



City of Coquitlam

Contract Documents

Contract No. 23-029

Street Tree Installation -
21 Lot Subdivision "Mitchell East"

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Contract No. 23-029

Street Tree Installation – 21 Lot Subdivision “Mitchell East”

Project Construction Documents

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2. **Standard Documents – not supplied**

- i) Available in the MMCD – General Conditions, Specifications and Standard Detail Drawings.
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Invitation to Tenderer



INVITATION TO TENDER

DATE OF ISSUE: **Thursday, February 02, 2023**

Tender No. 23-029

Street Tree Installation – 21 Lot Subdivision “Mitchell East”

The City of Coquitlam invites tenders for **Contract No. 23-029 - Street Tree Installation – 21 Lot Subdivision “Mitchell East”** generally consisting of the preparation of four(4) existing City street boulevards for the supply and installation(planting) of a minimum of twenty-four(24) street trees as herein specified, and as shown on the attached drawings, details and as per City of Coquitlam standards.

The Scope of Work consists of the following, but is not limited to:

- All site preparation, including site signage, individual notification to residents and secured construction safety/security fencing as required.
- Installation, continuous monitoring and maintenance of all erosion and sediment control measures. as outlined in the City’s Stream and Drainage System Protection Bylaw 4403, 2013.
- All Traffic Control and Management, including vehicular and pedestrian.
- All temporary circulation control and signage to ensure public can move safely and freely around/through the work zone.
- All demolition, removals and offsite disposal of miscellaneous items within the boulevard.
- All earthwork and offsite disposal of stripping, topsoil and common excavation of existing boulevard material, for creation of the tree trenches.
- All site work including, site preparation, supply and placement of growing medium, supply and planting of trees, root barriers, tree stakes, arborvitae ties, tree protection, supply and placement of bark mulch as per City of Coquitlam – Boulevard Tree Planting Detail COQ-L2A.
- All remediation work including site grading where the proposed work meets the existing City sidewalk and roadway curbs.
- All general landscape work including, sodding and/or hydro seeding.
- Maintenance of planted trees and sodded/hydro-seeded lawn areas until accepted by the City.
- Complete site clean-up and remediation of all disturbed areas and existing structures.

NOTE

1. All directives, for the location and installation of the trees, will be provided on-site by either the City Inspector or a City Representative.
2. Due to existing underground utility infrastructure not all the trees will be installed, nor located exactly as shown on the associated drawings and may need to be field-fit.
3. A pre-construction site meeting will be held after the Notice of Award to review the Work Schedule and Work Methodology.
4. The Work will be conducted within existing City street boulevards, and the Proponent will need to meet the City’s terms and conditional requirements for safety, security and operation of the adjacent sidewalks and streets, as well as WorkSafe BC’s Occupational Health and Safety Regulations (OHSR).

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

Printing of Tender Documents and Drawings are 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
Thursday, February 23, 2023
 ("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
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.)

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

Addenda

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 vrca@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 23-029

Street Tree Installation - 21 Lot Subdivision “Mitchell East”

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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: Street Tree Installation - 21 Lot Subdivision “Mitchell East”

Reference No. 23-029

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|------------|---------------------|------------|
| 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:
- The preparation of four(4) existing City street boulevards for the supply and installation(planting) of a minimum of twenty-four(24) street trees as herein specified, and as shown on the attached drawings, details and as per City of Coquitlam standards. The Scope of Work consists of the following, but is not limited to:
1. All site preparation, including site signage, individual notification to residents and secured construction safety/security fencing as required.
 2. Installation, continuous monitoring and maintenance of all erosion and sediment control measures as outlined in the City's Stream and Drainage System Protection Bylaw 4403, 2013.
 3. All Traffic Control and Management, including vehicular and pedestrian.
 4. All temporary circulation control and signage to ensure public can move safely and freely around/through the work zone.
 5. All demolition, removals and offsite disposal of miscellaneous items within the boulevard
 6. All earthwork and offsite disposal of stripping, topsoil and common excavation of existing boulevard material, for creation of the tree trenches
 7. All site work including, site preparation, supply and placement of growing medium, supply and planting of trees, root barriers, tree stakes, arbortie ties, tree protection, supply and placement of bark mulch as per City of Coquitlam – Boulevard Tree Planting Detail COQ-L2A.
 8. All remediation work including site grading where the proposed work meets the existing City sidewalk and roadway curbs.
 9. All general landscape work including, sodding and/or hydro seeding.
 10. Maintenance of planted trees and sodded/hydro-seeded lawn areas until accepted by the City.

11. Complete site clean-up and remediation of all disturbed areas and existing structures.

1.2 All inquiries regarding this Tender are to be submitted in writing referencing the **Tender Name and Number** sent to:

E-mail: bid@coquitlam.ca

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**".

2.2 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

3.1 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: Thursday, February 23, 2023

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://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 email: bid@coquitlam.ca)

Tenderers are responsible to allow for ample time to complete the submission process. For assistance, phone 604-927-3060 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.

3.4 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: Fax submissions may not be received. Be advised that filing electronically through Qfile will be the most reliable method.

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: 604-681-0295
Fax : 604-305-0424
 - City of Coquitlam Supplementary Specifications and Detailed Drawings to the MMCD 2009 Edition.

City of Coquitlam Parks, Recreation, Culture and Facilities
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 City or Owner of the property and comply with their requirements for restoration of disturbed surfaces and utilities. Failure to comply with City by-laws restricting this practice may result in prosecution of the offending party.

Business License

- 4.3 The successful Tenderer shall provide evidence of a City of Coquitlam Business License or Tri-Cities Inter-Municipal 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

- 4.4 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.

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| Negotiation | 4.6 | 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 | 4.7 | 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 | 4.8 | 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 | 4.9 | 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 | <p>A tender should be on the Form of Tender as provided and be signed by the authorized signatory(s) as follows:</p> <ul style="list-style-type: none">5.1.1 if the tenderer is a partnership or joint venture then the name of the partnership or joint venture should be included, and each partner or joint venture 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; and5.1.2 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** – the 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.
- 5.4 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 FT5.1.1, including a Performance Bond and a Labour and Material Payment Bond as described in FT5.1.1(a), failing which the provisions of FT6.1 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 *Alternative Tender* must be in addition to, and not in

substitution for a tender 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.

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| 10.0 | Prices | <p>10.1 The Tendered Price will represent the entire cost excluding <i>GST</i> to the <i>Owner</i> of the complete <i>Work</i> based on the estimated quantities in the <i>Schedule of Quantities and Prices</i> 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:</p> <ul style="list-style-type: none"> 10.1.1 the costs of all labour, equipment and material included in or required for the <i>Work</i>, including all items which, whole not specifically listed in the <i>Schedule of Quantities and Prices</i>, are included in the <i>Work</i> specifically or by necessary inference from the <i>Contract Documents</i>; 10.1.2 all assessments payable with respect to labour as required by any statutory scheme such as unemployment insurance, holiday pay, insurance, 10.1.3 CPP and all employee benefits and the Workers Compensation Act; 10.1.4 all overhead costs, including head office and on-site overhead costs, and all amounts for the <i>Contractor's</i> profit. <p>10.2 The tendered prices and all subcontracts must allow for compliance with all applicable laws regarding trade or other qualifications of employees performing the <i>Work</i>, and payment of appropriate wages for labour included in or required for the <i>Work</i>.</p> |
| 11.0 | Taxes | <p>11.1 The tendered prices shall cover all taxes and assessments of any kind payable with respect to the <i>Work</i>, but shall not include <i>GST</i>. <i>GST</i> shall be listed as a separate line item as required by GC 19.3.</p> |
| 12.0 | Amendment of Tenders | <p>12.1 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 <i>Tender Closing Date and Time</i>. An amendment or revocation that is received after the <i>Tender Closing Date and Time</i> shall not be considered and shall not affect a tender as submitted.</p> <p>12.2 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.</p> <p>12.3 Any amendment that expressly or by inference discloses the tenderer's <i>Tender Price</i> or other material element of the tender</p> |

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.: _____
(OWNER'S CONTRACT REFERENCE NO.)

To: _____
(NAME OF OWNER)

We the undersigned wish to amend our tender which we submitted for the above *Contract* by deleting the following tendered prices or items from our tender:

(TENDERED PRICES AND/OR TENDER ITEMS IN THE TENDER THAT ARE TO BE AMENDED)

and substituting the following revised tendered prices or items:

(REVISED TENDERED PRICES OR TENDER ITEMS)

The extensions in our tender should be adjusted accordingly, and our ***Tender Price*** as set out in Appendix 1 of our submitted **Form of Tender**, and on the ***Schedule of Quantities and Prices***, increased / decreased by \$_____, excluding GST. We have not included our revised ***Tender Price*** in order to preserve the confidentiality of our tender.

Signed and delivered the ____ day of _____, 20__."

- 12.5 If a tender amendment or revocation is sent by fax, the tenderer assumes the entire risk that equipment and staff at the office referred to in paragraph 3.4 of the Instructions to Tenderers will properly receive the fax containing the amendment or revocation before the *Tender Closing Date and Time*. The *Owner* assumes no risk or responsibility whatsoever that any fax will be received as required by paragraph 12.1 of these Instructions to Tenderers, and shall not be liable to any tenderer if for any reason a fax is not properly received.

13.0 Duration of Tenders

- 13.1 After the *Tender Closing Time*, a tender shall remain valid and revocable as set out in paragraph 5.1 of the Form of Tender.

14.0 **Qualifications of Tenderers** 14.1 By submitting a tender a tenderer is representing that it has the competence, qualifications and relevant experience required to do the *Work*.

15.0 **Award** 15.1 In exercising its discretion, the *Owner* will have regard to the information provided in the Appendices to the Form of Tender as described under IT5.3 including the proven experience of the tenderer, and any listed subcontractors, to do the *Work*.

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 be applied to determine whether the tender shall be rejected as incomplete:
 - i. 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 (.2) of this IT 15.3 (.3), 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 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 16.1 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 its 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 Work*, as defined in GC 7.4.1, the tenderers must

complete all the unit prices for such *Optional Work*. Such tender prices shall not include any general overhead costs, or other costs, or profit, not directly related to the *Optional Work*. Tenderers are directed to GC 9.4.2.

- 17.2 Notwithstanding that the *Owner* may elect not to proceed with the *Optional Work*, the tender prices for any *Optional Work*, including the extended totals for *Optional 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. 23-029

Street Tree Installation - 21 Lot Subdivision "Mitchell East"

Summary

Name of **Contractor**: _____

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)
Thursday, February 23, 2023

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 604-927-3060.

February 2023

CITY OF COQUITLAM
3000 Guildford Way
Coquitlam, BC V3B 7N2

Contract Name: Street Tree Installation – 21 Lot Subdivision “Mitchell East”

Contract No. 23-029

TO OWNER:

1 WE, THE UNDERSIGNED:

- 1.1 have received and carefully reviewed all of the *Contract Documents*, 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 Detail Drawings” and the following Addenda:

_____;
(ADDENDA, IF ANY)

- 1.2 shall fully disclose any actual or potential conflicts of interest and existing business relationships we may have with the City, their elected or appointed officials or employees;

- 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:

- 2.1 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
- 2.2 to achieve Substantial Performance of the *Work* on or before **May 15, 2023**; and.
- 2.3 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 Quantities and Prices*, and excludes *GST*.

3 WE CONFIRM:

- 3.1 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 II.
- 4.1.3 the Certificate of Compliance on the form provided in Appendix 7 of this Form of Tender.

5 WE AGREE:

- 5.1 that this tender will be irrevocable and open for acceptance by the *Owner* for a period of **60** 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 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 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:

- 6.1 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*.

7 OUR ADDRESS is as follows:

Phone: _____ - _____ - _____

Fax: _____ - _____ - _____

Email: _____

Attention: _____

This Tender is executed this _____ day of _____, 20____.

Contractor:

(FULL LEGAL NAME OF CORPORATION, PARTNERSHIP OR INDIVIDUAL)

(AUTHORIZED SIGNATORY)

(AUTHORIZED SIGNATORY)

8 WE CONFIRM:

8.1 our Goods and Services Tax (GST) registration status is as follows:

8.1.1 for information purposes, our GST Registration Number is:

(GST REGISTRATION NUMBER)

or;

8.1.2 by signature hereunder, we certify we are **not required** to provide a registration number:

(AUTHORIZED SIGNATORY)

(AUTHORIZED SIGNATORY)

APPENDIX 1						
Contract 23-029						
Street Tree Installation - 21 Lot Subdivision "Mitchell East"						
SCHEDULE OF QUANTITIES AND PRICES						
(see paragraph 5.3.1 of the Instruction to Tenderers)						
(All Tender and Contract Prices shall NOT include GST. GST will apply upon payment)						
(Should there be any discrepancy in the information provided, the City's original file copy shall prevail)						
ITEM NO.	MMCD Ref. / (Supp. Specs)	DESCRIPTION	UNIT	QTY	UNIT PRICE	EXTENDED AMOUNT
1.00	DIV 01	GENERAL REQUIREMENTS				
	00 72 435	CONTRACT SPECIFIC INSTRUCTIONS AND NOTATIONS				
1.01	1.01 to 3.04	Cost to include Bonds & Liability, Site Signage, Residential Notifications, Safety/Security Fencing as required.	I.s.	1		
	01 33 015	PROJECT RECORD DOCUMENTS				
1.02	1.3	Project Record Documentation	I.s.	1		
	01 45 005	QUALITY CONTROL				
1.03	1.9	Quality Control Testing			Incidental to Contract	
	01 55 005	TRAFFIC CONTROL, VEHICLE/PEDESTRIAN ACCESS & PARKING				
1.04	1.08	Traffic Management and Control (Appendix A)	I.s.	1		
	01 57 015	ENVIRONMENTAL PROTECTION				
1.05	1.6	ESC Supply & Installation, Monitoring, Maintenance and Removal	I.s.	1		
2.00	DIV 02	EXISTING CONDITIONS				
	02 43 13	DEMOLITION AND STRUCTURE MOVING				
2.01	1.3	All demolition, removals and offsite disposal of miscellaneous homeowner items installed within the boulevard, as identified on site (all stepping stone removals to remain with homeowners).	I.s.	1		
3.00	DIV 31	EARTHWORKS				
	31 23 015	EXCAVATION, TRENCHING AND BACKFILLING (Boulevard Tree Trenches)				
3.01		Common Excavation and Off-site Disposal including, Stripping & Topsoil removal to create Tree Trenches.	I.s.	1		
4.00	DIV 32	ROAD AND SITE IMPROVEMENTS				
	32 91 215	TOP SOIL AND FINISH GRADING				
4.01	1.4	Growing Medium	I.s.	1		
	32 92 23	SODDING				
4.02	1.8	Sodding, including establishment to Total Performance	I.s.	1		
	32 93 01	PLANTING OF TREES, SHRUBS AND GROUNDCOVERS				
4.03	1.9	Tree Planting including root barrier, tree stakes, arbotie straps, tree protector, treegator slow release water bag and a bark mulch tree well, as per City Standard Detail COQ-L2A	each	24		
Total Tendered Price (exclude GST): \$						
(Transfer the amount to Form of Tender Summary Page 1)						
Name of Contractor:						

APPENDIX 3

**Contract 23-029
Street Tree Installation – 21 Lot Subdivision “Mitchell East”**

EXPERIENCE OF SUPERINTENDENT
(See paragraph 5.3.3 of the Instructions to Tenderers)

Proposed Project Superintendent _____

List of Project Experience

PROJECT:		Dates:	
Work Description:			
Responsibility:			
Owner/Reference:		Phone No:	

PROJECT:		Dates:	
Work Description:			
Responsibility:			
Owner/Reference:		Phone No:	

PROJECT:		Dates:	
Work Description:			
Responsibility:			
Owner/Reference:		Phone No:	

APPENDIX 4

**Contract 23-029
Street Tree Installation – 21 Lot Subdivision “Mitchell East”**

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:			

APPENDIX 5

**Contract 23-029
Street Tree Installation – 21 Lot Subdivision “Mitchell East”**

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:	

APPENDIX 6

**Contract 23-029
Street Tree Installation – 21 Lot Subdivision “Mitchell East”**

BID BOND

NO. _____

\$ _____

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 (\$ _____) lawful money of Canada, for the payment of which sum, well and truly to be made, the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a written Tender to the Obligee, dated the _____ day of _____, 2021 for Contract _____.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the aforesaid Principal shall have the Tender accepted within sixty (60) days from the Closing Date of Tender and the said Principal will, within the time required, enter into a formal contract and give good and sufficient bonds to secure the performance of the terms and conditions of the Contract, then this obligation shall be null and void; otherwise the Principal and Surety will pay unto the Obligee the difference in money between the amount of the bid of the said Principal and the amount for which the Obligee legally contracts with another party to perform the work if the latter amount be in excess of the former.

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

Any suit under this Bond must be instituted before the expiration of six (6) months from the date 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, this _____ day of _____, 2021.

SIGNED, SEALED AND DELIVERED
In the presence of:

_____)	_____
)	PRINCIPAL
)	
)	_____
)	SURETY

APPENDIX 7

**Contract 23-029
Street Tree Installation – 21 Lot Subdivision “Mitchell East”**

CERTIFICATE OF COMPLIANCE for CONTRACT INSURANCE

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

Contract Number: 23-029

Contract Name: Street Tree Installation – 21 Lot Subdivision “Mitchell East”

Description of Work:

Generally consisting of the preparation of four (4) existing City street boulevards for the supply and installation(planting) of a minimum of twenty-four(24) street trees as herein specified, and as shown on the attached drawings, details and as per City of Coquitlam standards.

The Scope of Work consists of the following, but is not limited to:

- All site preparation, including site signage individual notification to residents and secured construction safety/security fencing as required.
- Installation, continuous monitoring and maintenance of all erosion and sediment control measures as outlined in the City’s Stream and Drainage System Protection Bylaw 4403, 2013.
- All Traffic Control and Management, including vehicular and pedestrian.
- All temporary circulation control and signage to ensure public can move safely and freely around/through the work zone.
- All demolition, removals and offsite disposal of miscellaneous items within the boulevard
- All earthwork and offsite disposal of stripping, topsoil and common excavation of existing boulevard material, for creation of the tree trenches
- All site work including, site preparation, supply and placement of growing medium, supply and planting of trees, root barriers, tree stakes, arborist ties, tree protection, supply and placement of bark mulch as per City of Coquitlam – Boulevard Tree Planting Detail COQ-L2A.
- All remediation work including site grading where the proposed work meets the existing City sidewalk and roadway curbs.
- All general landscape work including, sodding and/or hydro seeding.
- Maintenance of planted trees and sodded/hydro-seeded lawn areas until accepted by the City.
- Complete site clean-up and remediation of all disturbed areas and existing structures.

Commercial General Liability: \$5,000,000 limit

Special Coverage Required:	<u>YES</u>	<u>NO</u>	<u>Special Coverage Description</u>
	()	(x)	Shoring and Underpinning Hazard
	()	(x)	Pile Driving and Vibrations
	(x)	()	Excavation Hazard
	()	(x)	Demolition
	()	(x)	Blasting

We also certify that the insurance coverage will meet the requirements of the Supplementary General Conditions Section 24. Insurance included as part of the Contract Documents and that the proof of insurance will be provided on the City of Coquitlam Certificate of Insurance form, without amendments, except for the exclusions noted above.

Name of Tenderer (printed)

Authorized Signature

Date

Agreement

AGREEMENT

Between Owner and Contractor

THIS AGREEMENT made in duplicate this ____ day of _____ 2023.

Contract: **Street Tree Installation – 21 Lot Subdivision “Mitchell East”**

Reference No. **23-029**

BETWEEN:

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

(the "Owner")

AND:

(the "Contractor")

The *Owner* 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*.
- 1.2 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 **May 15th, 2023**, 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

- 2.1 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*.
- 2.2 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

- 5.1 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

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, B.C. 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

- 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

(GM Parks Recreation, Culture and Facilities)

Street Tree Installation – 21 Lot Subdivision “Mitchell East”

Reference No: 23-029

Schedule 1

Schedule of Contract Documents

(INCLUDE IN LIST ALL 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.

NOTE: 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 Standard Detail Drawings, 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 2022

Street Tree Installation – 21 Lot Subdivision “Mitchell East”

Reference No: 23-029

Schedule 2

LIST OF DRAWINGS AND APPENDICES

(Complete Listing of all Drawings, Plans, Sketches and Appendices that are part of the Contract Documents)

Bound in this Document:

1. **Appendix A:** Traffic Management Detail Specifications

NOT Bound in this Document:

2. Full Size Contract Drawings

TITLE	SHEET NUMBER	REVISION DATE	REVISION NUMBER
M2 Landscape Architecture 21-Lot Subdivision “Mitchell East” Off-Site Landscape Plan (East)	01 of 03	2018-03-28	3
M2 Landscape Architecture 21-Lot Subdivision “Mitchell East” Off-Site Landscape Details (East)	02 of 03	2018-03-28	3
M2 Landscape Architecture 21-Lot Subdivision “Mitchell East” Off-Site Landscape Plan (East)	03 of 03	2018-03-28	3

TITLE	SHEET NUMBER	REVISION DATE	REVISION NUMBER
Aplin Martin -Proposed 21-Lot Subdivision “Mitchell East” Cover Sheet	01 of 24	2018-03-26	D
Aplin Martin - Proposed 21-Lot Subdivision “Mitchell East”. Specifications Sheet	02 of 24	2018-03-26	D
Aplin Martin - Proposed 21-Lot Subdivision “Mitchell East” Key Plan	03 of 24	2018-08-17	F
Aplin Martin - Proposed 21-Lot Subdivision “Mitchell East”. Road Works	04 of 24	2018-03-26	D
Aplin Martin - Proposed 21-Lot Subdivision “Mitchell East” Road Works	05 of 24	2018-03-26	D
Aplin Martin - Proposed 21-Lot Subdivision “Mitchell East” Road Works	06 of 24	2018-03-26	D
Aplin Martin - Proposed 21-Lot Subdivision “Mitchell East” Water Works	07 of 24	2018-03-26	D
Aplin Martin - Proposed 21-Lot Subdivision “Mitchell East” Water Works	08 of 24	2018-03-26	D
Aplin Martin - Proposed 21-Lot Subdivision “Mitchell East” Storm Sewers	09 of 24	2018-03-26	D
Aplin Martin - Proposed 21-Lot Subdivision “Mitchell East” Storm and Sanitary Sewers	10 of 24	2018-04-25	E
Aplin Martin - Proposed 21-Lot Subdivision “Mitchell East”	11 of 24	2018-03-26	D

TITLE	SHEET NUMBER	REVISION DATE	REVISION NUMBER
Storm and Sanitary Sewers			
Aplin Martin - Proposed 21-Lot Subdivision "Mitchell East" Typical Cross Sections & Curb Returns	12 of 24	2018-09-20	E
Aplin Martin - Proposed 21-Lot Subdivision "Mitchell East" Road Cross Sections	13 of 24	2018-03-26	D
Aplin Martin - Proposed 21-Lot Subdivision "Mitchell East" Road Cross Sections	14 of 24	2018-03-26	D
Aplin Martin - Proposed 21-Lot Subdivision "Mitchell East" Road Cross Sections	15 of 24	2018-03-26	D
Aplin Martin - Proposed 21-Lot Subdivision "Mitchell East" Site Grading	16 of 24	2018-04-25	E
Aplin Martin - Proposed 21-Lot Subdivision "Mitchell East" Storm Water Management Plan	19 of 24	2018-03-26	D
Aplin Martin - Proposed 21-Lot Subdivision "Mitchell East" Erosion & Sediment Control Plan	17 of 24	2018-04-25	E
Aplin Martin - Proposed 21-Lot Subdivision "Mitchell East" Traffic Control Marking & Signage Plan	18 of 24	2018-03-26	D

TITLE	SHEET NUMBER	REVISION DATE	REVISION NUMBER
City of Coquitlam – Standard Detail Drawings – Boulevard Tree Planting without Swale	COQ-L2A	2015-12	



APLIN MARTIN

ENGINEERING ARCHITECTURE PLANNING SURVEYING

#505 - 1755 W. Broadway Street, Vancouver, BC V6J 4S5
Tel: (604) 224-6827, Fax: (604) 597-9061, Email: general@aplinmartin.com

CLIENT:

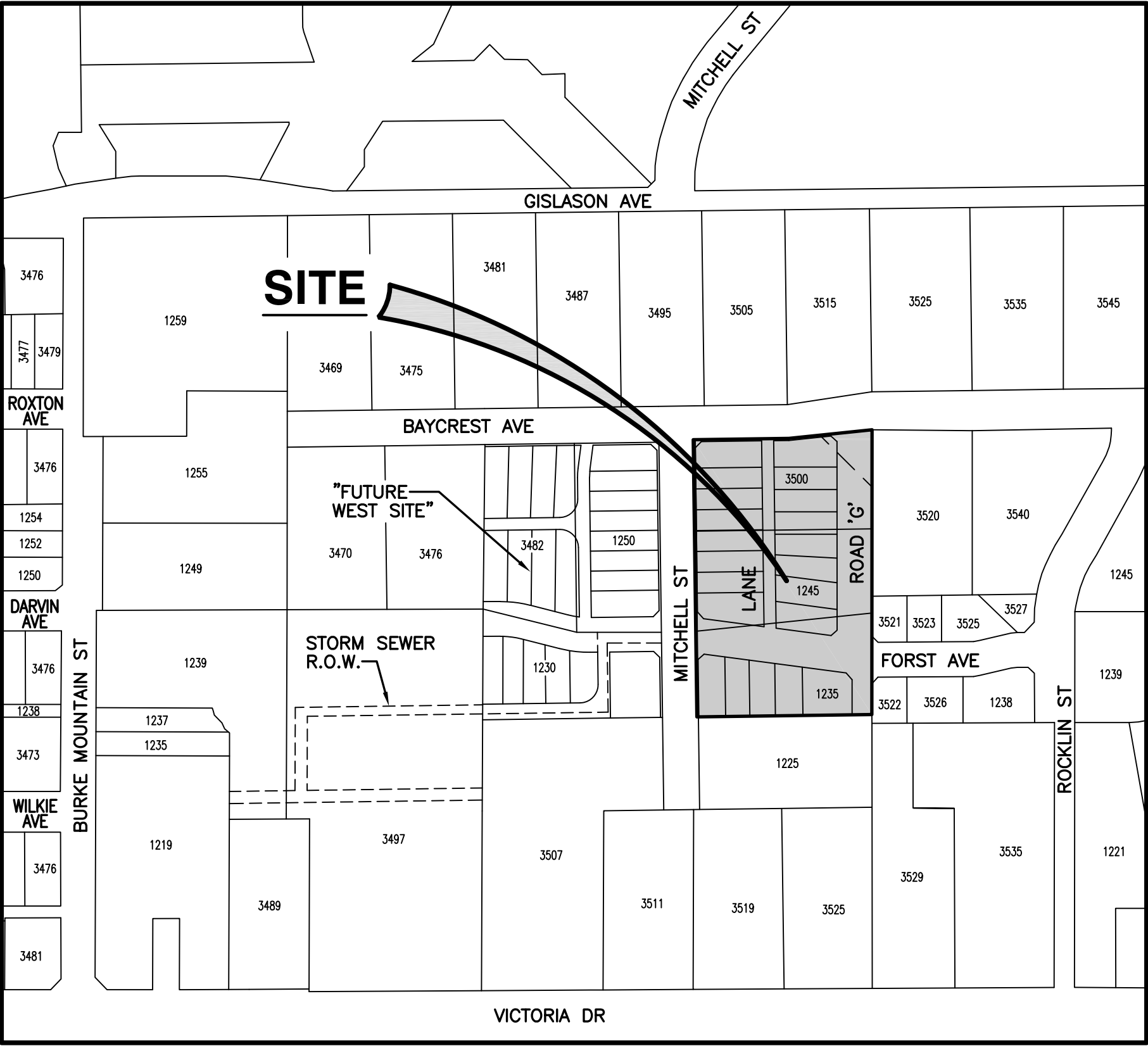
1045353 BC LTD. (BILL LAIDLER)
209-2773 BARNET HIGHWAY
COQUITLAM, BC V3B 1C2

PROJECT:

PROPOSED 21-LOT SUBDIVISION
1235 & 1245 MITCHELL ST & 3500 BAYCREST AVE
COQUITLAM, B.C.

CITY OF COQUITLAM
APPROVED
David Gardiner
For The Development Servicing Manager
April 30, 2018

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SITE LOCATION PLAN

NOT TO SCALE

DRAWING INDEX

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02	SPECIFICATION SHEET
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09	STORM SEWER TEMPORARY E.S.C. POND DETAILS
10	STORM & SANITARY SEWERS FORST AVENUE & ROAD 'G'
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19	STORM WATER MANAGEMENT PLAN
20	RETENTION TRENCH DETAIL
21	STREET LIGHTING (BY G.N.E.C)
22-24	STREET TREES (BY M2: 3 SHEETS - L1 TO L3)

APPROVED SET

CITY PROJECT No. 16-110032-SD

APLIN & MARTIN PROJECT No. 16-233E / DX 545-E

ENGINEERING DRAWING NOTES

A. OFF-SITE WORKS GENERAL

- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH:
 - CITY OF COQUITLAM SUBDIVISION AND DEVELOPMENT SERVICING BYLAW NO. 3558, 2003 AS AMENDED MARCH 2016 AND THE APPLICABLE CITY OF COQUITLAM SUPPLEMENTARY SPECIFICATIONS AND DETAILED DRAWINGS TO MMCD 2009 EDITION.
 - APPLICABLE CONTRACT DOCUMENTS AND ALL SPECIFICATIONS REFERENCED THEREIN.
 - MASTER MUNICIPAL CONSTRUCTION DOCUMENTS 2009 PLATINUM EDITION.THE CONTRACTOR SHALL MAINTAIN ON SITE COPIES OF THE ABOVE DOCUMENTS AND SHALL ENSURE THAT ALL TRADES AREMTHOROUGHLY FAMILIAR WITH THE APPLICABLE SECTIONS OF THESE DOCUMENTS.
- ALL WORK SHALL CONFORM TO THE CONSTRUCTION STANDARDS SPECIFIED IN THE SUBDIVISION AND DEVELOPMENT SERVICES BYLAW AND SHALL PASS THE INSPECTION OF THE CITY OF COQUITLAM OPERATIONS DEPARTMENT. CONTACT SENIOR ENGINEERING INSPECTOR, LARRY HOVEY – TELEPHONE 604–927–4319. 72 HOURS PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL ENSURE THAT ALL APPROVALS/PERMITS REQUIRED FOR THE PROPOSED WORKS HAVE BEEN OBTAINED FROM ALL AUTHORITIES AND AGENCIES PRIOR TO COMMENCEMENT OF WORK.
- EXISTING UNDERGROUND SERVICES SHOWN ARE BASED ON AS – CONSTRUCTED DRAWINGS PROVIDED BY THE CITY OF COQUITLAM EXISTING UTILITIES SHOWN ARE BASED ON DRAWINGS PROVIDED BY THE RESPECTIVE UTILITY COMPANIES. THE CONTRACTOR SHALL EXPOSE AND VERIFY THE LOCATION OF EXISTING SERVICES AND UTILITIES UNDER THE SUPERVISION OF THE APPROPRIATE AUTHORITY PRIOR TO CONSTRUCTION, AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES, CONFLICTS OR OMISSIONS. THE CITY OF COQUITLAM AND THE UTILITY COMPANIES CANNOT BE HELD LIABLE FOR ANY DISCREPANCIES, CONFLICTS OR OMISSIONS.
- THE CONTRACTOR SHALL TAKE EXTREME CARE WHEN WORKING NEAR OR AROUND EXISTING SERVICES; ANY DISTURBANCE TO THESE SERVICES SHALL BE REPLACED OR MADE GOOD TO THE SATISFACTION OF THE CITY OF COQUITLAM OR THE OWNER OF THE UTILITY.
- DISTURBANCE TO ANY LANDSCAPING OR IMPROVEMENT SHALL BE RESTORED BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY OF COQUITLAM. IN SOME CASES THE CITY OF COQUITLAM MAY REQUIRE THE CONTRACTOR TO OBTAIN WRITTEN ACCEPTANCE OF THE RESTORATION FROM THE AFFECTED PROPERTY OWNERS.
- ALL MONUMENTS, POSTS OR IRON PINS DISTURBED OR DESTROYED SHALL BE REPLACED AND RESURVEYED AT THE CONTRACTOR'S EXPENSE AND TO THE CITY OF COQUITLAM'S SATISFACTION.
- ALL EXISTING LIVE SERVICES SHALL BE MAINTAINED OPERATIONAL DURING CONSTRUCTION.
- WORK REFERENCED AS BY DEVELOPER SHALL BE CARRIED OUT BY THE CONTRACTOR, WORK REFERENCED AS BY BUILDER WILL BE CARRIED OUT BY OTHERS.
- STORM AND SANITARY SEWERS SHALL BE VIDEO INSPECTED ONCE DURING THE PERIOD BETWEEN COMPLETION OF CONSTRUCTION AND THE END OF MAINTENANCE PERIOD AT THE DEVELOPER'S EXPENSE. THE CONTRACTOR SHALL PROVIDE THE CITY WITH ONE COPY OF THE VIDEO AND DATA REPORT.

B. ROAD WORKS

- SUBGRADE AND GRANULAR BASE MATERIALS SHALL BE COMPACTED TO 95% MPD UNLESS OTHERWISE INDICATED. GEOTECHNICAL CONSULTANT TO REVIEW AND APPROVE THE SUBGRADE PRIOR TO PLACING ROAD GRANULARS.
- ALL VALVE BOXES, MANHOLES, ETC., SHALL BE ADJUSTED TO FINISHED GRADE IN PAVED AREAS. A PROTECTIVE ASPHALT RAMP SHALL BE PLACED AROUND EACH STRUCTURE TO COMPENSATE FOR FUTURE FINAL LIFT OF PAVEMENT.
- LOCATION OF DRIVEWAYS, WHEELCHAIR RAMP, ETC., SHALL BE CONFIRMED IN THE FIELD PRIOR TO CONSTRUCTION OF CURB, GUTTER AND SIDEWALK.
- TRENCHING SHALL BE AS PER CITY OF COQUITLAM STANDARD DRAWING COQ–G4.

C. WATERMAIN

- UNLESS OTHERWISE INDICATED WATERMAIN PIPE MATERIAL SHALL BE:
 - PVC CLASS 150 OR 200 DR 18
 - DUCTILE IRON CLASS 50, CLEMENT MORTAR LINED.
- FIRE HYDRANT LEADS SHALL BE DUCTILE IRON CLASS 50.
- FITTING SHALL BE GREY IRON SUITABLE FOR 1380KPA WORKING PRESSURE.
- GATE VALVES SHALL BE CAST IRON SUITABLE FOR 1380 KPA WORKING PRESSURE.
- CONFIRM WATERMAIN WORKING PRESSURE WITH ENGINEER PRIOR TO PRESSURE TESTING.
- CONFIRM THRUST BLOCK END AREAS WITH ENGINEER PRIOR TO CONSTRUCTION.
- DEFLECTION OF PIPE JOINTS SHALL NOT EXCEED ONE-HALF MAXIMUM DEFLECTION SPECIFIED IN AWWA C500 OR ONE-HALF MAXIMUM DEFLECTION RECOMMENDED BY PIPE MANUFACTURER. JOINT DEFLECTION IS NOT PERMITTED FOR PVC PIPE UNLESS HIGH DEFLECTION PVC COUPLINGS (RATED FOR 1380KPA) OPERATING PRESSURE ARE USED.
- TESTING AND CHLORINATION OF WATERMAINS TO BE PERFORMED BY THE CONTRACTOR AND WITNESSES BY THE CITY OF COQUITLAM'S ENGINEERING AND PUBLIC WORKS INSPECTOR.
- JOINTS SHALL BE RESTRAINED WITH UNI-FLANGE SERIES 1300 FITTINGS WHERE REQUIRED.
- WATER SERVICE CONNECTION TO BE AS PER CITY OF COQUITLAM STANDARD DRAWINGS COQ–W2B UNLESS OTHERWISE NOTED.
- WATER SERVICE CONNECTION TO BE 20MM COPPER, TYPE K, UNLESS OTHERWISE NOTED.
- TRENCHING SHALL BE AS PER CITY OF COQUITLAM STANDARD DRAWING COQ–G4.

D. STORM SEWER

- UNLESS OTHERWISE INDICATED STORM SEWER MATERIALS SHALL BE:
 - MAINS–250MM DIA – PVC DR 35
 - 300MM DIA – PVC DR 35 OR CONCRETE C14 CLASS 3
 - 375MM DIA TO 675MM DIA – CONCRETE C76 CLASS 3.CATCH BASIN LEADS – SINGLE CB–150MM PVC DR 28
 - DOUBLE CB–200MM DIA PVC DR 35.MANHOLES – PRECAST REINFORCED CONCRETE
 - 1050MM DIA MHMAINS UP TO 450MM DIA
 - 1200MM DIA MHMAINS 525MM AND 600MM IN DIA
 - 1350MM DIA MHMAINS 675MM AND 750MM INDIA
 - 1500MM DIA MHMAINS 900MM TO 1050MM IN DIA OR RISER MH.CATCH BASINS –STANDARD – 600MM DIA PRECAST REINFORCED CONCRETE
 - SIDE INLET – 900MM DIA PRECAST REINFORCED CONCRETE.
- MANHOLES SHALL BE INSTALLED AS PER MMCD STANDARD DRAWINGS S1 AND S2. BENCHING SHALL BE AS PER MMCD STANDARD DRAWING S3. MANHOLE FRAMES AND COVERS SHALL CONFORM TO CITY OF COQUITLAM STANDARD DRAWING COQ–S16.
- NDARD CATCH BASINS SHALL BE INSTALLED AS PER MMCD STANDARD DRAWING S11. SIDE INLET CATCH BASINS SHALL BE INSTALLED AS PER CITY OF COQUITLAM STANDARD DRAWING COQ–S11A. CATCH BASIN RIM ELEVATIONS FOR STANDARD AND IDE INLET CATCH BASINS HALL BE SET 30MM BELOW FINISHED GRADE.
- NSPECTION CHAMBERS SHALL BE INSTALLED FOR ALL CONNECTIONS AS PER MMCD STANDARD DRAWING S9 FOR CONNECTIONS UP TO 200MM AND MMCD STANDARD DRAWING S10 FOR CONNECTIONS 250MM TO 375MM.
- STORM CONNECTION TO BE 150MM DIA PVC UNLESS OTHERWISE NOTED.
- TRENCHING SHALL BE AS PER CITY OF COQUITLAM STANDARD DRAWING COQ–G4.

