



City of Coquitlam

**Contract Documents**  
**79057**

**New Traffic Signal and  
Intersection Improvements  
at Coast Meridian Road  
and Highland Drive**



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**Contract No. 79057**

**New Traffic Signal and Intersection Improvements at  
Coast Meridian Road and Highland Drive**

**Project Construction Documents**

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# ***Invitation to Tender***



## INVITATION TO TENDER

DATE OF ISSUE: **July 12, 2024**

*We acknowledge with gratitude and respect that the name Coquitlam was derived from the hən̓q̓əmi̓n̓ə́ word kʷikʷə́ləm (kwee-kwuh-tlum) meaning “Red Fish Up the River”. The City is honoured to be located on the kʷikʷə́ləm (Kwikwetlem) traditional and ancestral lands, including those parts that were historically shared with the s̓q̓ə́ciyaʔt̓ təməxʷ (Katzie), and other Coast Salish Peoples.*

### **Tender No. 79057**

### **New Traffic Signal and Intersection Improvements at Coast Meridian Road and Highland Drive**

The City of Coquitlam invites tenders for **Contract 79057 – New Traffic Signal and Intersection Improvements at Coast Meridian Road and Highland Drive**, generally consisting of the following, but not limited to:

- Installation of a Full Traffic Signal
- Concrete curb & gutter construction – Approx. 50m
- Sidewalk construction– Approx. 190m<sup>2</sup>
- Asphalt paving – Approx. 700m<sup>2</sup>

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

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

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

**On or Before 2:00 pm local time**  
**Friday, August 2, 2024**  
 (“Closing Date and Time”)

## **Addenda**

**Tenderers are required to check the City's website for any updated information, issued before the Closing Date at: [www.coquitlam.ca/BidOpportunities](http://www.coquitlam.ca/BidOpportunities). Where in its sole discretion it considers it to be necessary or desirable, the City may issue Addenda to amend any portion of the Contract Documents.**

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](http://www.my.vrca.ca), ph: 604-294-3766, or email at [vrca@vrca.ca](mailto: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  
Procurement Manager

# ***Instructions to Tenderers***

**Tender 79057**

**New Traffic Signal and Intersection Improvements at  
Coast Meridian Road and Highland Drive**

**INSTRUCTIONS TO TENDERERS**

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## INSTRUCTIONS TO TENDERERS

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

### The City of Coquitlam

*Contract:* **New Traffic Signal and Intersection Improvements at  
Coast Meridian Road and Highland Drive**

*Reference No.* **79057**

- 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:
- Installation of a Full Traffic Signal
  - Concrete curb & gutter construction – Approx. 50m
  - Sidewalk construction – Approx. 190m<sup>2</sup>
  - Asphalt paving – Approx. 700m<sup>2</sup>
- 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](mailto:bid@coquitlam.ca)
- The deadline for inquiries is **2:00 PM** local time, **Tuesday, July 30, 2024**.  
**INQUIRIES RECEIVED AFTER THIS DATE AND 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: August 2, 2024***

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](mailto:bid@coquitlam.ca))

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

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 by email: [bid@coquitlam.ca](mailto:bid@coquitlam.ca).

**BIDS RECEIVED IN-PERSON, BY COURIER, OR BY FAX WILL NOT BE ACCEPTED.**

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, B.C. V6A 2R5  
Tel: 604-681-0295  
Fax: 604-305-0424

- Copies of the City of Coquitlam Supplementary Specifications and Detailed Drawings to the MMCD 2009 Edition are available for viewing and downloading off the City of Coquitlam website: [Supplementary Specifications and Detailed Drawings to MMCD](#)

**Test Excavations**

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

**Business License**

4.3 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.

