made at the unit price bid for storm sewer (regardless of depth) consistent with pipe materials, diameters and backfill requirements shown on the Contract Drawings and described under individual payment items in the Schedule of Quantities.

Payment for storm sewers includes trench excavation, dewatering, bypass pumping, on-site reuse of surplus/displaced material, removal and disposal of existing pipes, supply and installation of all pipe, wyes, cap, fittings and related materials, tie-ins to existing or new storm pipe or manhole other than noted in Clause 1.6.9, construction joints, bedding, approved native excavated backfill material compacted in place, granular base, granular subbase, cleaning and flushing, testing (if applicable), video inspection, all surface restoration including asphalt paving and associated curbing and top soil, sod and all other work and materials necessary to complete installation as shown on Contract Drawings and specified under this Section; and

Measurement for storm sewer will be made horizontally from manhole centerline to manhole centerline over surface for work has been completed.

Native excavated material approved for re-use as trench backfill shall have all cobbles greater than 150 mm diameter removed and disposed off-site and shall be granular in nature and free from organic materials. Native excavated material shall not be used as trench backfill where moisture content does not permit compaction to specified density. Where native excavated material is unacceptable for use as trench backfill, imported trench backfill shall be supplied, placed, and compacted to specified density.

Payment for concrete driveway and curb will be made under Section 03 30 20S.

Payment includes by-pass pumping to include all pumps, labour and materials required to facilitate the work. Payment for the by-pass pumping will be incidental.

Delete 1.6.3 and replace with

Payment for new service connections includes 150mm SDR28 PVC pipe, shear band couplers, bends, increaser, pvc wye, stubs, caps, sanded stubs, manhole preparation, inserta tee, Le-Ron inspection chamber c/w locking collar and green lid and all related fittings and components specified and/or shown on Standard Detail Drawings. Payment includes all applicable service pipes, materials and work described in 1.6.2.

Measurement for service connection will be for each complete service installed, including the inspection chamber, length of service pipe installed and length of riser.

Brooks Boxes with a steel lid are to be provided for inspection chambers located in driveways as necessary.

Payment includes support of poles if necessary and manhole barrel preparation to accommodate the service connection.

Delete 1.6.5 and replace with the following

Payment for catchbasin or lawn basin leads include all applicable materials and work described in 1.6.2

These Supplementary Contract Specifications must be read in conjunction with the Specifications contained in the Master Municipal Construction Documents, Volume II, Printed 2009 and the City of Coquitlam Supplementary Specifications and Detailed Drawings

-	ΛΕΝΤΑRY CT		SECTION 33 40 01S	
CONTRACT SPECIFICATIONS			STORM SEWERS SS 42 2021	
			Measurement for catchbasin leads or lawn basin leads will be made horizontally from mainline pipe to centreline of catchbasin or lawn basin for each pipe size installed with no regards to depth range.	
		Add 1.6.12	Payment for exfiltration trench would inclue all components a shown on Contract drawing (20-0955-N) including excavation installation, drain rock, geogrid, backfilling complete. Payment for catch basin, clean out, asphalt paving, granular base and subbase will be made at respective unit prices in the Schedule of Quantities and Prices.	
2.0	PRODUCTS			
2.2	PVC Pipe, Mainline	Delete 2.2.1 pipe size	200 mm dia. – 375 mm dia. to ASTM D3034	
	Smooth Wall	ranges and replace with the following	450 mm dia. – 1,200 mm dia. to ASTM F679	
2.3	PVC Pipe, Mainline Profile	Delete 2.3		
2.6	Service Connections	Delete 2.6.1 and replace with the following	Storm service connections to be PVC DR 28 150 mm diamete minimum or as specified on <i>Contract Drawings</i> .	
		Delete 2.6.8.1		
		Delete 2.6.8.2 and replace with the following	Connections to PVC pipe to be made with a preformed wye fitting where mainline pipe is 300 mm diameter or smaller. For connections to PVC mainline pipe larger than 300 mm diameter an insertable tee for PVC pipe is permitted.	
		Add 2.6.8.3	Insertable tee fitting shall have a rubber collar which inserts into the mainline pipe to form a tight seal and shall have stainless steel band to secure the tee insert. The tee insert shall be a standard bell end with depth control lugs. The joint shall provide a minimum seal of 90 kPa on concrete and polyethylene pipe, and 190 kPa on PVC pipe.	
2.9	Granular Pipe Bedding and Surround Material	Delete 2.9.3	Pipe bedding shall be 19 mm clear crushed rock or as approved by the <i>Contract Administrator</i> and the City.	
3.0	EXECUTION			
3.8	Connections to Existing Mainline Pipe	Delete 3.8.3 and replace with the following	For new connections to existing, smooth wall or profile, mainline sewers 300 mm and smaller, shall be made by removal of the section of the main and replacement with a preformed PVC wye fitting complete with stubs and double hub PVC couplings for PVC mains and approved shear band couplings for other mainline materials.	
			For new connections to existing mainline greater than 300 mm, use of insertable tee will be permitted.	
3.10	Service Connection Installation	Delete 3.10.3 replace with the following	Inspection chambers shall be provided on all storm service connections as per Standard Detail Drawing S7. If inspection chamber is located in driveway, lane, or paved surface, Series 37. Brooks concrete box with lid shall be installed as per Standard Detail Drawing S9.	
3.12	Inspection and Testing		The contractor shall video inspect completed storm sewers under 900 mm in diameter and all service connections following	