D. SANITARY SEWER

- UNLESS OTHERWISE INDICATED SANITARY SEWER MATERIALS SHALL BE:
 - MAINS–PVC DR 35 SERVICE CONNECTIONS–100MM AND 150MM DIA PVC DR 28
 - 200MM DIA AND GREATER, DR 35 MANHOLES–1050MM DIA PRECAST REINFORCED CONCRETE
- MANHOLES SHALL BE INSTALLED AS PER MMCD STANDARD DRAWINGS S1 AND S2. BENCHING SHALL BE AS PER MMCD STANDARD DRAWING S3. MANHOLE FRAMES AND COVERS SHALL CONFORM TO CITY OF COQUITLAM STANDARD DRAWING COQ–S16.
- INSPECTION CHAMBERS SHALL BE INSTALLED FOR ALL CONNECTIONS AND PER MMCD STANDARD DRAWING S9.
- SANITARY CONNECTION TO BE 100MM DIA PVC UNLESS OTHERWISE NOTED AND INSTALLED AS PER MMCD STANDARD DRAWINGS S7.
- TRENCHING SHALL BE AS PER CITY OF COQUITLAM STANDARD DRAWING COQ–G4.

CITY OF COQUITLAM
APPROVED

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For The Development Servicing Manager

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16–110032–SD

CITY OF COQUITLAM
ENGINEERING DEPARTMENT

SPECIFICATION SHEET

DATE
DECEMBER 2016

SHEET
02 OF 24

DWG. No.
16-233-02

REV.
D

AM FILE No. 16–233E/DX 545–E

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B.M. CVD28 GVRD, 2005	MONUMENT NO. 77H4134	ELEVATION: 53.258m	
D	26.03.18	THIRD SUBMISSION	AV
C	15.01.18	REVISED SECOND SUBMISSION	AV
B	11.10.17	SECOND SUBMISSION	AV
A	21.06.17	FOR SUBMISSION	AV
No.	DATE	REVISION	BY



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209-2773 BARNET HIGHWAY,
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PROJECT: PROPOSED 21-LOT SUBDIVISION
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3500 BAYCREST AVENUE AND 1235 & 1245 MITCHELL STREET
COQUITLAM, B.C.

DRAWN A.V.

DESIGNED D.L.

CHECKED D.L.

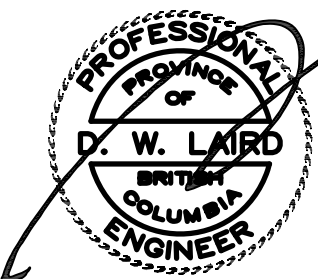
APPROVED D.L.

SCALES

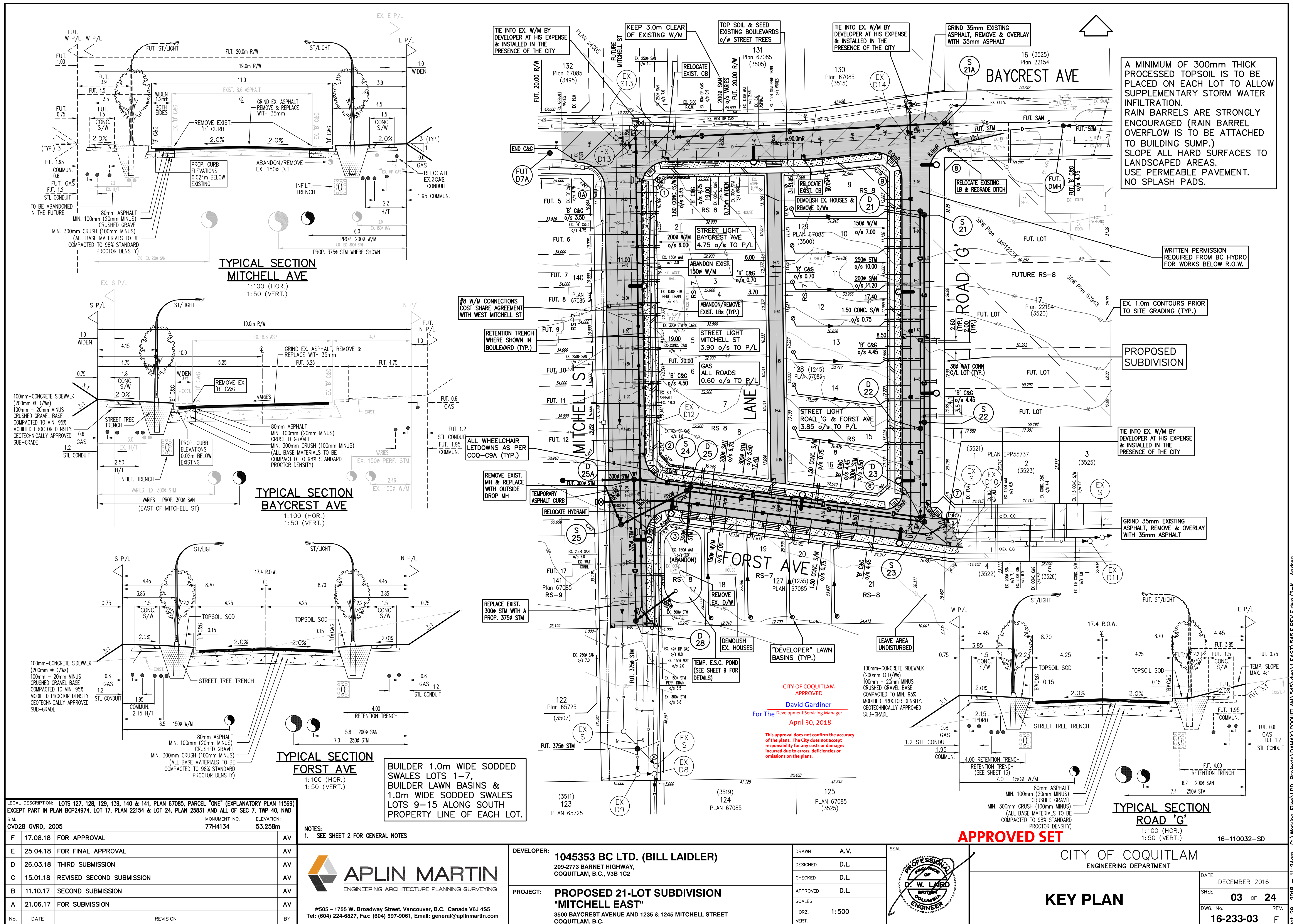
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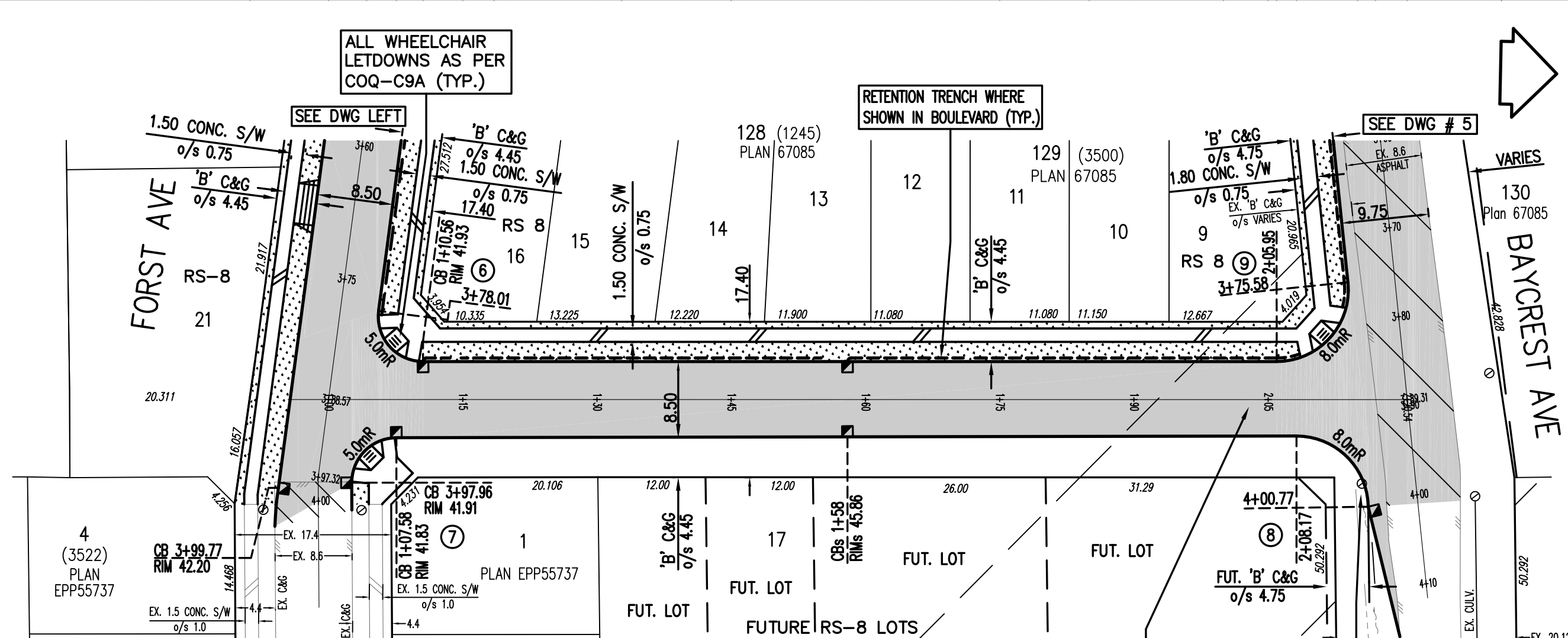
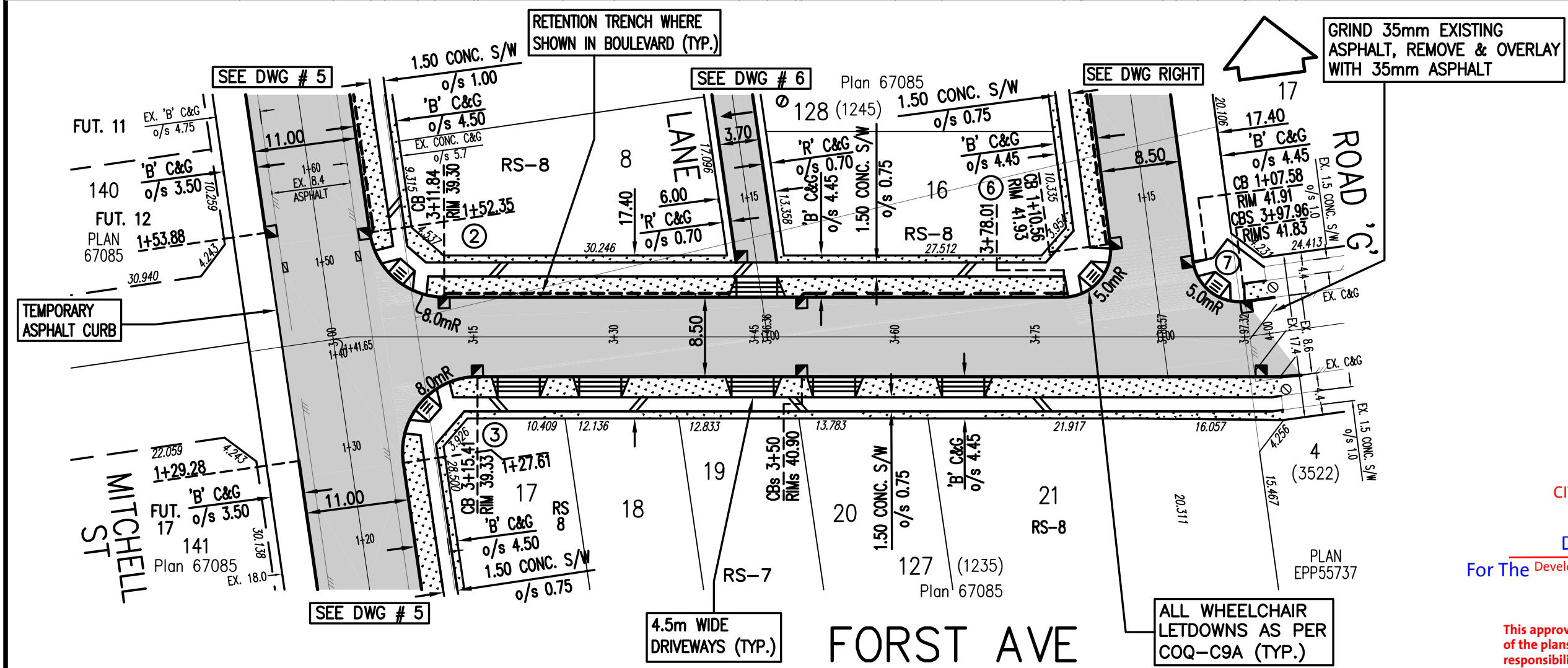
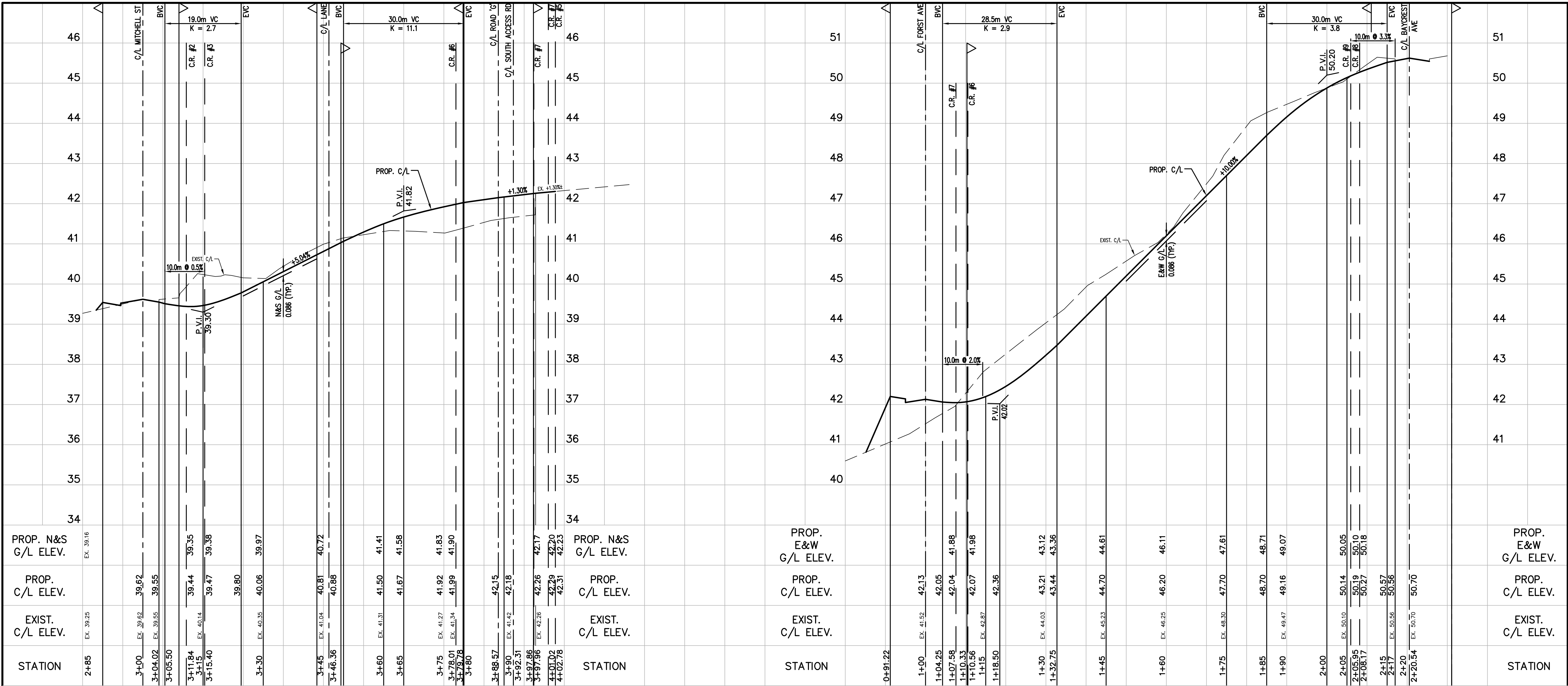
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SEAL



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- NOTES:
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 - SEE SHEETS 12-15 FOR TYPICAL CROSS SECTIONS, ROAD CROSS SECTIONS & CURB RETURNS

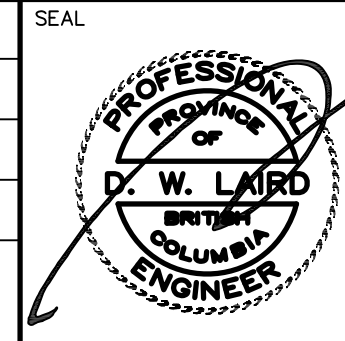


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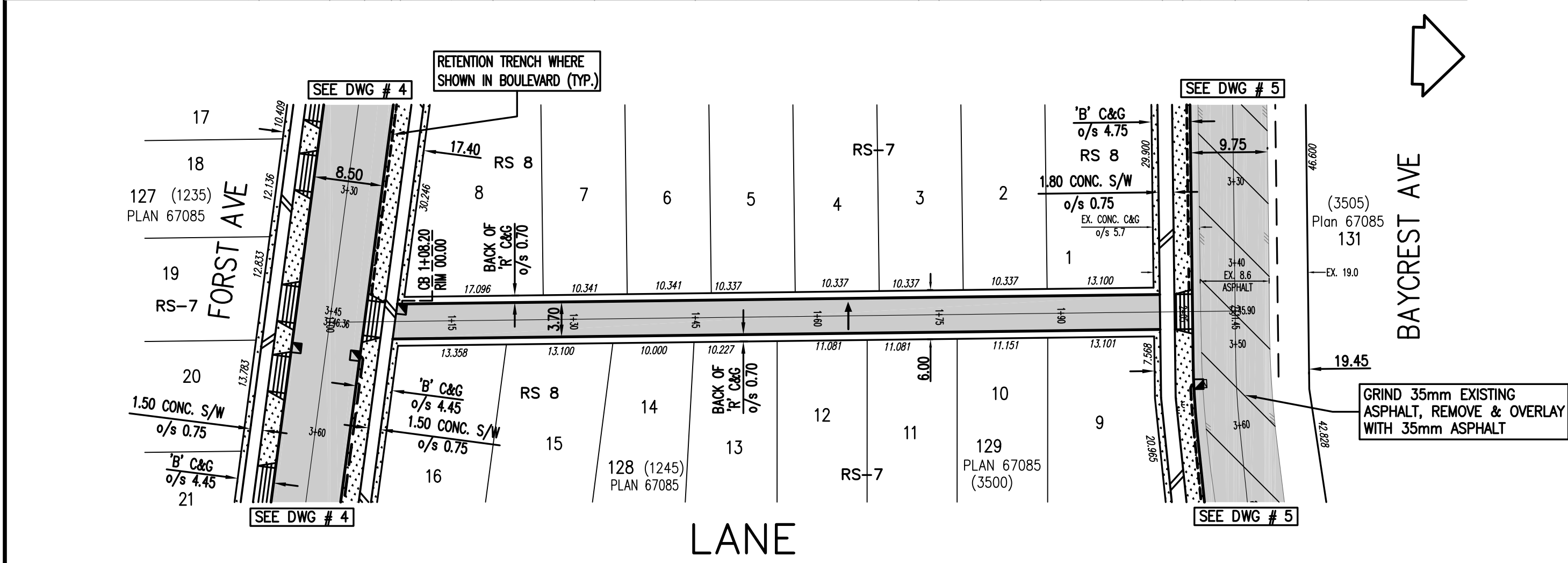
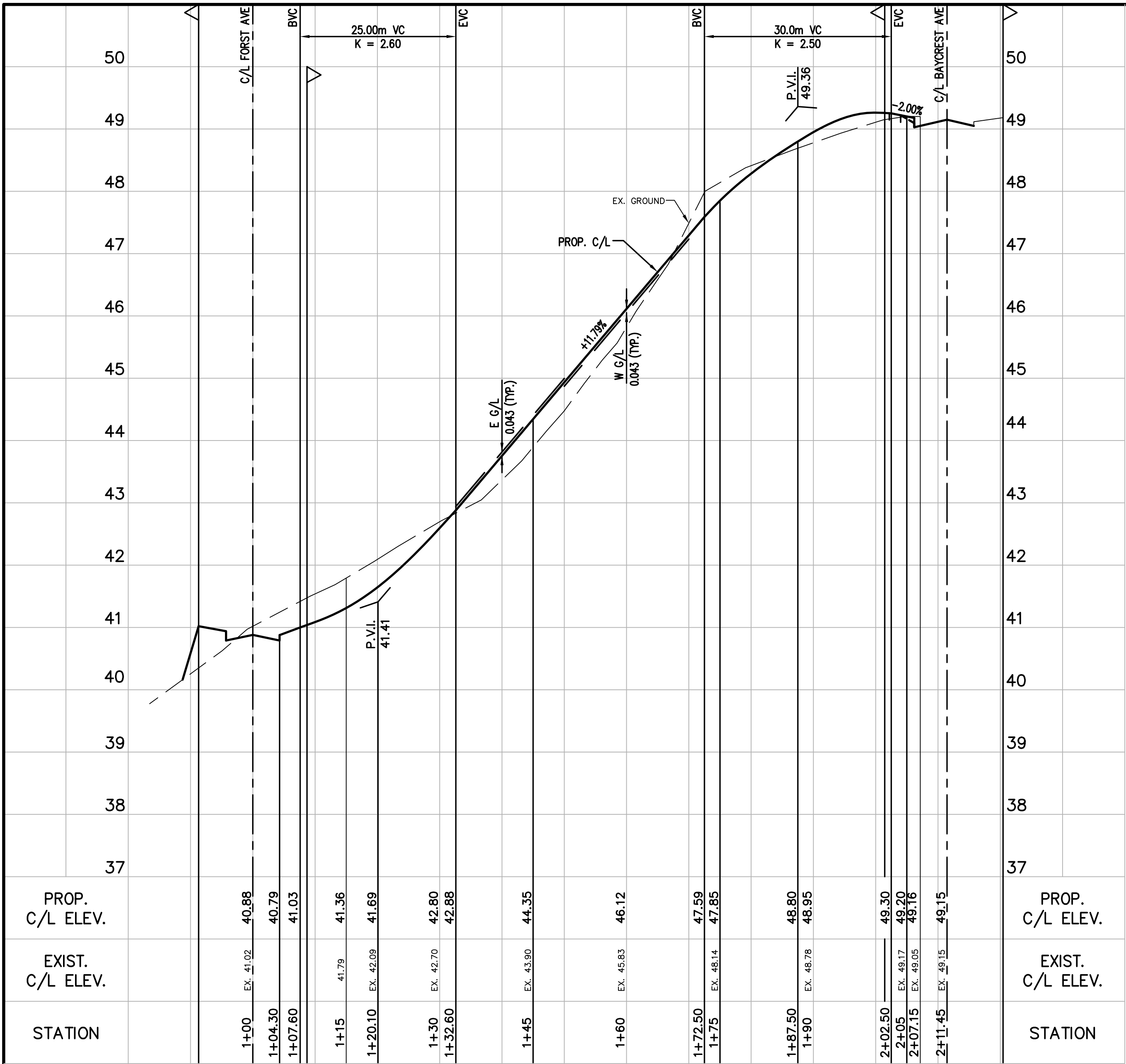


CITY OF COQUITLAM
ENGINEERING DEPARTMENT
ROAD WORKS
FORST AVE & ROAD 'G'

DATE: DECEMBER 2016
SHEET: **04** OF **24**
DWG. No.: **16-233-04**
REV: D

AM FILE No. 16-233E/DX 545-E

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CITY OF COQUITLAM
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For The Development Servicing Manager
April 30, 2018

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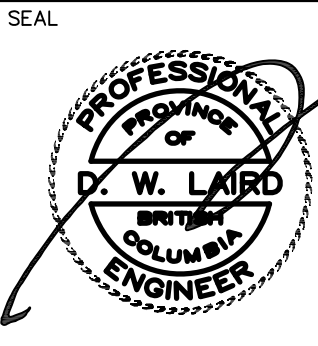


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DRAWN	A.V.
DESIGNED	D.L.
CHECKED	D.L.
APPROVED	D.L.
SCALES	
HORZ.	1:500
VERT.	1:50



CITY OF COQUITLAM
ENGINEERING DEPARTMENT

ROAD WORKS
LANE

DATE	DECEMBER 2016
SHEET	06 OF 24
DWG. No.	16-233-06
REV.	D

AM FILE No. 16-233E/DX 545-E

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WATERWORKS NOTES.:

- ALL WATERWORKS CONSTRUCTION AND MATERIALS CONFORM WITH THE SPECIFICATIONS DETAILED UNDER THE CITY OF COQUITLAM ENGINEERING STANDARDS 2003 & MMCD DETAILS
- WATER MAINS ARE 150# D.I. PIPE CLASS 50 CEMENT LINED TO AWWA C104 AND MAINTAIN A MINIMUM OF 1.0m COVER
- WATER SERVICES ARE 19mm± COPPER TO ASTM B-88 TYPE "K" c/w CURB STOP AND INSTALLED AS PER MMCD STD. DWG. "W2B"
- ALL NEW CONNECTIONS HAVE SADDLES AT THE MAIN & BRASS CURB STOPS - MUELLER A631 OR EQUIVALENT
- FOR TRENCH SECTION SEE CITY OF COQUITLAM STD. DWG. "COQ-G4"
- FOR GATE VALVE INSTALLATION SEE MMCD STD. DWG. "W3"
- FOR CONCRETE THRUST BLOCK DETAILS SEE MMCD STD. DWG. "W1"
- FOR BLOW-OFF DETAILS SEE CITY OF COQUITLAM STD. DWG. "COQ-W8"
- FOR FIRE HYDRANT INSTALLATION SEE MMCD STD. DWG. "W4" c/w QUICK RELEASE STORZ CONNECTION
- WATER MAINS TIED INTO EXISTING LINES WERE TESTED, FLUSHED & CHLORINATED PRIOR TO PLACING IN SERVICE

WATERMAIN FITTINGS:

Ⓐ	1 - 150# TYT x 150# FL x 200# FL TEE 1 - 150# FL x 150# TYT GATE VALVE 1 - 200# FL x 200# TYT GATE VALVE 1 - CONC. THRUST BLOCK
Ⓑ	1 - 200# TYT x 200# TYT x 150# FL TEE 1 - 150# FL x 150# TYT GATE VALVE 1 - HYDRANT ASSEMBLY COMPLETE 2 - CONC. THRUST BLOCKS FOR 'D' USE EXIST. HYDRANT ASSEMBLY
Ⓒ	1 - 200# TYT x 200# FL x 150# FL x 150# FL CROSS 2 - 150# FL x 150# TYT GATE VALVES 1 - 200# FL x 200# TYT GATE VALVE 2 - CONC. THRUST BLOCKS
Ⓔ	1 - 200# TYT 45° BEND 1 - 200# TYT x 200# FL 45° BEND 1 - 200# FL x 150# TYT REDUCER 2 - CONC. THRUST BLOCKS
Ⓕ	1 - 150# BLOW-OFF ASSEMBLY 1 - CONC. THRUST BLOCK
Ⓖ	1 - 150# TYT x 150# FL x 150# FL TEE 2 - 150# FL x 150# TYT GATE VALVES 1 - CONC. THRUST BLOCK
Ⓗ	1 - 150# x 45° TYT BEND 1 - CONC. THRUST BLOCK
Ⓙ	1 - 150# TYT x 150# FL x 150# FL TEE 2 - 150# FL x 150# TYT GATE VALVES 1 - CONC. THRUST BLOCK

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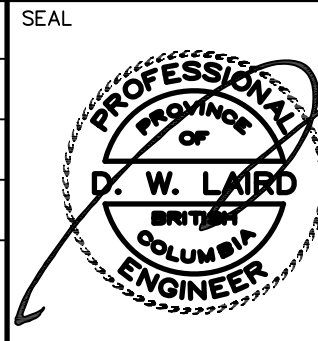


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ENGINEERING DEPARTMENT

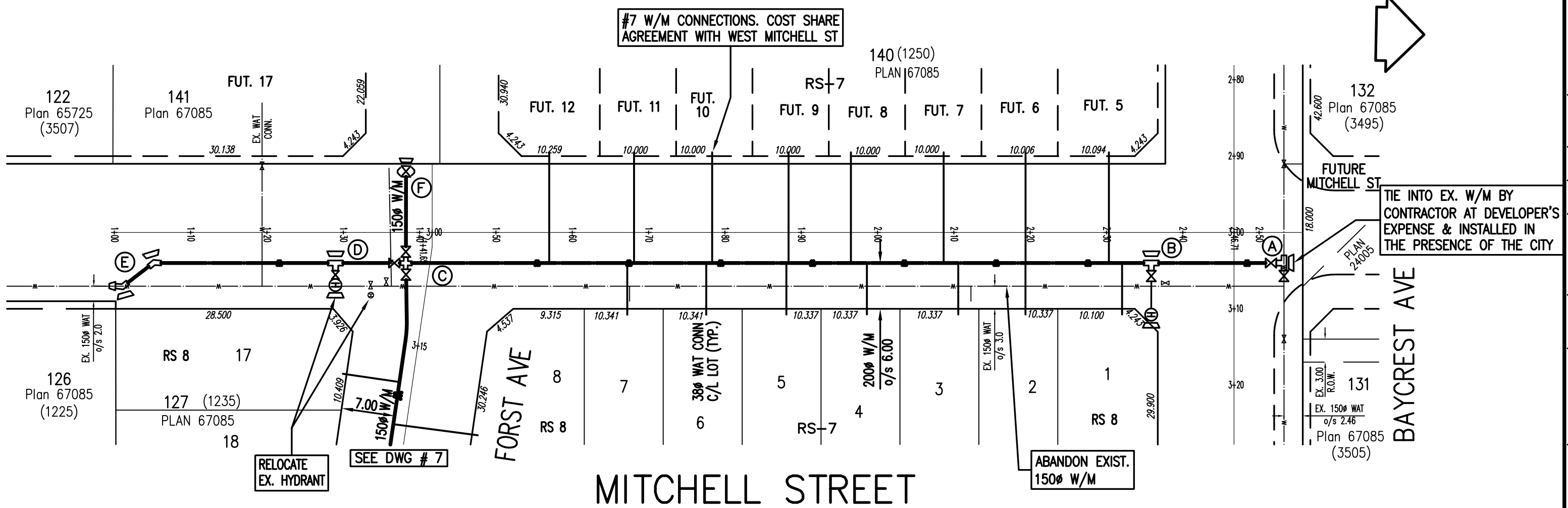
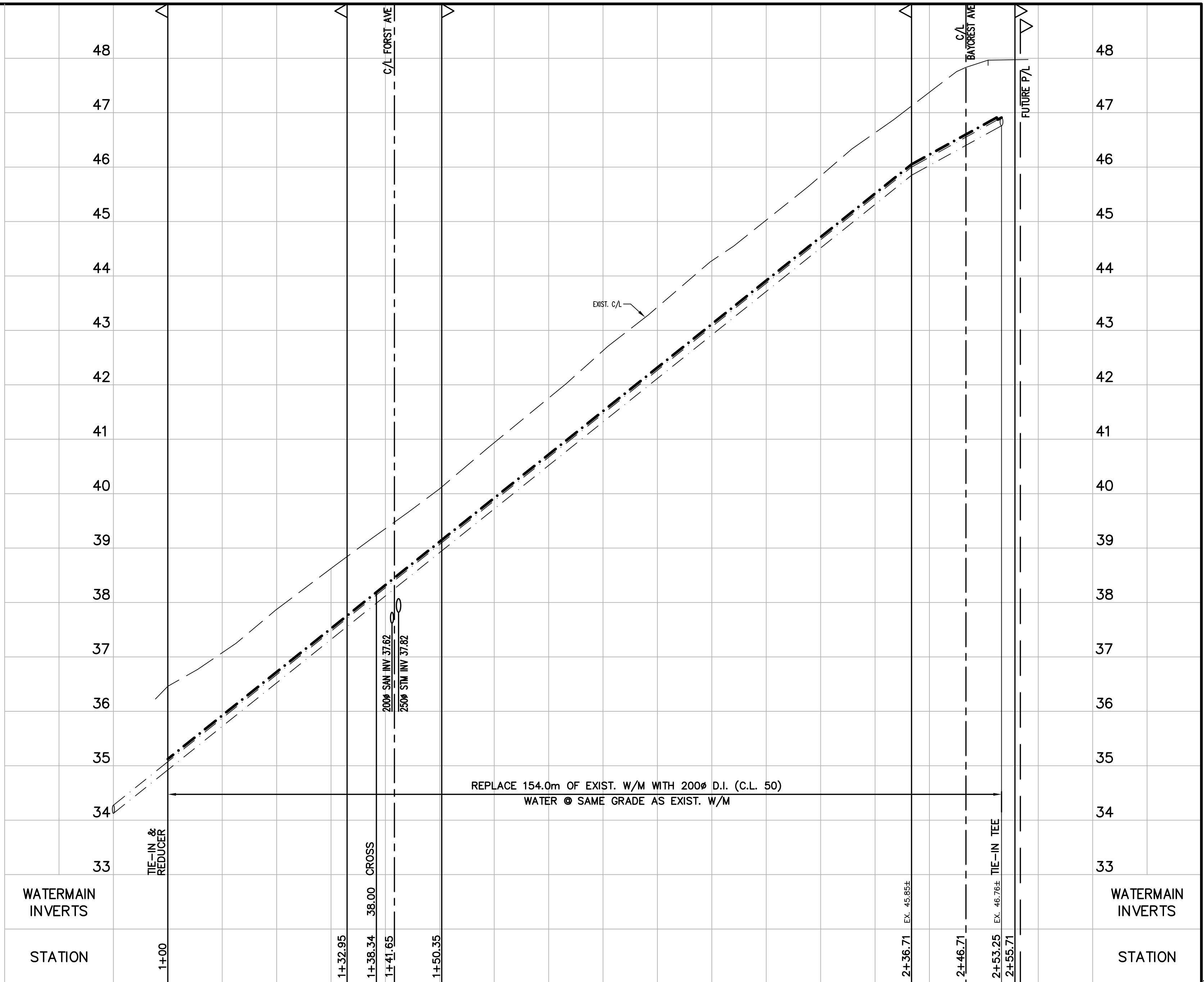
WATER WORKS
MITCHELL ST