- Right to Accept or Reject any Tender**
- 4.6 The City reserves the right to accept or reject any or all Tenders and the lowest or any Tender may not necessarily be accepted. In its sole discretion, the City may reject or retain for its consideration, tenders which are nonconforming because they do not contain the content or form required by the instructions to tenderers or for failure to comply with the process for submission set out in these instructions to tenderers.
- The City specifically reserves the right to reject all Tenders if none is considered to be satisfactory and, in that event, at its option, to call for additional Tenders.
- Negotiation**
- 4.7 The City, prior to award of any Tender, may negotiate with the Tenderer presenting the lowest price compliant Tender, for changes in the Work, materials, specifications or conditions without having any duty or obligation to advise any other Tenderers or to allow them to modify their Tenders, and the City will have no liability to any Tenderer as a result of such negotiations or modifications.
- Cancellation of Tender**
- 4.8 The City reserves the right to cancel any request for Tender at any time without recourse by the Tenderer. The City has the right to not award this work for any reason including choosing to complete the work with the City's own forces.
- Conflict of Interest**
- 4.9 Tenderers shall disclose any actual or potential conflicts of interest and existing business relationships it may have with the City, their elected or appointed officials or employees.
- Collusion**
- 4.10 Tenderers will not discuss or communicate with one another in regards to the preparation of their Tenders. Each Tenderer will ensure that its participation in the Tender process and that of its team members is conducted without collusion or fraud. Failure to comply with this requirement may lead to disqualification without further notice or warning.
- Instruction to Tenderers – Part II**
- Delete Instructions to Tenderers – Part II Contained in the Edition of the Publication “Master Municipal Construction Documents 2009” and replace with the following:
- 5.0 Tender Requirements**
- 5.1 A tender should be on the Form of Tender as provided and be signed by the authorized signatory(s) as follows:
- 5.1.1 if the tenderer is a partnership or joint venture then the name of the partnership or joint venturer should be included, and each partner or joint venturer should sign personally; if a partner of joint venture is a corporation then such corporation should sign as indicated in paragraph 5.1.3 below; and
  - 5.1.2 if the tenderer is a corporation then the full name of the corporation should be included, together with the names and signatures of authorized signatories.

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

- 6.2 A tenderer may, at the tenderer's election, submit an alternative tender ("*Alternative Tender*") which varies the materials, products, designs or equipment by the *Owner as Approved Equals* as the case may be, but an *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.
- 9.3 If the *Owner* considers it necessary, the *Owner* may issue written addenda to provide clarification (s) of the *Contract Documents*.
- 9.4 No oral interpretation or representations from the *Owner* or any representative of the *Owner* will affect, alter, or amend any provision of the *Contract Documents*.
- 10.0 Prices**
- 10.1 The Tendered Price will represent the entire cost excluding *GST* to the *Owner* of the complete *Work* based on the estimated quantities in the *Schedule of Quantities and Prices* of the Form of Tender. Notwithstanding the generalities of the above, tenderers shall include in the tendered prices (including unit prices, lump sum prices, or other forms of pricing) sufficient amounts to cover:
- 10.1.1 the costs of all labour, equipment and material included in or required for the *Work*, including all items which, whole not specifically listed in the *Schedule of Quantities and Prices*, are included in the *Work* specifically or by necessary inference from the *Contract Documents*;
  - 10.1.2 all assessments payable with respect to labour as required by any statutory scheme such as unemployment insurance, holiday pay, insurance, CPP and all employee benefits and the Workers Compensation Act;
  - 10.1.3 all overhead costs, including head office and on-site overhead costs, and all amounts for the *Contractor's* profit.
- 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 *Work*, and payment of appropriate wages for labour included in or required for the *Work*.
- 11.0 Taxes**
- 11.1 The tendered prices shall cover all taxes and assessments of any kind payable with respect to the *Work*, but shall not include *GST*. *GST* shall be listed as a separate line item as required by GC 19.3.
- 12.0 Amendment of Tenders**
- 12.1 A tenderer may amend or revoke a tender by giving written notice, delivered by Email, to the office referred to in paragraph 3.4 of the Instructions to Tenderers at any time up until the *Tender Closing Date and Time*. An amendment or revocation that is received after the *Tender Closing Date and Time* shall not be considered and shall not affect a tender as submitted.

- 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.
- 12.3 Any amendment that expressly or by inference discloses the tenderer's *Tender Price* or other material element of the tender such that, in the opinion of the *Owner*, the confidentiality of the tender is breached, will invalidate the entire tender.
- 12.4 An acceptable form of a tender amendment which tenderers may, but are not required to, use is as follows:

"Contract: \_\_\_\_\_  
(TITLE OF CONTRACT)

Reference No. \_\_\_\_\_  
(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\_\_."

**13.0 Duration of Tenders**

- 13.1 After the *Tender Closing Time*, a tender shall remain valid and irrevocable 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 IT 5.3 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 (ii) of this IT 15.3 (c), then the unit price and the extended total for that tender item shall both be deemed to be, and the costs for that tender item shall be zero deemed to be included in other tender items prices;

- d) In no event shall page totals in the *Schedule of Quantities and Prices* or the total *Tender Price* be used to calculate missing extended totals or unit prices.