These Supplementary Contract Specifications must be read in conjunction with the Specifications contained in the Master Municipal Construction Documents, Volume II, Printed 2009 and the City of Coquitlam Supplementary Specifications and Detailed Drawings

SUPPLEMENTARY CONTRACT SPECIFICATIONS			SECTION 33 40 01S SS 43 STORM SEWERS 2021	
			completion of the installation. The video inspection report shall be in a form specified by the Contract Administrator and the City. Copies of the video DVD and written report shall be forwarded to the Contract Administrator and the City. Refer to Section 33 01 30.1 and 33 01 30.1S CCTV Inspection of Pipelines.	
3.16	Permanent Capping of Service Connections	Add 3.16.1	Permanent capping of existing storm sewer connections to be completed as per Coquitlam Standard Detail Drawing COQ-S18.	
		Add 3.16.2	A trenchless method of permanently capping a service may be required on an arterial road or on a road which has been paved within 5 years, as directed by the Manager.	
			The trenchless technology used to cap the service must be approved by the Manager.	
			END OF SECTION	

SUPPLEMENTARY		SECTION 32 17 23S
CONTRACT		SS 44
SPECIFICATIONS	PAINTED PAVEMENT MARKINGS	2021

2.0	GENERAL		
1.2	Scope	Delete 1.2.1 and replace with the following	Pavement Markings: Miscellaneous taped temporary and permanent pavement paint markings including pedestrian crosswalk, merge and diverge markings, stop lines, solid and broken line road lane markings including edge lines of merge and diverge markings, bike symbols, etc. to be provided as shown on the <i>Contract Drawing</i> .
1.5	Measurement and Payment	Delete 1.5.2 and replace with the following	All permanent markings shall be marked with thermoplastic road markings as specified under Section 32 17 23S, 2.1 Materials, unless shown otherwise in the Schedule of Quantities and Prices.
		Delete 1.5.3 and replace with the following	The lump sum payment for permanent thermoplastic pavement markings covers supplying all materials and completing all the permanent thermoplastic pavement markings necessary to provide markings as shown on the Contract Drawings.
			NOTE: PAYMENT FOR PERMANENT THERMPOPLASTIC PAVEMENT MARKINGS WILL NOT BE MADE UNTIL ALL TEMPORARY PAVEMENT MARKINGS AND REFLECTIVE DEVICES HAVE BEEN REMOVED.
		Delete 1.5.4 and replace with the following	Payment for signage is on a lump sum basis and includes all sign poles, bases, sleeves, sign relocations and sign installations (complete). The City will supply all sign tabs as required.
			1. Installation of each new sign pole, cap, sleeve and trapezoidal base includes all costs to supply all materials, labour and equipment and incidentals necessary to the sign structure as shown on the Contract Drawings and as directed by the Contract Administrator.
			2. Installation of each sign on a lamp standard pole or sign pole includes sign mount clamps and all costs to supply all materials, labour and equipment and incidentals necessary to install each sign as directed by the Contract Administrator.
		Add 2.1.10	Snowplowable Raised Pavement Markers (RPMs) shall be Stimsonite (Ennis) Model #101PL series marker. Install per manufacturers procedures.
3.0	PRODUCTS		
2.1	Materials	Delete 2.1.1 and replace with the following	All permanent paint markings shall be marked with thermoplastic manufactured by LAFRENTZ Road Markings, HITEX North America (HiBrite Extrude Thermoplastic), or ENNIS-FLINT (Extruded Thermoplastic).
		Delete 2.1.6 and replace with the following	Pavement Markings:
		Delete 2.1.7 and replace with the following	Thermoplastic material .1 Material composition shall be at the discretion of the manufacturer subject to the approval of the Contract Administrator and the City. Each formulation shall be identified by a code number.
			.2 No retained water when tested by ASTM D-570.

- .3 Specific gravity of the supplied product shall be within 3 % of that specified for the selected formulation.
- .4 Material shall not deteriorate upon contact with deicing chemicals, gasoline, diesel fuel or grease dropped by traffic.
- .5 Material shall not break down, deteriorate, scorch or discolour, if held within the application temperature range specified by the manufacturer for a period of four hours and it must be able to be reheated from room temperature to the application temperature four (4) times without showing any of these detrimental effects.
- .6 When applied at the temperature recommended by the manufacturer and at a film thickness of 2 to 4 mm, the material shall set solid and show no tracking under traffic after elapsed times as follows:
 - .1 Two (2) minutes at an air temperature of 10° C, relative humidity less than 75 %, and road surface temperature from 10° C to 20° C.
 - .2 Five (5) minutes at an air temperature of 32° C, relative humidity less than 75 %, and road surface temperature from 35° C to 50° C.
 - .3 The drying time under conditions intermediate between the two air temperatures shall be interpolated using a straight line model.
- .7 The quantity, type, and gradation of the component reflecting glass spheres premixed in the thermoplastic material shall be at the discretion of the manufacturer, but shall provide retroreflection levels specified below.

Add 2.1.10

Snowplowable Raised Pavement Markers (RPMs) shall be Stimsonite (Ennis) model# 101PL series marker. Install per manufacturers procedures.