DATE
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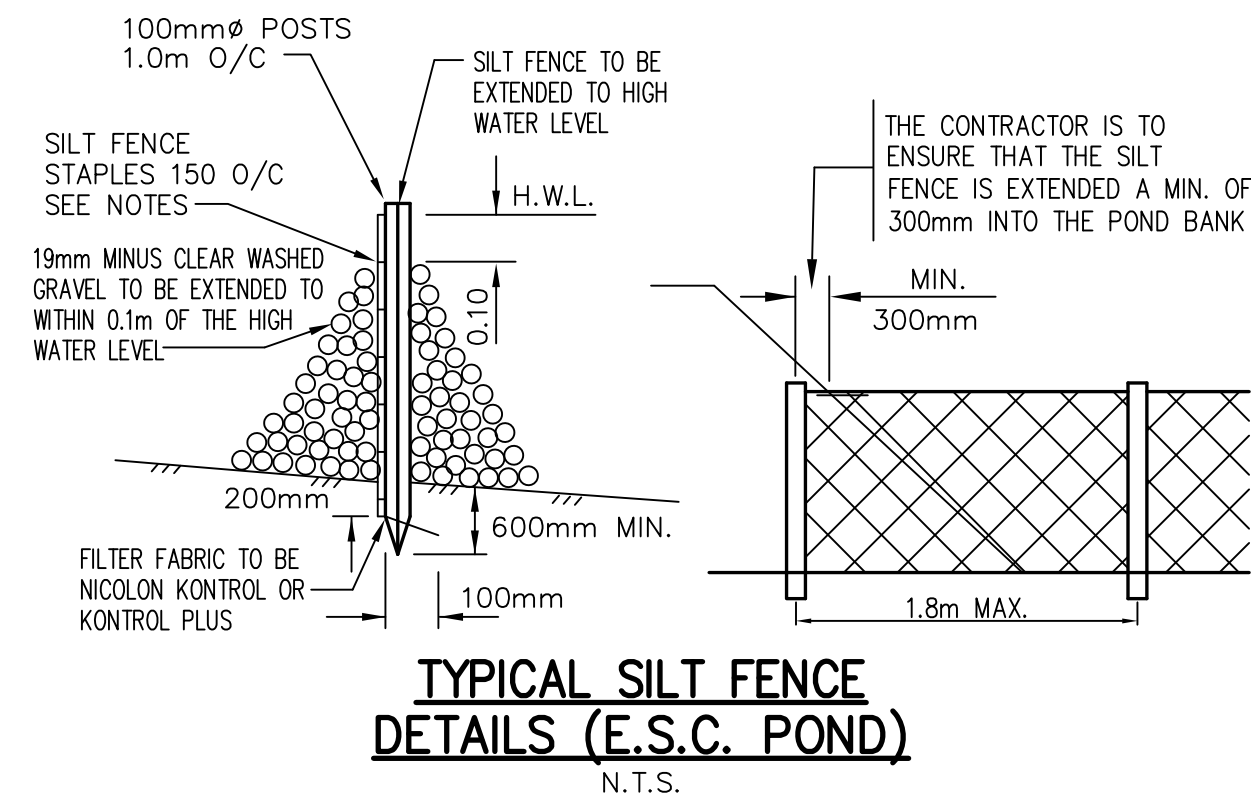
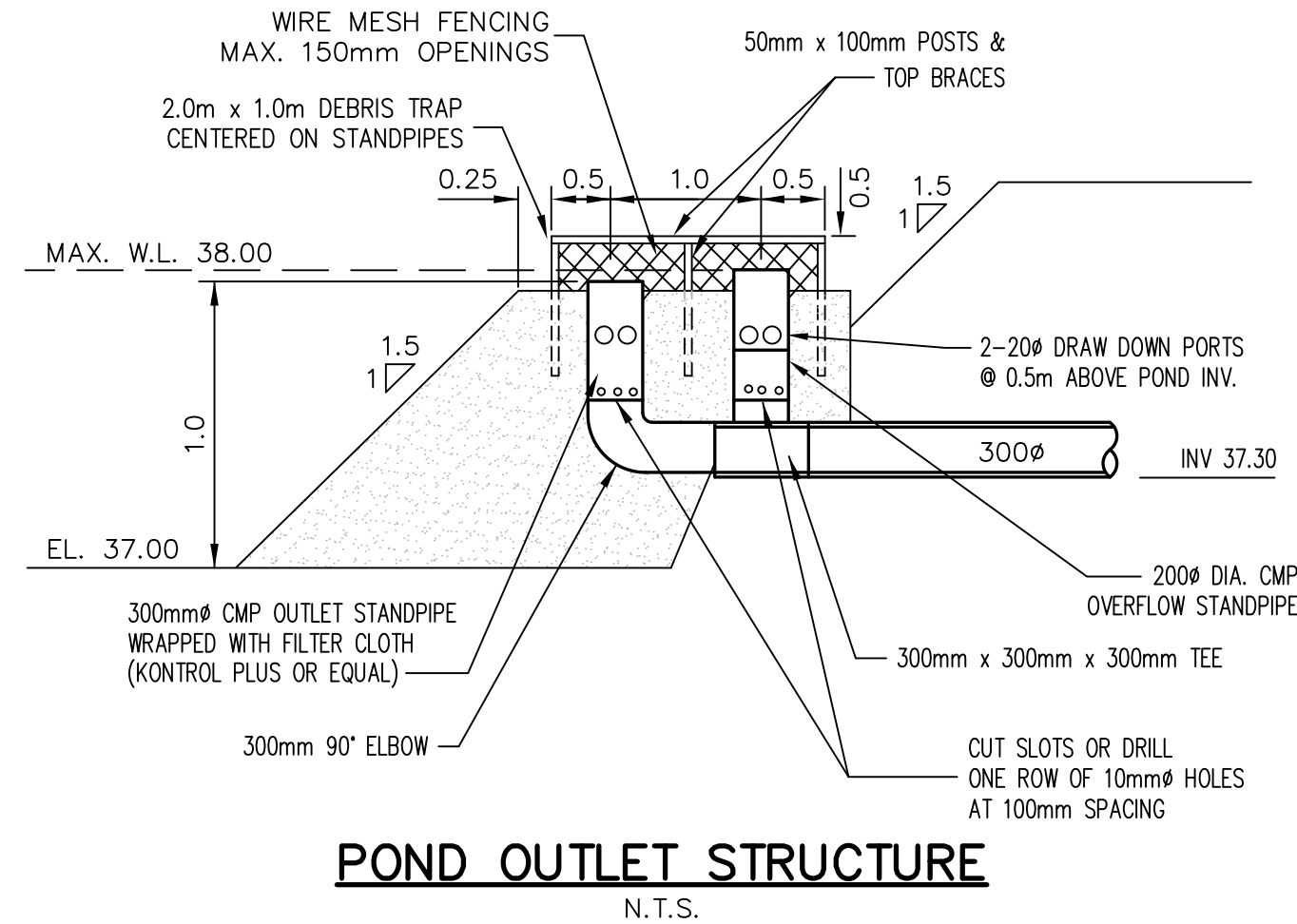
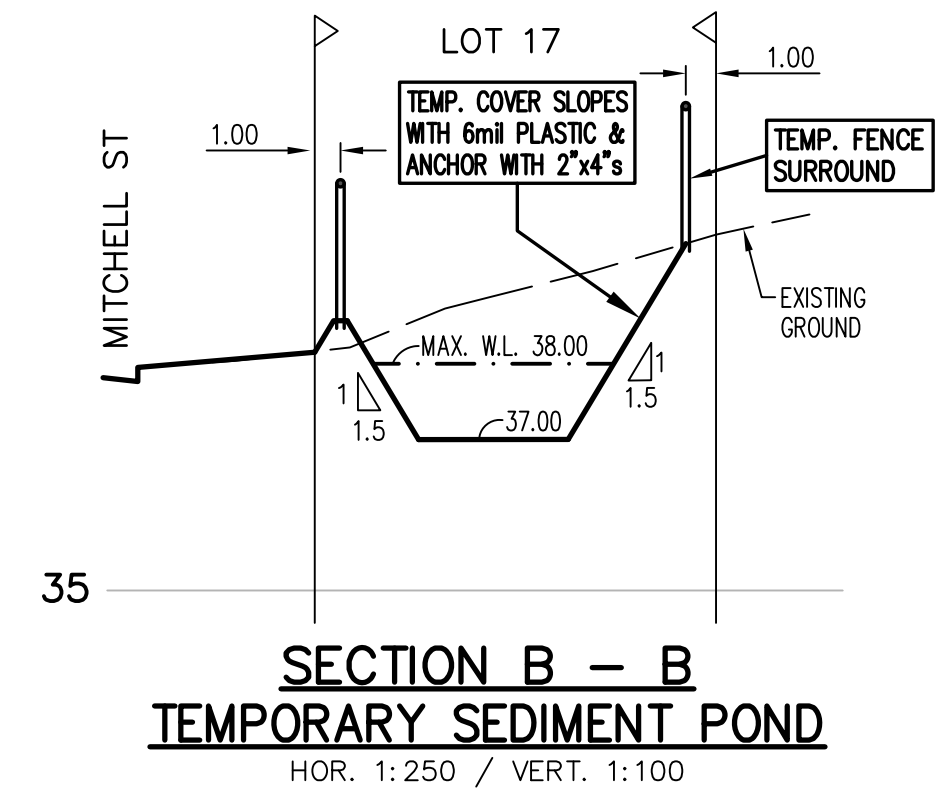
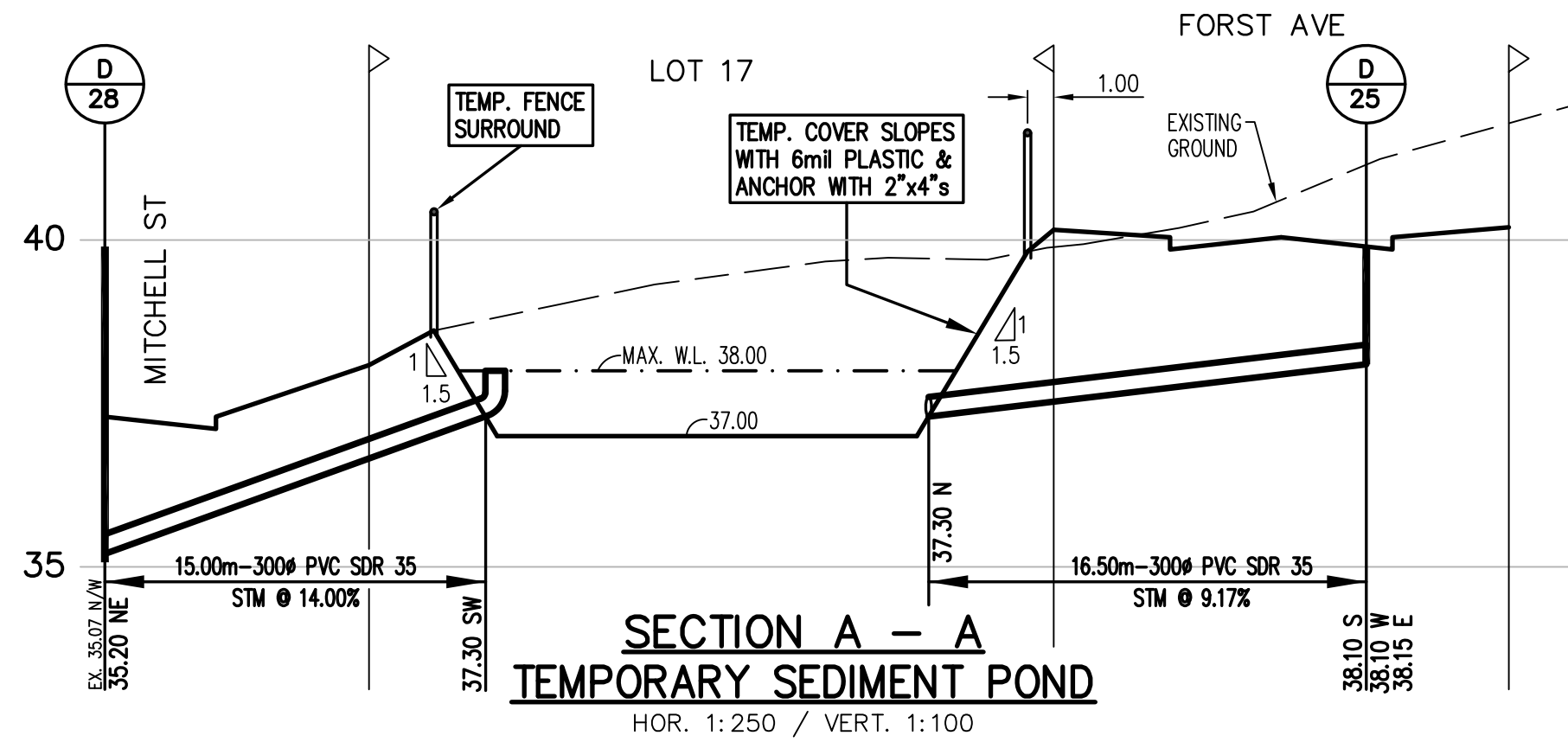
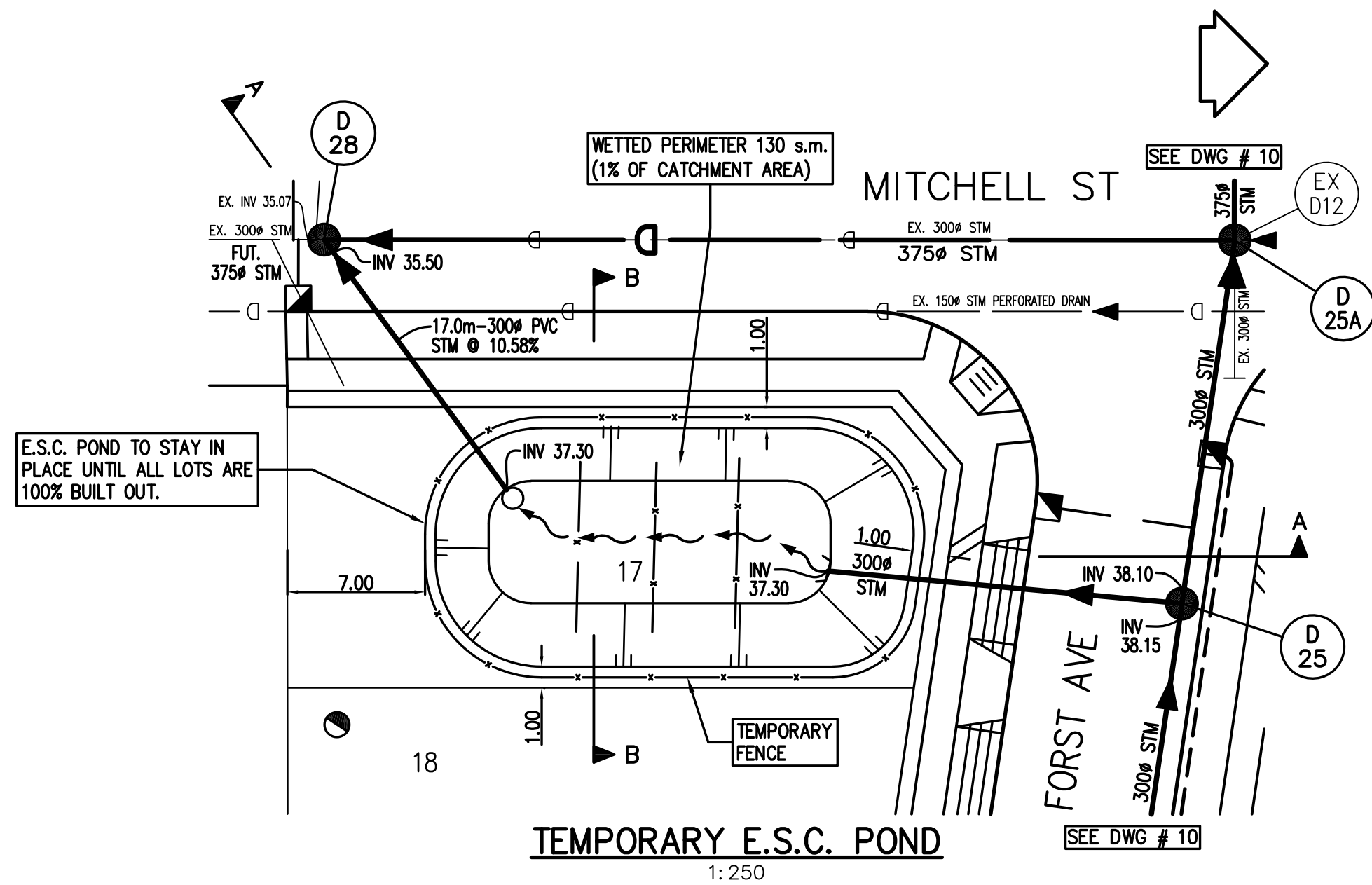
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08 OF 24

DWG. No. 16-233-08
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LEGAL DESCRIPTION: LOTS 127, 128, 129, 139, 140 & 141, PLAN 67085, PARCEL "ONE" (EXPLANATORY PLAN 11569) EXCEPT PART IN PLAN BOP24974, LOT 17, PLAN 22154 & LOT 24, PLAN 25831 AND ALL OF SEC 7, TWP 40, NWD.			
B.M.	MONUMENT NO.	ELEVATION:	
CVD28 GVRD, 2005	77H4134	53.258m	
D	26.03.18	THIRD SUBMISSION	AV
C	15.01.18	REVISED SECOND SUBMISSION	AV
B	11.10.17	SECOND SUBMISSION	AV
A	06.07.17	FIRST SUBMISSION	TZ
No.	DATE	REVISION	BY

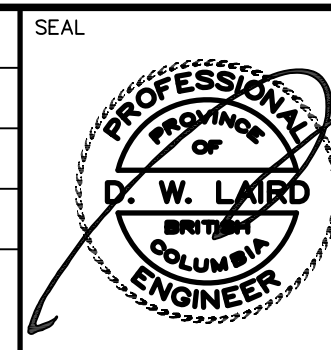
NOTES:
1. SEE SHEET 2 FOR GENERAL NOTES



#505 - 1755 W. Broadway Street, Vancouver, B.C. Canada V6J 4S5
Tel: (604) 224-6827, Fax: (604) 597-9061, Email: general@aplinmartin.com

DEVELOPER: **1045353 BC LTD. (BILL LAIDLER)**
209-2773 BARNEY HIGHWAY,
COQUITLAM, B.C., V3B 1C2
PROJECT: **PROPOSED 21-LOT SUBDIVISION**
"MITCHELL EAST"
3500 BAYCREST AVENUE AND 1235 & 1245 MITCHELL STREET
COQUITLAM, B.C.

DRAWN A.V.
DESIGNED D.L.
CHECKED D.L.
APPROVED D.L.
SCALES
HORZ. 1:500
VERT. 1:50



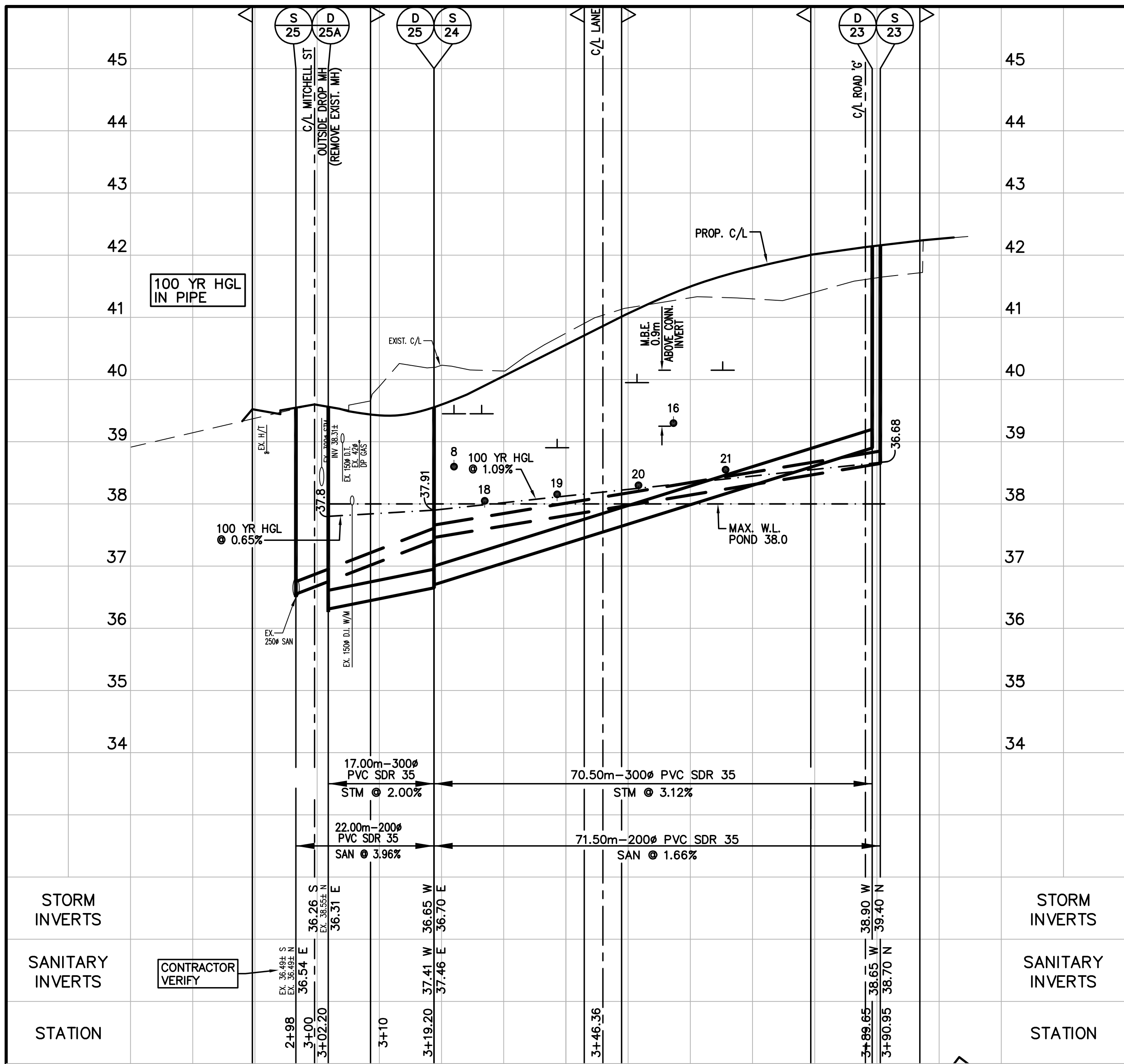
APPROVED SET

CITY OF COQUITLAM
ENGINEERING DEPARTMENT
STORM SEWERS
TEMPORARY
E.S.C. POND DETAILS

DATE
NOVEMBER 2016
SHEET
09 OF 24
DWG. No.
16-233-09
REV.
D

AM FILE No. 16-233E/DX 545-E

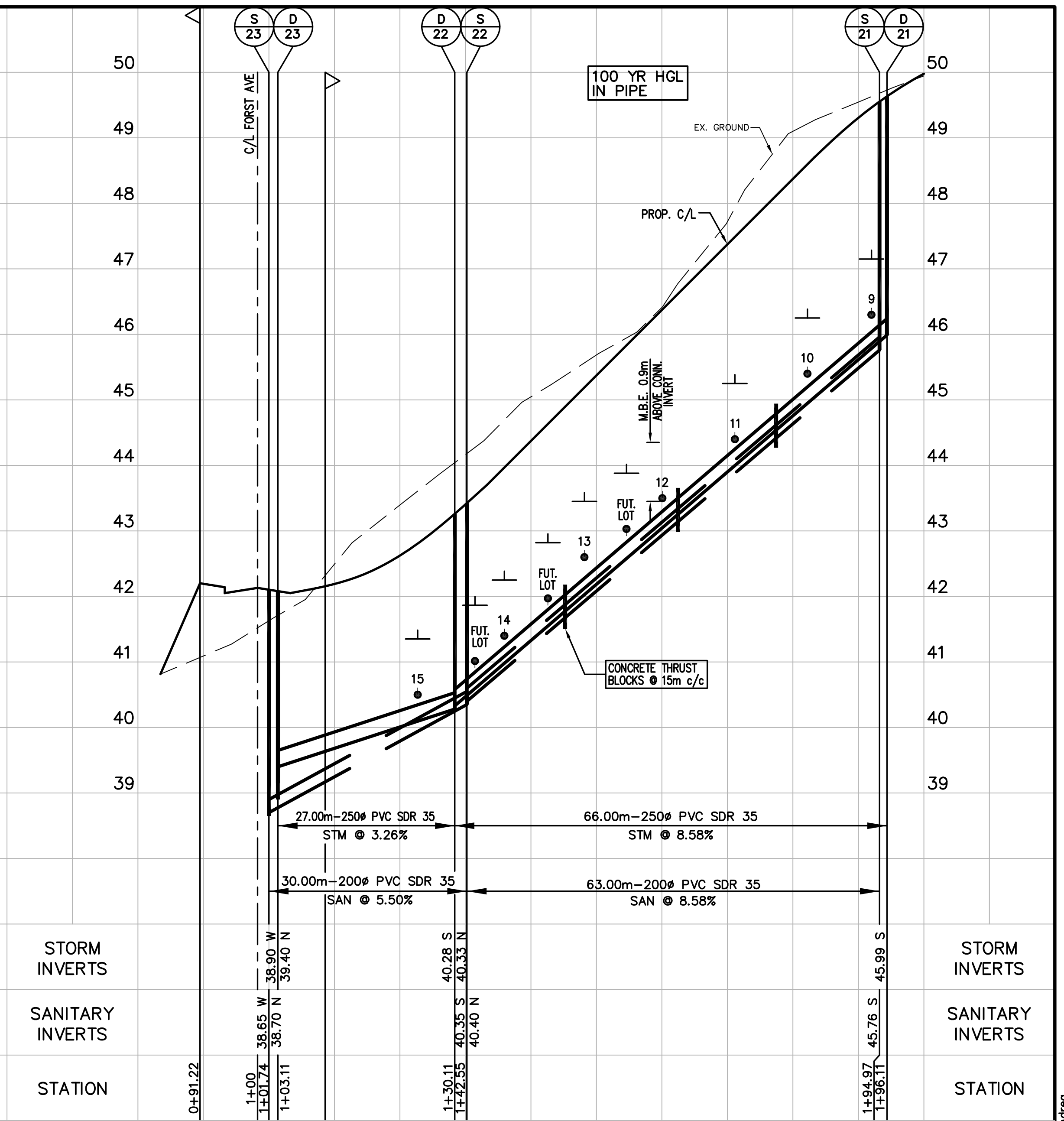
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STORM
INVERTS

SANITARY
INVERTS

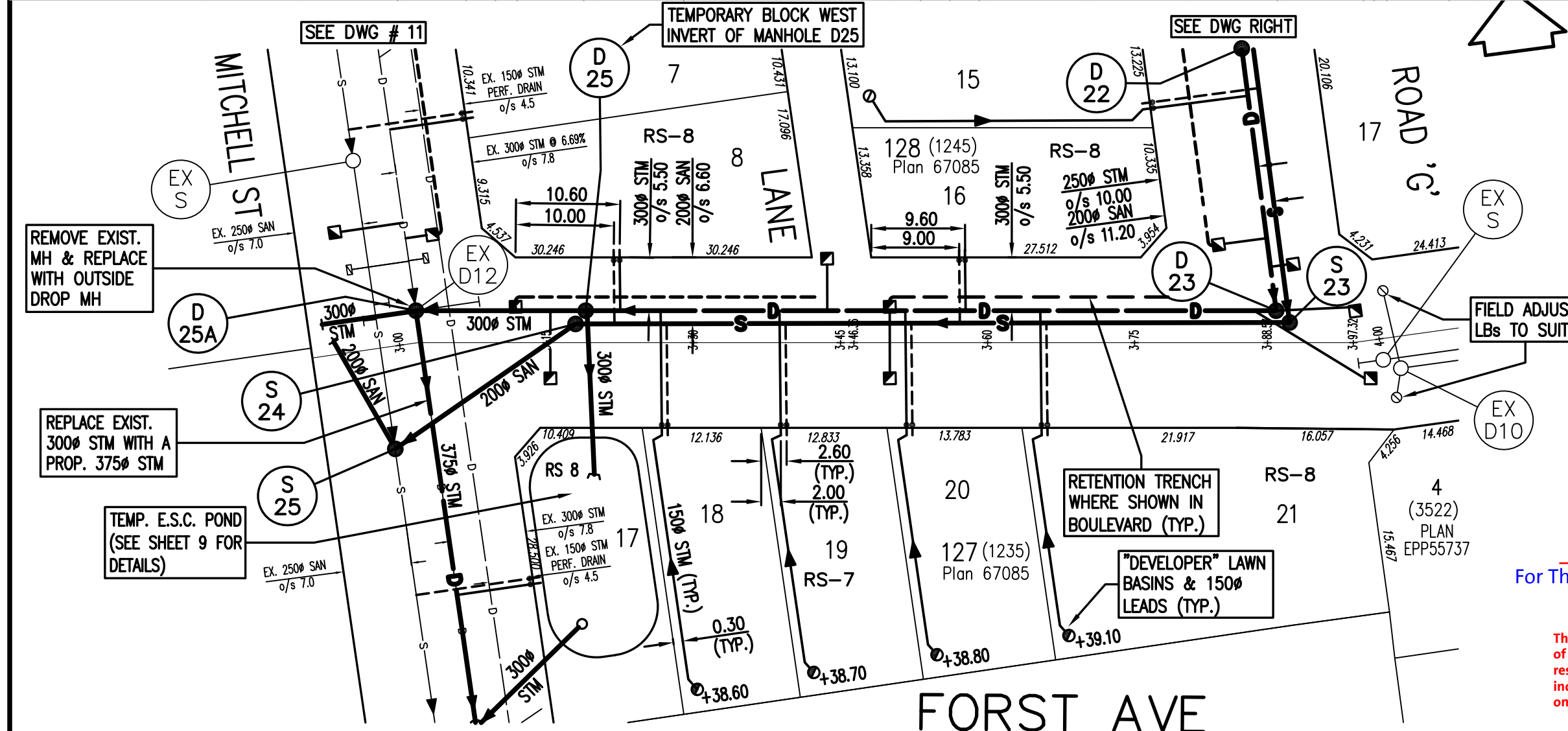
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STORM
INVERTS

SANITARY
INVERTS

STATION

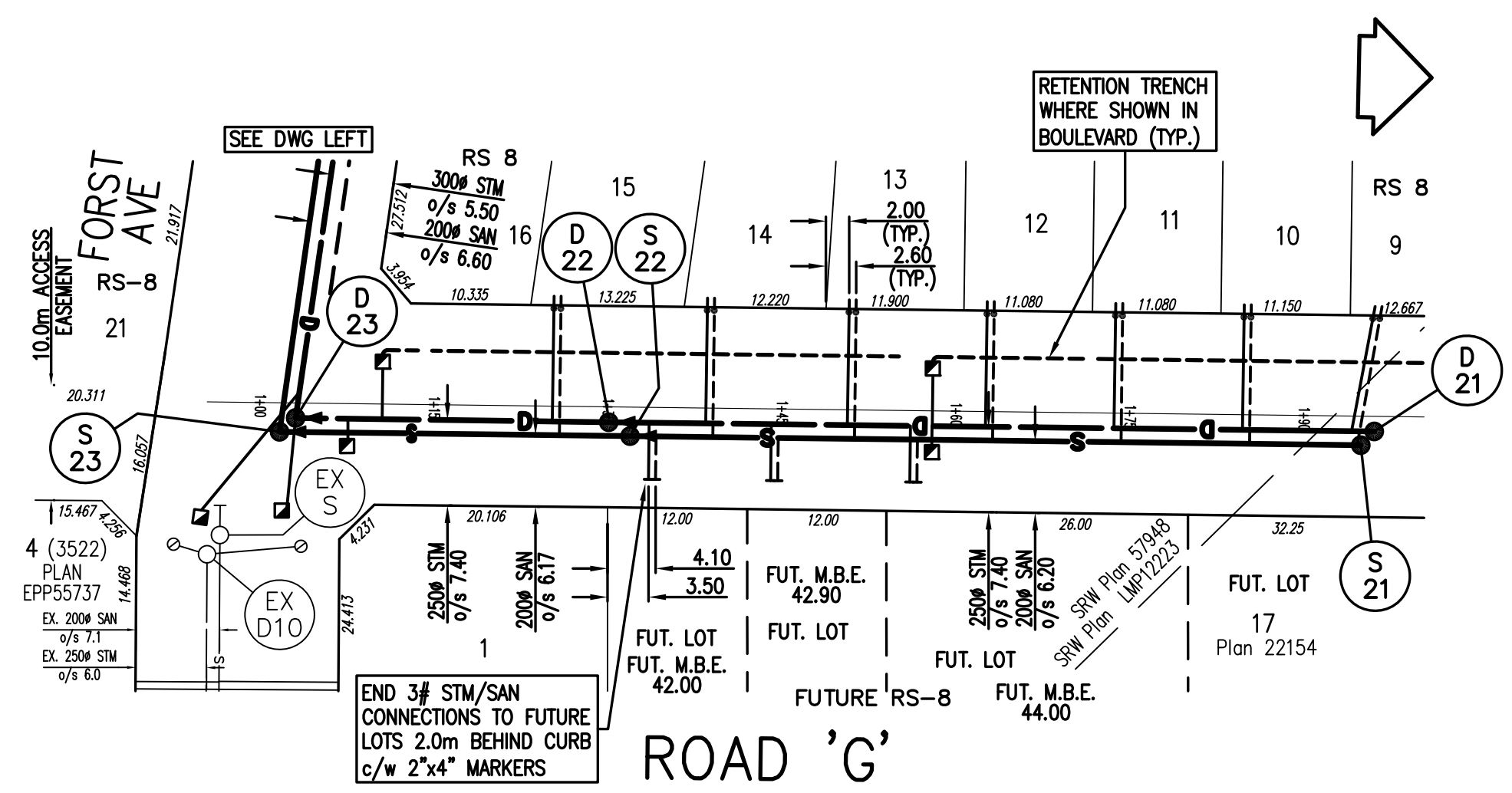


CITY OF COQUITLAM
APPROVED
David Gardiner
For The Development Servicing Manager
April 30, 2018

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CONNECTIONS TABLE

LOT #	STM INV	D	SAN INV	D	MBE	LFE
1	45.1	1.0	45.1	1.0	46.2	46.6
2	44.3	1.0	44.3	1.0	45.2	45.6
3	43.5	1.0	43.5	1.0	44.4	44.7
4	42.7	2.1	41.8	1.7	43.6	44.1
5	41.8	2.1	41.0	1.7	42.7	43.3
6	41.1	1.8	40.2	1.7	42.0	42.5
7	40.3	1.7	39.5	1.6	41.2	41.7
8	38.6	1.1	38.6	1.1	39.5	40.8
9	46.3	3.0	46.3	3.0	47.2	47.8
10	45.4	3.0	45.4	3.0	46.3	47.1
11	44.4	2.9	44.4	2.9	45.3	46.0
12	43.5	2.7	43.5	2.7	44.4	44.9
13	42.6	2.6	42.6	2.6	43.5	43.8
14	41.4	2.4	41.4	2.4	42.3	42.7
15	40.5	2.3	40.5	2.3	41.4	41.4
16	39.3	2.1	39.3	2.1	40.2	40.2
17	36.3	1.0	36.3	1.0	37.2	37.8
18	38.0	1.9	38.0	1.9	38.9	38.9
19	38.1	2.4	38.1	2.4	39.0	39.0
20	38.3	2.8	38.3	2.8	39.2	39.2
21	38.5	3.1	38.5	3.1	39.4	39.4



APPROVED SET

NOTES:
1. SEE SHEET 2 FOR GENERAL NOTES

16-110032-SD

LEGAL DESCRIPTION: LOTS 127, 128, 129, 139, 140 & 141, PLAN 67085, PARCEL "ONE" (EXPLANATORY PLAN 11569) EXCEPT PART IN PLAN BOP24974, LOT 17, PLAN 22154 & LOT 24, PLAN 25831 AND ALL OF SEC 7, TWP 40, NMD			
B.M.	MONUMENT NO.	ELEVATION:	
CVD28 GVRD, 2005	77H4134	53.258m	
E	25.04.18	FOR FINAL APPROVAL	AV
D	26.03.18	THIRD SUBMISSION	AV
C	15.01.18	REVISED SECOND SUBMISSION	AV
B	11.10.17	SECOND SUBMISSION	AV
A	21.06.17	FOR SUBMISSION	AV
No.	DATE	REVISION	BY



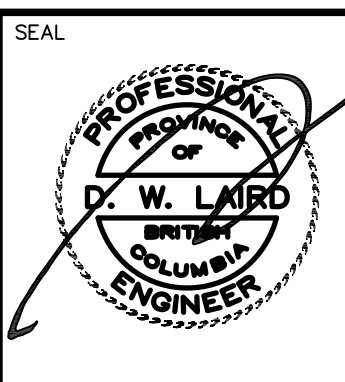
#505 - 1755 W. Broadway Street, Vancouver, B.C. Canada V6J 4S5
Tel: (604) 224-6827, Fax: (604) 597-9061, Email: general@aplinmartin.com

DEVELOPER: **1045353 BC LTD. (BILL LAIDLER)**
209-2773 BARNEY HIGHWAY,
COQUITLAM, B.C., V3B 1C2

PROJECT: **PROPOSED 21-LOT SUBDIVISION "MITCHELL EAST"**
3500 BAYCREST AVENUE AND 1235 & 1245 MITCHELL STREET
COQUITLAM, B.C.

DRAWN: A.V.
DESIGNED: D.L.
CHECKED: D.L.
APPROVED: D.L.

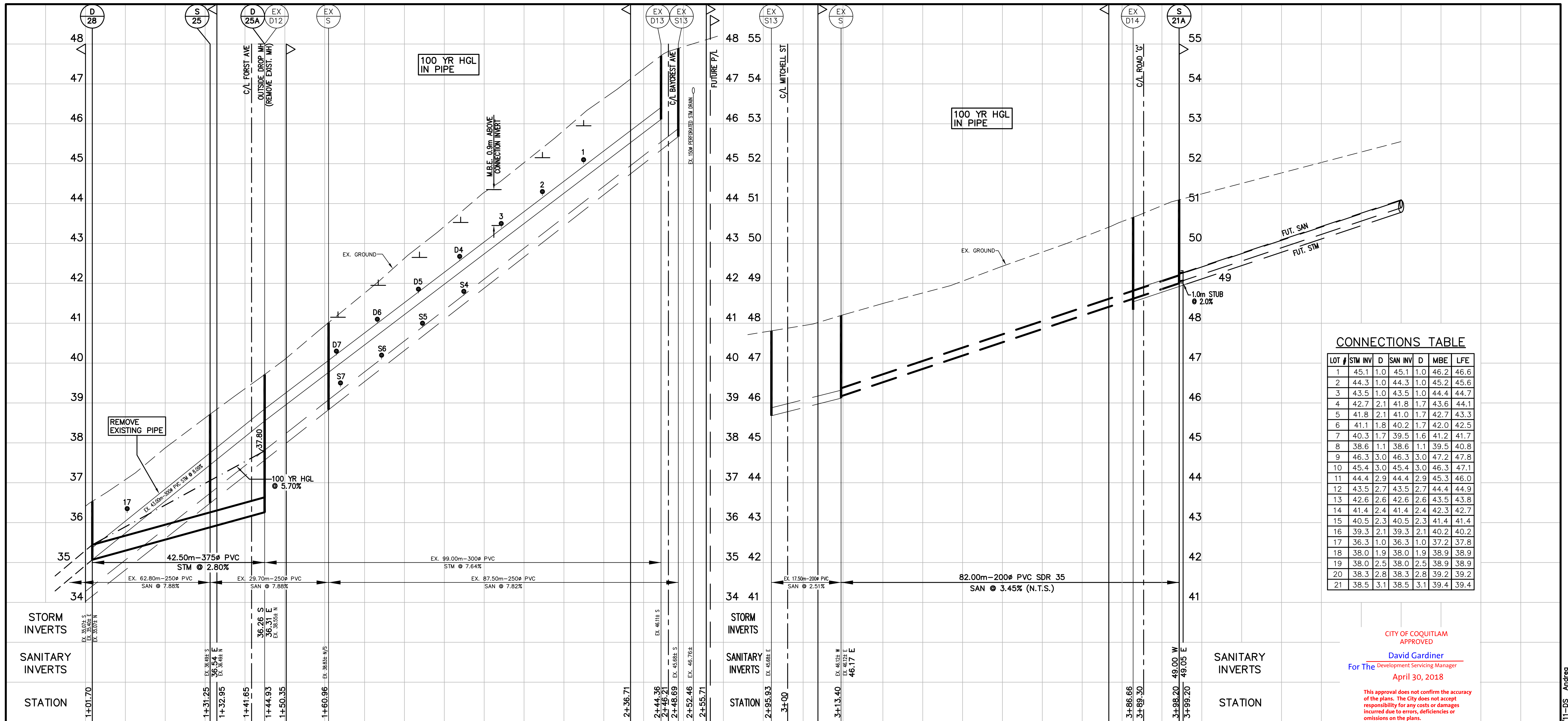
SCALES:
HORZ. 1:500
VERT. 1:50



CITY OF COQUITLAM
ENGINEERING DEPARTMENT

STORM & SANITARY SEWERS
FORST AVE & ROAD 'G'

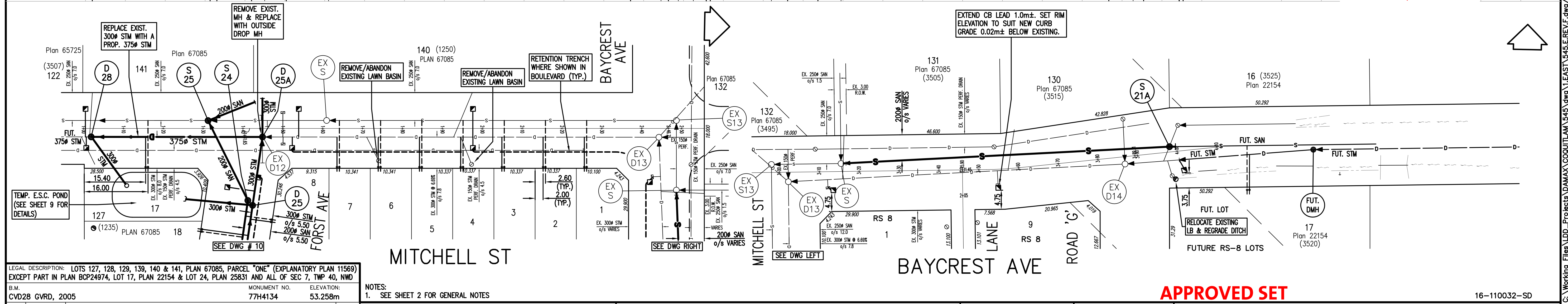
DATE: DECEMBER 2016
SHEET: 10 OF 24
DWG. No.: 16-233-10
REV: E



CONNECTIONS TABLE

LOT #	STM INV	D	SAN INV	D	MBE	LFE
1	45.1	1.0	45.1	1.0	46.2	46.6
2	44.3	1.0	44.3	1.0	45.2	45.6
3	43.5	1.0	43.5	1.0	44.4	44.7
4	42.7	2.1	41.8	1.7	43.6	44.1
5	41.8	2.1	41.0	1.7	42.7	43.3
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16	39.3	2.1	39.3	2.1	40.2	40.2
17	36.3	1.0	36.3	1.0	37.2	37.8
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20	38.3	2.8	38.3	2.8	39.2	39.2
21	38.5	3.1	38.5	3.1	39.4	39.4