- |             |                       |      |   |
|-------------|-----------------------|------|---|
| <b>16.0</b> | <b>Subcontractors</b> | 16.1 | The <i>Owner</i> reserves the right to object to any of the subcontractors listed in a tender. If the <i>Owner</i> objects to any of the subcontractor(s) then the <i>Owner</i> will permit a tenderer to, within 5 days, propose a substitute subcontractor(s) acceptable to the <i>Owner</i> provided that there is not resulting adjustment in the <i>Tender Price</i> 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 <i>Owner</i> objects to a listed <i>Subcontractor(s)</i> , the tenderer may, rather than propose a substitute subcontractor(s), consider its tender rejected by the <i>Owner</i> and by written notice withdraw its tender. The <i>Owner</i> shall, in the event, return the tenderer's bid security |
| <b>17.0</b> | <b>Optional Work</b>  | 17.1 | If the <i>Schedule of Quantities and Prices</i> includes any tender prices for <i>Optional or Provisional Work</i> , as defined in GC 7.4.1, the tenderers must complete all the unit prices for such <i>Optional or Provisional Work</i> . Such tender prices shall not include any general overhead costs, or other costs, or profit, not directly related to the <i>Optional or Provisional Work</i> .   |
|             |                       | 17.2 | Notwithstanding that the <i>Owner</i> may elect not to proceed with the <i>Optional or Provisional Work</i> , the tender prices for any <i>Optional or Provisional Work</i> , including the extended totals for <i>Optional or Provisional Work</i> unit prices, shall be included in the <i>Tender Price</i> for the purpose of any price comparisons between tenders.   |

# ***Form of Tender***



## Form of Tender

Tender No. 79057

### New Traffic Signal and Intersection Improvements at Coast Meridian Road and Highland Drive

#### 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)  
Friday, August 2, 2024**

#### 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](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 the correct email address: [bid@coquitlam.ca](mailto:bid@coquitlam.ca) )

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

July 2024

THE CITY OF COQUITLAM  
3000 Guildford Way  
Coquitlam, B.C. V3B 7N2

---

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

**Contract Name: New Traffic Signal and Intersection Improvements at Coast Meridian Road and Highland Drive**

**Reference No.: 79057**

**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 **September 30, 2024**; 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 Section 24 indicating that all such insurance coverage is in place and;
    - d) a letter confirming the *Contractor* as "Prime Contractor" for the Contract as specified in SGC Section 21.2.1.
  - 5.1.2 within **2 Days** of receipt of written "*Notice to Proceed*", or such longer time as may be otherwise specified in the *Notice to Proceed*, commence the *Work*; and
  - 5.1.3 sign the Contract Documents as required by GC 2.1.

**6 WE AGREE:**

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: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