Add 2.1.11

Green Surface Treatment:

- .1 Material approved shall be "Traffic Patterns" thermoplastic by Ennis-Flint or MMA (Methyl Methacrylate).
- .2 The MMA Skid Resistant Material shall meet the following requirements:
 - .1 Be Ultra-Violet Stable.
 - .2 Be ISO Certified Durable Road Marking Material.
 - .3 Utilize 0.5mm 1mm aggregate within the MMA to create skid resistance of 49 BPN.
 - .4 Green Colour (Pantone #) to be approved prior to application.
- .3 Product details and specification to be submitted to Owner for Final Approval.

3.0 EXECUTION

3.3 Application

Add to 3.3.1.3

Temporary raised pavement markings (TRPMs) are to be provided on all collector and arterial roadways as directed by the *Contract Administrator* and the City.

Delete 3.3.3.3 and replace with the following

Thermoplastic material shall be heated in the melter to a temperature of 382 $^{\circ}\text{F}.$

END OF SECTION

1.0 **GENERAL Related Work** 1.1 Add 1.1.6 Hot Mix Asphalt Concrete Pavement Section 32 12 16 Portland Cement Concrete Add 1.1.7 Paving Section 32 13 13 1.5 Measurement and Delete 1.5.1 and Payment for manholes will be made by items or components installed for each type and size as shown on Contract Drawings and specified in replace with the **Payment** the Schedule of Quantities and Prices. No payment will be made for following excavation and all other associated work required to accommodate manhole in the new sewer system constructed under this Contract for which manhole forms a part. Payment for manhole includes supply and installation of pre bench Delete 1.5.1.1 and replace with the gasketed base, lid, slab, donut ring, concrete frame, metal frame, c/w open grate and all as shown on Contract Drawing and as described on following Standard Detail Drawing S1 and S2 for manholes. Payment includes base preparation, dewatering, by-pass pumping, all in-situ concrete work, manhole base preparation to accommodate new culvert pipe tie-ins c/w rubber resilient seat gasket, import backfill, granular subbase and base, compaction, all labor, material, equipment and necessary work for installing the manhole including concrete pipe for tie-ins as required on site. Payment also includes removal of existing lock blocks, inlet structure and proetection of existing fence. Add to Clause 1.5.1.5 Payment for outside drop manhole includes excavation, import backfill, compaction, tie-in to existing sanitary main, shear band couplers, pipe stubs, fittings, dewatering, all in-situ concrete work and all necessary work as shown on Contract Drawing and as specified in the Schedule of Quantities and Prices. Delete 1.5.2 and Catchbasin, lawn drain, and clean out Installation will be defined as replace with the supplying and installing a new unit for each type specified and following setting to the finished grade. Payment includes excavation, disposal of surplus excavated material, supply of all units, cast-in-place concrete, pipes, fittings and related materials together with all labour, materials and equipment required. Catch basin lead work is considered to be incidental to payment for catch basin lead work described in other sections. Delete 1.5.3 and Adjustment & Replacements of tops of existing units will be replace with the measured in units adjusted as defined below and paid for under their respective Items in the Schedule of Quantities. following

No payment will be made under these items for cleaning Valve

Boxes, Monument Boxes, Frames, Covers and Lids of Castings as part of the operation for asphaltic concrete paving.

No Payment will be made for Monument Boxes, Lawn Drains, Cleanouts and Inspection Chambers, these adjustments will be treated as incidental work.

All manholes & valve boxes must be vertically adjusted a minimum of twenty-four (24) hours prior to paving.

The use of Steel/Metal Casting Risers Rings will not be accepted to adjust manholes or water valves to the final elevation (finish grade).

.1 Manhole frames and lids replacement & adjustment will be defined as supplying and installing a new manhole frame and lid and setting to the finished grade. Replacements shall include jackhammering, removal and disposal of the existing frame and lid, replacement, removal or addition of concrete brick (maximum of 3 or minimum of 1) or precast concrete riser rings, cement mortar, supply and installation of new manhole frame and lid set to finish grade, temporary asphalt ramping or patching and all other incidental work.

Unit Price for adjustments to each manhole includes adjusting manholes to the asphalt base lift and then to the asphalt final lift (finish grade) – No additional payment will be made for adjusting manholes.

.2 Water Valve Box replacements will be defined as supplying and installing a new Nelson Style Water Valve Box frame & lid and setting to the finished grade, temporary asphalt ramping or patching. Replacements shall include jackhammering, removal and disposal of the existing frame and lid and all other incidental work.

Delete 1.5.4 and replace with the following

Repair, Replacement or Adjustment of catchbasin frames & grates will be measured in units adjusted as defined below and paid for under their respective Items in the Schedule of Quantities. Payment includes supply of frame & grate, cast-in-place concrete, grouting, and all related materials together with all labour and equipment required to bring to finished grade.

Delete 1.5.5 and replace with the following

Catchbasin or lawn basin removal and relocation will be defined as removal of an existing catchbasin or lawn basin and re-instatement at the new location. Payment includes excavation, removal of the catchbasin/lawn basin casting and barrel, extension of the lead, installation at the new location, backfill & compaction, surface restoration, and related materials together with all labour and equipment required.

2.0 PRODUCTS

2.1 Materials Add 2.1.7.3

Any frame and cover assembly creating a point load on the concrete riser rings will not be permitted.

Delete 2.1.12 and replace with the following

Catchbasin lids manufactured to ASTM C478M.