CITY OF COQUITLAM
APPROVED
David Gardiner
For The Development Servicing Manager
April 30, 2018
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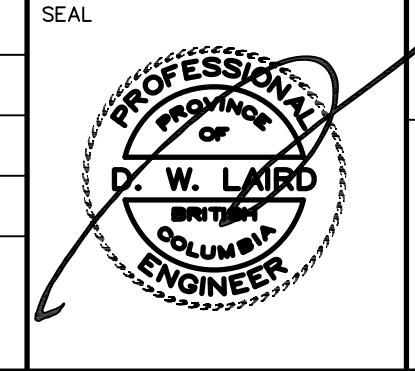
LEGAL DESCRIPTION: LOTS 127, 128, 129, 130, 141, PLAN 67085, PARCEL "ONE" (EXPLANATORY PLAN 11569) EXCEPT PART IN PLAN BOP24974, LOT 17, PLAN 22154 & LOT 24, PLAN 25831 AND ALL OF SEC 7, TWP 40, NWD		
B.M.	MONUMENT NO.	ELEVATION:
CVD28 GVRD, 2005	77H4134	53.258m
D	26.03.18	THIRD SUBMISSION
C	15.01.18	REVISED SECOND SUBMISSION
B	11.10.17	SECOND SUBMISSION
A	21.06.17	FOR SUBMISSION
No.	DATE	REVISION

NOTES:
1. SEE SHEET 2 FOR GENERAL NOTES

APLIN MARTIN
ENGINEERING ARCHITECTURE PLANNING SURVEYING
#505 - 1755 W. Broadway Street, Vancouver, B.C. Canada V6J 4S5
Tel: (604) 224-6827, Fax: (604) 597-9061, Email: general@aplinmartin.com

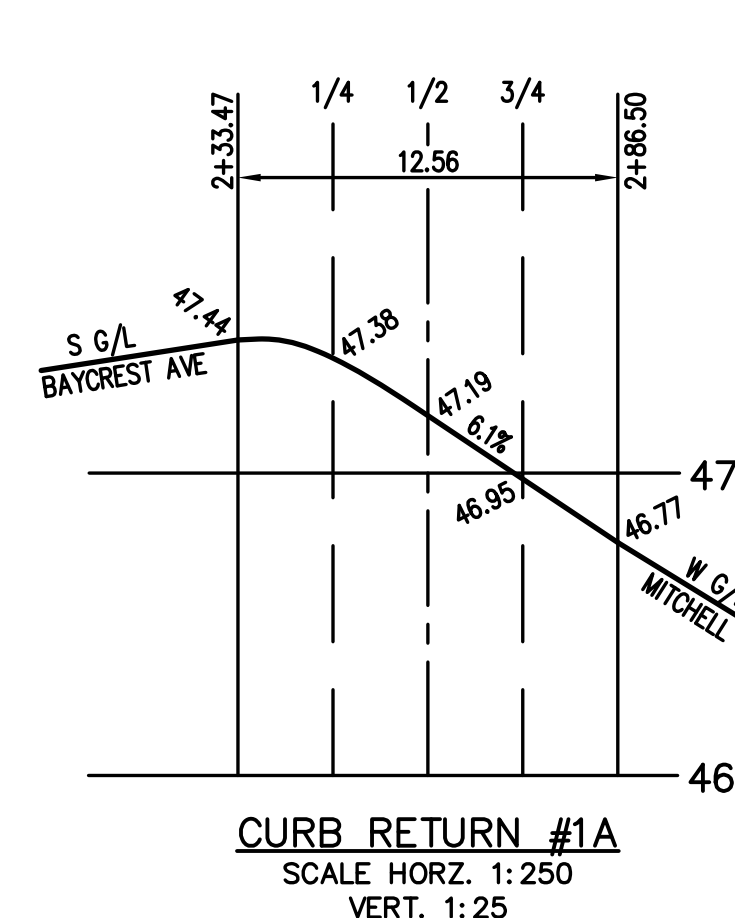
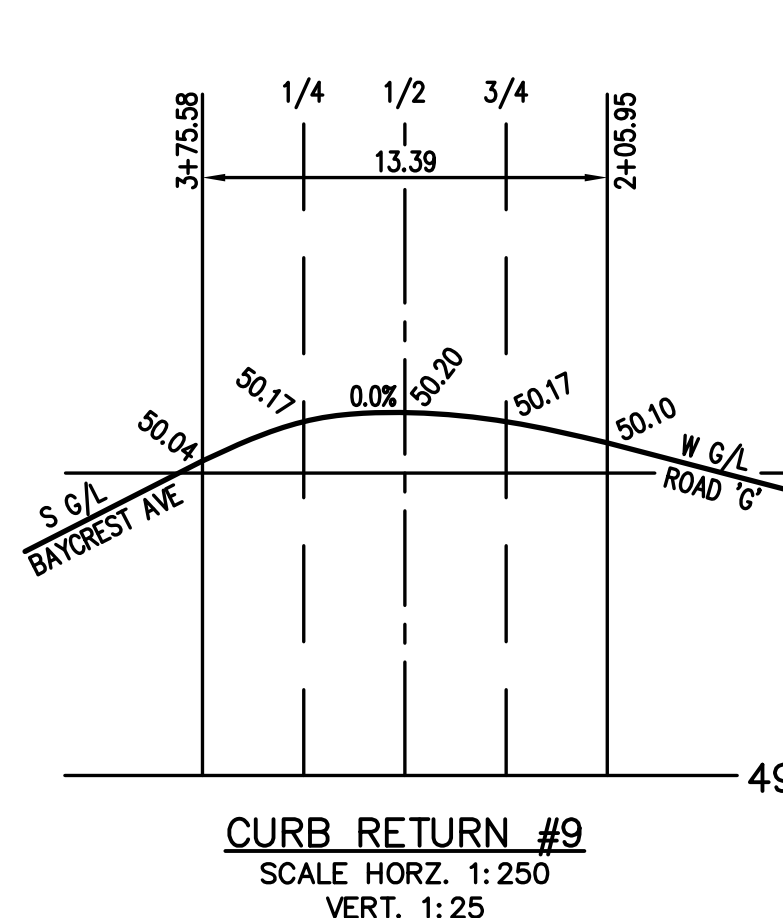
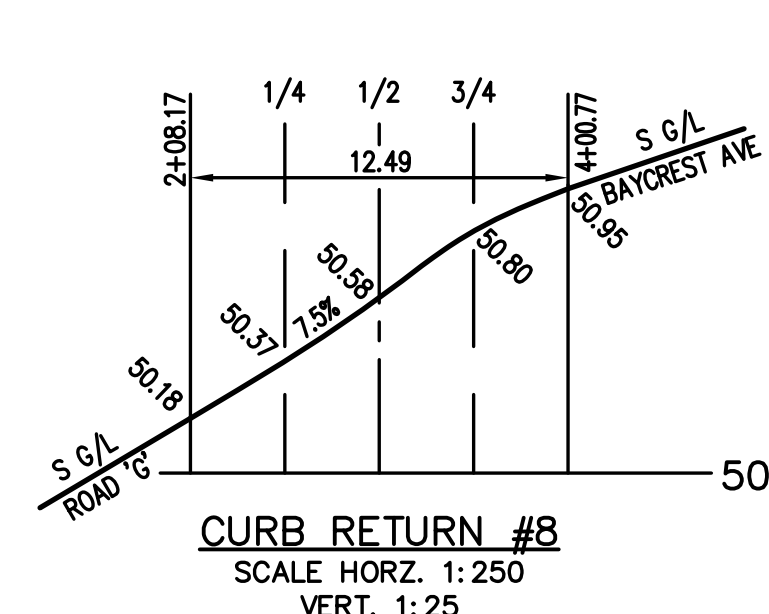
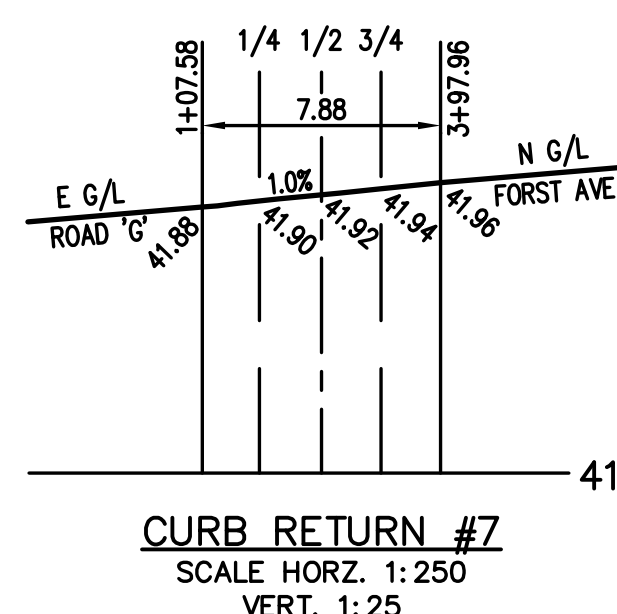
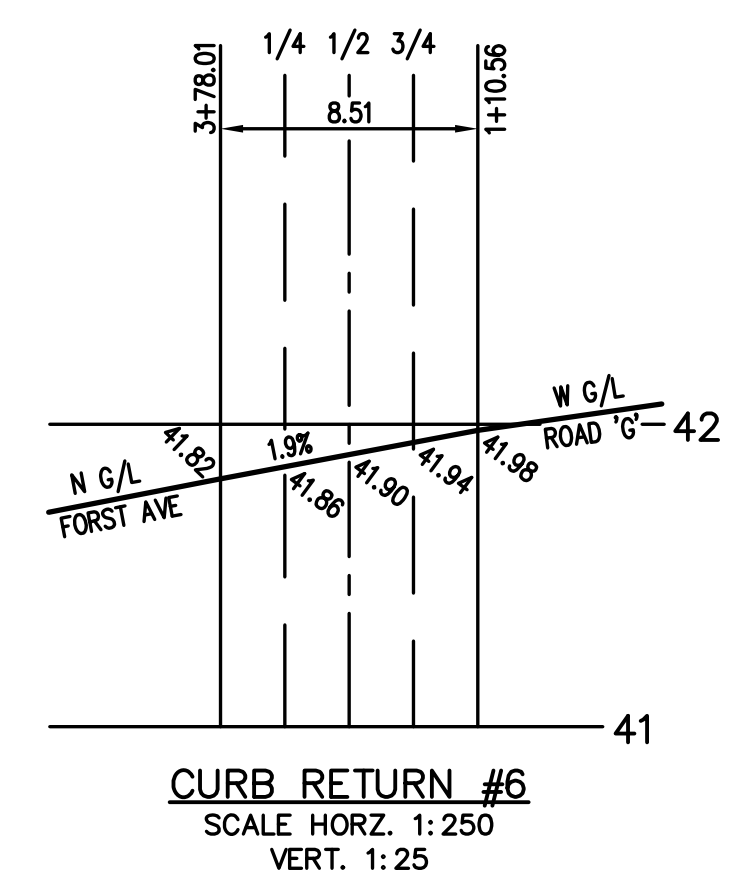
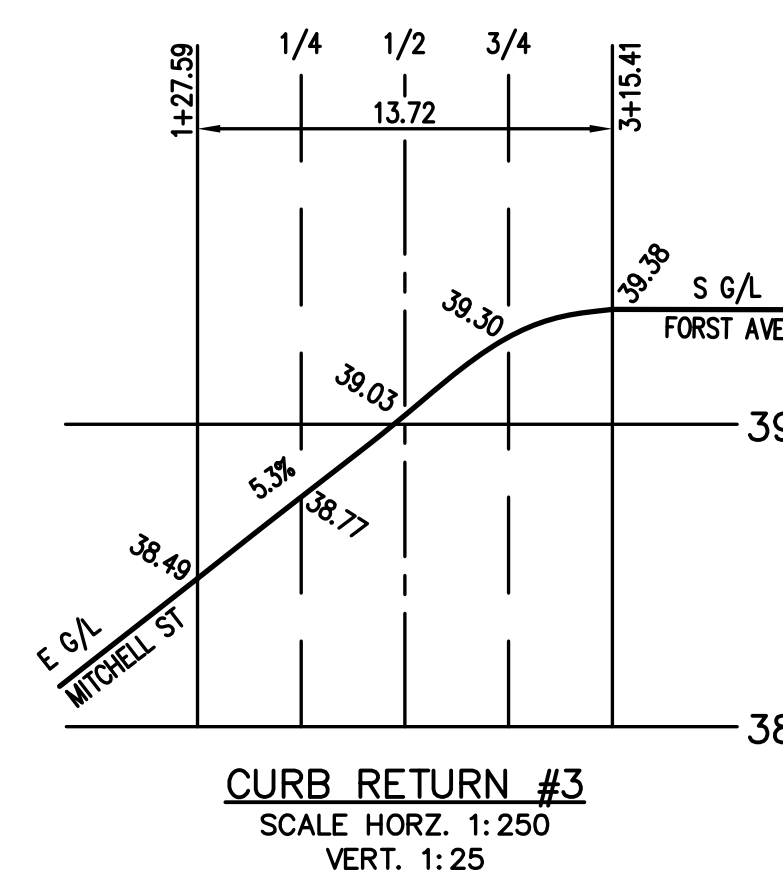
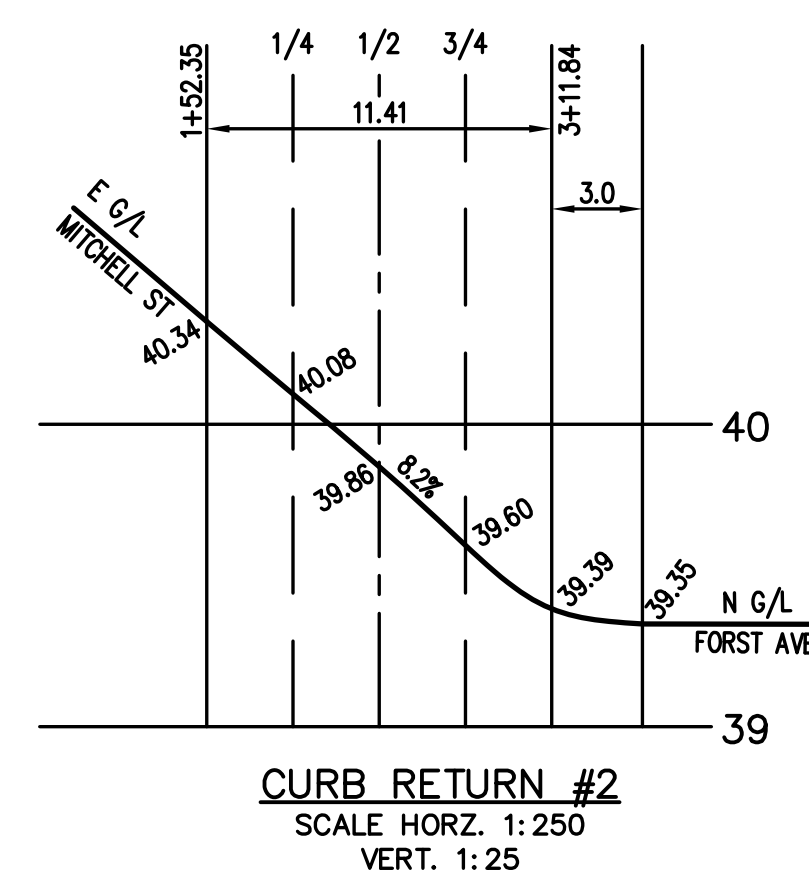
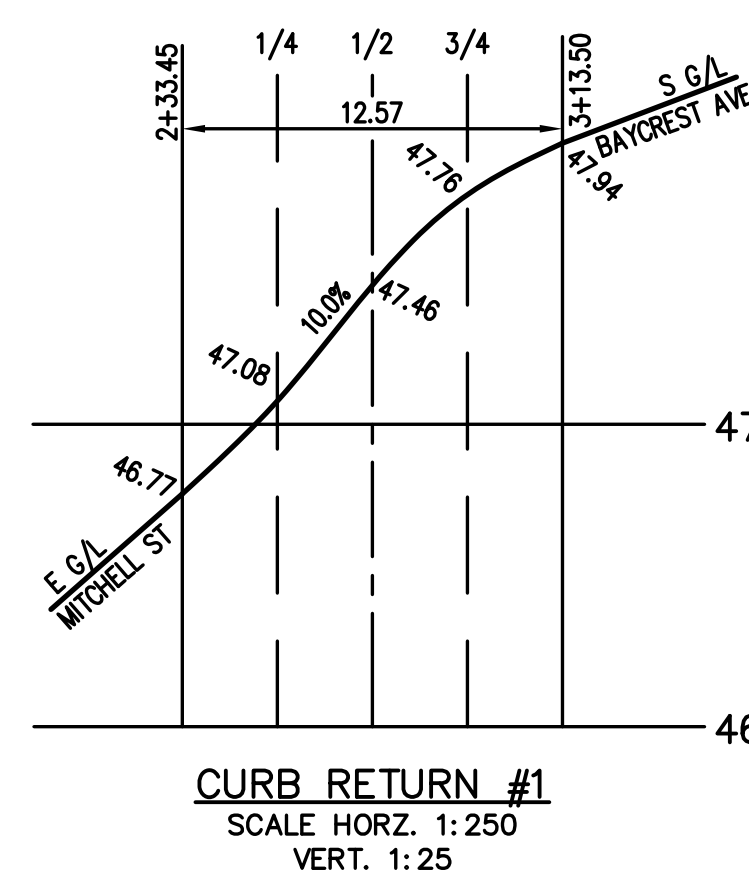
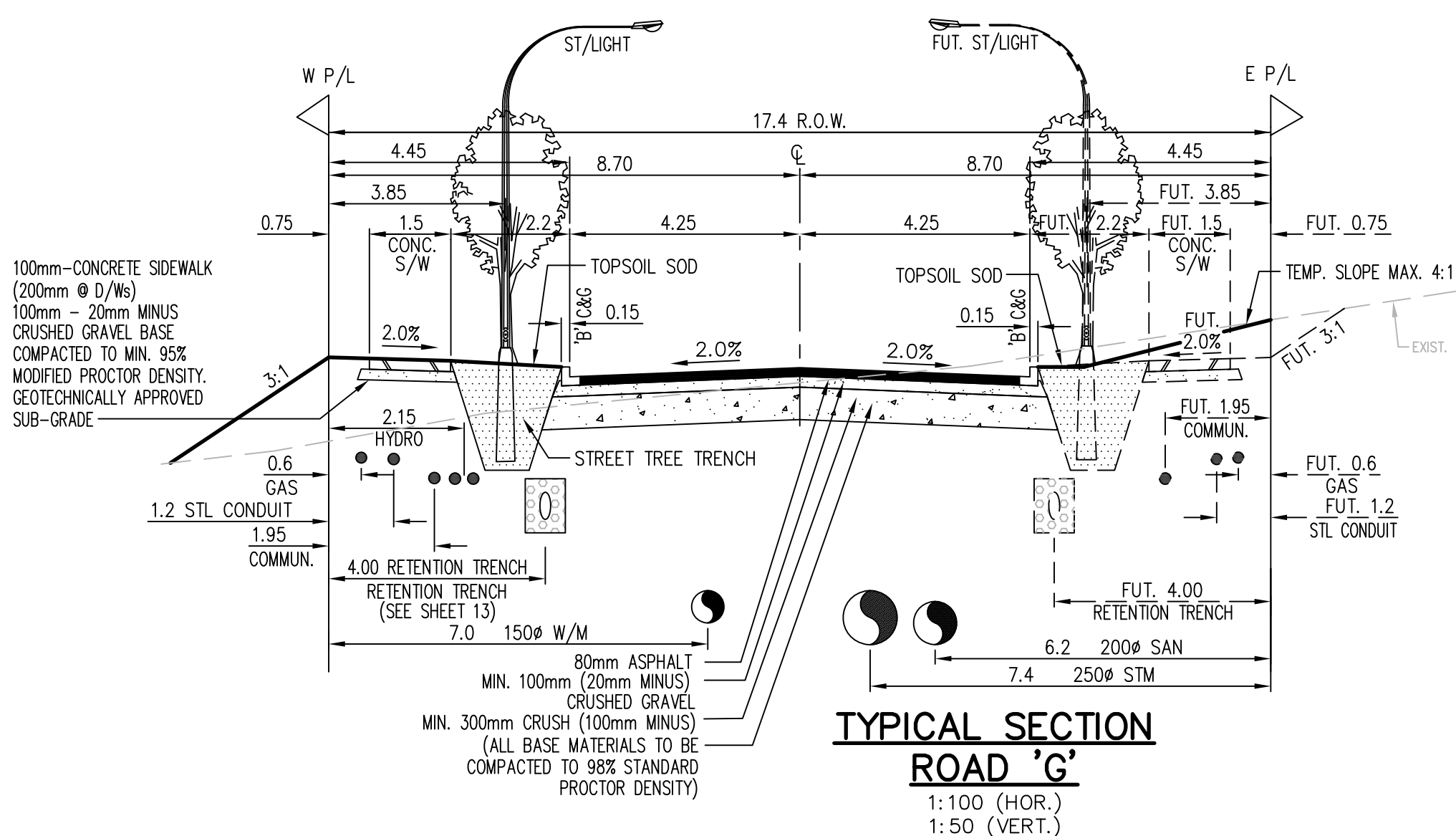
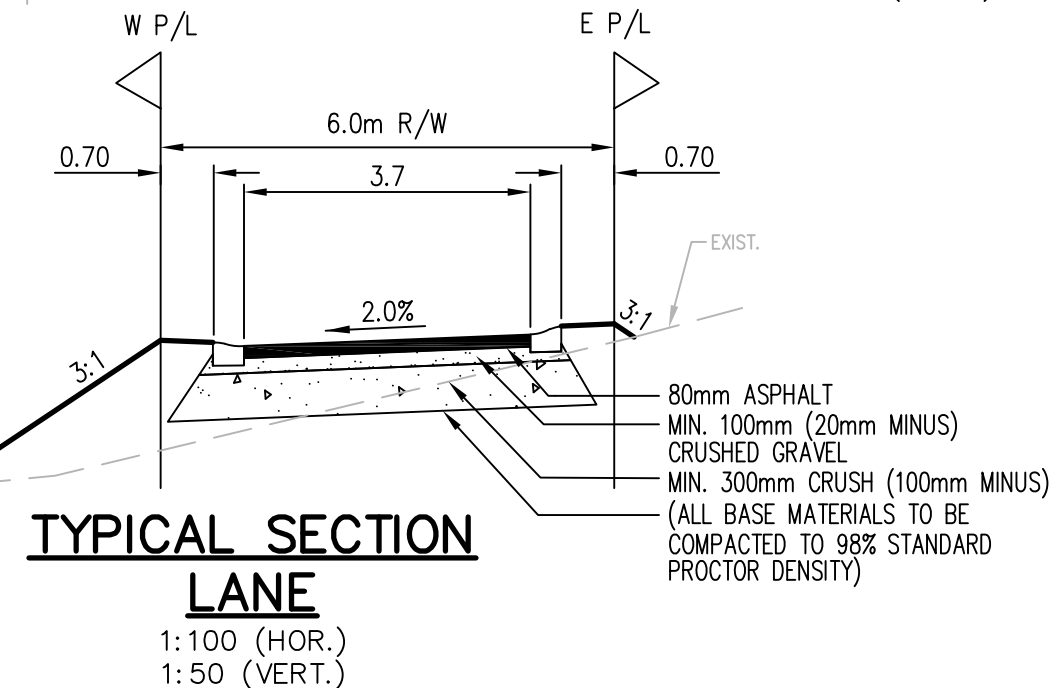
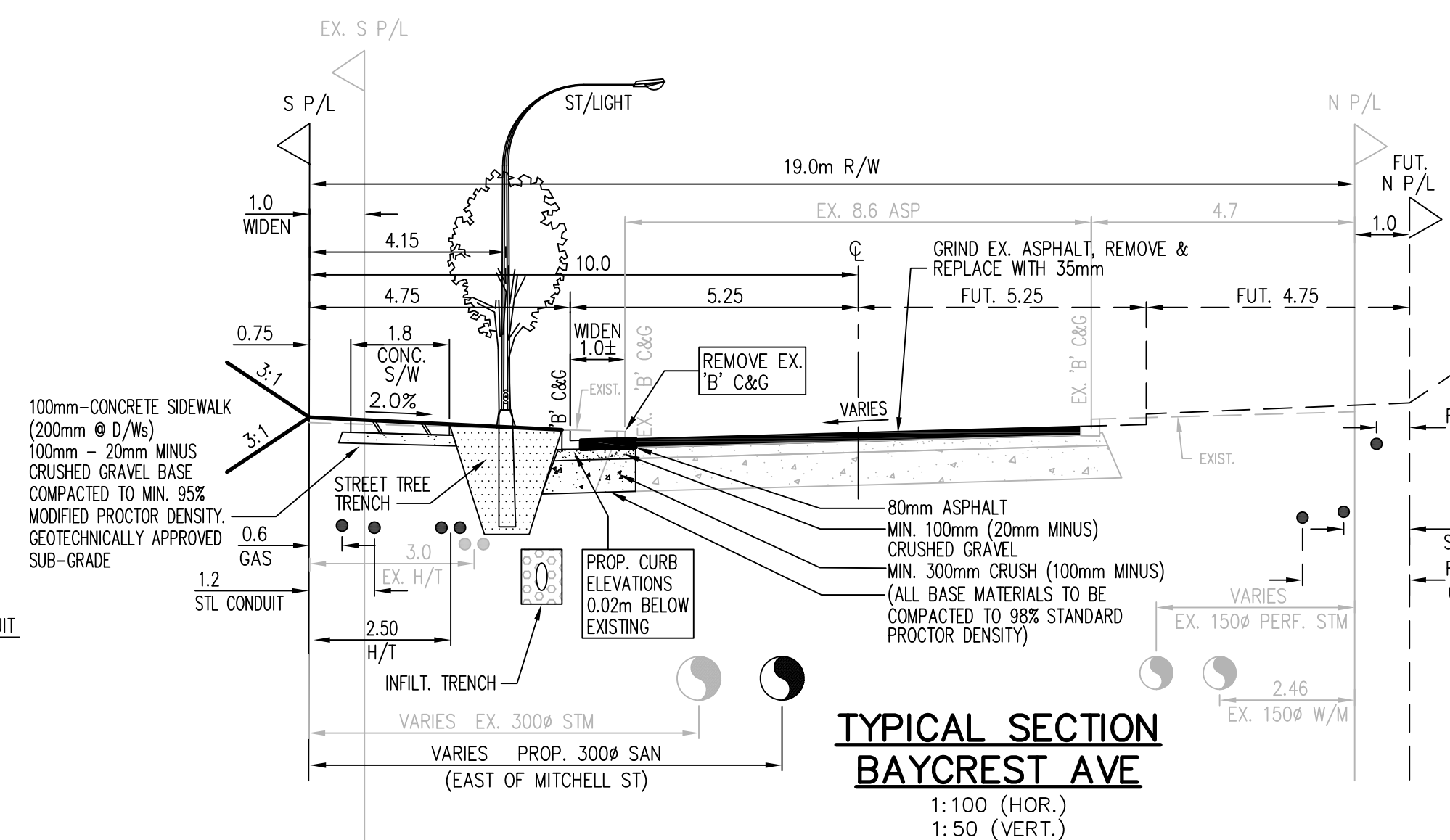
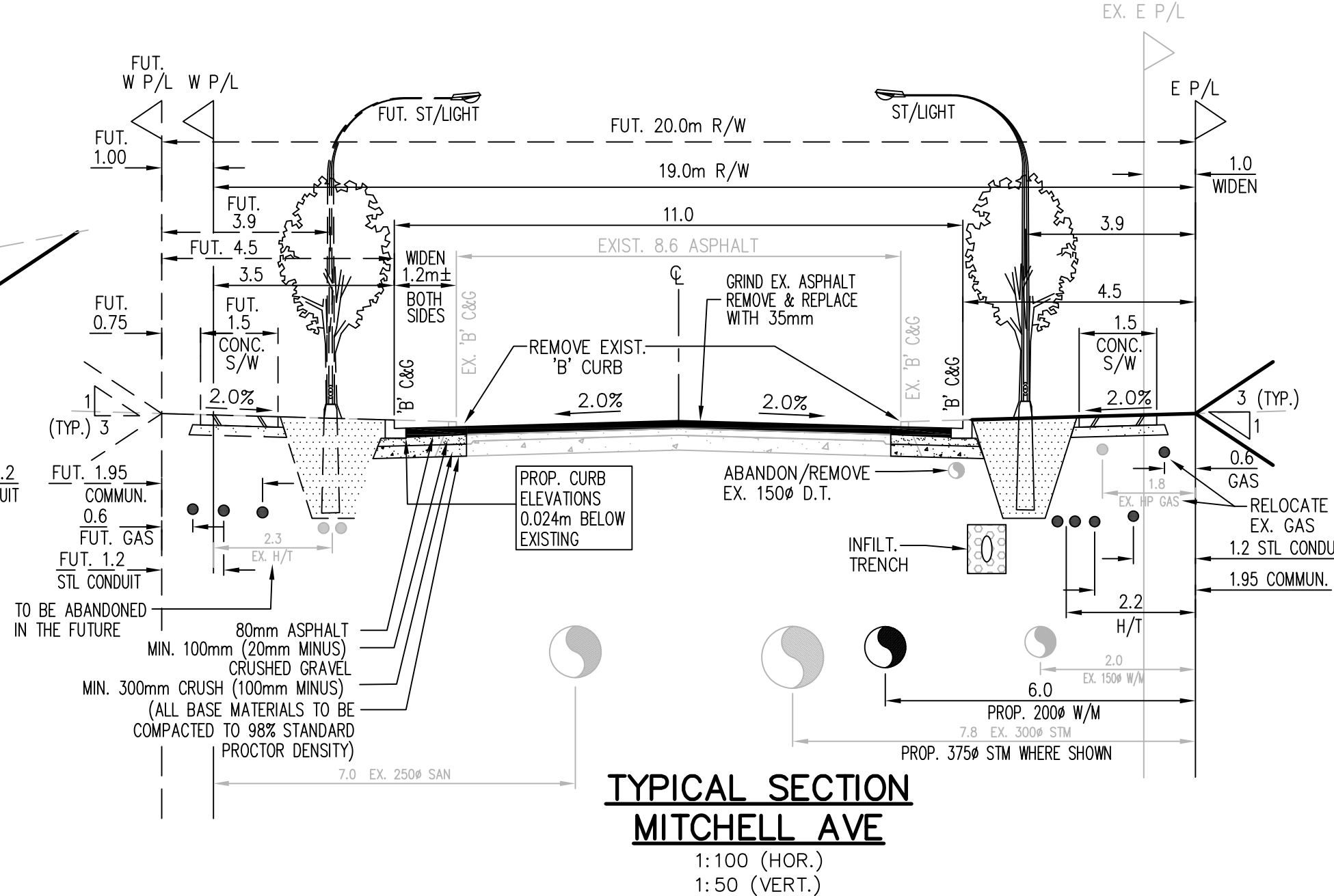
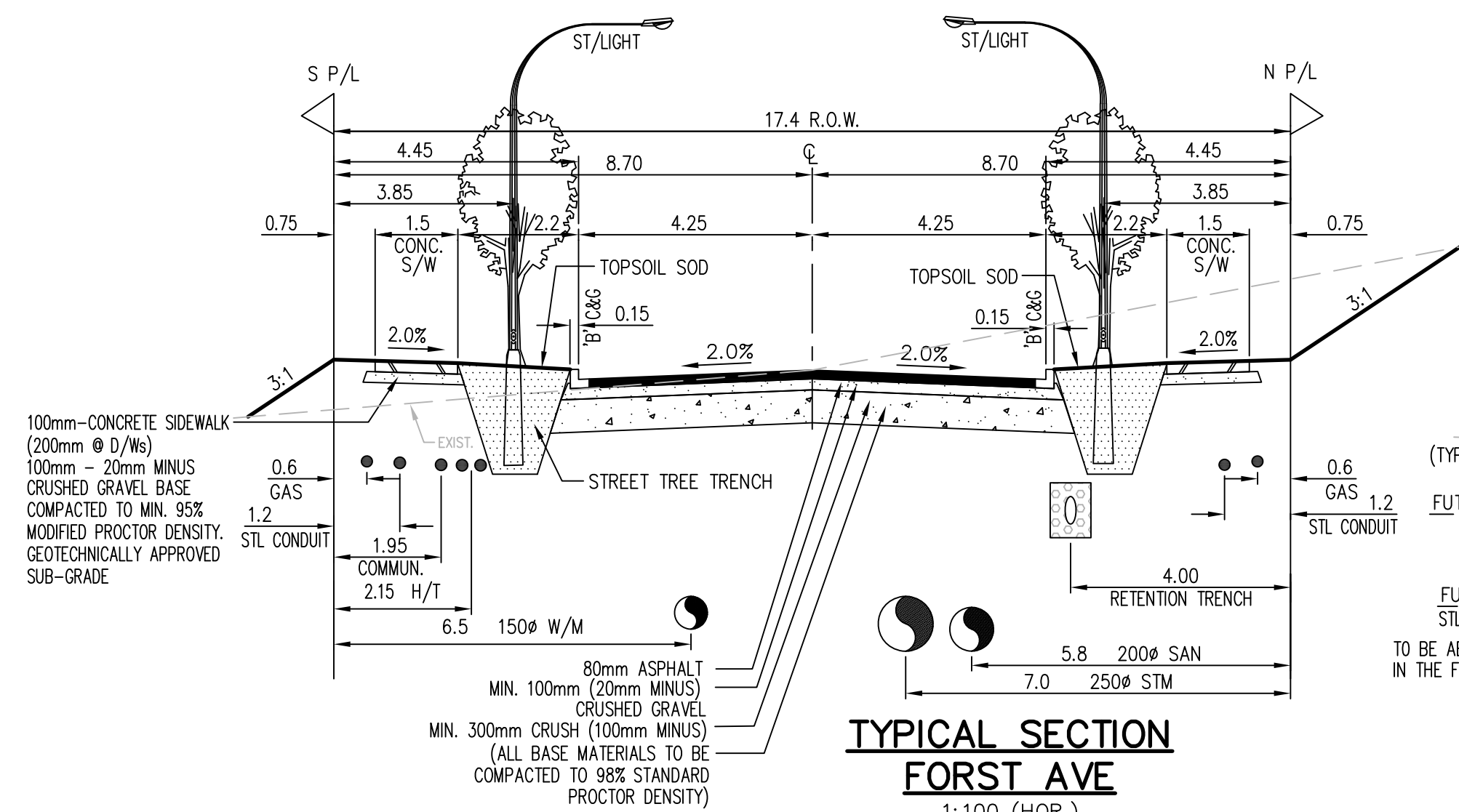
DEVELOPER: **1045353 BC LTD. (BILL LAIDLER)**
209-2773 BARNEY HIGHWAY,
COQUITLAM, B.C., V3B 1C2
PROJECT: **PROPOSED 21-LOT SUBDIVISION "MITCHELL EAST"**
3500 BAYCREST AVENUE AND 1235 & 1245 MITCHELL STREET
COQUITLAM, B.C.

DRAWN: A.V.
DESIGNED: D.L.
CHECKED: D.L.
APPROVED: D.L.
SCALES:
HORZ. 1:500
VERT. 1:50



APPROVED SET
CITY OF COQUITLAM
ENGINEERING DEPARTMENT
STORM & SANITARY SEWERS
MITCHELL ST & BAYCREST AVE
DATE: DECEMBER 2016
SHEET: 11 OF 24
DWG. No.: 16-233-11
REV: D
AM FILE No. 16-233E/DX 545-E

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CITY OF COQUITLAM
APPROVED
David Gardiner
For The Development Servicing Manager
April 30, 2018

David Gardiner

For The Development Servicing Manager

April 30, 2018

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LEGAL DESCRIPTION: LOTS 127, 128, 129, 139, 140 & 141, PLAN 67085, PARCEL "ONE" (EXPLANATORY PLAN 11569) AND ALL OF SEC. 7, TWP. 40, RND					
EXCEPT PART IN PLAN BCP24974, LOT 17, PLAN 22134 & LOT 24, PLAN 23631					
S.M.		MONUMENT NO. 77H4134		ELEVATION: 53.258m	
CVD28	GVRD,	2005			
E	20.09.18	H/T REVISIONS			AV
D	26.03.18	THIRD SUBMISSION			AV
C	15.01.18	REVISED SECOND SUBMISSION			AV
B	11.10.17	SECOND SUBMISSION			AV
A	21.06.17	FOR SUBMISSION			AV
No.	DATE	REVISION			BY

NOTES:

1. SEE SHEET 2 FOR GENERAL NOTES & ROADWORKS NOTES
2. SEE SHEETS 13-15 FOR ROAD CROSS SECTIONS



#505 – 1755 W. Broadway Street, Vancouver, B.C. Canada V6J 4S5
Tel: (604) 224-6827, Fax: (604) 597-9061, Email: general@aplilmartin.com

DEVELOPER: 1045353 BC LTD. (BILL LAIDLER)

209-2773 BARNEY HIGHWAY
COQUITLAM, B.C., V3B 1C2

PROJECT: **PROPOSED 21-LOT SUBDIVISION
"MITCHELL EAST"**

3500 BAYCREST AVENUE AND 1235 & 1245 MITCHELL STREET
COQUITLAM, B.C.

DRAWN	A.V.
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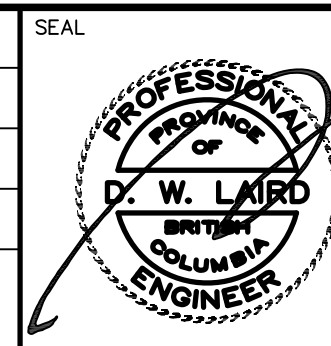
DESIGNED	D.L.
	D.L.

CHECKED	D.L.
APPROVED	D.L.