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  
FORM OF TENDER**

**Contract 79057**

**New Traffic Signal and Intersection Improvements at Coast Meridian Road and Highland Drive**

**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
<b>1.00</b>	<b>01 55 00S</b>	<b>TRAFFIC CONTROL, VEHICLE ACCESS AND PARKING</b>				
1.01	(1.5.1)	Traffic Control and Management				Incidental to Contract
<b>2.00</b>	<b>01 57 01S</b>	<b>ENVIRONMENTAL PROTECTION</b>				
2.01	(1.6.1)	ESC supply & Installation, Maintenance and Removal				Incidental to Contract
<b>3.00</b>	<b>31 11 01S</b>	<b>CLEARING AND GRUBBING</b>				
3.01	(1.4.1)	Clearing and Grubbing				Incidental to Contract
<b>4.00</b>	<b>01 58 01S</b>	<b>PROJECT IDENTIFICATION</b>				
4.01	(1.6.1)	1.2m x 1.2m Static Construction Zone Information Sign	each	4		
<b>5.00</b>	<b>03 30 20S</b>	<b>CONCRETE WALKS, CURBS AND GUTTERS</b>				
5.01	(1.4.3)	Concrete Barrier Curb and Gutter (MMCD C5) (incl. gravels)	lin.m	51		
5.02	(1.4.5)	Concrete Sidewalk, Multi-use Pathway, and Wheelchair Letdowns - 100mm thick - Broom Finished (incl. gravels); and as shown and described in the Contract Documents	sq.m	189		
5.03	(1.4.10)	Tactile Strip - Access Tile, Truncated Dome Pattern, Yellow color - Cast-in-place (removable)	each	8		
<b>6.00</b>	<b>31 24 13S</b>	<b>ROADWAY EXCAVATION, EMBANKMENT AND COMPACTION</b>				
6.01	(1.8.4)	Remove and Dispose of Existing Concrete or asphalt flatwork (incl. offsite disposal)	sq.m	110		
6.02	(1.8.4)	Remove and Dispose of Existing Concrete Curb & Gutter (incl. offsite disposal)	lin.m	51		
6.03	(1.8.10)	Over Excavation (including offsite Disposal) - (Provisional)	cu.m	10		
<b>7.00</b>	<b>32 01 16.7S</b>	<b>COLD MILLING</b>				
7.01	(1.5.4)	Inlay Milling (Up to 50mm)	sq.m	656		
<b>8.00</b>	<b>32 12 13.1</b>	<b>ASPHALT TACK COAT</b>				
8.01	1.5.1	Asphalt Tack Coat	sq.m	656		
<b>9.00</b>	<b>32 12 16S</b>	<b>HOT-MIX ASPHALT CONCRETE PAVING</b>				
9.01	(1.5.3)	Upper Course #1 Asphalt Concrete (50mm thick)	tonne	81		
<b>10.00</b>	<b>32 17 23S</b>	<b>PAINTED PAVEMENT MARKINGS</b>				
10.01	(1.5.3)	Permanent Thermoplastic Pavement Markings	LS	1		
10.02	(1.5.4)	Relocate/modify existing sign post as shown on drawing	each	2		
10.03	(1.5.4.1)	Supply & Install Sign Structure - 37kg Trapezoidal Sign Base, Pole & Cap as per Coquitlam Drawings #SS-E11.1 & SS-E11.2 (New Traffic Signal Signs)	each	4		
<b>11.00</b>	<b>33 40 01S</b>	<b>STORM SEWERS</b>				
11.01	(1.6.5)	Catchbasin Leads c/w tie-in - 150mm SDR28 PVC (incl. Backfill & Permanent Trench Restoration - COQ-G4)	lin.m	3		
<b>12.00</b>	<b>33 44 01S</b>	<b>MANHOLES AND CATCHBASINS</b>				
12.01	(1.5.2)	Side Inlet Catchbasin (COQ-S11A)	ea.	1		
12.02	1.5.4	Remove Existing Catchbasin and Dispose Offsite	ea.	1		
<b>13.00</b>	<b>34 41 13S</b>	<b>TRAFFIC SIGNALS</b>				
13.01	1.9	Traffic Signals (COMPLETE) - incl. intersection lighting	LS	1		

**Total Tendered Price (exclude GST):** \_\_\_\_\_  
(Transfer the amount to Form of Tender Summary Page 1)

**Name of Contractor:** \_\_\_\_\_



**APPENDIX 2**

**FORM OF TENDER**

**Contract 79057**

**New Traffic Signal and Intersection Improvements at  
 Coast Meridian Road and Highland Drive**

**PRELIMINARY CONSTRUCTION SCHEDULE**

**(See paragraph 5.3.2 of the Instructions to Tenderers)**

INDICATE SCHEDULE WITH BAR CHART WITH CONSTRUCTION DURATIONS

CONSTRUCTION ACTIVITY	AUGUST			SEPTEMBER			
	2	3	4	1	2	3	4

Substantial Completion Date: **September 30, 2024**

Proposed Disposal Site: \_\_\_\_\_

**APPENDIX 3**

**FORM OF TENDER**

**Contract 79057**

**New Traffic Signal and Intersection Improvements at  
Coast Meridian Road and Highland Drive**

**EXPERIENCE OF SUPERINTENDENT**

(See paragraph 5.3.3 of the Instructions to Tenderers)

Proposed Project Superintendent \_\_\_\_\_

**List of Project Experience**

<b>PROJECT:</b>		<b>Dates:</b>	
<b>Work Description:</b>			
<b>Responsibility:</b>			
<b>Owner/Reference:</b>		<b>Phone No.:</b>	

<b>PROJECT:</b>		<b>Dates:</b>	
<b>Work Description:</b>			
<b>Responsibility:</b>			
<b>Owner/Reference:</b>		<b>Phone No.:</b>	

<b>PROJECT:</b>		<b>Dates:</b>	
<b>Work Description:</b>			
<b>Responsibility:</b>			
<b>Owner/Reference:</b>		<b>Phone No.:</b>	