Delete 2.1.16.2

Delete 2.1.17

3.0 EXECUTION

3.1 Excavation and Add 3.1.2 Backfill

For manholes, when base gravels are complete, excavate for grade rings and manhole frame assembly. Do not disturb the compacted road base beyond the excavation requirement.

SUPPLEMENTARY		SECTION 33 44 01S
CONTRACT		SS 48
SPECIFICATIONS	MANHOLES AND CATCHBASINS	2021

3.3	Manhole Installation	Delete 3.3.12.2 and replace with the following	Allowable products are precast concrete risers and cast-in-place form system. Individual riser heights shall be 50mm, 75mm, or 100mm.
		Delete 3.3.12.5 and replace with the following	Proper layer of grout between the spacers, covering the entire surface of the rings, should be utilized.
		Delete 3.3.15 and replace with the following	Install drop structures as shown on the contract drawings to Coquitlam Standard Detail Drawing COQ-S4 and Standard Detail Drawing S3. Maximum allowable inside ramp shall be 250 mm invert to invert.
		Delete 3.3.17 and replace with the following	Ensure frames conform to design contour of pavement or existing surface. Manhole lids left raised in preparation for overlay paving shall have a rubberized protector ring or asphalt ramp. The use of riser rings for adjusting manhole frames will not be permitted.
3.5	Catchbasin Installation	Delete 3.5.1 and replace with the following	Install catchbasins as shown on Coquitlam Standard Detail Drawings COQ-S11A, COQ-S11B and Standard Detail Drawing S11, to general standards and installation procedures described under 3.3 of this Section.

END OF SECTION

Appendix A

Traffic Management
Detail Specifications

Specif	: Management Detail ications		Traffic Management	TMP 1
Contract 51138-1			Traffic Management	TMP I
1.0	GENERAL	.1	This Traffic Management detail specification refers to the Contractor's specific plans to identify project traffic risks af the <i>Work</i> , provide Traffic Control Plans, and to implement t traffic control for the safe passage of vehicles and pedestria through the work zone.	he
1.1	Related Works	.1	Traffic Regulation MMCD Section 01 55 00S.	
1.2	References	.1	WorkSafe BC, Occupational Health and Safety (OHS) Regula Section 18 – Traffic Control.	tion,
		.2	B.C. Ministry of Transportation (MOT) Traffic Control Manu- Work on Roadways.	al for
1.3	Project Requirements	.1	Hours of Work and Traffic Restrictions for this project are identified in Appendix 1 of this document.	
			A Road and Sidewalk Closure Permit form application must submitted to City's Traffic Operation Division 5 working day to start of work.	
		.2	A Road and Sidewalk Closure Permit is required by Coquitla all work affecting traffic flow related to construction. A per required for each specific construction interference with traflow. The Road and Sidewalk Closure Permit Request form attached as Appendix 2 to this document. A digital copy of Road and Sidewalk Closure Permit form can be obtained for during the contract from the City's website at http://www.coquitlam.ca/closure	rmit is affic is the
1.4	Measurement and Payment	.1	For this Contract, payment for all work performed under the section, unless included in the Schedule of Quantities and Pashall be treated as incidental work, including a Traffic Management Plan (TMP), Traffic Control Persons (TMP), tramarkings & all temporary traffic signs, devices as required traffic & pedestrian safety; and all other items described in Section 01 55 00S.	Prices ffic for
2.0	PRODUCTS			
2.1	Traffic Management Plan	.1	The Contractor is required to assign a Traffic Manager for the Contract with the responsibility of preparing the Traffic Management Plan and the Traffic Control Plans, as well as the responsibility for continuing implementation of traffic continuing the Work.	the

- .2 The Traffic Management Plan (TMP) will consist of the following components:
 - .1 Identification of risks to traffic during the Work
 - .2 Traffic Control Plans for individual stages of the construction
 - .3 Incident Management Plan for the response to an unplanned event and recording of incident information.
- .3 Submission of the TMP is to be made to the Contract Administrator within five (5) days of the Notice of Award of the Contract, and must be approved by the Contract Administrator prior to start of the Work.
- .4 Review of the TMP will be performed by the Contract Administrator. Comments for revisions to the TMP will be returned to the *Traffic Manager* for implementations.
- .5 The Contractor shall comply with all the requirements of applicable laws, rules, regulations, codes and orders of the municipal and other appropriate authorities concerned with work on streets or highways and shall post proper notices and/or signals, and provide necessary barriers, guards, lights, flagmen or watchmen as may be necessary for proper maintenance of traffic and protection of persons and property from injury or damage. All costs involved in respect to the above requirements will be deemed to be included in the Contract Price.
- .6 The Contractor shall give due notice to local police and fire departments prior to beginning construction and shall comply in all respects with their requirements.
- .7 The Contractor, during the progress of the work, shall make adequate provision to accommodate the normal traffic along streets and highways immediately adjacent to or crossing the work so as to cause the minimum of inconvenience to the general public.
- .8 The Contractor is required to maintain local traffic and driveway access during all stages of construction. This includes maintaining a 1.5m width walkway or pathway through the construction site for pedestrians.
- .9 Where existing streets or roads are not available as detours, all traffic shall be permitted to pass through the work with as little inconvenience and delay as possible unless otherwise provided or authorized by the Contract Administrator. If half the street only is

Contract 51138-1

under improvement, the other half shall be conditioned and maintained as detour.