APPROVED	D.L.
SCALES	

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VERT.	
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CITY OF COQUITLAM
ENGINEERING DEPARTMENT

TYPICAL CROSS SECTIONS & CURB RETURNS

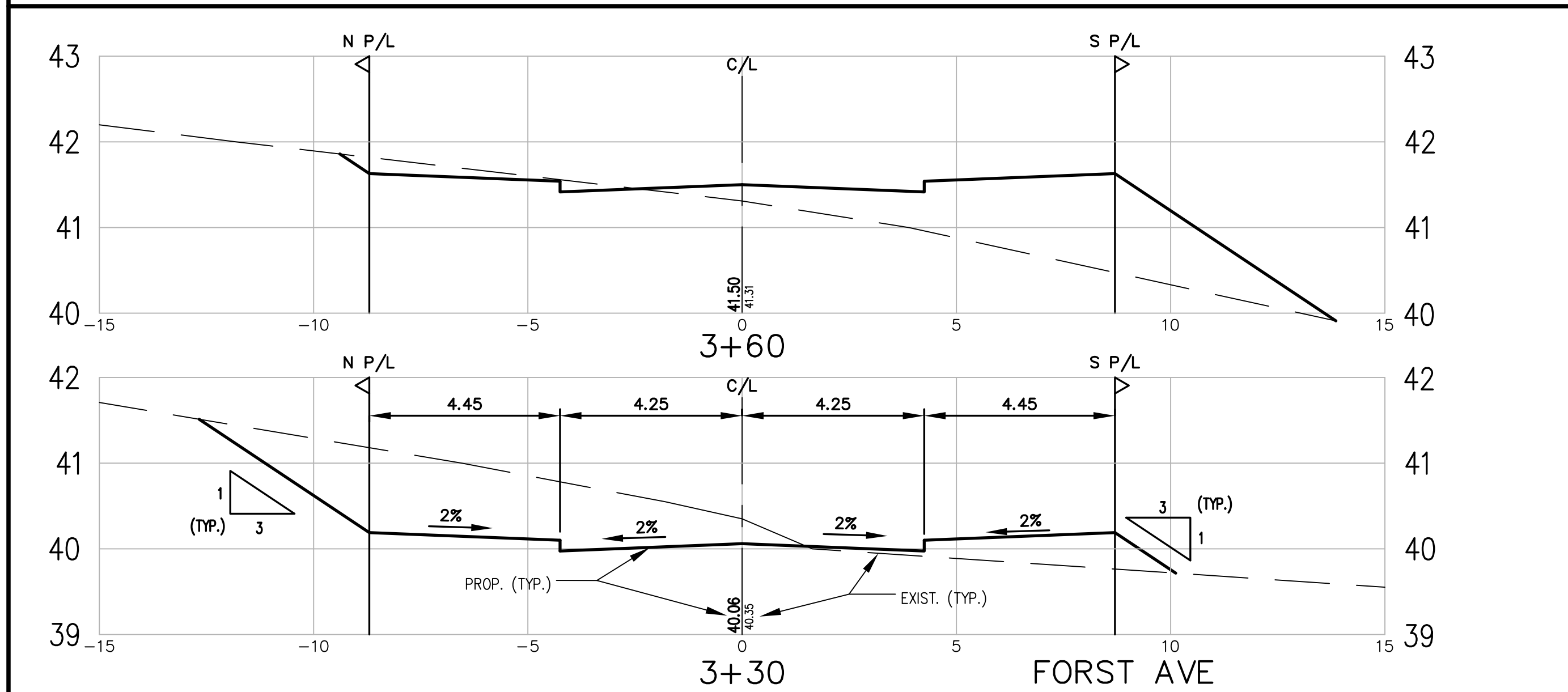
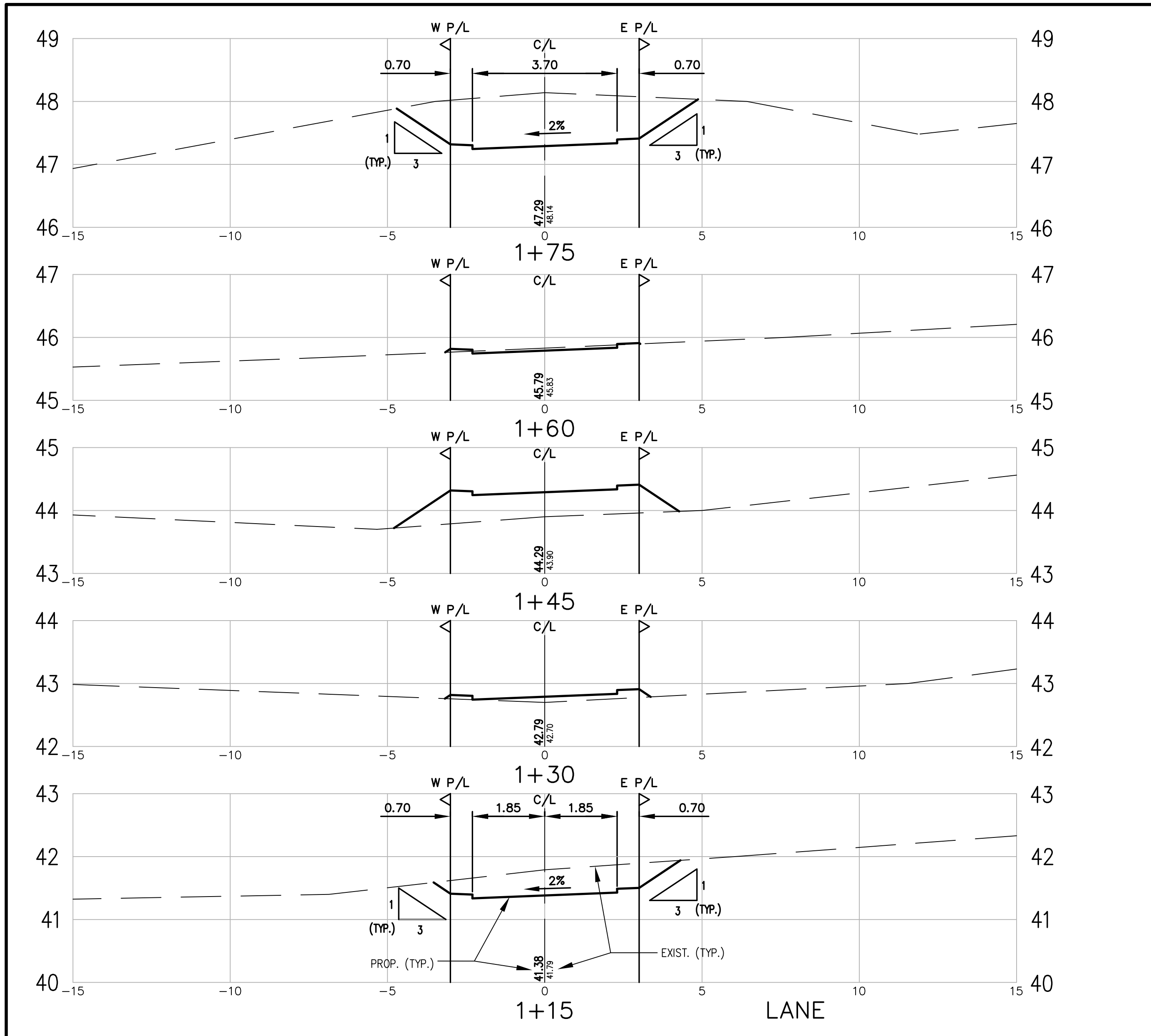
DATE	DECEMBER 2016
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SHEET **12** of **2**

12	OF	2
DWG. No.		

16-233-12

AM FILE No. 16-233E/DX 545-E



LEGAL DESCRIPTION: LOTS 127, 128, 129, 139, 140 & 141, PLAN 67085, PARCEL "ONE" (EXPLANATORY PLAN 11569) EXCEPT PART IN PLAN BOP24974, LOT 17, PLAN 22154 & LOT 24, PLAN 25831 AND ALL OF SEC 7, TWP 40, NMD.			
B.M.	MONUMENT NO.	ELEVATION:	
CVD28 GVRD, 2005	77H4134	53.258m	
D	26.03.18	THIRD SUBMISSION	AV
C	15.01.18	REVISED SECOND SUBMISSION	AV
B	11.10.17	SECOND SUBMISSION	AV
A	21.06.17	FOR SUBMISSION	AV
No.	DATE	REVISION	BY

NOTES:

- SEE SHEET 2 FOR GENERAL NOTES & ROADWORKS NOTES
- SEE SHEET 12 FOR TYPICAL CROSS SECTIONS & CURB RETURNS
- SEE SHEET 14-15 FOR ROAD CROSS SECTIONS

APLIN MARTIN
ENGINEERING ARCHITECTURE PLANNING SURVEYING

#505 - 1755 W. Broadway Street, Vancouver, B.C. Canada V6J 4S5
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209-2773 BARNEY HIGHWAY,
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PROJECT: **PROPOSED 21-LOT SUBDIVISION "MITCHELL EAST"**
3500 BAYCREST AVENUE AND 1235 & 1245 MITCHELL STREET
COQUITLAM, B.C.

DRAWN: A.V.
DESIGNED: D.L.
CHECKED: D.L.
APPROVED: D.L.

SCALES
HORZ. 1:100
VERT. 1:50

SEAL
PROFESSIONAL ENGINEER
D. W. LAIDLER
COLUMBIA

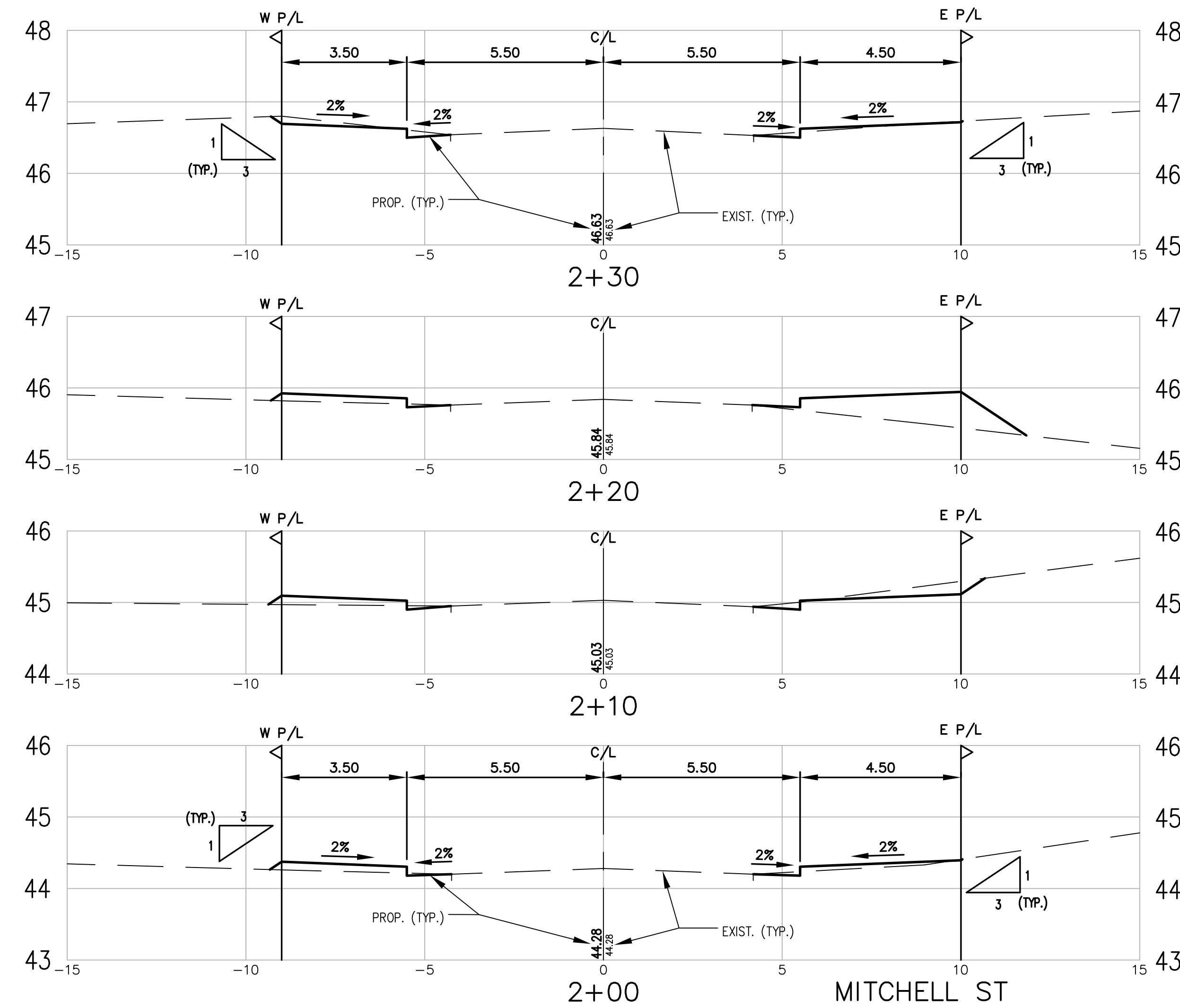
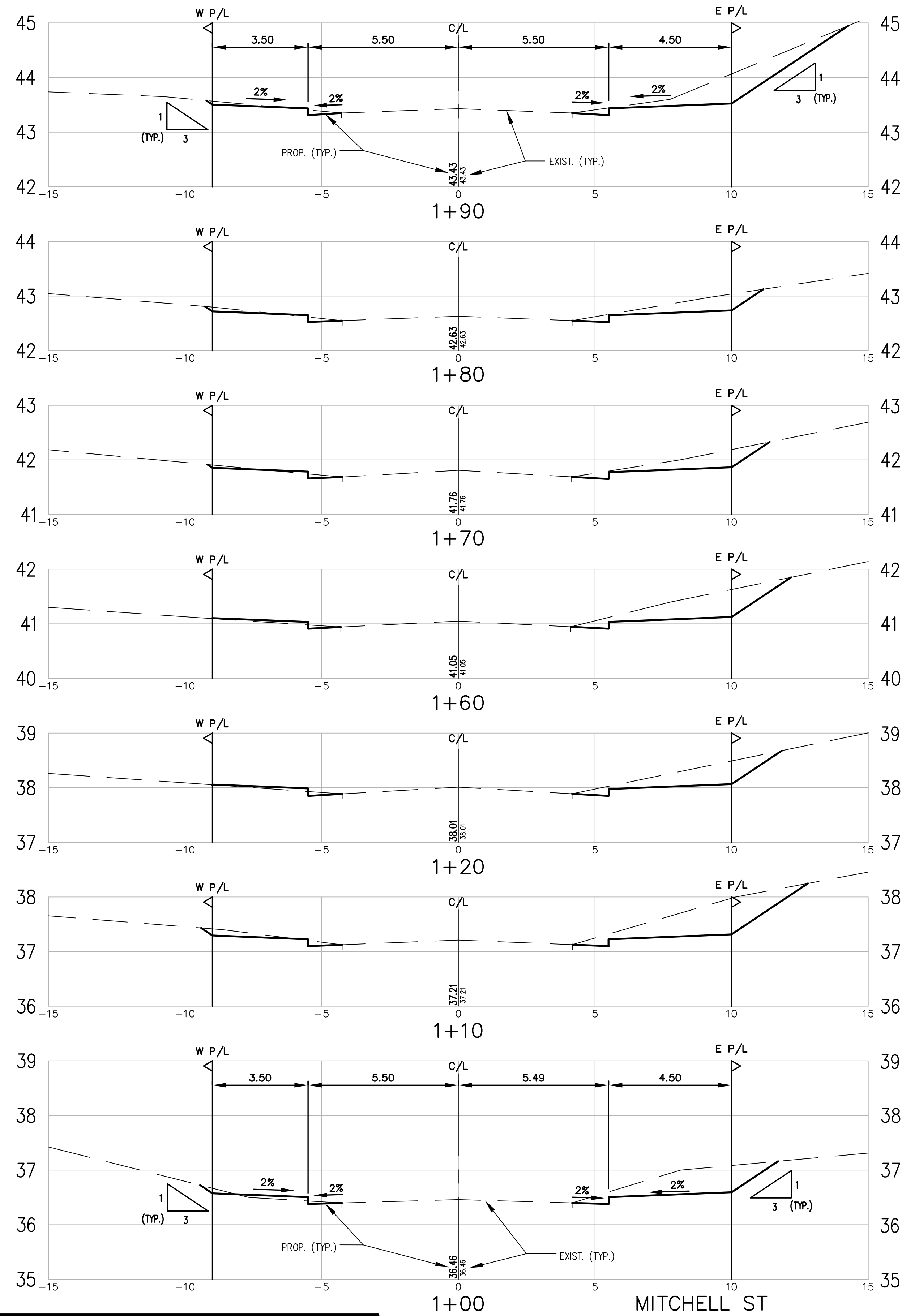
APPROVED SET

16-110032-SD

CITY OF COQUITLAM
ENGINEERING DEPARTMENT

ROAD CROSS SECTIONS
FORST AVE, LANE &
BAYCREST AVE

DATE: DECEMBER 2016
SHEET: **13** OF **24**
Dwg. No. **16-233-13** REV. **D**



CITY OF COQUITLAM
APPROVED
David Gardiner
For The Development Servicing Manager
April 30, 2018

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EXCEPT PART IN PLAN BOP24974, LOT 17, PLAN 22154 & LOT 24, PLAN 25831 AND ALL OF SEC 7, TWP 40, NWD
B.M. MONUMENT NO. ELEVATION:
CVD28 GVRD, 2005 77H4134 53.258m

- NOTES:
1. SEE SHEET 2 FOR GENERAL NOTES & ROADWORKS NOTES
2. SEE SHEETS 12-15 FOR TYPICAL CROSS SECTIONS, ROAD CROSS SECTIONS & CURB RETURNS

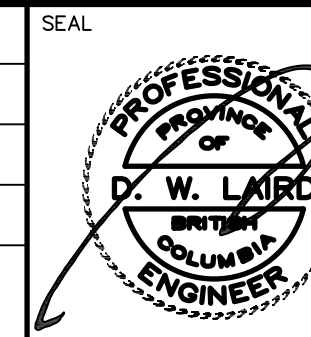


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COQUITLAM, B.C.

DRAWN A.V.
DESIGNED D.L.
CHECKED D.L.
APPROVED D.L.
SCALES
HORZ. 1:100
VERT. 1:50



APPROVED SET

CITY OF COQUITLAM
ENGINEERING DEPARTMENT

ROAD CROSS SECTIONS
MITCHELL ST

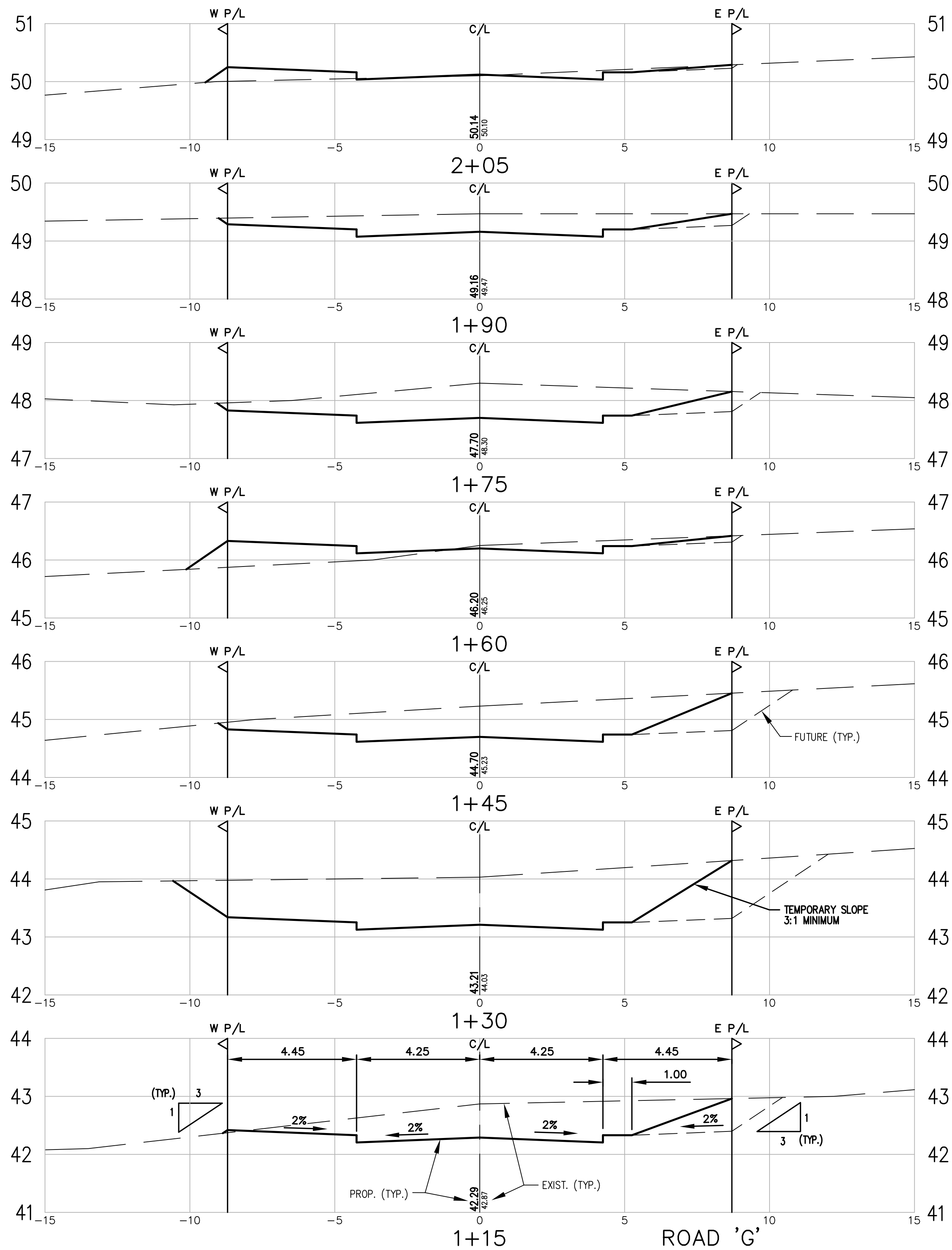
DATE DECEMBER 2016

SHEET 14 OF 24

DWG. No. 16-233-14
REV. D

AM FILE No. 16-233E/DX 545-E

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CITY OF COQUITLAM
APPROVED
David Gardiner
For The Development Servicing Manager
April 30, 2018
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B.M.	MONUMENT NO.	ELEVATION:	
CVD28 GVRD, 2005	77H4134	53.258m	
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B	11.10.17	SECOND SUBMISSION	AV
A	21.06.17	FOR SUBMISSION	AV
No.	DATE	REVISION	BY

- NOTES:
1. SEE SHEET 2 FOR GENERAL NOTES & ROADWORKS NOTES
 2. SEE SHEET 12 FOR TYPICAL CROSS SECTIONS & CURB RETURNS
 3. SEE SHEET 14-15 FOR ROAD CROSS SECTIONS

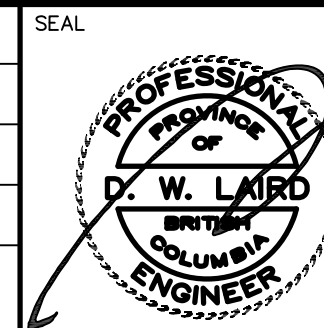


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DESIGNED	D.L.
CHECKED	D.L.
APPROVED	D.L.
SCALES	
HORZ.	1:100
VERT.	1:50



APPROVED SET

16-110032-SD

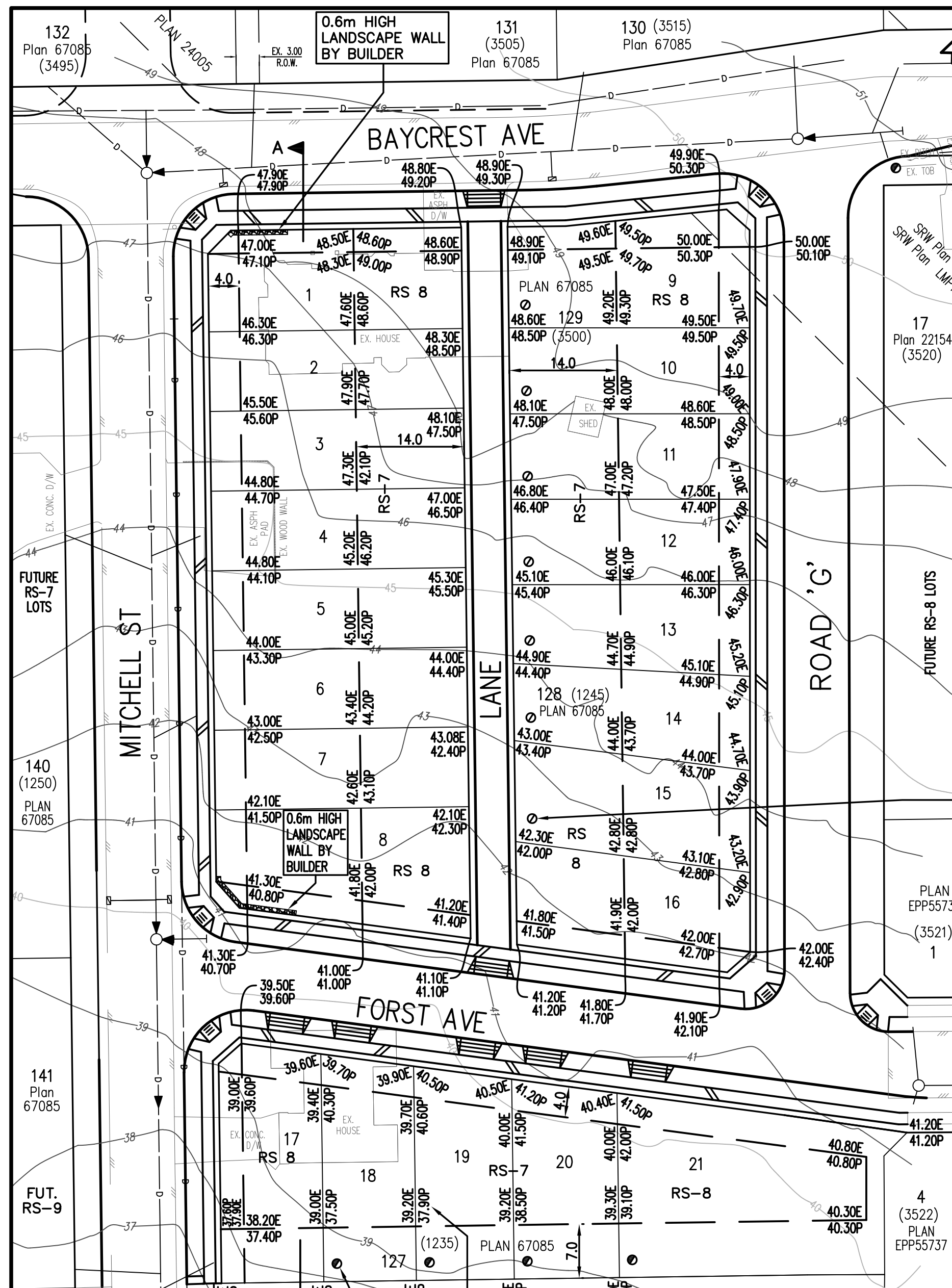
CITY OF COQUITLAM
ENGINEERING DEPARTMENT

ROAD CROSS SECTIONS
ROAD 'G'

DATE	DECEMBER 2016
SHEET	15 OF 24
DWG. No.	16-233-15
REV.	D

AM FILE No. 16-233E/DX 545-E

C:\Working Files\DD_Projects\COQUITLAM\545\dwg\LEAST\545.E.REV.F.dwg/15-XS Andrea Oct 29 2018 - 11:25am



Builder 1.0m wide sodded swales lots 1-7, Builder lawn basins & 1.0m wide sodded swales lots 9-15 along south property line of each lot.

See plan right for building envelopes & lot dimensions

By house builder
A minimum of 300mm thick processed topsoil is to be placed on each lot to allow supplementary storm water infiltration.

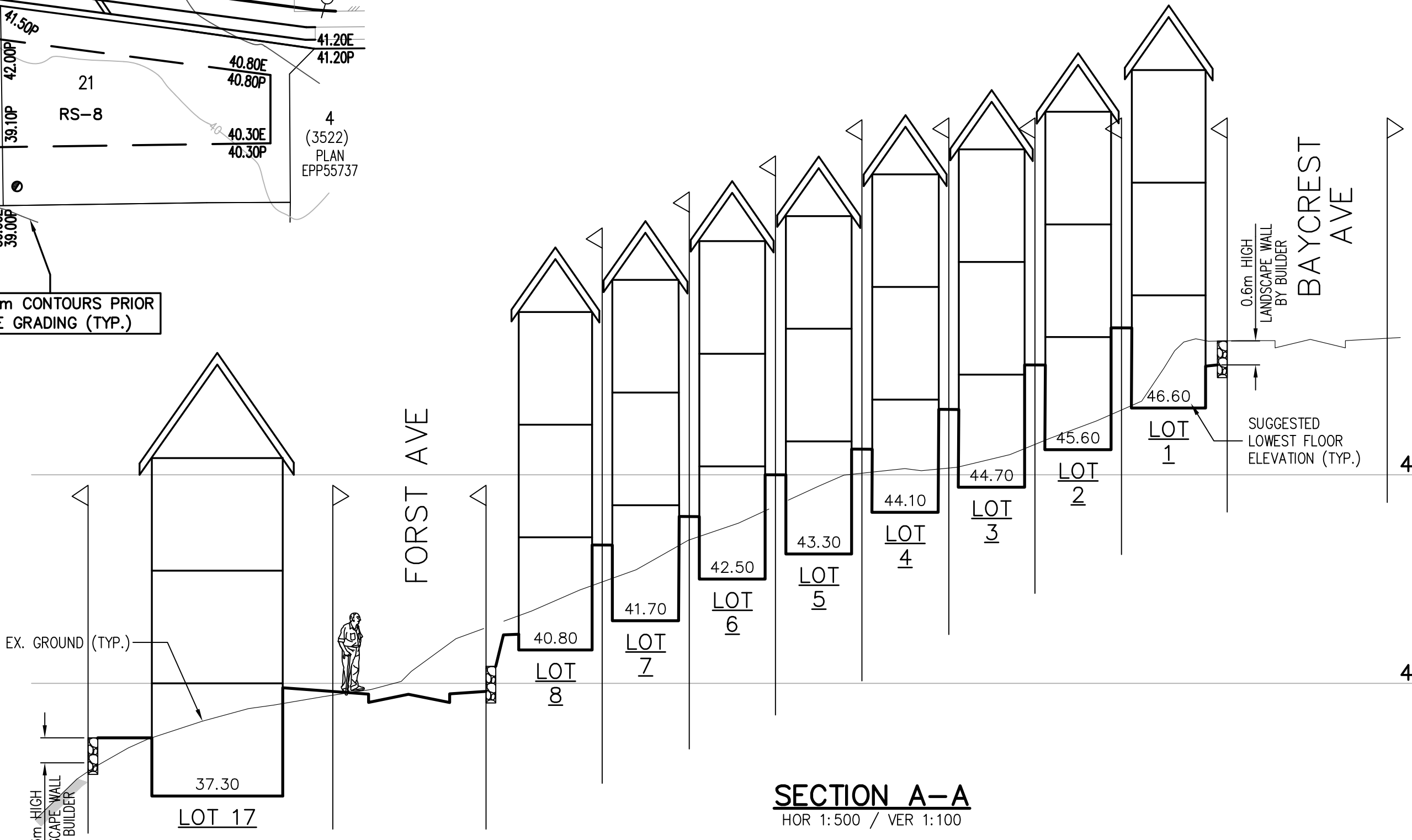
E = EXISTING
P = PROPOSED

"Developer" lawn basins (typ.)

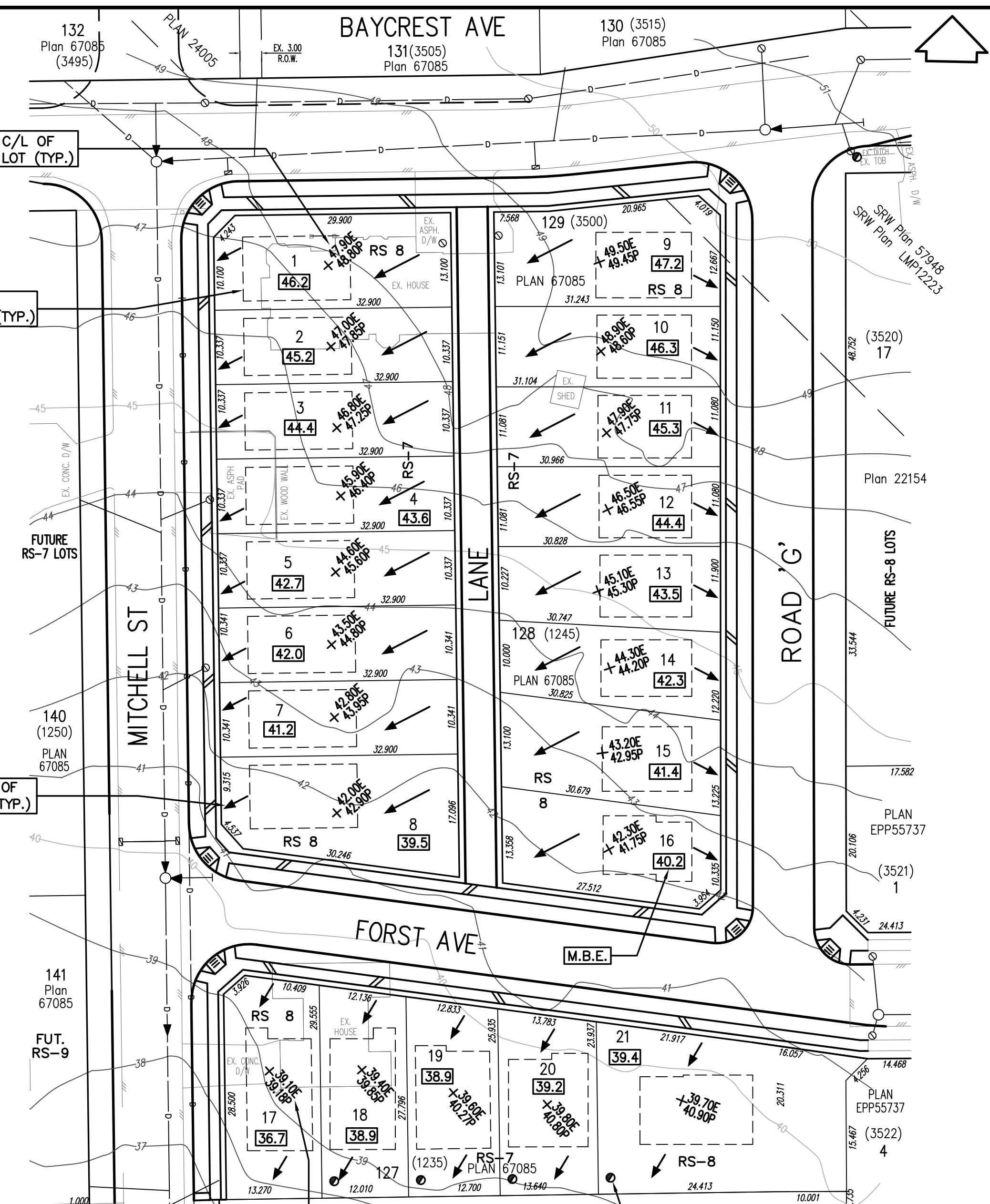
Grading break points at building setbacks (typ.)

EX. 1.0m contours prior to site grading (typ.)

NOTE:
LOT GRADING TO BE WITHIN 0.1m OF DESIGN GRADE



SECTION A-A
HOR 1:500 / VER 1:100



By house builder

- RAIN BARRELS ARE STRONGLY ENCOURAGED (RAIN BARREL OVERFLOW IS TO BE ATTACHED TO BUILDING SUMP.)
- SLOPE ALL HARD SURFACES TO LANDSCAPED AREAS.
- USE PERMEABLE PAVEMENT.
- NO SPLASH PADS.
- GRADING TO BE WITHIN ±0.1m OF SPECIFIED ELEVATION.

APPROVED SET

CITY OF COQUITLAM
APPROVED
For The Development Servicing Manager
April 30, 2018

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NOTES:
1. SEE SHEET 2 FOR GENERAL NOTES

16-110032-SD

LEGAL DESCRIPTION: LOTS 127, 128, 129, 139, 140 & 141, PLAN 67085, PARCEL "ONE" (EXPLANATORY PLAN 11569) EXCEPT PART IN PLAN BOP24974, LOT 17, PLAN 22154 & LOT 24, PLAN 25831 AND ALL OF SEC 7, TWP 40, NMD			
B.M. CVD28 GVRD, 2005		MONUMENT NO. 77H4134	ELEVATION: 53.258m
E	25.04.18	FOR FINAL APPROVAL	AV
D	26.03.18	THIRD SUBMISSION	AV
C	15.01.18	REVISED SECOND SUBMISSION	AV
B	11.10.17	SECOND SUBMISSION	AV
A	21.06.17	FOR SUBMISSION	AV
No.	DATE	REVISION	BY



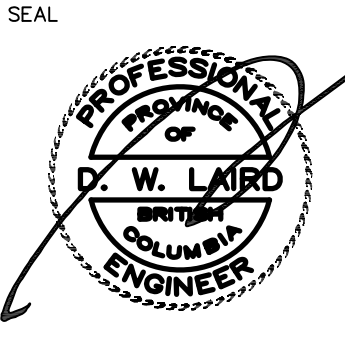
#505 - 1755 W. Broadway Street, Vancouver, B.C. Canada V6J 4S5
Tel: (604) 224-6827, Fax: (604) 597-9061, Email: general@aplinmartin.com

DEVELOPER: **1045353 BC LTD. (BILL LAIDLER)**
209-2773 BARNEY HIGHWAY,
COQUITLAM, B.C., V3B 1C2

PROJECT: **PROPOSED 21-LOT SUBDIVISION "MITCHELL EAST"**
3500 BAYCREST AVENUE AND 1235 & 1245 MITCHELL STREET
COQUITLAM, B.C.

DRAWN A.V.
DESIGNED D.L.
CHECKED D.L.
APPROVED D.L.

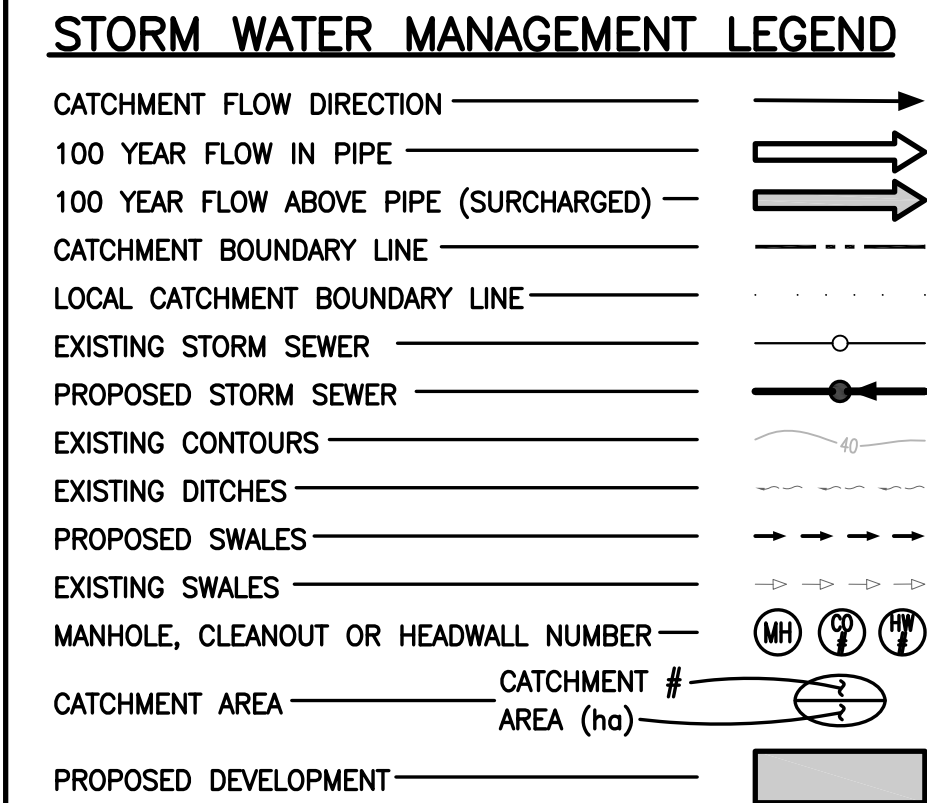
SCALES
HORZ. 1:500
VERT.



CITY OF COQUITLAM
ENGINEERING DEPARTMENT

SITE GRADING PLAN

DATE: DECEMBER 2016
SHEET: 16 OF 24
DWG. No. 16-233-16
REV. E

[illegible]

* REPLACE EXISTING PIPES
** CONCRETE THRUST BLOCKS REQUIRED

NOTES:
1. SEE SHEET 2 FOR GENERAL NOTES

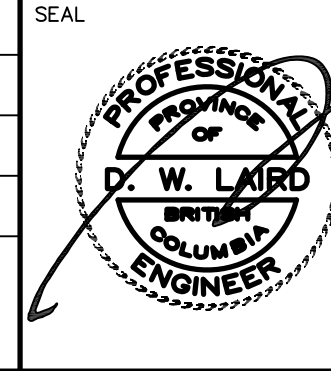


#505 – 1755 W. Broadway Street, Vancouver, B.C. Canada V6J 4S5
Tel: (604) 224-6827, Fax: (604) 597-9061, Email: general@aplilmartin.com

APPROVED SET

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PROJECT:	PROPOSED 21-LOT SUBDIVISION "MITCHELL EAST" 3500 BAYCREST AVENUE AND 1235 & 1245 MITCHELL STREET COQUITLAM, B.C.

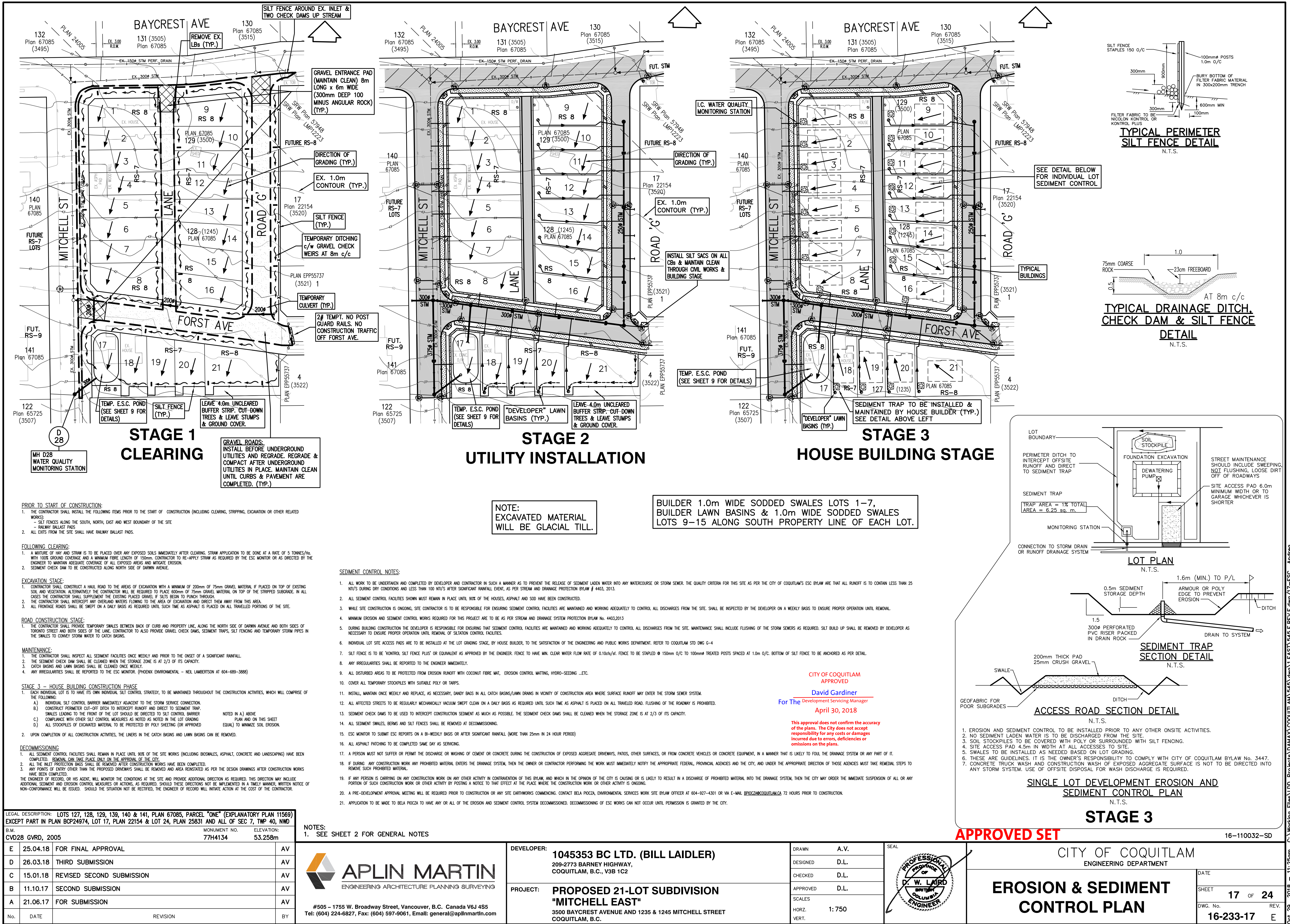
DRAWN	A.V.
DESIGNED	D.L.
CHECKED	D.L.
APPROVED	D.L.
SCALES	
HORZ.	1: 750
VERT.	

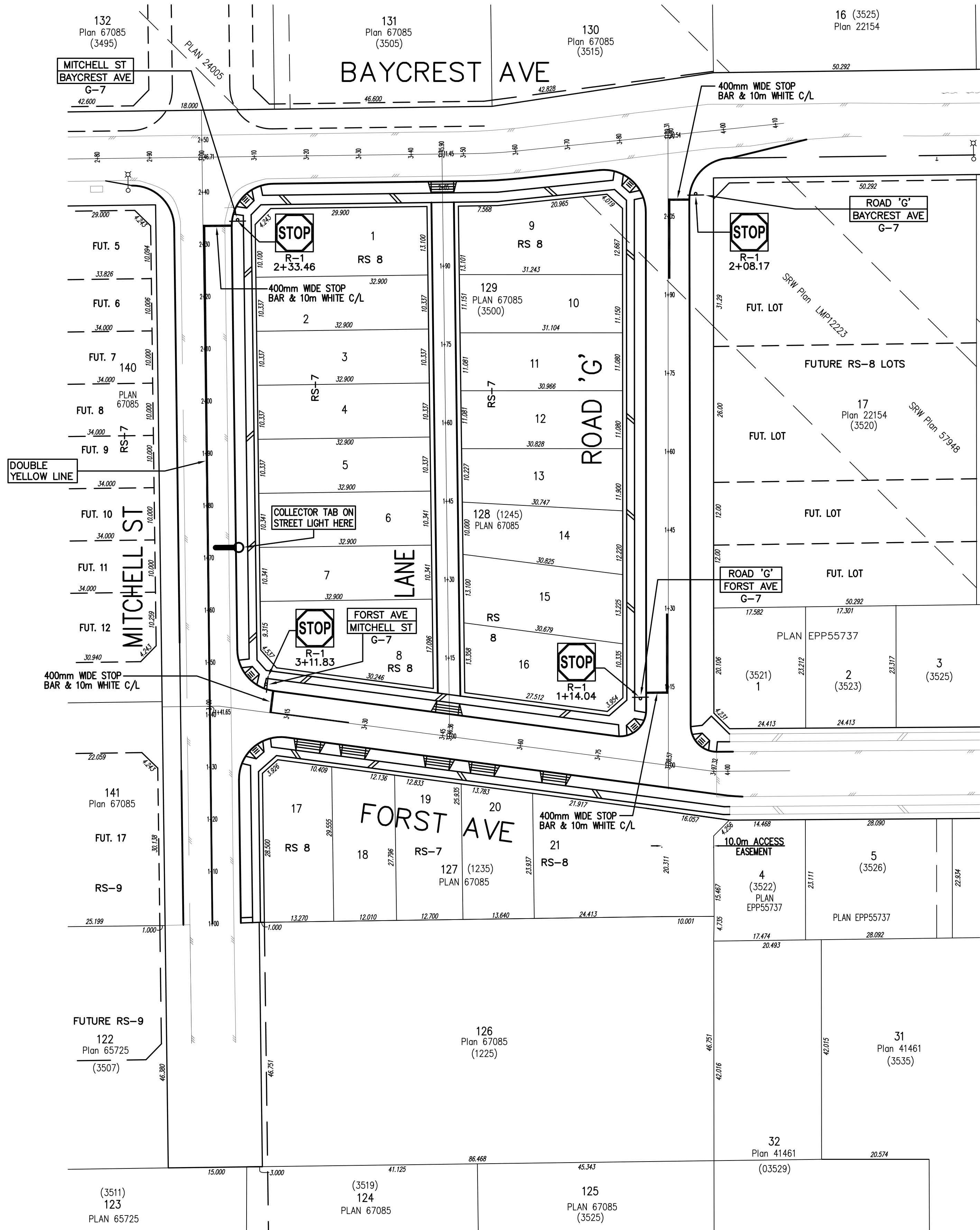


CITY OF COQUITLAM
ENGINEERING DEPARTMENT

STORM WATER MANAGEMENT PLAN

DATE	
SHEET	19 OF 24
DWG. No.	REV.
16-233-19	D





SCHEDULE OF SIGNS ASSOCIATED WITH THIS DRAWING	
• 1 "COLLECTOR STREET" SIGN TAB ON A STREETLIGHT POST ON MITCHELL ST	
• 1 "STOP" SIGN & 2 STREET NAME BLADES ON A NEW POLE AT FORST AVE/ROAD 'G' (NORTHWEST CORNER)	
• 1 "STOP" SIGN & 2 STREET NAME BLADES ON A NEW POLE AT FORST AVE/MITCHELL ST (NORTHEAST CORNER)	
• 1 "STOP" SIGN & 2 STREET NAME BLADES ON A NEW POLE AT BAYCREST AVE/ROAD 'G' (SOUTHEAST CORNER)	
• 1 "STOP" SIGN & 2 STREET NAME BLADES ON A NEW POLE AT MITCHELL ST/BAYCREST AVE (SOUTHEAST CORNER)	

CITY OF COQUITLAM
APPROVED
David Gardiner
For The Development Servicing Manager
April 30, 2018

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APPROVED SET

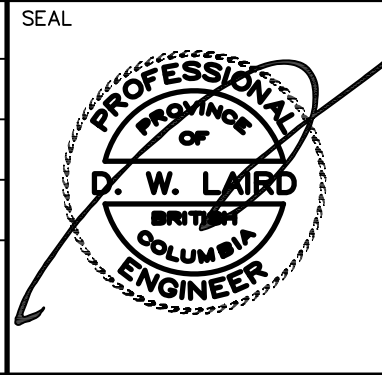
LEGAL DESCRIPTION: LOTS 127, 128, 129, 139, 140 & 141, PLAN 67085, PARCEL "ONE" (EXPLANATORY PLAN 11569) EXCEPT PART IN PLAN BOP24974, LOT 17, PLAN 22154 & LOT 24, PLAN 25831 AND ALL OF SEC 7, TWP 40, NWD
B.M. MONUMENT NO. ELEVATION:
CVD28 GVRD, 2005 77H4134 53.258m

No.	DATE	REVISION	BY
D	26.03.18	THIRD SUBMISSION	AV
C	15.01.18	REVISED SECOND SUBMISSION	AV
B	11.10.17	SECOND SUBMISSION	AV
A	21.06.17	FOR SUBMISSION	AV



DEVELOPER:	1045353 BC LTD. (BILL LAIDLER) 209-2773 BARNET HIGHWAY, COQUITLAM, B.C., V3B 1C2
PROJECT:	PROPOSED 21-LOT SUBDIVISION "MITCHELL EAST" 3500 BAYCREST AVENUE AND 1235 & 1245 MITCHELL STREET COQUITLAM, B.C.

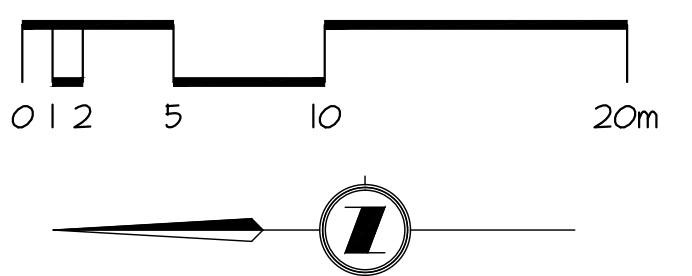
DRAWN	A.V.
DESIGNED	D.L.
CHECKED	D.L.
APPROVED	D.L.
SCALES	
HORZ.	1:500
VERT.	



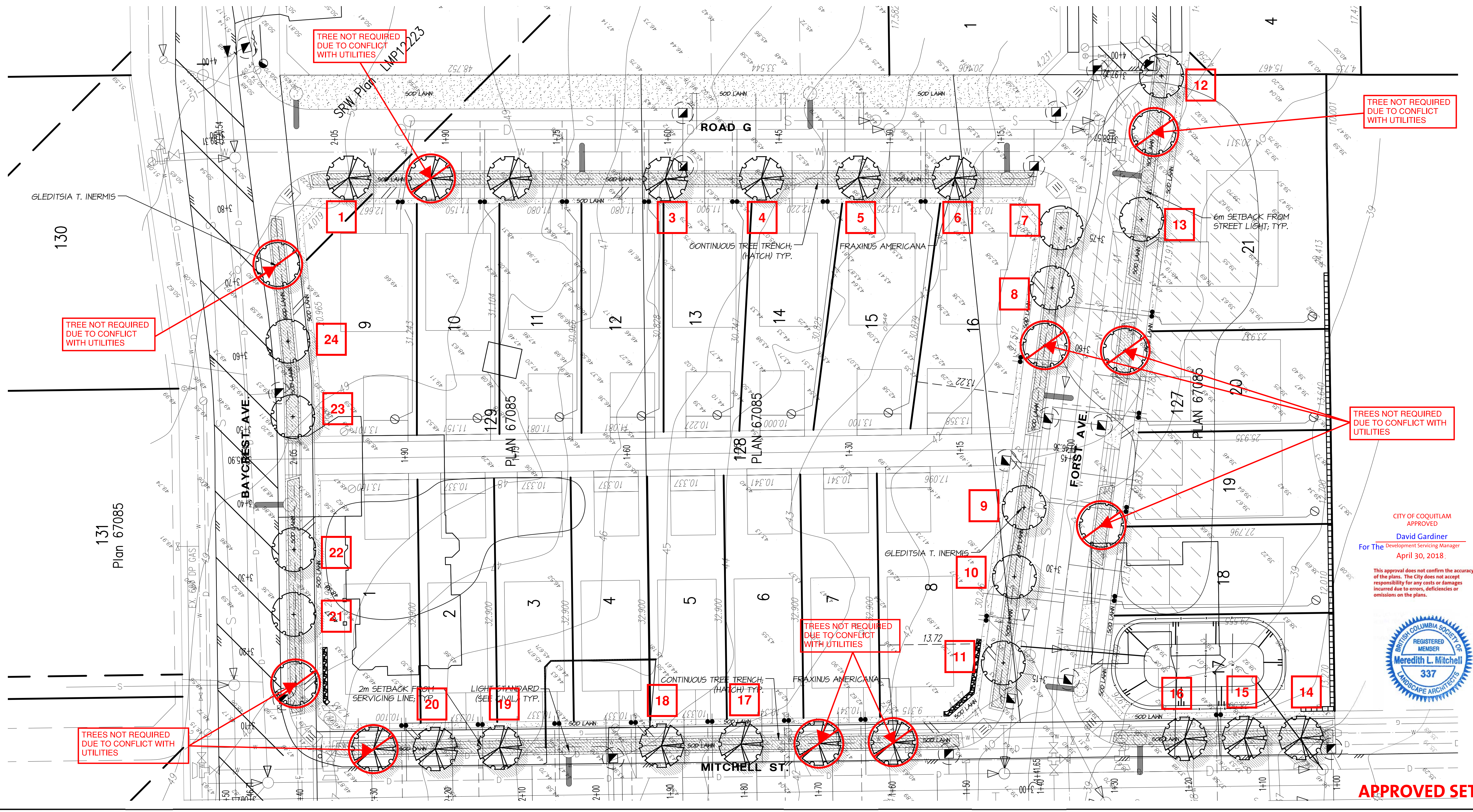
CITY OF COQUITLAM ENGINEERING DEPARTMENT	
TRAFFIC CONTROL MARKING & SIGNAGE PLAN	
DATE DECEMBER 2016	REV. D
SHEET 18 OF 24	DWG. No. 16-233-18

TREE SCHEDULE - OFFSITE (EAST)				M2 JOB NUMBER: 17-059
KEY	QTY	BOTANICAL NAME	COMMON NAME	PLANTED SIZE / REMARKS
	13	FRAXINUS AMERICANA 'AUTUMN PURPLE'	AUTUMN PURPLE ASH	7CM CAL; 1.8M STD; B4B
	11	GLEDTISIA T. INERMIS 'SKYLINE'	SKYLINE HONEY LOCUST	7CM CAL; 1.8M STD; B4B
NOTES: * PLANT SIZES IN THIS LIST ARE SPECIFIED ACCORDING TO THE BC LANDSCAPE STANDARD, LATEST EDITION. CONTAINER SIZES SPECIFIED AS PER CANTA STANDARDS. BOTH PLANT SIZE AND CONTAINER SIZE ARE THE MINIMUM ACCEPTABLE SIZES. * REFER TO SPECIFICATIONS FOR DEFINED CONTAINER MEASUREMENTS AND OTHER PLANT MATERIAL REQUIREMENTS. * SEARCH AND REVIEW MAKE PLANT MATERIAL AVAILABLE FOR OPTIONAL REVIEW BY LANDSCAPE ARCHITECT AT SOURCE OF SUPPLY. AREA OF SEARCH TO INCLUDE LOWER MAINLAND AND FRASER VALLEY. * SUBSTITUTIONS: OBTAIN WRITTEN APPROVAL FROM THE LANDSCAPE ARCHITECT PRIOR TO MAKING ANY SUBSTITUTIONS. TO THE SPECIFIED MATERIAL. UNAPPROVED SUBSTITUTIONS WILL BE REJECTED. ALLOW A MINIMUM OF FIVE DAYS PRIOR TO DELIVERY FOR REQUEST TO SUBSTITUTE. SUBSTITUTIONS ARE SUBJECT TO BC LANDSCAPE STANDARD - DEFINITION OF AVAILABILITY.				
ALL PLANT MATERIAL MUST BE PROVIDED FROM CERTIFIED DISEASE FREE NURSERY. PROVIDE CERTIFICATION UPON REQUEST.				

COORDINATE WITH LANDSCAPE ARCHITECT FOR NURSERY
PLANT SELECTION REVIEW PRIOR TO PURCHASE.



RECEIVED
November 19 2018
CITY OF COQUITLAM
DEVELOPMENT SERVICING



CITY OF COQUITLAM
APPROVED
David Gardiner
For The Development Servicing Manager
April 30, 2018.

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omissions on the plans.



APPROVED SET

Edge of pavement

Watermain and valve

Drainage sewer, MH

Drainage ditch

Sanitary sewer, MH

Sanitary forcemain

Gasmain and valve

Hydro duct, MH

Telephone duct, MH

Hydrant

Water air valve

Water blowoff

Water service

Catch basin, top inlet

Catch basin, side inlet

Catch basin, round

Drainage service

Drainage cleanout

Sanitary service

Sanitary cleanout

Utility pole (joint pole)

Utility pole with light

Streetlight, davit

Streetlight, post top

Comb signal pole

Traffic signal pole

Junction box

Hydro Guy Wire

Hydro Kiosk

Vegetation Conifer

Vegetation Deciduous

Survey Traverse Hub

Survey Iron Pin

Survey Lead Plug

Survey Monument

3	18.03.28	PMT	REVISED PER NEW SITE PLAN/CITY COMMENTS
2	17.12.21	DY	REVISED PER NEW SITE PLAN/CITY COMMENTS
1	17.11.10	QL	REVISED PER NEW SITE PLAN/CITY COMMENTS

Design by PMT

Drawn by PMT

Checked by MLTM

Approved by MTLM

ACCEPTED FOR CONSTRUCTION

Date:

Manager of Development Servicing

3000 Guildford Way, Coquitlam, B.C. V3B 7N2

Scale 1:250

Scale horz. 1 of 3

Scale vert.

Sheet of

Eng. Project No.

Project 21-LOT SUBDIVISION "MITCHELL EAST"

3500 BAYCREST AVE AND 1235 & 1245 MITCHELL ST, COQUITLAM, B.C.

Description OFF-SITE LANDSCAPE PLAN (EAST)

File: 17059-L1



LISTED BELOW ARE THE MINIMUM DISTANCES TREES SHOULD BE PLANTED FROM THE FOLLOWING:

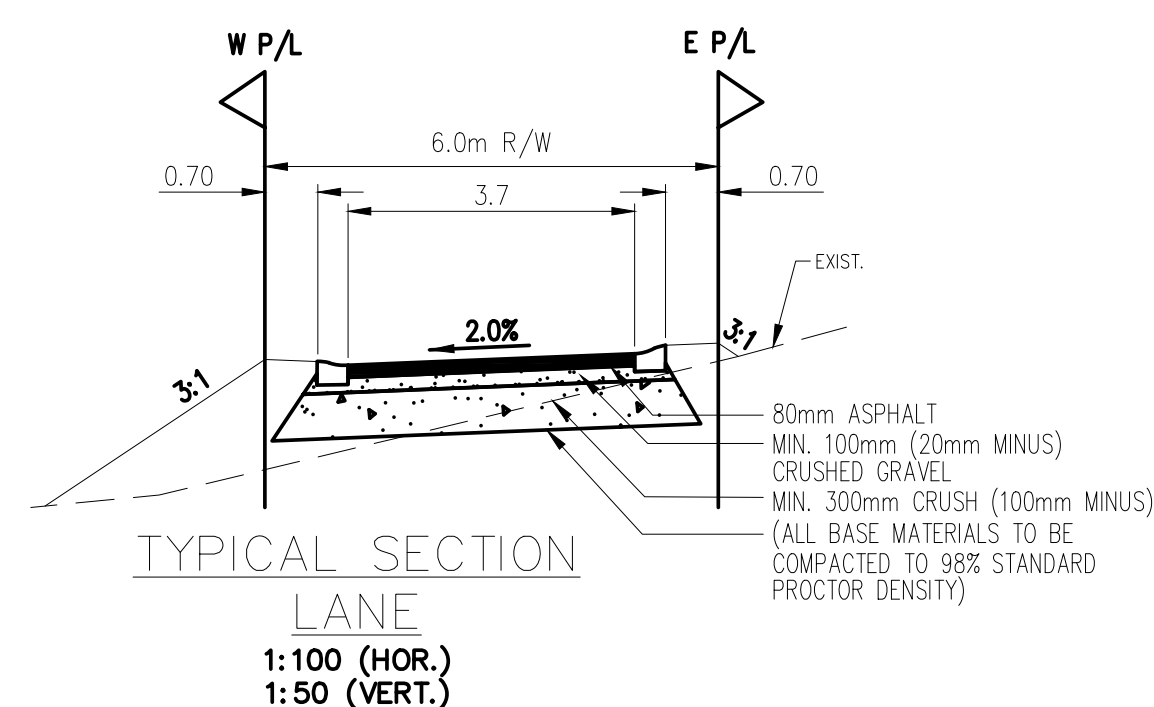
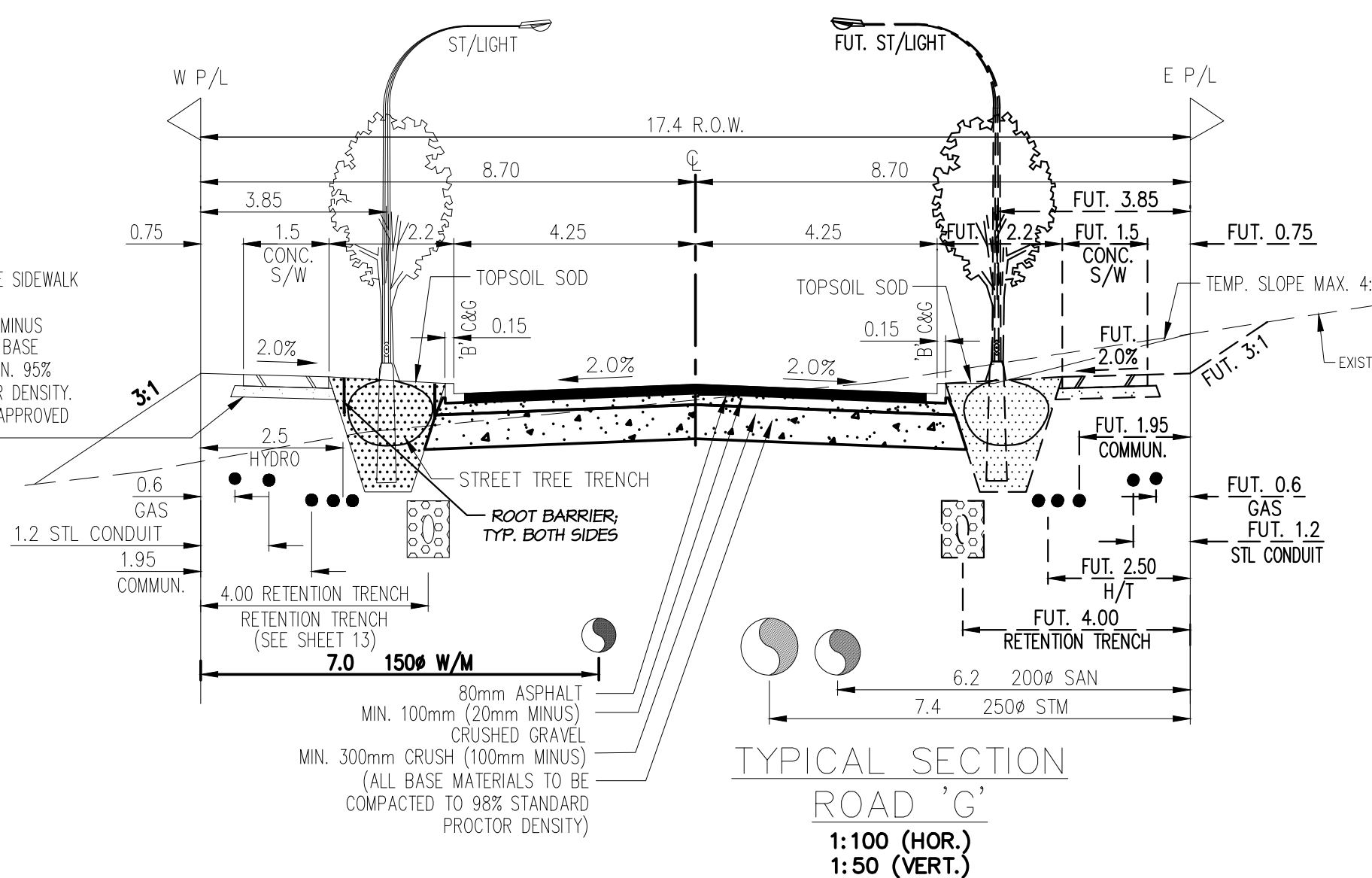
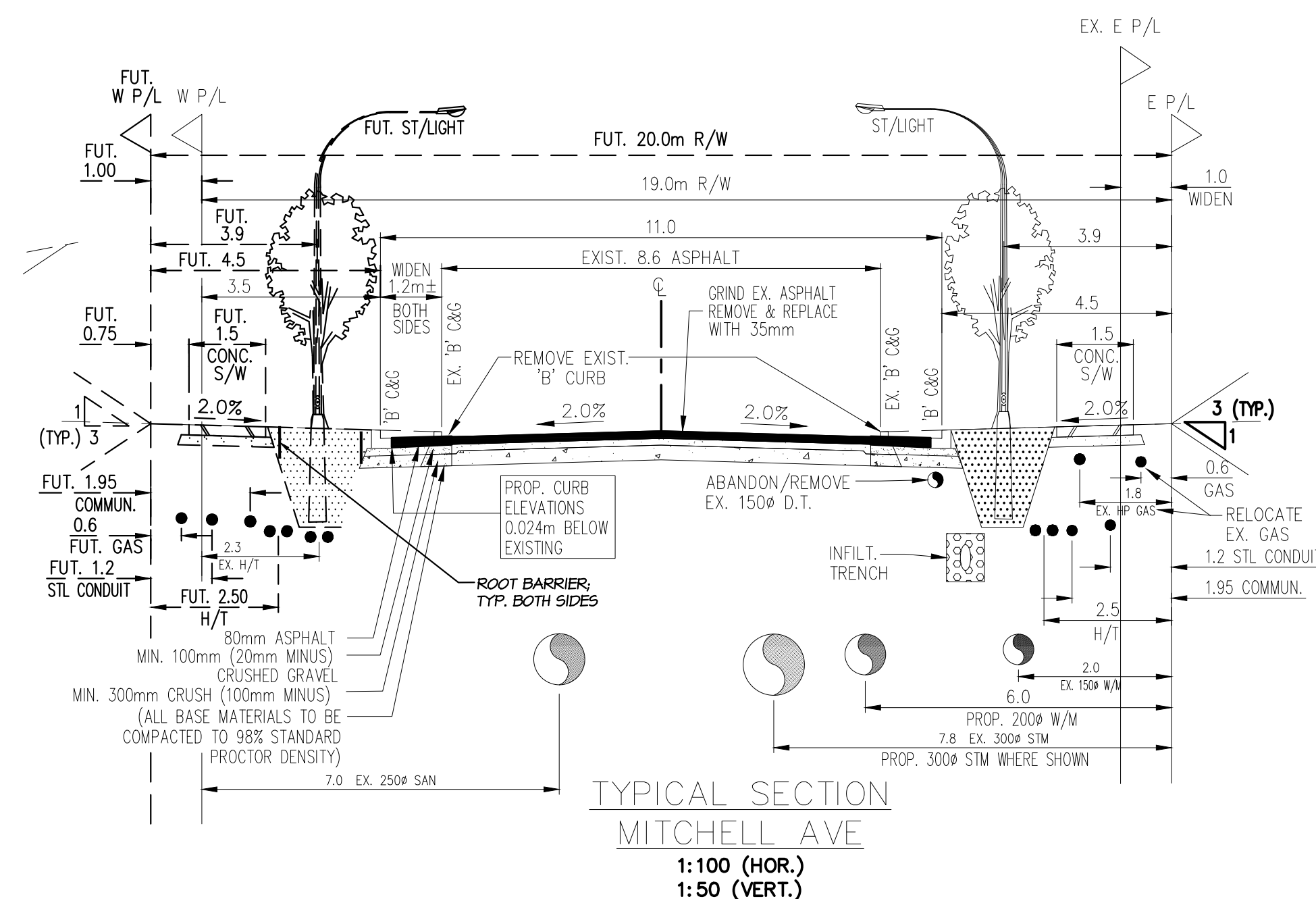
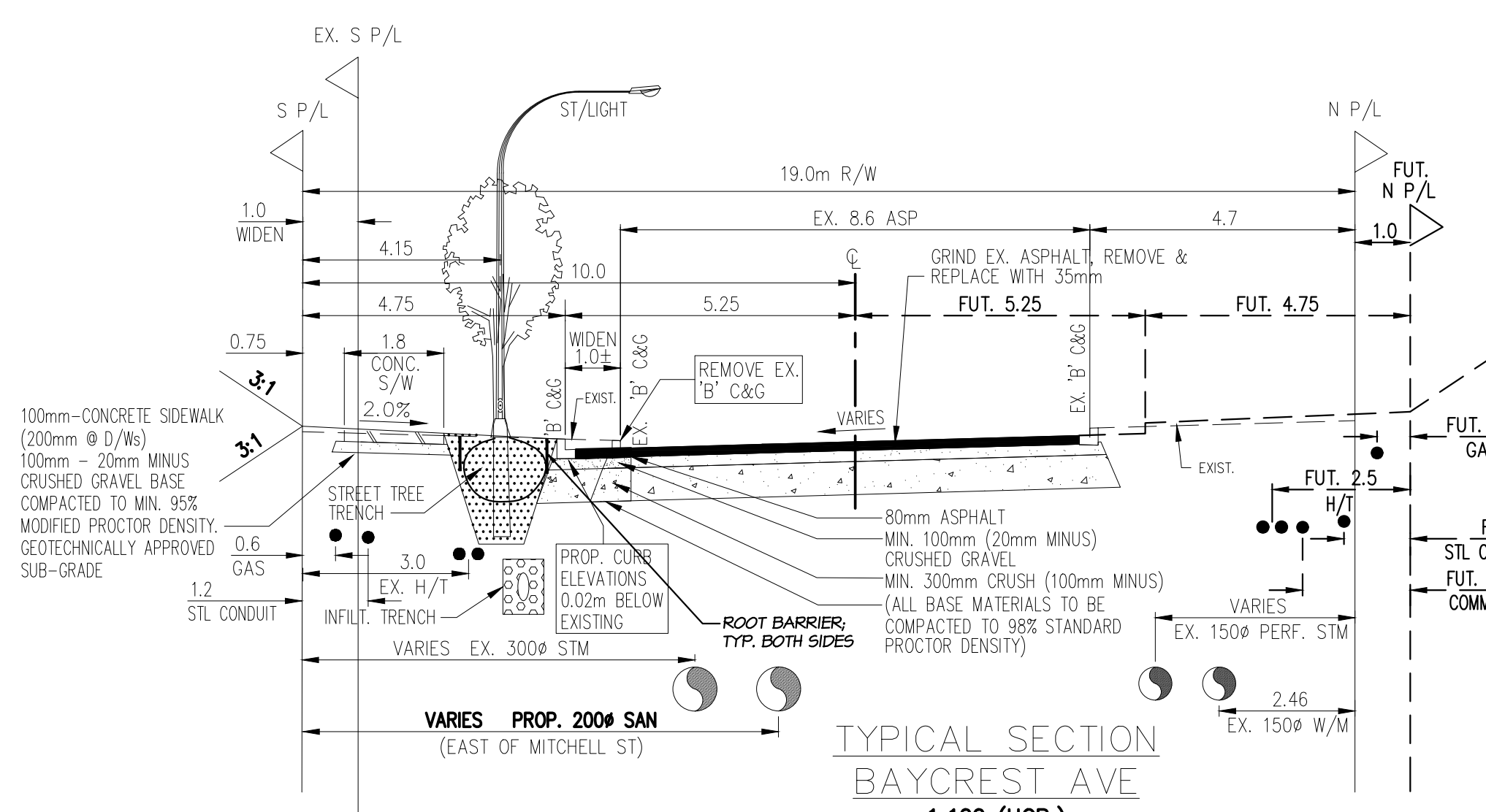
<u>TYPE</u>	<u>METRIC</u>
STREET LIGHTS	6.0 M
DRIVEWAYS	2.0 M
CATCHBASINS	2.0 M
MANHOLES, VALVE BOXES, SERVICES	2.0 M
ELECTRICAL JUNCTION BOXES	3.0 M
KIOSKS	2.0 M
HYDRANTS	3.0 M
STREET INTERSECTIONS	8.0 M
POWER POLE	2.0 M

Coquitlam Offsite Landscape Notes:

1. "All work and materials shall meet or exceed the requirement outlined in the current BC Landscape Standard. If there is a discrepancy between the BC Landscape Standard and Coquitlam Bylaws or Standards the Coquitlam documents shall take precedence."
2. "All work and materials shall comply with the Coquitlam Subdivision and Development Servicing Bylaw #3558 and the Supplementary Specifications and Detailed Drawings to MMCD 2000 Edition."

10. Notes

- a. A quality control item to ensure there is an opportunity to inform the project consultants and contractors of the City requirements, to ensure the project LA has been notified of the project start-up and to ensure the civil contractor is aware of the requirement to have the project LA review preliminary landscape work such as the soil trench excavation and growing medium supply and installation.
- b. Notes the need for the work to meet the British Columbia Society of Landscape Architects (BCSLA) / British Columbia Nursery Trades Association (BCNTA) Landscape Standards.
- c. Notes the need for the work to comply with the Coquitlam Subdivision and Servicing Bylaw and standards.



November 19 2018

**CITY OF COQUITLAM
DEVELOPMENT SERVICING**

CITY OF COQUITLAM
APPROVED

David Gardiner

For The Development Servicing Manager

April 30, 2018

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APPROVED SET

3	18.03.28	PMT	REVISED PER NEW SITE PLAN/CITY COMMENTS
2	17.12.21	DY	REVISED PER NEW SITE PLAN/CITY COMMENTS
1	17.11.10	QL	REVISED PER NEW SITE PLAN/CITY COMMENTS

M2
LANDSCAPE ARCHITECTURE

Coquitlam
Engineering & Public Works
1000 Guildford Way, Coquitlam, B.C. V3B 7N2

Project	21-LOT SUBDIVISION "MITCHELL EAST" 3500 BAYCREST AVE AND 1235 & 1245 MITCHELL ST., COQUITLAM, B.C.
Description	OFF-SITE LANDSCAPE DETAILS (EAST)
File: 17059-L1	

11 REFERENCES

1. CDC Doc 2 LATEST EDITION
Comply with all articles in the General Conditions of Contract in conjunction with this section unless superseded by other Contract Documents.

2. B.C. Landscape Standard, LATEST EDITION, prepared by the B.C. Society of Landscape Architects and the B.C. Landscape & Nursery Association, jointly. All work and materials shall meet standards as set out in the B.C. Landscape Standard unless superseded by this specification or as directed by Landscape Architect with written instruction.

3. MASTER MUNICIPAL SPECIFICATIONS & STANDARD DETAILS, LATEST EDITION, prepared by the Consulting Engineers of British Columbia, Roadbuilders and Heavy Construction Association, and the Municipal Engineers Division.

4. STANDARD FOR LANDSCAPE IRRIGATION SYSTEM, LATEST EDITION Prepared by the Irrigation Industry Association of British Columbia.