2.2 Incident Management and Reporting

- .1 The Contractor shall facilitate incident response vehicles and staff and move traffic safely and expeditiously through or around an incident on site and provide assistance to emergency response personnel as required. An incident includes, but is not limited to, motor vehicle accidents, emergency road repairs, disabled vehicles, and debris on the road. The immediate response to an emergency shall by necessity make use of available devices and equipment.
- .2 If an incident occurs on site, the Contractor will be required to submit a report to the Contract Administrator documenting details of the incident including event, location, date, time, action taken, duration and restoration of site.

2.3 Traffic Control Plans

.1 The Contractor shall designate a qualified Traffic Control Supervisor for the works, per the requirements of WCB regulations Section 18.

The designated Traffic Control Supervisor may be the same individual that is designated as the Traffic Manager, or may be a separate individual qualified for the responsibilities of this function.

- .2 The Contractor shall prepare weekly the anticipated traffic control activities, locations, and durations for the upcoming week.
- .3 Permissible delays shall only be considered outside Peak Hours. Permissible delays are categorized as follows:
 - a) Minor Delays Less than two (2) minutes in duration; for occasional interruption due to construction activities.
 These delays shall be coordinated with available breaks in the traffic flow.
 - Major Delays Maximum five (5) minutes in duration; for occasional interruption of traffic for construction activities if traffic volumes permit. These delays shall be coordinated with available breaks in the traffic flow.
- .4 The Contractor is responsible for ensuring that the flow of traffic is unimpeded by construction-related activities.

3.0 EXECUTION

3.1 Traffic Control Plan

.1 A copy of the approved <u>current</u> Traffic Plan must be held on site by both the Site Superintendent as well as the person/company responsible for the traffic control implementation.

- .2 Failure to produce a valid approved Traffic Plan on site, or having work not follow the Traffic Control Plan will result in immediate shut-down of the work. The Contractor will be required to safely restore facility conditions to allow traffic flow at their expense. The Contractor must take all steps to acquire an approved Traffic Control Plan before work can re-start on site. No claim will be accepted by the Owner for costs associated with this work shut-down.
- 3.2 Road and Sidewalk Closure Permits
- .1 The Contractor must have, on-site, a copy of an approved Road and Sidewalk Closure Permit valid for the work being done. Failure to produce a valid Road and Sidewalk Closure Permit onsite will result in shut-down of the work. Failure to comply on what is stated on the approved permit will result in shut-down of the work. The Contractor will be required to safely restore facility conditions to allow traffic flow at their expense. The Contractor must take all steps to acquire a Road and Sidewalk Closure Permit before work can re-start on site. No claim will be accepted by the Owner for costs associated with this work shut-down.
- 3.3 Traffic Control Personnel & Equipment
- .1 The Contractor shall supply all necessary traffic control devices required to perform traffic control services for the project. Signs and traffic control devices not applying to existing conditions shall be removed. Where operations are carried out in stages, only those traffic control devices that apply to the current stage are to be left in place.
- .2 There must be sufficient Traffic Control Persons (TCPs) on site to appropriately and safely direct traffic in all sections of the Work.

3.4 Signage

.1 Supply, installation, maintenance and removal of all worksrelated signs shall be the responsibility of the Contractor. The location and type of each sign shall be indicated on the approved Traffic Control Plan, for each stage of the works.

Traffic control signs and devices must be positioned and used as specified in the Traffic Control Plan and signs and devices must be located so as to allow traffic to move by or through the work area in a controlled manner and, if necessary, to come to a controlled stop with due regard for the prevailing weather and road conditions.

Signs shall be checked daily for legibility, damage, suitability and location. Signs and delineators shall be cleaned as frequently as necessary to ensure full legibility and reflectance.

	c Management Detail fications		
Contr	act 51138-1		Traffic Management TMP 5
3.5	Detours	.1	Any proposed detours must be approved by the Contract Administrator and conducted in accordance with the approved Traffic Plan and the Traffic Control Manual for Work on Roadways.
3.6	Abrupt Changes in Surface Elevations	.1	The Contractor shall minimize any abrupt changes in roadway elevation left exposed to traffic during both working and nonworking hours. A wedge of asphalt must be used as a transition to vertical
			differences in travelled areas and have a slope of 4:1 or less.
3.7	Cyclist and Pedestrian Access	.1	The Contractor shall make provision for pedestrians, wheel chairs and bicycles to have safe access across the work zone at all times. If this cannot be readily accommodated, then acceptable detours and appropriate signs shall be provided.
3.8	Temporary Pavement Markings	.1	The Contractor shall be responsible for the application and removal of all temporary pavement markings and reflective devices.
			All temporary markings must be removed after installation of permanent markings.
4.0	TRAFFIC RESTRICTIONS		
4.1	Road and Sidewalk Closure Permits	.1	Most of the lanes provide access to overnight parking and some of the houses has this parking only. Contractor should ensure that lanes will be made accessible to traffic at the end of the day.
		.2	A City of Coquitlam Road and Sidewalk Closure Permit is required for each instance of closure and will be valid for a maximum period of one (1) week and, if still necessary, re-submittal of a Road and Sidewalk Closure Request is required.
			A copy of the approved Road and Sidewalk Closure and Lane Closure Permit must be held on site by both the Site Superintendent and the person/company responsible for the traffic control implementation.
		.3	Detours will only be permitted as approved by the Contract Administrator and must have a complete Traffic Control Plan indicating detour route, signing, and duration. Detours will not be allowed without sufficient lead time for commercial and retail operation to react appropriately to detour information provided to them
5.0	CONSTRUCTION		