5. MUNICIPAL BYLAWS AND ENGINEERING SPECIFICATIONS WHERE NOTED.

12 TESTING

1. A current test (more than one month) test for all growing medium to be used on this site is required. Provide and pay for testing by an independent testing facility pre-approved by the Landscape Architect. Deliver growing medium test results to Landscape Architect for review and approval prior to placement. Refer to Section 3.4 Growing Medium Testing for procedure.

2. Owner reserves the right to test or re-test materials. Contractor responsible to pay for testing if materials do not meet specification.

13 SUBMITTALS

1. Any alternate products differing from that contained in the contract documents must be pre-approved by the Landscape Architect.

2. Submittals to consist of product sample or manufacturer's product description.

14 SITE REVIEW

1. Under the terms of the Landscape Architect's Contract with the Owner and where the Landscape Architect is the designated reviewer, the Landscape Architect will observe construction as is necessary in their opinion to confirm conformance to the plans and specifications. Contact Owners Representative to arrange for site observation at the appropriate times. Allow two days notice. Observation schedule may include but will not be limited to the following:
1.1 Start up Site Meeting, General Contract Prior to any site disturbance, a meeting with the general contractor to review tree preservation issues, general landscape issues and municipal requirements.
1.2 Start up Site Meeting, Landscape Architect (If separate) At the start of work with Owner's Representative, Site Superintendent and Landscape Contractor, a meeting is to be held to review expected work and to verify the acceptability of the subgrade and general site conditions to the Landscape Contractor. Provide growing medium test results for this meeting.
1.3 Progress Site Visits To observe materials and workmanship as necessary through the course of the work. Review of different aspects of the work may be dealt with on any single visit. Such elements may include: Site Layout, Rough Grading, Growing Medium - quality, depths, finish grading, Drainage and Drainage Materials, Lawns or Grass areas, Planting- plant material including regulations with suppliers, nursery inspections, plant sizes, quality, quantity, planting practice and layout, tree support; Mulch; Irrigation Systems, Play Equipment, Site Furnishings, and other elements of the site development where the Landscape Architect is the designated reviewer such as Pedestrian Paths, Fencing, Non-structural walls and stairs, Unit Fining.
1.4 Substantial Performance Review of all work, accounting of all substitutions, deletions, plant counts, preparations of deficiency list, and recommendations for completion. Issuance of Certificate of Completion upon the declaration of Substantial Performance, a recommendation for the issuance of the Certificate of Completion will be made to the Payee/Certifier as defined in the contract.
1.5 Deficiency Review Prior to the completion of the handback period, check for completion of deficiencies. Once completed, a Schedule "C" will be issued where required.
1.7 Warranty Review Prior to the completion of the warranty period 6-12 months after issuance of the Certificate of Completion, review all warranty material and report recommendations for warranty replacement.

2. Refer to individual sections for specific warranties.

15 WORKMANSHIP

1. Unless otherwise instructed in the Contract Documents, the preparation of the subgrade shall be the responsibility of the General Contractor. Placement of growing medium constitutes acceptance of the subgrade by the Landscape Contractor. Any subsequent corrections to the subgrade required are the responsibility of the Landscape Contractor.

2. All work and superintendence shall be performed by personnel skilled in landscape contracting. In addition, all personnel applying herbicides and/or pesticides shall hold a current license issued by the appropriate authorities.

3. A site visit is required to be become familiar with site conditions before bidding and before start of work.

4. Confirm location of all services before proceeding with any work.

5. Notify Landscape Architect of any discrepancies. Obtain approval from Landscape Architect prior to deviating from the plans.

6. Take appropriate measures to avoid environmental damage. Do not dump any waste materials into water bodies. Conform with all federal, provincial and local statutes and guidelines.

7. Collect and dispose of all debris and/or excess material from landscape operations. Keep paved surfaces clean and repair damage resulting from landscape work. Repairs are to be completed prior to final acceptance.

8. Where new work connects with existing, and where existing work is altered, make good to match existing undisturbed condition.

16 WARRANTIES

1. Guarantee all materials and workmanship for a minimum period of one full year from the date of Certificate of Completion.

2. Refer to individual sections for specific warranties.

PART TWO SCOPE OF WORK

21 SCOPE OF WORK

1. Other conditions of Contract may apply. Confirm Scope of Work at time of tender.

2. Work includes supply of all related items and performing all operations necessary to complete the work in accordance with the drawings and specifications and generally consists of the following:
1. Retention of Existing Trees where shown on drawings.
2. Finish Grading and Landscape Drainage.
3. Supply and placement of growing medium.
4. Trenching of installed growing medium and/or site layout.
5. Supply and incorporation of additives to meet requirements of soil test and Table One.
6. Preparation of planting beds, supply of plant material and planting.
7. Preparation of rough grass areas, supply of materials and seeding.
8. Preparation of lawn areas, supply of materials and sodding.
9. Supply and placement of bark mulch.
10. Maintenance of planted and seeded/sodded areas until accepted by Owner.
21.1 SEPARATE PRICE Establishment Maintenance, Section 3.11.
21.2 Other work/Work other than this list, not specified by Landscape Architect.

22 MATERIALS

1. Growing Medium Conform to B.C. Landscape Standard for definitions of imported and on-site topsoil. Refer to Table One below.

TABLE ONE: PROPERTIES OF GROWING MEDIUM FOR LEVEL 1, GROWING AND LEVEL 3, MODERATE AREAS (Canadian System of Soil Classification Textural Class "Loamy Sand" to "Sandy Loam")			
Applications	Low Traffic Areas: Trees and Large Shrubs	High Traffic Lawn Areas	Planting Areas and Planters
Growing Medium Types	2%	2%	2%
Tolerant			
Coarse Gravel: larger than 25mm	0 - 1%	0 - 1%	0 - 1%
All Gravel: larger than 2mm	0 - 5%	0 - 5%	0 - 5%
Percent Of Dry Weight of Total Growing Medium			
Sand: larger than 0.075mm smaller than 2.0mm	50 - 80%	70 - 90%	40 - 80%
Silt: larger than 0.075mm smaller than 0.075mm	10 - 25%	0 - 15%	10 - 25%
Clay: smaller than 0.075mm	0 - 25%	0 - 15%	0 - 25%
Clay and Silt Combined	maximum 35%	maximum 15%	maximum 35%
Organic Content (leaf):	3 - 10%	3 - 5%	10 - 20%
Organic Content (interior):	3 - 5%	3 - 5%	15 - 20%
Acidity (pH):	6.0 - 7.0	6.0 - 7.0	4.5 - 6.5
Drainage:	Percolation shall be such that no standing water is visible 60 minutes after at least 10 minutes of moderate to heavy rain or irrigation.		

2. Fertilizer: An organic and/or inorganic compound containing Nitrogen (N), Phosphate (P2O5), and Potash (K2O) in proportions required by soil test.

3. Lime: Ground agricultural limestone. Meet requirements of the B.C. Landscape Standard.

4. Organic Additive: Commercial compost product to the requirements of the B.C. Landscape Standard, LATEST EDITION and pre-approved by the Landscape Architect. Recommended suppliers: Yarroworks, The Assever Garden Products, Fraser Richmond Soils & Fibre, Shreave Organics Management.

5. Sand: Clean, washed pump sand to meet requirements of the B.C. Landscape Standard.

6. Composted Bark Mulch: 10mm (3/8") minus Fir/Hemlock bark chips and fines, free of chunks and sticks, dark brown in colour and free of all soil, stoness, roots or other extraneous matter. Fresh orange in colour bark will be rejected.

7. Herbicides and Pesticides: If used, must conform to all federal, provincial and local statutes. Applicants must hold current licenses issued by the appropriate authorities in the area.

8. Filter Fabric: A non biodegradable material or other filtering membrane that will allow the passage of water but not fine soil particles. (Such as PM601 140 N, GEOLON 140 OR OM400 455 or alternate product) pre-approved by the Landscape Architect).

9. Drainage Piping: If required, Schedule 40 PVC nominal sizes.

10. Drain Rock: Clean, round, inert, durable, and have a maximum size of 10mm and containing no material smaller than 10mm.

11. Plant Material: To the requirements of the B.C. Landscape Standard. Refer to 3.5, Plants and Planting. All plant material must be provided from a certified disease free nursery. Provide proof of certification.

12. Sod: Refer to individual sections in this specification.

13. Supplier and installers of segmental block walls to provide engineered drawings for all walls signed and sealed drawings for all walls, individually, in excess of 12m, or combinations of walls collectively in excess of 12m. Installations must be reviewed and signed off by Certified Professional Engineer, include cost of engineering services in Tender price.

14. Miscellaneous: Any other material necessary to complete the project as shown on the drawings and described herein.

PART THREE SOFT LANDSCAPE DEVELOPMENT	
31. RETENTION OF EXISTING TREES	<p>1. Prior to any work on site, protect individual trees or plant groupings indicated as retained on landscape plans as vegetation retention areas.</p> <p>1.1 In some instances the Landscape Architect will tag trees or areas to remain. Discuss tree retention areas at a start-up meeting with the Landscape Architect.</p> <p>2. A physical barrier must be installed to delineate clearing boundaries. Refer to physical barrier detail. If detail not provided, comply with local municipal requirements.</p> <p>3. No machine travel through within vegetation retention areas or under crowns of trees to be retained is allowed.</p> <p>4. Do not stockpile soil, construction materials, or excavated materials within vegetation retention areas.</p> <p>5. Do not park, fuel or service vehicles within vegetation retention areas.</p> <p>6. Debris fires, clearing fires or trash burning shall be prohibited within vegetation retention areas.</p> <p>7. No excavations, drain or service trenches nor any other disruption shall be permitted within vegetation retention areas without a review of the proposed encroachment by the Landscape Architect.</p> <p>8. Do not cut branches or roots of retained trees without the approval of the Landscape Architect.</p> <p>9. Any damage to existing vegetation intended for preservation will be subject to evaluation by a I.S.A. Certified Arborist using the "Guide for Plant Appraisal", LATEST EDITION.</p> <p>10. Replacement planting of equivalent value to the disturbance will be required. The cost of the evaluation and of the replacement planting will be the responsibility of the General Contractor and of the personal responsible for the disturbance.</p> <p>11. In municipalities with specific tree retention/replacement bylaws ensure compliance to bylaws.</p> <p>12. In situations where required retention may disturb existing vegetation intended for preservation, contact Landscape Architect for review prior to commencing construction.</p>
32. GRADES	<p>1. Ensure subgrade to prepared to conform to depths specified in Section 3.5, Growing Medium Supply, below. Where planting is indicated close to existing trees, prepare suitable planting pockets for material indicated on the planting plan. Shape subgrade to eliminate free standing water and conform to the site grading and drainage plan.</p> <p>2. In slopes in excess of 3:1 trench subgrade across slopes to 150mm (6") minimum at 15m (5 ft) intervals minimum.</p> <p>3. Scarify the entire subgrade immediately prior to placing growing medium. Re-cultivate where vehicular traffic results in compaction during the construction procedures. Ensure that all planting areas are smoothly contoured after light compaction to finished grades.</p> <p>4. Eliminate standing water from all finished grades. Provide a smooth, firm and even surface and conform to grades shown on the Landscape Drawings. Do not exceed maximum and minimum gradients defined by the B.C. Landscape Standard.</p> <p>5. Construct swales to meet the following and grade, smooth and free of rags or high points. Minimum slope 2%, maximum slope 10%. Assume positive drainage to collection points.</p> <p>6. Slope not to exceed 1:1 on low gradients. Rough Grass 3:1, Lawn 4:1, Landscape plantings 2:1.</p> <p>7. Finished soil/mulch elevation at building to comply with municipal requirements.</p> <p>8. Inform Landscape Architect of completion of finish grade prior to placement of seed, sod, plants or mulch.</p>
33. LANDSCAPE DRAINAGE	<p>1. Related Work: Growing medium and Finish Grading, Grass areas, Trees Shrubs and Groundcoverings, Planters, Crib Walls.</p> <p>2. Work Included: Site finish grading and surface drainage. Installation of any drainage systems detailed on landscape plans. Note Catch basins shown on landscape plans for consideration only. Confirm location of catch basins prior to bid.</p> <p>2.1 Coordinate all landscape drainage work with rest of site structure. Refer to engineering drawings and specifications for connections and other drainage work.</p> <p>2.2 Determine exact location of all existing utilities and structures and underground utilities prior to connecting work, which may not be located on drawings and conduct work as to prevent interruption of service or damage to them. Protect existing structures and utility services and be responsible for damage caused.</p> <p>2.3 Planter drains on site. Refer to Section 3.11, Installing Landscapes on Structures.</p> <p>3. Elevation</p> <p>3.1 To trenching and backfilling in accordance with engineering details and specifications.</p> <p>3.2 Lay drains on prepared bed, true to line and grade with minimum 1% slope. Free of rags or high points. Ensure barrel of each pipe is in contact with bed throughout full length.</p> <p>3.3 Commence laying pipe at outlet and proceed in upstream direction.</p> <p>3.4 Lay perforated pipes with perforations at 6m on 6m 45° positions.</p> <p>3.5 Make joints tight in accordance with manufacturer's directions.</p> <p>3.6 Do not allow water to flow through the pipes during construction except as approved by Engineer.</p> <p>3.7 Make watertight connections to existing drains, new or existing manholes or catchbasins where indicated or as directed by Landscape Architect.</p> <p>3.8 Plug upstream ends of pipes with watertight clean out caps.</p> <p>3.9 Surround and cover pipe with drain rock in uniform 150mm layers to various depths as shown in details, minimum 100mm.</p> <p>3.10 Cover drain rock with non-woven filter cloth lap all edges and seams minimum 150mm.</p> <p>3.11 Assume positive drainage.</p> <p>3.12 Back fill remainder of trench as indicated.</p> <p>3.13 Protect subdrains from infiltration during installation.</p>
34. GROWING MEDIUM TESTING	<p>1. Submit representative sample of growing medium proposed for use on this project to an independent laboratory. Provide test results to Landscape Architect prior to placing. Test results to include:</p> <p>1.1 Physical properties, % content of gravel, sand, silt, clay, and organic.</p> <p>1.2 Acidity (pH) and quantities of lime or sulphur required to bring within specified range.</p> <p>1.3 Nutrient levels of phosphate and trace elements and recommendations for required soil amendments.</p> <p>1.4 Carbon/Nitrogen level.</p>
35. GROWING MEDIUM SUPPLY AND PLACEMENT	<p>1. Supply all growing medium required for the performance of the Contract. Do not load, transport or spread growing medium when it is so wet that its structure is likely to be damaged.</p> <p>2. Supply all growing medium additions as required by the soil test. Amended growing medium must meet the specification for growing medium as defined in Table One for the various areas.</p> <p>3. Thoroughly mix required amendments into the full depth of the growing medium.</p> <p>2. Special mixes may be required for various situations. Refer to drawing notes for instructions.</p> <p>3. Place the amended growing medium in all grass and planting areas. Spread growing medium in uniform layers not exceeding 6" (150mm), over uniform subgrade free of standing water.</p> <p>4. Minimum depths of growing medium placed and compacted to 80%:</p> <p>4.1 On-grade.....6" (150mm)</p> <p>4.1.1 Seeded and sodded lawn.....6" (150mm)</p> <p>4.1.2 Mass planted shrubs & groundcovers.....15" (380mm)</p> <p>4.1.3 Groundcover only areas, if defined on plan.....9" (225mm)</p> <p>4.1.4 Tree & large shrub pits.....depth to conform to depth of rootball - with shall be at least twice the width of the root ball with sacker shaped sides.</p> <p>4.2 In-Slab:</p> <p>4.2.1 Irrigated lawn.....9" (225mm)</p> <p>4.2.2 Groundcover areas.....17" (380mm)</p> <p>4.2.3 Lawn without automatic irrigation.....17" (380mm)</p> <p>4.2.4 Shrub & groundcover areas.....15" (380mm)</p> <p>4.2.5 Trees and specimen shrubs.....30" (760mm over columns and/or edge of slab twenty column locations on-site for tree locations).</p> <p>4.2.6 Depth noted includes 1" to 2" (25-50mm) sand over filter fabric.</p> <p>4.2.7 Maximum 18" depth growing medium except where mounded for trees over column points.</p> <p>5. Manually spread growing medium/planting soil around existing trees, shrubs and obstacles.</p> <p>6. Re-perimeter seeded grass areas, feather growing medium out to nothing at edges and blend into existing grades.</p> <p>7. Finished grades shall conform to the elevations shown on landscape and site plans.</p>
36. ROUGH GRASS AREA - SEEDING	<p>1. General: Rough grass areas are noted on the drawings as "Rough Grass". Treat all areas defined as rough grass between all property lines of the project including all boulevards to edge of roads and lanes.</p> <p>2. Preparation of Surfaces: To B.C. Landscape Standard Class 3 Areas (Rough grass) Section 7.1.1.3</p> <p>2.1 Clean existing top by mechanical means of debris over 10mm in any direction.</p> <p>2.2 Roughly grade surfaces to allow for maintenance specified and for positive drainage.</p> <p>3. Time of Seeding: Seed from early spring (generally April 1st) to late fall (September 30th) of each year. Further extensions may be obtained on concurrence of the Landscape Architect.</p> <p>4. Seed Supply & Testing: All seed must be obtained from a recognized seed supplier and shall be No. 1 grass mixture delivered in containers bearing the following information:</p> <p>4.1 Analysis of the seed mixture</p> <p>4.2 Percentage of each seed type</p> <p>4.3 Seed Moisture: All varieties shall be rated as strong performers in the Pacific Northwest and are subject to client approval.</p> <p>4.4 10% Creeping Red Fescue</p> <p>4.4.1 Annual Ryegrass</p> <p>4.4.2 5% Calvert Perennial Ryegrass</p> <p>4.4.3 5% Kentucky Bluegrass</p> <p>For Midflower Areas use a mixture of Midflowers with Hard Fescues (Ternstroem Coastal Midflower) with Hard Fescue or pre-approved alternative.</p> <p>4.5 Fertilizer: Mechanical seeding Apply a complete soluble slow-release fertilizer with maximum 35% water soluble nitrogen and a formulation ratio of 18-18-18 - 50% sulphur area covered, 112 lb/ha(1000lb/acre) using a mechanical spreader.</p> <p>4.6 Seeding: Apply seed at a rate of 120lb/ha (1000lb/acre) with a mechanical spreader. Incorporate seed into the top 1/4" (6mm) of soil and lightly compact.</p> <p>4.7 Acceptance: Provide adequate protection of the seeded areas until conditions of acceptance have been met. Comply with Section 3.7 Hydroseeding.</p>
37. HYDROSEEDING	<p>1. May be used as an alternate to mechanical seeding in rough grass areas.</p> <p>2. May not be used in areas of lawn unless pre-approved by the Landscape Architect prior to bidding.</p> <p>3. Preparation and Growing Medium: In areas of Rough Grass Comply with Section 3.6 Rough Grass.</p> <p>3.2 Where approved for use in areas of lawn, comply with Section 3.8 Lawn Areas: Sodding.</p> <p>4. Protection: Ensure that fertilizer in solution does not come in contact with the foliage of any trees, shrubs, or other susceptible vegetation. Do not spray seed or mulch on objects not expected to grow grass. Protect existing site equipment, roadways, landscaping, reference points, monuments, markers and structures from damage. Where contamination occurs, remove seeding slurry by suction or by hand and remove from the Landscape Architect.</p> <p>5. Mulch: Shall consist of virgin wood fibre recycled paper fibre designed for hydrolic seeding and dyed for ease of monitoring application. If using recycled paper material for wood fibre substitute use 125% for weight. Conform to B.C. Landscape Standard for mulch requirements.</p> <p>6. Water: Shall be free of any impurities that may have an injurious effect on the success of seeding or may be harmful to the environment.</p> <p>7. Equipment: Use industry standard hydrolic seeder/mulcher equipment with the tank volume certified by an identification plate or sticker affixed in plain view on the equipment. The hydrolic seeder/mulcher shall be capable of sufficient agitation to mix the material into a homogeneous slurry and to maintain the slurry in a homogeneous state until it is applied. The discharge pumps and gun nozzles shall be capable of applying the materials uniformly over the designated area.</p>

PART THREE SOFT LANDSCAPE DEVELOPMENT - CONT

8. Application Rate

8.1 Seed: Minimum 150 lb/ha (125 lb/acre)

8.2 Fertilizer: 112 lb/ha (1000 lb/acre)

8.3 Coastal Midflower Mix: Where specified, apply (31 lb/acre) (14 lb/ha) of 1 lb. of grass seed

8.4. Notes:

8.4.1 At the time of tender provide a complete chart of all components of the mix proposed including mulch, fertilizer, water, etc. Sloped sites require tackifier.

8.4.2 Fertilizer

8.4.2.1 Rough Grass: If a soil analysis is available, comply with results.

8.4.2.2 Lawn: Where hydroseeding is approved, comply with soil analysis recommendations.

9. Accurately measure the quantities of each of the materials to be charged into the tank either by mass or by a commonly accepted system of mass-calibrated volume measurements. The materials shall be added to the tank while it is being filled with water in the following sequence; seed, fertilizer. Thoroughly mix into a homogeneous slurry. After charging, add no water or other material to the mixture. Do not leave slurry in the tank for more than four (4) hours.

10. Distribute slurry uniformly over the surface of the area to be hydroseeded. Blend application into previous applications and existing grass areas to form uniform surfaces.

11. Clean up: Remove all materials and other debris resulting from seeding operations from the job site.

12. Maintenance: Begin maintenance immediately after seeding and continue for 60 days after Substantial Completion and until accepted by the Owner. Re-seed at three week intervals where germination has failed. Protect seeded areas from damage with temporary wire or fence fences complete with signage until grass area is taken over by the Owner. Water in sufficient quantities to ensure deep penetration and at frequent intervals to maintain vigorous growth until grass is taken over by the Owner. It is the Owner's responsibility to supply water at no extra cost to the Contractor.

13. Acceptance of the Rough Grass Areas: Proper germination of all specified grass species is the responsibility of the Landscape Contractor. The grass shall be reasonably well established, with no apparent dead or bare spots and shall be reasonably free of weeds (to B.C. Landscape Standard, Section 13 Maintenance Level 4 (Open space). Sixty days after substantial completion, areas meeting the conditions above will be taken over by the Owner. Areas seeded in fall will be accepted in Spring one month after start of growing season, provided that the above conditions for acceptance are fulfilled.

38. LAWN AREAS - SODDING

1. General: Treat all areas defined as lawn areas on the drawings and between all property lines of the project including all boulevards to edge of roads and lanes.

2. Growing Medium: Comply with Section 2.2.1, Growing Medium. Prior to sodding, request an inspection of the finished grade, and depth and condition of growing medium by the Landscape Architect.

3. Time of Sodding: Sod from April 1st to October 31st. Further extensions may be obtained on concurrence of the Landscape Architect.

4. Sod Supply: Conform to all conditions of B.C. Landscape Standard, Section 8, B.C. Standard for Turfgrass Sod.

5. Specified Turfgrass by area. Refer to Table 2 below.

Area	Description	Quality Grade	Major Species
CLASS 1	Lawn, all areas noted on drawings as lawn in urban development areas including boulevard grass	No. 1 Premium	Kentucky Blue for sun, Fescues for shade
CLASS 2	Grass - public parks, institutional and institutional sites	No. 2 Standard	same
CLASS 3	Rough Grass	see hydroseeding	
SPECIAL			

6. Lime: The lime shall be as defined in Section 2.2.3, Materials. Apply at rates recommended in required soil test. Refer to Section 3.4 for method.

7. Fertilizer: Refer to Section 2.2.3, Materials. Apply specified fertilizer at rates shown in the required soil test. Apply with a mechanical spreader. Cultivate into growing medium 48 hours prior to sodding. Apply separately from lime.

8. Sodding: Prepare a smooth, firm, even surface for laying sod. Lay sod staggered with sections closely butted, without overlapping or gaps, smooth and even with adjoining areas and end tightly. Water to obtain moisture penetration of 3" to 4" (75 - 100mm). Comply with requirements of B.C. Landscape Standard Section 8, B.C. Standard for Turfgrass Sod.

9. Maintenance: Begin maintenance immediately after sodding and continue for 60 days after Substantial Completion and until accepted by the Owner. Protect sodded areas from damage with temporary wire or fence fences complete with signage until lawn is taken over by the Owner. Water to obtain moisture penetration of 3" to 4" (75 - 100mm) at intervals necessary to maintain sufficient growth. Keep grass cut at height of between 1-1/2" (40mm) and 2" (50mm). Provide adequate protection of sodded areas against damage until the turf has been taken over by Owner. Repair any damage areas, re-grade as necessary. Aeration may be required in the Landscape Architect's opinion, through the top sod base medium is required.

10. Acceptance of Lawn Areas: The turf shall be reasonably well established, with no apparent dead spots or bare spots and shall be reasonably free of weeds (to B.C. Landscape Standard, Section 13 Maintenance Level 2 (Appearance). Use herbicides if necessary for weed removal unless other conditions of contract forbid their use. After the lawn has been cut at least twice, areas meeting the conditions above will be taken over by the Owner.

39. PLANTS AND PLANTING

1. Confirm a planting layout as shown on Landscape Plans.

2. Obtain approval of the Landscape Architect for layout and preparation of planting prior to commencement of planting operations.

3. Make edge of beds with smooth clean defined lines.

4. Time of Planting:

4.1 Plant trees, shrubs and groundcovers only during periods that are normal for such work as determined by local weather conditions when seasonal conditions are likely to ensure successful adaptation of plants to their new location.

5. Standards:

5.1 All plant material shall conform to the requirements of the B.C. Landscape Standard, LATEST EDITION, unless exceeded by drawing Plant Schedule or this specification.

5.1.1 Refer to B.C. Landscape Standard, Section 9, Plants and Planting and in Section 12, B.C. Landscape Standard for Container Growing Plants for minimum standards.

5.1.2 Plant material obtained from areas with less severe climatic conditions shall be grown to withstand the site climate.

6. Review:

6.1 Review at the source of supply and/or collection point does not prevent subsequent rejection of any or all planting stock at the site.

7. Availability:

7.1 Area of search includes the Lower Mainland and Fraser Valley. Refer to Plant Schedule for any extension of area.

7.2 Supply proof of the availability of the specified plant material within 30 days of the award of the Contract.

8. Substitution:

8.1 Obtain written approval of the Landscape Architect prior to making any substitutions to the specified material. Non-approved substitutions will be rejected.

8.2 Allow a minimum of 5 days prior to delivery for request of substitution.

8.3 Substitutions are subject to B.C. Landscape Standard - definition of Conditions of Availability.

9. Plant Species & Location:

9.1 Plants shall be true to name and of the height, caliper and size of root ball as shown on the landscape/site plan plant schedule. Caliper of trees is to be taken 6" (150mm) above grade.

9.2 Plant all specified species in the location as shown on the landscape drawings. Notify Landscape Architect if conflicting rock or underground/overhead services are encountered.

9.3 Deviation of given planting location will only be allowed after review of the proposed deviation by the Landscape Architect.

10. Excavation:

10.1 Trees and large shrubs: Excavate a sacker shaped tree pit to the depth of the rootball and to at least twice the width of the rootball. Assume that finished grade is at the original grade the tree was grown at.

11. Drainage of Planting Holes:

11.1 Provide drainage of planting pits where required, in sloped conditions, break out the side of the planting pit to allow drainage down slope, and in flat conditions, mound to raise the rootball above impervious layer. Notify the Landscape Architect where the drainage of planting holes is limited.

12. Planting and Fertilizing Procedures:

12.1 Plant all trees and shrubs with the roots placed in their natural growing position. If burlapped, loosen around the top of the ball and cut away or fold under. Do not put burlap from under the ball. Carefully remove containers without injuring the rootball. After refilled in place, cut top. For wire baskets, clip and remove top three rows of wire.

12.2 Fill the planting holes by gently firming the growing medium around the root system in 6" (150mm) layers. Settle the soil with water. Add soil as required to meet finish grade. Leave no air voids. When 2/3 of the topsoil has been placed, apply fertilizer as recommended by the required soil test at the specified rates.

12.3 Where planting is indicated adjacent to existing trees, use special care to avoid disturbance of the root system or natural grades of such trees.

12.4 Where trees are in lawn areas, provide a clean cut mulched 100mm (10 ft) diameter circle centered on the tree.

13. Staking of Trees:

13.1 Use two 2"x2"x25 stakes, unless superseded by municipal requirements. Set stakes minimum 2 ft. in soil. Do not drive stake through rootball.

13.2 Leave the tree carefully upright.

13.3 Tie with approved commercial, flat woven polypropylene fabric belt, minimum width 1 1/4" (32mm). Approved product: ArborTie - available from Dendrofill.

13.4 Coniferous Trees over 6 ft. height: Guy with three 1/4" strand wires (1/4" gage). Drive three stakes equidistant around the tree completely below grade.

13.5 Trees 6 ft. - on Wood or Concrete Decid. Guy as above using three wooden 1/4" x 2" x 4" buried to the maximum possible depth instead of stakes.

13.6 Mark all guy wires with visible flagging material.

14. Pruning:

14.1 Limit pruning to the minimum necessary to remove dead or injured branches. Preserve the natural character of the plants, do not cut the leader. Use only clean, sharp tools. Make all cuts clean and cut to the branch collar leaving no stubs. Shape affected areas so as not to retain water. Remove damaged material.

15. Mulching:

15.1 Mulch all planting areas with an even layer of mulch to 2-1/2" to 3" (65 - 75mm) depth. Confirm placement of mulch in areas labeled "Groundcover Area" on drawings. Mulch a 3 ft. (900mm) diameter circle around trees in lawn areas, leave a clean edge.

16. Acceptance:

16.1 The establishment of all plant material is the responsibility of the Landscape Contractor.

17. Plant Material Maintenance:

17.1 Maintain all plant material for 60 days after landscape work has received a Certificate of Completion.

17.2 Watering: Conform to B.C. Landscape Standard, Section 9.3.2 - Watering and generally as follows:

17.2.1 Water to supplement natural rainfall such that the soil moisture content is kept to 50% to 90% of field capacity. Water to the full depth of the root zone each time. The Owner is responsible to supply water at no extra cost to the Contractor. Confirm source of water prior to beginning work.

17.3 Use appropriate measures to combat pests or diseases damaging plant material. Comply with all local governing statutes and guidelines for chemical control.

17.4 Plant material which fails to survive shall be replaced in the next appropriate season as determined by the Landscape Architect.

17.5 Repair tree guards, stakes, and guy wires, when necessary.

17.6 Maintain areas relatively weed free. Appearance Level 2, B.C. Landscape Standard, Chapter 13).

17.7 Maintain mulch to specified depths.

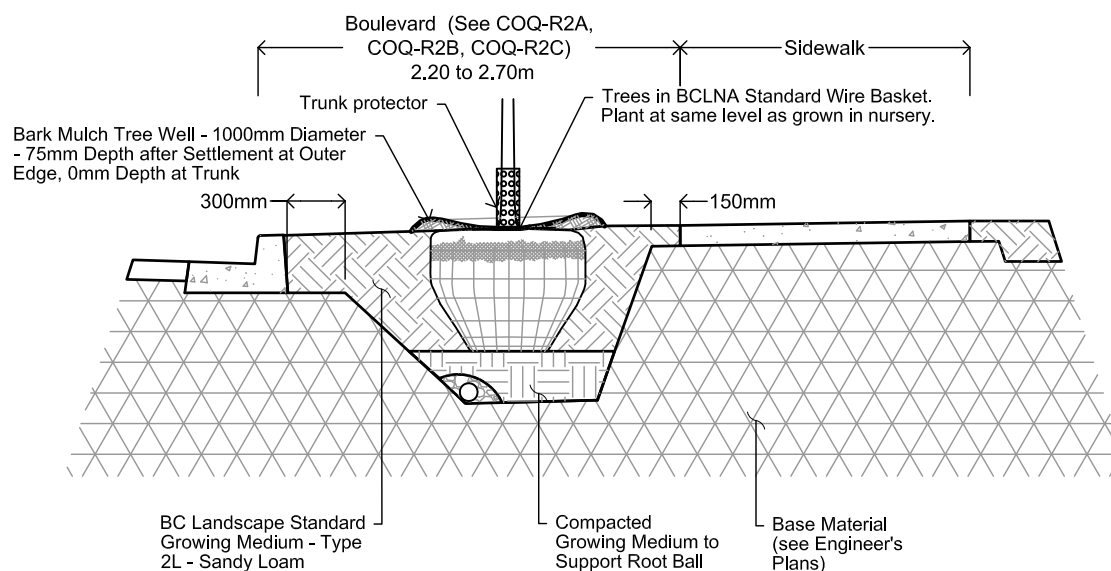
18. Plant Warranty:

18.1 Replace all unsatisfactory plant material except those designated "Specimen" for a period of one (1) year after the Certificate of Completion. Replace all unsatisfactory plant material designated "Specimen" for a period of two (2) years after the Certificate of Completion. Replace all unsatisfactory trees and shrubs and continue to replace new ones until the specified number is complete and satisfactory to the Landscape Architect. Such replacement shall be subject to the notification, inspection and approval as specified for the original planting, and shall not constitute an extra to the Contract.

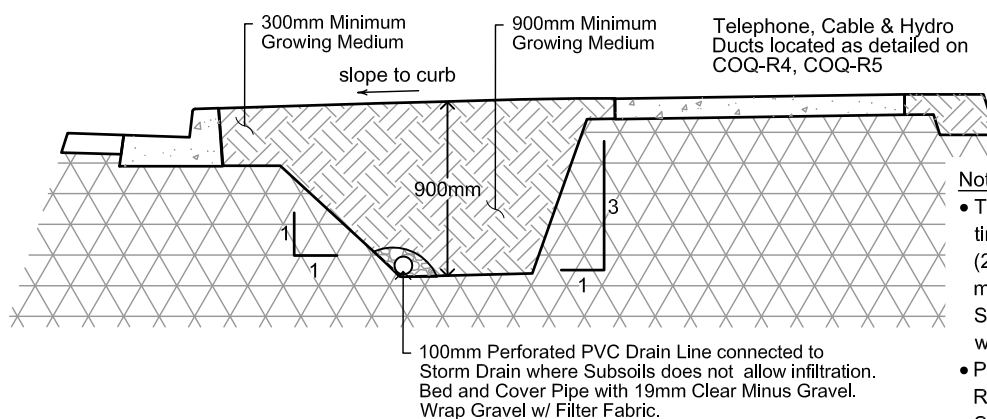
18.2 Those Plants, identified as hardy within one zone of the Canada Department of Agriculture hardiness zone for the area, specified by the Landscape Architect and installed by the Landscape Contractor which are killed through below normal temperatures below the average of the extreme minimum temperatures officially recorded in the area concerned, in the last 10 years, will not be replaced without cost of replacement borne by the Owner.

18.3 A review may be requested during the latter part of the warranty growing season. All plant material showing well developed foliage, healthy growth and bud forming, will then be taken over.