5.0 CONSTRUCTION OPERATIONS

	: Management Detail			
•	ications act 51138-1		Traffic Managament	TMP 6
Contra	301 51138-1		Traffic Management	TMP 6
5.1	Truck Routes	.1	The Contractor is restricted to the City's designated Truck The current Truck Route Map is available on the City's web www.coquitlam.ca and can be found under Residents , Transportation, Trucking Routes.	site at
5.2	Road Specific Considerations	.1	Ensure that Traffic Management Plan accommodates busing and residences during construction activities.	nesses
5.3	Work stoppage due to traffic	.1	The City will not control or direct traffic control activities of Contractor, but may require an immediate stop to any work where, in the sole opinion of the Contract Administrator, the provided traffic management plan is ineffective or creating unreasonable delays	rk he
5.4	Construction Activity and Signage	.1	The Contractor will be responsible to place other construct information signs as required to inform the public of constactivities, and ensure safe travel through the work site.	
5.5	Construction Zone Information Signs	.1	The Contractor is required to provide, one week prior to stawork, stationary signs at intersections, one in each direction inform traffic of existing and anticipated conditions at ent points of the street to be worked on, locations for these signs be provided by the Contract Administrator.	on, to ry
			Ensure that signs and locations are addressed in the Traffic Management Plan. All signs are to be removed at the end construction period.	

Appendix 1 CONTRACT HOURS OF WORK and TRAFFIC RESTRICTIONS

1.0	GENERAL	
1.1	Contract Number	51138-1
1.2	Contract Name	2021 Laneways Rehabilitation
1.3	Contract Limits	As shown on the Contract Drawings
2.0	ROAD SECTION	
2.1	ALL LANEWAYS	 Residential property access in the lanes must be accommodated at the end of each day's work (lanes should be in a reasonable condition to allow access).
		Good communication should be maintained with all the residents of properties backing on the lane regarding lane closures to traffic during construction.
		3. For the lanes that are on the garbage truck routes, the work should be scheduled such that the garbage trucks can pass through. In case of any access problem, the Contractor will be required to move garbage bins.
3.0	HOURS OF WORK	
3.1	Allowable Hours of Work	.1 Unless there are other contract restrictions for work times, work can be performed during the normal weekday working hours of 07:00 hrs to 17:00 hrs.
		.2 Work is allowable on Saturdays but is restricted to a 09:00 hrs. start time to 17:00 hrs.
		.3 No work is allowed on Sundays or statutory holidays without specific permission arranged through the Contract Administrator.
4.0	OPERATIONS	
4.1	Truck Routes	.1 The Contractor is restricted to the City's designated Truck Routes. The current Truck Route Map is available on the City's website at www.coquitlam.ca and can be found under Residents/Transit & Transportation/Trucking Routes.

Coquitlam



Road and Sidewalk Closure Permit Request

Traffic Operations Division 3000 Guildford Way, Coquitlam BC V3B 7N2 Phone: 604-927-6250 Fax: 604-927-6255 Email: trafficoperations@coquitlam.ca

City of Coquitlam

Permit Fee - \$75.00 (Effective February 1, 2019)	Payment Methods - After review, emailed to the applicant.	, and if approved, payment options will be
Application Date:	City Project Number (if applicab	le):
Contact Information		
Company Name:		
Applicant Name:		
Name of Contractor doing work for Company/A	Applicant:	
Phone:	Fax:	
24 Hour Emergency Phone:	Email:	
Location, date and time, and traffic contro	or prair innormation	
request approval to close (check all that apply): Direction: □ Northbound □ So	uthbound 🗆 Eastbound 🗆 Westbou
□ Curb/Outside Lane □ Centre/Inside Lane	□ Pight Turn Lane □ Left Turn	lane □ Cycling Lane □ Sidewalk
		anc a cycling cane a sideman
☐ Single Lane Alternating Traffic ☐ Full Clos	ure	
Road/Street Name:		
Location Description:		
Date & Time Information: Dates:		
	Starting	
		Ending
Hours:	Starting	
	Starting	Ending Ending
Hours:	Starting	
	Starting Yes No If yes, the Applicant	Ending Will need to contact Coast Mountain

Traffic Management	Detai
Specifications	
Contract 51138-1	

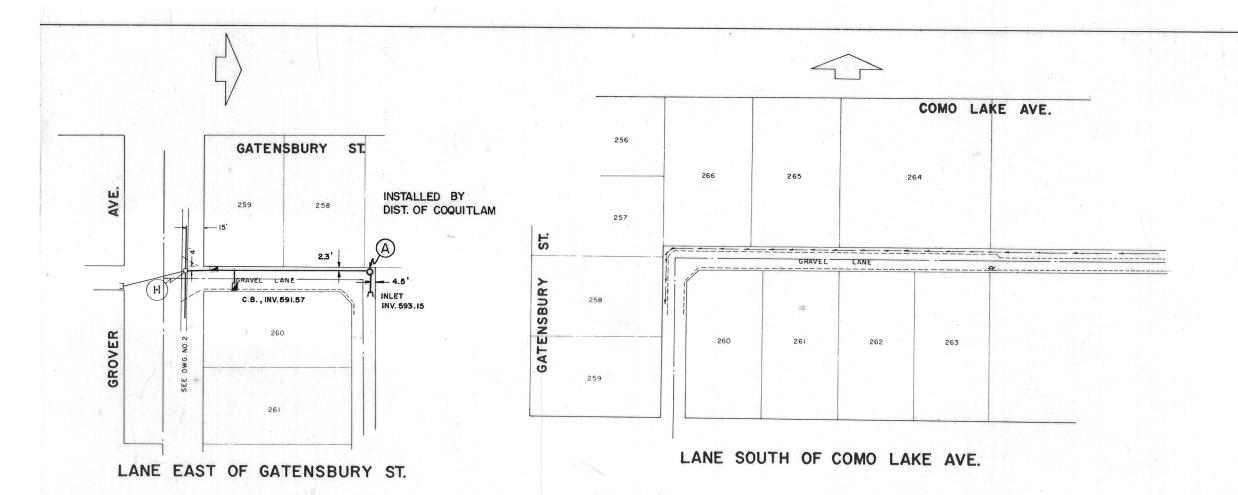
Traffic Management

TMP 9

	al for Work on Roadways Figure Numb ch separately) indicating signage, taper	er, or lengths, direction of traffic, work area, and north
Traffic control persons (flag pe	ersons) on duty? 🗆 Yes 🗆 No If yes, s	specify how many:
*Important Notice: All operations standards for work on roadways.	within the road right-of-way must comply v	vith Worksafe BC regulations and BC Ministry of Transportation
Application Checklist		
☐ Permit Fee		
☐ Prime Contractor Designation	on Letter	
☐ City of Coquitlam Certificate	e of Insurance	
☐ Traffic Control Plan or Traffi	ic Management Manual for Work on Ro	padways Figure Number
☐ Coast Mountain Bus Compa regarding impact to bus rou		ial.events@coastmountainbus.com) contacted
	ental Services Group (Phone: 604-927- e/recycling routes and pick up	3500 Email: wastereduction@coquitlam.ca contacted
all claims, actions, or expenses this Road and Sidewalk Closure	whatsoever or by whomsoever brough	ndemnify and save harmless the City against any and ht against the City by the reason of the City granting us consibility to ensure proper situation control and street
Date	Applicant Signature	
Office Use Only PERMIT S	TATUS	
☐ Permit Fee	☐ Prime Contractor Letter	☐ Certificate of Insurance
☐ Traffic Control Plan	☐ Impact to bus service	☐ Impact garbage and recycling collection
☐ Request is denied for the	following reason(s):	
☐ Request is approved with	n the following change(s):	
☐ Request is approved as s	ubmitted	
Date	Traffic Technologist or Desig	nate

Appendix B – As-Built Record

As-Builts are available in the City's website, https://www.coquitlam.ca/701/City-Maps

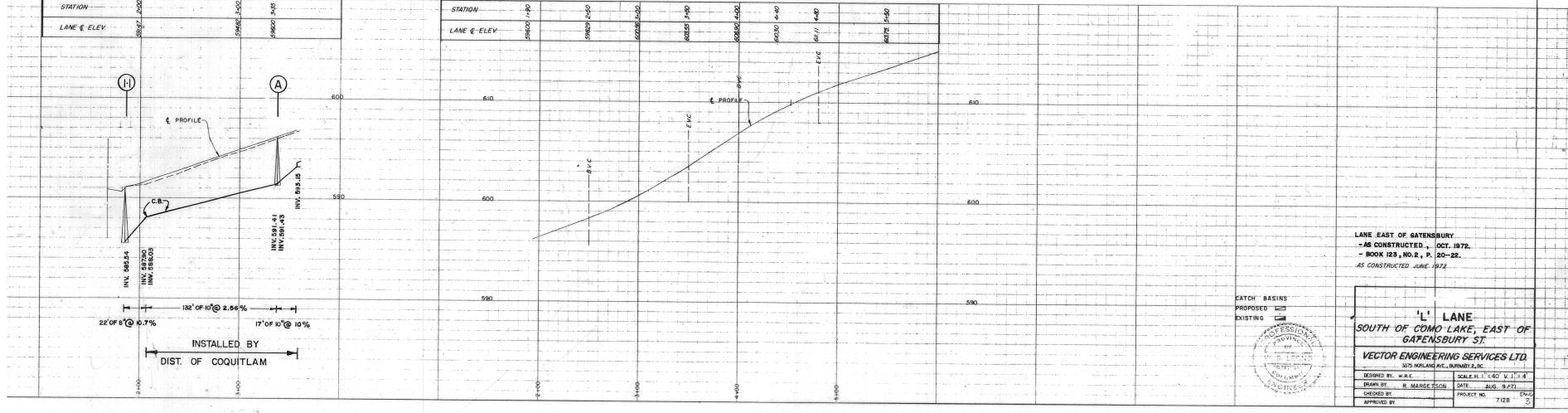


BM. S. IN POLE S/S COMO LAKE @ LILLIAN \$84.10 BM. S. IN POLE ON LILLIAN @ 824 LILLIAN 598.60

I<mark>PORTANT:</mark> YDRO, GAS AND TELEPHONE **ARE NOT SHOWN** ON THE CITY OF COQUITLAM AS-BUILTS OR RECORD DRAWINGS.
CONTACT BC HYDRO, TERASEN GAS AND TELUS FOR
CURRENT AS-BUILTS PERTAINNIG TO THESE UTILITIES.