PART THREE SOFT LANDSCAPE DEVELOPMENT - CONT	
18.1. For all plant material, the Landscape Architect reserves the right to extend the Contractor's responsibility for another growing season if, in his opinion, leaf development is not sufficient to ensure future satisfactory growth. <p>18.2. Where the Owner is responsible for plant maintenance and has not provided adequate maintenance, the plant replacement section of the contract may be declared void. The Landscape Architect shall determine whether maintenance has been satisfactory using the B.C. Landscape Standard, Section 13, Maintenance as the guide. The required maintenance standard is a minimum of Level Three - Medium. Refer to Section 3.11 Establishment Maintenance.</p> <p>18.6 The Landscape Contractor is responsible to replace any plant material or repair any construction included in the Contract that is damaged or stolen until the issuance of the Certificate of Completion.</p> <p>18.7 Deviation from the specifications may require extension of the Warranty Period as determined by the Landscape Architect.</p>	
310. INSTALLING LANDSCAPE ON STRUCTURES	<p>1. Verify that drainage and protection material is completely installed and acceptable before beginning work. Contact Landscape Architect for instructions if not in place.</p> <p>2. Coordinate work with construction of planters and planter drainage.</p> <p>2.1 Verify that planter drains are in place and positive drainage to roof drains is present prior to placing any drain rock or soil.</p> <p>3. Provide clean out at all through-slab drain locations. Use 300mm min. dia. PVC Pipe filled with drain rock unless specific drawing detail shown.</p> <p>4. Install drain rock evenly to a minimum depth of 4" (100mm) alternate sheet drain if specified. Install sheet drain as per manufacturer's recommendations.</p> <p>5. Cover drain rock for alternate sheet drain if specified on drawing details with filter fabric lapping 6" (150mm) at all edges. Obtain approval of drainage system prior to placing growing medium.</p> <p>6. Place an even layer of 25 - 50mm clean washed pump sand over filter fabric.</p> <p>7. Place growing medium to depths specified in Section 3.5 shown for various surface treatments. Refer to Drawing details for any light weight filter required to alter grade. Use Styrofoam block over drain rock shaped to provide smooth surface transition at edges. Butl each piece tightly together and cover with filter fabric to prevent soil from migrating downward.</p>
311. ESTABLISHMENT MAINTENANCE (Provide a separate price for this section)	<p>1. Intent: The "Establishment Maintenance" is to provide sufficient care to newly installed plant material for a minimum period of time to ensure or increase the long term success of the planting. The objective is the adaptation of plants to a new site in order to obtain the desired effect from the planting while reducing the rate of failure and unnecessary work associated with improper establishment. Establishment of maintenance procedures apply to all new and retained vegetation including cultivated turfgrass areas and new trees.</p> <p>2. Maintenance Period: Provide maintenance of installed landscaping for 12 months following Substantial Completion.</p> <p>3. Related Standards and Legislation: B.C. Landscape Standard, latest edition; Fertilizer Code, B.C. Pesticide Control Act.</p> <p>4. Site Review: In addition to the inspections at substantial completion, at final progress draw application, and at the end of the guarantee period, there should be three other reviews during the 12 months attended by the Contractor and a designated representative of the Owner. Maintain a logbook and reporting procedures and submit to the designated representative.</p> <p>5. Scheduling: Prepare a schedule of anticipated visits and submit to designated representative at start-up. Maintenance operations shall be carried out predominantly during the growing season between March 1st and November 30th, however visits at other times of the year may be required.</p> <p>6. Maintenance Level: Comply with B. C. Landscape Standard, Section 13, Table 2, Maintenance Level "Medium".</p> <p>7. Materials: Comply with Part Two of this specification.</p> <p>7.1 Fertilizers: To the requirements of the B.C. Landscape Standard. Formulations and rates as required by soil testing.</p> <p>8. Plant Material Establishment:</p> <p>8.1 Watering: During the first growing season, water new plants at least every ten (10) days between April 1st and July 31st, and every twenty (20) days between August 1st and September 30th. Minimum 25 gallons per tree per application. During the second growing season, water new plants at least every twenty days between April 1st and July 31st and once between August 1st and September 30th. Apply water at a rate and duration such that the water content reaches field capacity to the full depth of the growing medium. Apply water again when the water content reaches 25% of field capacity.</p> <p>8.2 Weed, Insect and Disease Control: All flagging of guy wires each time they are moved for weeds, insects, and diseases and treat promptly when necessary by appropriate manual methods, or by the use of chemicals in compliance with the B.C.L.A./B.C.L.N.A. Landscape Standards latest edition. All broadleaf weeds in grassed areas by a general application of a suitable herbicide if the weed population exceeds 10 broadleaf weeds or 50 annual weeds or weed grasses per 40 square meters. This application shall reduce the weed population to zero.</p> <p>8.3 Fertilizing: According to soil analysis.</p> <p>8.4 Lining: According to soil analysis.</p> <p>8.5 Mowing and Trimming: All areas: The first four cuts shall be a sharp rotary type mower. Excess grass clipping shall be removed after each cut. All grass areas shall be mowed with a sharp reel or rotary mower when the grass reaches a height of 60mm. Mow to a height of 40mm. Edge with a mechanical walking cutting edge once per year in March. Remove all grass clippings after each cut.</p> <p>8.6 Aeration: Aeration not required in the first growing season. If necessary, in the second growing season, aerate in early May with a suitable mechanical core. Core to a depth of 100mm (4") and remove cores.</p> <p>8.7 Pruning: Re-grade, re-sod or re-sod and re-sod as required to restore damaged or falling grass areas. Match the grass varieties in the surrounding area. Re-sod, if required, throughout the growing season. Re-sod between April 1st and April 30th or between September 1st and September 30th. Protect re-seeded areas and keep moist until the first mowing.</p> <p>9. Grass Areas Establishment:</p> <p>9.1 Watering: Use hoses and sprinklers, irrigation systems or other methods to apply water to Class 1 and Class 2 grassed areas (B.C. Landscape Standard, Section 7, Lawns and Grasses) such that the grass is maintained in a turfed condition. Supply and irrigate with water in the event of any irrigation system malfunction, or incomplete installation at expense to the Owner. Apply water to prevent drying or erosion of the soil. Apply water at a rate and duration so that the water content in the growing medium reaches field capacity to the full depth of the growing medium. Apply water again when the water content reaches 25% of field capacity.</p> <p>9.2 Weed, Insect and Disease Control: Inspect grass areas each time they are mowed for weeds, insect pests, and diseases and treat promptly when necessary by appropriate manual methods, or by the use of chemicals in compliance with the B.C.L.A./B.C.L.N.A. Landscape Standards latest edition. All broadleaf weeds in grassed areas by a general application of a suitable herbicide if the weed population exceeds 10 broadleaf weeds or 50 annual weeds or weed grasses per 40 square meters. This application shall reduce the weed population to zero.</p> <p>9.3 Fertilizing: According to soil analysis.</p> <p>9.4 Lining: According to soil analysis.</p> <p>9.5 Mowing and Trimming: All areas: The first four cuts shall be a sharp rotary type mower. Excess grass clipping shall be removed after each cut. All grass areas shall be mowed with a sharp reel or rotary mower when the grass reaches a height of 60mm. Mow to a height of 40mm. Edge with a mechanical walking cutting edge once per year in March. Remove all grass clippings after each cut.</p> <p>9.6 Aeration: Aeration not required in the first growing season. If necessary, in the second growing season,</p>



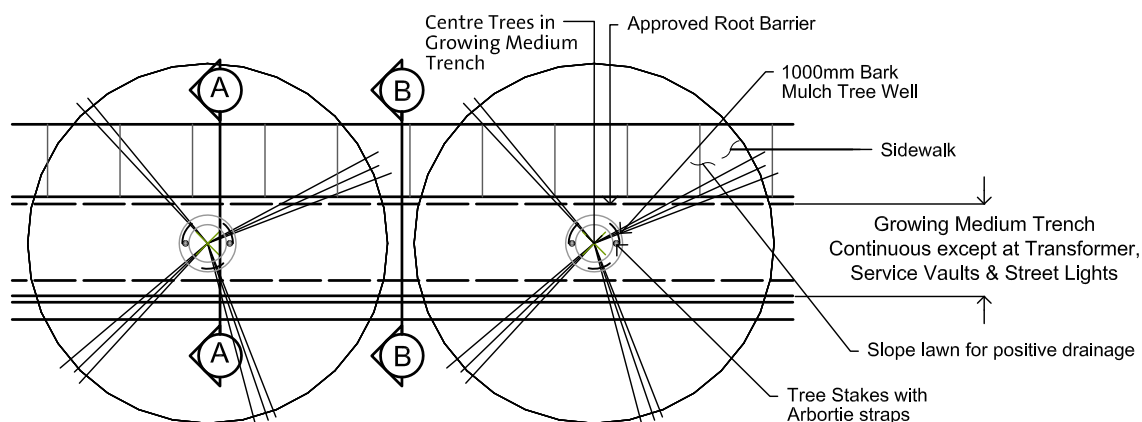
A Section Through Tree Location



Notes:

- Tree Stakes to be 2500 x 75Ø PT timber with two 20mm Arbortie (20mm) loops installed as per manufacturer's recommendations. Stakes to be removed at end of warranty period;
- Provide One Treegator® Slow Release Watering Bag for each Street Tree.

Section Through Growing Medium Trench



Street Tree Plan

PLOTTED: 1-Mar-16

BOULEVARD TREE PLANTING WITHOUT SWALE

DATE: DEC/2015

DRAWN: AJM

SCALE: N.T.S.

DRAWING NUMBER:

COQ-L2A

Supplementary General Conditions

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

File #: 07-2600-20/7147/1 Doc #: 4716888.v1

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](#)

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.

4.2	Safety	4.2.2	<p><i>(Add new clause 4.2.2 as follows):</i> <i>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).</i></p>
4..3	Protection of Work, Property and the Public	4.3.1	<p><i>(Replace clause 4.3.1 as follows):</i> 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.</p>
		4.3.5.1	<p><i>(Add clause 4.3.5.1 as follows):</i> The Contractor shall notify the Contract Administrator immediately if damage occurs to any City or third party utility or structure.</p>
		4.3.7	<p><i>(Add new clause 4.3.7 as follows):</i> 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 <i>Owner</i>, shall be provided by the <i>Contractor</i> at his own cost, with no liability to the <i>Owner</i>.</p>
4.6	Construction Schedule	4.6.1	<p><i>(Replace clause 4.6.1 as follows):</i> 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.</p>
		4.6.6	<p><i>(Replace clause 4.6.6 as follows):</i> 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.</p>
		4.6.8	<p><i>(Add new clause 4.6.8 as follows):</i> 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.</p>
4.7	Superintendent	4.7.4	<p><i>(Add new clause 4.7.4 as follows):</i> The key personnel named in the Contractor's Tender response, shall remain in these key positions throughout the project. In the</p>

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

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.
- d) 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 as 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 shut-down.

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. 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 ***(Replace clause 9.4.2 (2) as follows):***
If there is an overrun in the estimated quantity GC 9.4.3(2) shall apply to the overrun.

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.

**12.0 HAZARDOUS
MATERIALS**

**12.2 Discovery of
Hazardous Materials** 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**

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.
- b) 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.

**13.8 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.

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 \$50,000 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 as 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**

**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 Contractor must provide a signed "Prime Contractor Designation" form as provided in Appendix IV of these Supplementary General Conditions.

24.0 INSURANCE

24.1 General

24.1.1

(Replace section 24.0 as follows):

Importance of Prompt Attention to Insurance Requirements:

The Contractor shall provide the Owner with satisfactory evidence that the insurance required to be provided under this GC is in full force and effect.

- 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 certified 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.

**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. _____ \$ _____

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
(\$)

lawful money of Canada, for the payment of which sum, well and truly to be made, the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal 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

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

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 Oblige to Principal under the Contract less the amount properly paid by Oblige 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 Oblige named herein or the heirs, executors, administrators, or successors of Oblige.

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, this ____ day of _____ 20 ____.

SIGNED, SEALED and DELIVERED

In the presence of

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PRINCIPAL

SURETY

APPENDIX II

LABOUR AND MATERIAL PAYMENT BOND

(Private Contracts – Trustee Form)

NO. _____

\$ _____

Note: This Bond is issued simultaneously with another Bond in favour of the Obligee conditioned for the full and faithful performance of the Contract.

KNOW ALL MEN BY THESE PRESENTS THAT

As Principal, hereinafter called the Principal, and

As Surety, hereinafter called the Surety, are, subject to the conditions hereinafter contained, held and firmly bound unto

As Trustee, hereinafter called the Obligee, for the use and benefit of the Claimants, their and each of their heirs, executors, administrators, successors and assigns in the amount of

(\$ _____ Dollars
) lawful money of Canada, for the payment of which sum well and truly to be made, the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns jointly and severally, firmly by these presents.

SIGNED AND SEALED this _____ day of _____, 20____.

WHEREAS, the Principal has entered into a written contract with the Obligee dated the _____ day of _____, 20____, for

which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if the Principal shall make payment to all Claimants for all labour and material used or reasonably required for use in the performance of the Contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

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

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 Oblige 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 Oblige 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 Oblige or by joining the Oblige 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 Oblige against all costs, charges and expense or liabilities incurred thereon and any loss or damage resulting to the Oblige 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 Oblige to sue on and enforce the provisions of this Bond.
3. No suit or action shall be commenced hereunder by any Claimant:
 - a) unless such Claimant shall have given written notice within the time limits hereinafter set forth to each of the Principal, Surety and Oblige, stating with substantial accuracy the amount claimed. Such notice shall be served by mailing the same by registered mail to the Principal, Surety and Oblige 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 DELIVERED

In the presence of

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PRINCIPAL

SURETY

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

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 Certificate is issued to: **City of Coquitlam**
3000 Guildford Way
Coquitlam, BC V3B 7N2
- Named Insured and Mailing Address:
- B. CONTRACT NUMBER AND/OR NAME
- Description of the Work:
- C. INSURANCE POLICY
- Name of Insurer:
Policy Number:
Effective Date:
- Liability Limit:
Expiry Date:
- D. INSURANCE COVERAGE
- COMMERCIAL GENERAL LIABILITY** coverage is required to insure against liability from the activities arising out of operations or work in connection with the above-described project, including liability arising out of the use of City property.
- D.1 The minimum limit shall be \$5,000,000.00 inclusive per occurrence against bodily injury, personal injury and property damage.
- D.2 The City of Coquitlam, its employees, officers, agents and volunteers are added as Additional Insureds, but only with respect to operations conducted by or on behalf of the Named Insured in connection with the above-described project, operations or work.
- D.3 This insurance shall be primary as regards the City of Coquitlam, its employees, officers, agents and volunteers as Additional Insureds.
- D.4 Any deductible or reimbursement clause contained in the policy shall not apply to the City of Coquitlam and shall be the sole responsibility of the Named Insured.
- D.5 The insurance shall include the following coverages:
- D.5.1 Cross Liability Clause
- D.5.2 Non-Owned Automobile Liability
- D.5.3 Unlicensed Automobile Liability
- D.5.4 Blanket Contractual Liability
- D.5.5 Broad Form Property Damage Liability
- D.5.6 Owner's & Contractor's Protective Liability
- D.5.7 Products & Completed Operations Liability
- D.6 Indicate provision of special coverage for this project as required by the City:
- | YES | NO | Special Coverage Description |
|-----|-----|---|
| () | (X) | Shoring and Underpinning Hazard |
| () | (X) | Pile Driving and Vibrations |
| (X) | () | Excavation Hazard |
| () | (X) | Demolition |
| () | (X) | Blasting |
| D.7 | () | () PROFESSIONAL LIABILITY INSURANCE for Consultant Service Agreements |

The *Consultant* shall obtain and maintain for the duration of the *Services* as described in the Agreement, at its own cost, Professional Liability Insurance on terms and from an insurer satisfactory to the City of Coquitlam.

The Professional Liability Insurance policy shall insure the *Consultant's* legal liability for errors, omissions and negligent acts, to the extent of no less than \$500,000.00 per Claim and \$1,000,000.00 Aggregate.

Authorized Signature and Stamp

Date

Name and Title

City' broker to return to City Representative

Department

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



APPENDIX IV

PRIME CONTRACTOR DESIGNATION

Subject: **Prime Contractor Designation**
Contract #: **23-029**
Contract Name: **Street Tree Installation - 21 Lot Subdivision "Mitchell East"** (the "Project")

_____ (the "Contractor") represents, acknowledges and agrees that:

1. in accordance with section 118 of the Workers Compensation Act, R.S.B.C. 1996, c. 492 (the "Workers Compensation Act"), the Contractor shall be the "Prime Contractor" and is qualified to act as the "Prime Contractor" in respect of the Project;
2. the Contractor accepts the duties and responsibilities for coordination of health and safety in accordance with the Workers Compensation Act and further agrees that it will do everything necessary to establish and maintain a system or process that will insure compliance with the Workers Compensation Act and the Regulations thereto;
3. the Contractor shall fulfill all the obligations of an "Owner" under section 119 of the Workers Compensation Act in respect of the Project site; and
4. that the City of Coquitlam has fulfilled its obligations as an "Owner" under section 119 of the Workers Compensation Act, in respect of the Project site.

Prime Contractor Name & Address:

Prime Contractor Signature

Date

Print Name

Please return a signed copy of this memo to the City of Coquitlam. If you have any questions, please contact the City's Health and Safety Advisor at 604-927-3068.

Supplementary Contract Specifications

Supplementary Contract Specifications

to the
MASTER MUNICIPAL SPECIFICATIONS
Volume II – Platinum Book

Street Tree Installation – 21 Lot Subdivision “Mitchell East”

CONTRACT 23-029

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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.

SUPPLEMENTARY CONTRACT SPECIFICATIONS INDEXSS 1

00 72 43S	Contract Specific Notations	SS 2 to SS 5
01 33 01S	Project Record Documents	SS 6
01 45 00S	Quality Control	SS 7 to SS 8
01 55 00S	Traffic Control, Vehicle Access and Parking.....	SS 9 to SS 10
01 57 01S	Environmental Protection	SS 11 to SS 12
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Appendix A - Traffic Management Specifications.....TMP 1 to TMP8

**1.00 CONTRACT SPECIFIC
INSTRUCTIONS**

1.01 Schedule of Work

All work under this Contract is to be completed by the designated Substantial Performance Date as described in the Contract Documents. The Contractor must provide sufficient resources in a continuous effort and site presence to complete all the work within the allotted time. As set out in the MMCD the Contractor must provide updates to the construction schedule biweekly.

1.02 Coordination of Work

The Contractor shall be responsible to consult with all affected businesses, residents, transportation companies regarding delays, detours, and any other works affecting any transit service in the area, and will be responsible to coordinate the works with City crews and other contractors working in the area. If working area is to become a multiple-employer workplace as defined by WorkSafe BC, the Contractor shall remain the Prime Contractor.

1.03 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 One Call, Metro Vancouver, BC Hydro, Telus, Kinder Morgan, and Fortis BC in the area of the place of Work.

**1.04 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 Connections / GFL Environmental (garbage/recycling pick-up)
- City Utilities Maintenance (or representatives)

1.05 Site Safety

The Contractor is responsible to ensure the construction site is safe at all times for workers, pedestrians, and vehicle traffic. During non-working hours, the Contractor must ensure that the site has all potentially hazardous areas appropriately identified and protected, and also must provide appropriate signage, lighting, and markings for the direction of vehicle and pedestrian traffic, all to ensure the safety of the public. Supply and use of this equipment is considered incidental to the contract.

Manhole lids, valve boxes and other appurtenances within the roadway that may present a traffic hazard during construction must be clearly marked for traffic.

Manhole lids left raised in preparation for paving must have a rubberized protector ring painted with bright color for traffic safety. Supply and use of this equipment is considered incidental to the contract.

1.06 Lane Closure Restrictions

Refer to: Appendix A: Traffic Management Detail Specifications.

A 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 Permit must be held on site by both the Site Superintendent and the person/company responsible for the traffic control implementation.

The Contractor must take the above information into account in the preparation and submission of the Tender.

Costs to complete the works taking the above restrictions into consideration shall be incidental to work described in other sections.

Costs to complete the works taking the above restrictions into consideration shall be included in the prices bid in the Schedule of Quantities and Prices.

- | | |
|--|--|
| 1.07 Survey Layout | Construction layout will be staked out by the Contractor as outlined in Supplementary General Conditions. |
| 1.08 Location of Existing Utilities | <p>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. Fortis BC 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.</p> <p>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 Metro Vancouver for location of their utilities and BC One for location of other outside agency utilities. The contractor will not receive any compensation or allowance for delays if work is halted due to utilities & services connections not located prior to commencing construction.</p> <p>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.</p> <p>Payment for this work will be treated as incidental to payment for work described in other Sections.</p> |
| 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. |
| 1.10 Utility Adjustments - City Infrastructure and/or Other Agency Infrastructure | <p>The Contractor is responsible for adjusting all utilities, 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. Utility adjustment will be considered incidental to the contract unless otherwise noted in the Contract Documents.</p> <p>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.</p> <p>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.</p> <p>All manholes must be vertically adjusted a minimum of twenty-four (24) hours prior to paving</p> <p>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 paid by the contractor.</p> |
| 1.11 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. |
| 1.12 Verification of Dimensions and Quantities | Before proceeding with work the Contractor shall visit the site and check and verify dimensions and quantities. Report variations between drawings and site conditions to the Contract Administrator before proceeding with work. Payment for this work will be treated as incidental to payment for work described in other Sections. |

- | | | |
|-------------|---|--|
| 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. |
| 1.14 | Work by Others | The Contractor is required to accommodate the City crews, Contractors, Developers and Utility companies in their scheduling and sequencing of work 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 Performance, 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 | <p>The Contractor will be responsible for the complete clean-up of the work site during construction & at the end of construction and prior to the Substantial Performance review. This work is considered incidental to the Contract.</p> <p>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, regardless of the condition of the catch basins prior to starting the Work. 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.</p> <p>Payment for this work will be treated as incidental to payment for work described in other Sections.</p> |
| 2.03 | Asphalt Milling Operations | <p>Asphalt milling activities shall be done in such manner so as to cause the least disruption and inconvenience to traffic and area residents.</p> <p>The Contractor will be required to provide a plan and schedule for milling sections and the subsequent paving activities and have that approved by the Contract Administrator. This 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.</p> <p>MILLING OF EXTENSIVE AREAS THAT CANNOT BE PAVED WITHIN 48 HOURS PERIOD (2 DAYS) WILL NOT BE PERMITTED.</p> |
| 3.00 | MANDATORY MEETINGS AND CONTRACTOR REPRESENTATIVES AND SUBCONTRACTORS | |
| 3.01 | Pre-Construction Meeting Requirements | <p>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:</p> <ol style="list-style-type: none"> 1. 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
6. A copy of portions of your Health and Safety Plan including the Title Page, Table of Contents, and portion showing latest revision date.

**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 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.

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 and Contract Administrator are not responsible for the direction of Subcontractors.

**3.04 Mobilization and
Demobilization**

Payment for mobilization and demobilization of all equipment, labour and materials (both from the Contractor and all sub-contractors) shall be incidental.

END OF SECTION

1.0 GENERAL

1.3 Submission

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, offsets & location of all utilities, manhole rim, catchbasin rim, vaults, valve boxes, inverts walkways/sidewalks, and any unknown/new utilities found on site. Legal holdbacks will not be released until record documents have been submitted and accepted by the Contract Administrator.

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.

1.1 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.

1.2 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* may 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.

1.3 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 CCIL 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.

- 1.4 Survey Layout** The Contractor shall be responsible for all survey layouts.
- The Contractor shall be responsible for the preservation of all layout stakes and marks. If at any time during the progress of the work any error shall appear or arise in the position, levels, dimensions or alignment of any part of the work, the Contractor shall stop work on his portion of the project and shall notify the Contract Administrator. The Contractor shall make all the necessary corrections required.
- 1.5 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.
- 1.6 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
- 1.7 Access to Work** Allow inspection testing agencies access to Work.
- 1.8 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 / 100mm depth of granular base, min. 1 test if < 500m²
 - 2.2 Sieve: 1 test / placed material / 250 TONNES
 3. Granular Subbase
 - 3.1 Compaction: 1 test/500m²/150mm depth of granular subbase, min. 1 test if <500m²
 - 3.2 Sieve: 1 test / placed material / 250 TONNES
 4. Embankment (Subgrade)
 - 4.1 Compaction: 1 test/ 50m² / 0.15m depth of fill, min. 1 test if < 50m²
 - 4.2 Sieve: 1 test / placed material / 100 TONNES
 5. Asphalt
 - 5.1 Marshall test: 1 test per 250 TONNES placed, per mix specified, min. 1 / day
ASTM D1559, D3203, C117, C136
 - 5.2 Superpave: 1 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, min. 1 test if < 500m²
 7. Concrete Tests
 - 7.1 Air, Slump & 1 Set Cylinders: 1 test / 10 m³, min. 1 set / day
- 1.9 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

1.0	GENERAL	Add 1.0.6	<p>The <i>Contractor</i> is responsible for all temporary traffic control on the streets required for completion of the work. The <i>Contractor</i> 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 qualified professional to the satisfaction of the Contract Administrator.</p> <p>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.</p> <p>The Contractor is responsible to ensure and maintain all business/residential vehicles, cyclists 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.</p>
		Add 1.0.7	<p>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.</p>
		Add 1.08	<p>Refer to Appendix A – Traffic Management Detail Specifications.</p>
1.4	Traffic Control	Delete 1.4.1 and replace with the following	<p>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.</p> <p>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.</p> <p>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.</p> <p>Add 1.4.9.3.1</p> <p>The <i>Contractor</i>, as required by the <i>Contract Administrator</i> and the City, is to supply Construction Zone information signs (stationary), refer to MMCD 01 58 01 for the required identification signage.</p>
			<p>The <i>Contractor</i> is responsible for the removal of the signs at the completion of the work.</p>

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.

END OF SECTION

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 *Contractor* 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 *Contract Administrator* and the City deems necessary.

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 *Place of Work*.

Add 1.4.3.6

Ensure that a well-stocked spill kit is on-site at all times and that the *Contractor's* employees are familiar with appropriate spill response techniques.

Add 1.4.3.7

Immediately notify the *Contract Administrator* and the City of any leaks or spills of prohibited materials that occur at the *Place of Work*.

Add 1.4.3.8

Ensure that any fuel stored on-site is located at least 15 meters 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	All equipment and machinery must be in good working condition (power washed), free of leaks or excess oil and grease. No equipment refueling or servicing shall be undertaken within a minimum of 15 meters of any water course or surface water drainage.
		Add 1.4.3.10	During all phases of the operation, the Contractor shall take precautions to abate nuisance caused by mud or dust by clean up, sweeping, sprinkling with water or dust control, or other means as necessary to accomplish results satisfactory to the Contract Administrator.
1.6	Measurement and Payment	Delete 1.6.1 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.
		Add 1.6.2	Payment for the poly cover or temporary tarps over stock pile materials or exposed road subgrades shall be treated as incidental work.
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, regardless of the condition of the catch basins prior to starting 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.

END OF SECTION

1.0 GENERAL

1.8 Limitations of Open Trench

1.8.1
Replace last sentence
with the following

If circumstances do not permit complete backfilling of all trenches, and where permitted by the *Contract Administrator* and the City, adequately protect all open trenches or excavations with approved fencing or barricades and, where required, with flashing lights.

2.0 PRODUCTS

2.2 Use of Specified Materials

Delete 2.2.1.2

Delete Pit Run Sand

Delete 2.2.3.3

Delete Pit Run Sand

3.0 EXECUTION

3.3 Excavation

Delete 3.3.1.2 and
replace with the
following

Connections to existing waterworks systems are to be made by the *Contractor* under the inspection / supervision of the *Contract Administrator* and the City.

3.6 Surface Restoration

Delete 3.6.2.4 and
replace with the
following

Restore lawns with approved topsoil and sod to match existing lawn.

Delete 3.6.3.1 and
replace with the
following

Restore surface with a minimum 100 mm of 19 mm granular road base material.

Delete 3.6.7.5 and
replace with the
following

Restore Pavement as detailed on Coquitlam Standard Detail Drawing COQ-G4. Temporary patch shall be a minimum thickness of 50 mm thickness. Permanent restoration to existing asphalt thickness (minimum of 75 mm) with a 35 mm key where existing thickness permits. A 50 mm key is required on Arterial and Collector Roadways. Dry if necessary and paint clean, dry edge with asphalt emulsion (tack coat).

END OF SECTION

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 on-site 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 includes supply and installation of growing medium, boulevard tree trench, bark mulch and imported top soil that is free from any noxious weeds, fungal growth, mushroom, and any contaminants, and as described in the Schedule of Quantities and Prices. 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*.
- .2 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

			<p><i>Contract Administrator</i> and the City for approval prior to commencing work. Soil analysis shall include measurements of:</p> <ul style="list-style-type: none"> .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 <p>.6 At the discretion of the <i>Contract Administrator</i> and the City submit up to two (2) additional samples, at intervals outlined by the <i>Contract Administrator</i> and the City, of <i>Growing Medium</i> taken from material delivered to the site. Samples shall be taken from 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 <i>Contract Administrator</i> and the City for review.</p> <p>.7 The <i>Contractor</i> is responsible for soil analysis and requirements for amendments to supply <i>Growing Medium</i> as specified. Failure to satisfy these contractual requirements could result in the <i>Contractor</i> being required to remove unacceptable <i>Growing Medium</i> at their expense.</p> <p>.8 Notify the Contract Administrator at least forty-eight (48) hours prior to <i>Growing Medium</i> placement for inspection.</p> <p>.9 Refer to General Conditions, Clause 4.12 Tests and Inspections.</p>
1.6	Product Handling	Add 1.6	<ul style="list-style-type: none"> .1 All materials to be handled and adequately protected to prevent damage. Do not handle <i>Growing Medium</i> in an excessively wet, extremely dry, frozen condition or in any manner in which structure may be adversely affected. <i>Growing Medium</i> whose structure has been damaged by handling under these conditions shall be rejected and shall be replaced by the <i>Contractor</i> at their expense. .2 Stockpile materials in bulk form in paved areas or in pre-approved areas of the site. Provide additional protection of storage under roof or tarpaulins. .3 Take all precautions to prevent contamination of <i>Growing Medium</i> and amendments from windblown soil particles, weed seeds and from insects. Contamination of the <i>Growing Medium</i> and amendments may result in their rejection for use. .4 Store fertilizer and chemical amendments in the manufacturer's original containers. .5 All <i>Growing Medium</i> shall be delivered to site <u>premixed</u> from a recognized <i>Growing Medium</i> source ensuring consistency throughout the mix.
2.0	PRODUCTS	Delete 2.0 and replace with the following	
2.1	Materials		<ul style="list-style-type: none"> .1 <i>Growing Medium</i> Preparation <ul style="list-style-type: none"> .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 <i>Growing Medium</i> components are done thoroughly by a mechanized screening process. Do not mix the 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 Perlite: 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 Peat:

- .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 water-absorbing capacity of 1100 to 2000 percent.

.3 Wood Residual

- .1 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.
- .2 Cedar or redwood sawdust shall not be present in *Growing Medium*.
- .4 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.
- .3 Salt content shall give a reading of less than 0.5 millimhos/cm at 25 degrees C.
- 2.2 Nutrient Requirements**
- .1 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.
- .1 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.
- .7 Carbon to nitrogen ratio: Maximum 40:1.
- 2.3 Salinity**
- .1 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**
- .1 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**
- .1 Import planting medium or manufactured planting medium from off-site sources. Do not obtain from agricultural land, bogs or marshes.
- .2 Supplier of Growing Medium shall be as per the Coquitlam Approved Products List.
- 2.6 Bark Mulch**
- .1 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 Products List.
- .3 Dark brown in colour and free of all soil, stones, roots or other extraneous matter, and free of weeds, seeds and spores.

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 cuspatd 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.
 1. 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 Conductivity (cm/hr) in place	3.0
Salinity: saturated extract conductivity shall not exceed at 25 degC	3.0 milliohms/cm
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.

			<p>.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.</p> <p>.8 Mixing of structural soil: Blend as per following ratios:</p> <p>.1 5 metric tones (MT) of aggregate</p> <p>.2 1 cubic meter of growing media</p> <p>.3 2 kg soil stabilizer</p> <p>.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.</p>
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 <i>Owner</i> .
		Delete 3.2.5 and replace with the following	Course cultivate entire area which is to receive <i>Growing Medium</i> 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 <i>Contract Administrator</i> 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	<p><i>Growing Medium</i> shall be imported and stockpiled on site in a location approved by the <i>Contract Administrator</i> and the City.</p> <p>.1 Carry out stock piling operation such that the <i>Growing Medium</i> structure is not compromised through compaction, vibration or other actions.</p> <p>.2 Stock piled <i>Growing Medium</i> shall be protected from rain, drying and contaminants.</p> <p>.3 <i>Growing Medium</i> 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 contaminants shall be grounds for rejection of <i>Growing Medium</i> and replacement at no cost to the <i>Owner</i>.</p>
3.4	Placing Growing Medium	Delete 3.4.2 and replace with the following	Place <i>Growing Medium</i> 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 <i>Sub Grade</i> where planting is indicated free of any standing water.

		Delete 3.4.5 and replace with the following	<p>Minimum depths after settlement and 80% compaction:</p> <ul style="list-style-type: none"> .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
		Add 3.4.6	<p>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 Architect. On steep south or west facing banks, reduce sand content in lawns and planting beds to 50 - 60% for better moisture retention.</p>
3.5	Applying Fertilizers	Delete 3.5 and replace with the following	<ul style="list-style-type: none"> .1 Addition of amendment components shall be at the rates indicated in the <i>Growing Medium</i> analysis recommendations via the following methods: <ul style="list-style-type: none"> .1 Lime: Applied with mechanical spreaders over entire planting areas and contained planters. <ul style="list-style-type: none"> .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	<p>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.</p>
		Add 3.6.3	<p><i>Finish Grade</i> of <i>Growing Medium</i> shall be 25 mm from finished elevation of adjacent curb or planter wall unless otherwise noted on drawings.</p>
3.9	Clean-up	Delete 3.9 and add the following	<ul style="list-style-type: none"> .1 Ensure all paved areas, tops of planters, adjacent surfaces have been thoroughly cleaned. Ensure all discoloration of adjacent surfaces as a result of <i>Growing Medium</i> installation have been removed. .2 Dispose of materials not required and repair any damage to adjacent surfaces (as determined by the <i>Contract Administrator</i> and the City) off site at no additional cost to the <i>Owner</i>.
3.10	Weed Control	Add 3.10	<ul style="list-style-type: none"> .1 Ensure all weeds and weed roots that have germinated during the course of work of this section have been eliminated from <i>Growing Medium</i>. .2 Provide the City Representative and Consultant with a written outline of weed removal methodology seven (7) days prior to starting weed removal operations.
3.11	Structural Soil	Add 3.11	<ul style="list-style-type: none"> .1 Refer to 2.9 in this specification and as shown on the Contract Drawings.

END OF SECTION

Appendix A

Traffic Management Specifications

Traffic Management

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|-----------------------------|---|
| 1.0 GENERAL | <p>.1 This Traffic Management detail specification refers to the Contractor's specific plans to identify project traffic risks affecting the <i>Work</i>, provide Traffic Control Plans, and to implement the traffic control for the safe passage of vehicles and pedestrian through the work zone.</p> |
| 1.1 Related Works | <p>.1 Traffic Control, Vehicle Access and Parking MMCD Section 01 55 00S.</p> |
| 1.2 References | <p>.1 WorkSafe BC, Occupational Health and Safety (OHS) Regulation, Section 18 – Traffic Control.</p> <p>.2 B.C. Ministry of Transportation (MOT) Traffic Control Manual for Work on Roadways</p> |
| 1.3 Project Requirements | <p>.1 A Road and Sidewalk Closure Permit is required by Coquitlam for all work affecting traffic flow related to construction. A permit is required for each specific construction interference with traffic flow. The Road and Sidewalk Closure Permit Request form is attached as Appendix 1 to this document. A digital copy of the Road and Sidewalk Closure Permit form can be obtained for use during the contract from the City's website at:
Road and Sidewalk Closure Permit</p> <p>A Road and Sidewalk Closure Permit form application must be submitted to City's Traffic Operation Division 5 working days prior to start of work.</p> |
| 1.4 Measurement and Payment | <p>.1 For this Contract, payment for all work performed under this section, unless included in the Schedule of Quantities and Prices shall be treated as incidental work, including a Traffic Management Plan (TMP), Traffic Control Persons (TMP), traffic markings & all temporary traffic signs, devices as required for traffic & pedestrian safety; and all other items described in the Section 01 55 00S.</p> |
| 2.0 PRODUCTS | |
| 2.1 Traffic Management Plan | <p>.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 control for the Work.</p> <p>.2 The Traffic Management Plan (TMP) will consist of the following components:</p> <ul style="list-style-type: none"> .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. <p>.3 Submission of the TMP is to be made to the <i>Contract Administrator</i> within five (5) working days after the <i>Notice of Award</i> of the <i>Contract</i>, and must be approved by the <i>Contract Administrator</i> prior to start of the <i>Work</i>.</p> <p>.4 Review of the TMP will be performed by the Contract Administrator. Comments for revisions to the TMP will be returned to the <i>Traffic Manager</i> for implementations.</p> <p>.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</p> |

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. If half the street only is 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.
 - b) Major Delays - Maximum ten (10) minutes in duration; for occasional interruption of traffic for construction activities if traffic volumes permit.
 - .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 current 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 on-site 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	Supply, installation, maintenance and removal of all works-related 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.
3.5	Detours	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	The Contractor shall minimize any abrupt changes in roadway elevation left exposed to traffic during both working and non-working 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	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	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 Minimum of Single Lane Alternating Traffic must be accommodated at all times. If necessary and only at the discretion of the Contract Administrator, Local Traffic Only may also be approved.

- .2 A 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 Permit must be held on site by both the Site Superintendent and the person/company responsible for the traffic control implementation.

- .3 Total Road Closure Is Not Permitted.

- .4 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.

4.2 Lane Closure Restrictions

- .1 **For each of the road sections affected:**

- Road and Sidewalk Closures will be reviewed for appropriateness during the allowable hours of work.
- Access to properties to be maintained
- Sufficient Traffic Control Persons are required for each Road and Sidewalk Closure (or any work activities), including side street intersections, to safely guide traffic through the work site.

5.0 HOURS OF WORK

5.1 Allowable
Hours of Work

- .1 **The hours of work shall be from 0700 h to 1900 h inclusive Monday to Friday and 0900 h to 1800 h inclusive Saturdays, unless noted otherwise.**
- .2 Some allowances may be made for paving operations, depending on a proposal acceptable to the Contract Administrator.
- .3 Line Marking work may be performed at night, (21:00 to 05:00).
No work is allowed on Sundays without specific written permission from Contract Administrator.

**6.0 CONSTRUCTION
OPERATIONS**

6.1 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**.

6.2 Road Specific
Considerations

- .1 The Contractor shall ensure safe passage of all pedestrians and all types of vehicles. The Traffic Management Plan must accommodate businesses, school, residences and pedestrian during construction activities.

All City Traffic Counts are available on the City's web site at:
[Coquitlam Traffic Data](#)

6.3 Work Stoppage Due to
Traffic

The City will not control or direct traffic control activities of the 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. Contractor is responsible for the costs associated with this work shut-down.

Traffic Management

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| 6.4 | Construction Activity and Signage | The Contractor will be responsible to place other construction information signs as required to inform the public of construction activities, and ensure safe travel through the work site. |
| 6.5 | Construction Zone Information Signs | <p>The Contractor is required to provide, one week prior to start of work and for the duration of the Contract, stationary signs to inform traffic of existing and anticipated conditions at the following locations:</p> <ul style="list-style-type: none">• Exact locations to be determined on site by Contract Administrator <p>Ensure that signs and locations are addressed in the Traffic Management Plan. All signs are to be removed at the end of the construction period.</p> |

APPENDIX 1



City of 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

Submit to the Traffic Operations Division a minimum of 5 business days prior to the intended closure date.

Permit Fee - ~~\$75.00 (Effective February 1, 2019)~~

Payment Methods – After review, and if approved, payment options will be emailed to the applicant.

Application Date: _____

City Project Number (if applicable): 22-091

Contact Information

Company Name: _____

Applicant Name: _____

Name of Contractor doing work for Company/Applicant: _____

Phone: _____ Fax: _____

24 Hour Emergency Phone: _____ Email: _____

Location, date and time, and traffic control plan information

I request approval to close (check all that apply): Direction: ☐ Northbound ☐ Southbound ☐ Eastbound ☐ Westbound

☐ Curb/Outside Lane ☐ Centre/Inside Lane ☐ Right Turn Lane ☐ Left Turn Lane ☐ Cycling Lane ☐ Sidewalk

☐ Single Lane Alternating Traffic ☐ Full Closure

Road/Street Name: _____

Location Description: _____

Date & Time Information: Dates: _____

Starting

Ending

Hours: _____

Starting

Ending

Purpose: _____

Will this closure disrupt: Bus Routes or Stops? ☐ Yes ☐ No If yes, the Applicant will need to contact Coast Mountain Bus Company regarding disruptions.

Will this closure disrupt: Garbage/Recycling Routes or Pick Up? ☐ Yes ☐ No If yes, the Applicant will need to assist the contractor and/or contact the City's Environmental Services Group. www.coquitlam.ca/trashtalk

Traffic Control Plan*:

- (a) Traffic Management Manual for Work on Roadways Figure Number _____, or
(b) A Traffic Control Plan (*attach separately*) indicating signage, taper lengths, direction of traffic, work area, and north arrow

Traffic control persons (flag persons) on duty? ☐ Yes ☐ No If yes, specify how many: _____

** Important Notice: All operations within the road right-of-way must comply with Worksafe BC regulations and BC Ministry of Transportation standards for work on roadways.*

Application Checklist

- ☐ Permit Fee
- ☐ Prime Contractor Designation Letter
- ☐ City of Coquitlam Certificate of Insurance
- ☐ Traffic Control Plan or Traffic Management Manual for Work on Roadways Figure Number _____
- ☐ Coast Mountain Bus Company (Phone: 778-593-5774 | Email: special.events@coastmountainbus.com) contacted regarding impact to bus routes and bus stops
- ☐ City of Coquitlam Environmental Services Group (Phone: 604-927-3500 | Email: wastereduction@coquitlam.ca) contacted regarding impact to garbage/recycling routes and pick up

I HEREBY AGREE to the terms stipulated herein and further agree to indemnify and save harmless the City against any and all claims, actions, or expenses whatsoever or by whomsoever brought against the City by the reason of the City granting us this Road and Sidewalk Closure Permit. I further agree to accept responsibility to ensure proper situation control and street sweeping for the duration of the road or sidewalk obstruction.

Date

Applicant Signature

Office Use Only PERMIT STATUS

- ☐ 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 the following change(s): _____
- ☐ Request is approved as submitted

Date

Traffic Technologist or Designate