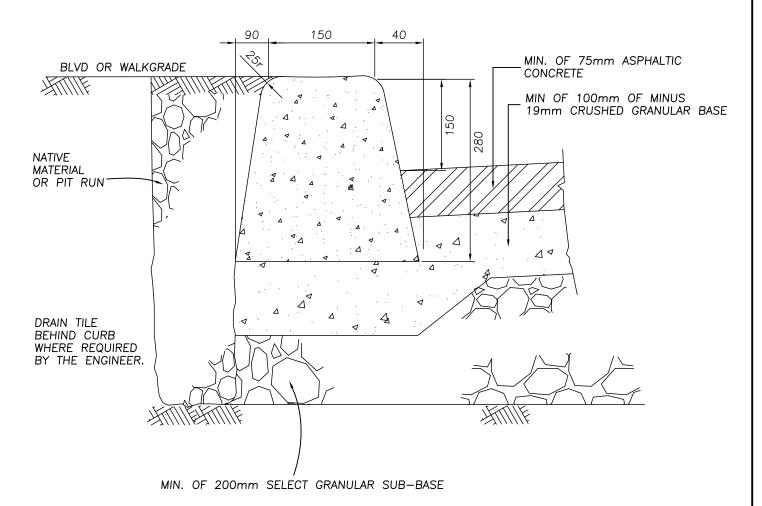
OCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY AND SHOULD BE CONFIRMED BY A PIPE LOCATOR AND MANUAL DIGGING. ALL OR ANY EXISTING STRUCTURES ARE NOT NECESSARILY SHOWN.

THIS PHOTOCOPY IS SUPPLIED BY THE CITY OF COQUITLAM FOR GENERAL INFORMATION ONLY AND THE **ACCURACY OF** FORMATION CONTAINED ON THE DOCUMENT IS NOT UARANTEED BY THE CITY.



Appendix C – Standard Detailed Drawings

STANDARD DETAIL DRAWINGS



CURB ON GRAVEL BASE NO SIDEWALK

PLOTTED: 22-Feb-16

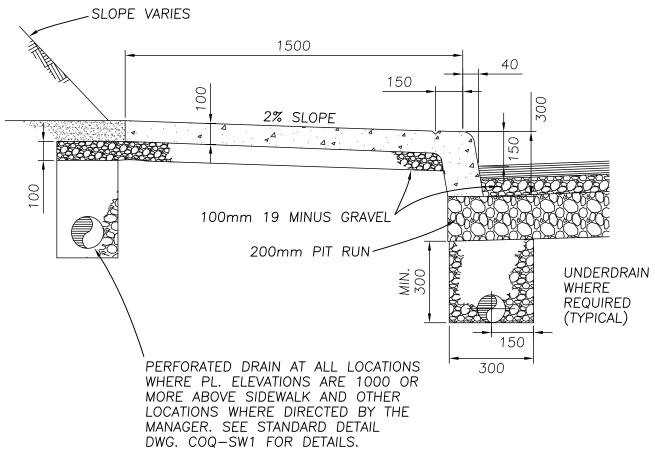
CURB ON GRAVEL BASE

DATE:	NOV/2015
DRAWN:	REY
SCALE:	N.T.S.

DRAWING NUMBER:

COQ-C6

STANDARD DETAIL DRAWINGS



MONOLITHIC CURB SIDEWALK

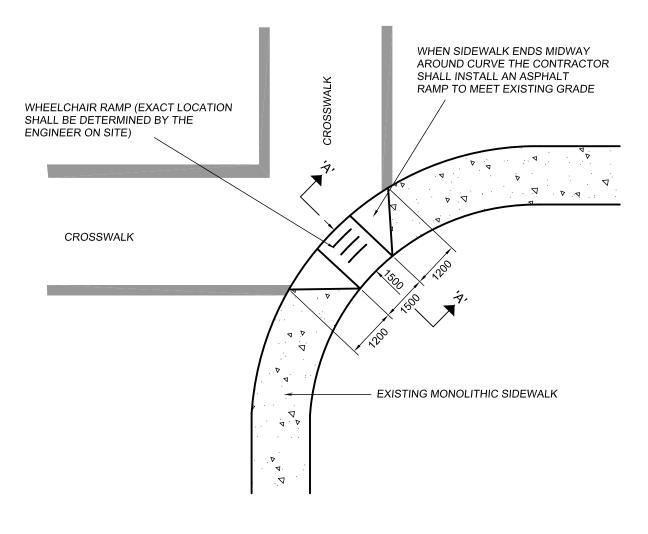
PLOTTED: 26-Feb-16

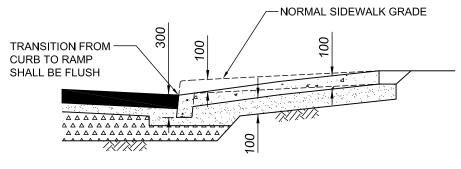
MONOLITHIC SIDEWALK

DATE:	NOV/2015
DRAWN:	REY
SCALE:	N.T.S.

DRAWING NUMBER:

COQ-C8





SECTION 'A-A'

PLOTTED: 2-Nov-18

MONOLITHIC WHEELCHAIR RAMP FOR SIDEWALK

DATE:	MAY/2015	
DRAWN:	REY	
SCALE:	N.T.S.	

DRAWING NUMBER:

COQ-C9B