**APPENDIX 4**

**FORM OF TENDER**

**Contract 79057**

**New Traffic Signal and Intersection Improvements at  
 Coast Meridian Road and Highland Drive**

**CONTRACTOR'S COMPARABLE WORK EXPERIENCE**

(See paragraph 5.3.4 of the Instructions to Tenderers)

<b>PROJECT:</b>		<b>VALUE (\$):</b>	
<b>OWNER:</b>		<b>Phone No.:</b>	
<b>Work Description:</b>			

<b>PROJECT:</b>		<b>VALUE (\$):</b>	
<b>OWNER:</b>		<b>Phone No.:</b>	
<b>Work Description:</b>			

<b>PROJECT:</b>		<b>VALUE (\$):</b>	
<b>OWNER:</b>		<b>Phone No.:</b>	
<b>Work Description:</b>			

<b>PROJECT:</b>		<b>VALUE (\$):</b>	
<b>OWNER:</b>		<b>Phone No.:</b>	
<b>Work Description:</b>			

**APPENDIX 5**

**FORM OF TENDER**

**Contract 79057**

**New Traffic Signal and Intersection Improvements at  
 Coast Meridian Road and Highland Drive**

**SUBCONTRACTORS**

(See paragraph 5.3.5 of the Instructions to Tenderers)

<b>Trade:</b>		<b>Tender Item:</b>	
<b>Work Description:</b>			
<b>Subcontractor:</b>		<b>Phone No.:</b>	

<b>Trade:</b>		<b>Tender Item:</b>	
<b>Work Description:</b>			
<b>Subcontractor:</b>		<b>Phone No.:</b>	

<b>Trade:</b>		<b>Tender Item:</b>	
<b>Work Description:</b>			
<b>Subcontractor:</b>		<b>Phone No.:</b>	

<b>Trade:</b>		<b>Tender Item:</b>	
<b>Work Description:</b>			
<b>Subcontractor:</b>		<b>Phone No.:</b>	

<b>Trade:</b>		<b>Tender Item:</b>	
<b>Work Description:</b>			
<b>Subcontractor:</b>		<b>Phone No.:</b>	

**APPENDIX 6**

**FORM OF TENDER**

**Contract 79057**

**New Traffic Signal and Intersection Improvements at  
Coast Meridian Road and Highland Drive**

**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 Oblige, hereinafter called the Oblige, 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 Oblige, dated the \_\_\_\_\_ day of  
\_\_\_\_\_, 2024, 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 Oblige the difference in money between the amount of the bid of the said  
Principal and the amount for which the Oblige 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 \_\_\_\_\_, 2024.

SIGNED, SEALED AND DELIVERED

In the presence of:

_____	)	_____
	)	PRINCIPAL
	)	
	)	_____
	)	SURETY

---

**APPENDIX 7**

**FORM OF TENDER**

**Contract 79057**  
**New Traffic Signal and Intersection Improvements at**  
**Coast Meridian Road and Highland Drive**

**CERTIFICATE OF COMPLIANCE for CONTRACT INSURANCE**

---

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

**Contract Number:** 79057

**Contract Name:** New Traffic Signal and Intersection Improvements at Coast Meridian Road and Highland Drive

**Description of Work:**

- Installation of a Full Traffic Signal
- Concrete curb & gutter construction – Approx. 50m
- Sidewalk construction– Approx. 190m<sup>2</sup>
- Asphalt paving – Approx. 700m<sup>2</sup>

**Other miscellaneous and incidental work as contained in the Contract Documents**

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

**Special Coverage Required:** YES NO **Special Coverage Description**  
( ) (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

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

**THIS AGREEMENT** made in duplicate this \_\_\_\_ day of \_\_\_\_\_ 2024.

**Contract:**        **New Traffic Signal and Intersection Improvements at Coast Meridian Road and Highland Drive**

**Reference No. 79057**

**BETWEEN:**

The City of Coquitlam  
3000 Guildford Way  
Coquitlam, B.C. 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 **September 30, 2024**, 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, or by hand, or by pre-paid registered mail to the addresses as set out below:

The *Owner*:

The City of Coquitlam  
3000 Guildford Way  
Coquitlam, B.C. V3B 7N2

Tel: 604-927-3500

The *Contractor*:

Tel:  
Email:  
Attention:

The *Contract Administrator*:

The City of Coquitlam  
3000 Guildford Way  
Coquitlam, B.C. V3B 7N2

Tel:  
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
- 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*.

## 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

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

*Contractor:*

\_\_\_\_\_  
(FULL LEGAL NAME OF CORPORATION, PARTNERSHIP OR INDIVIDUAL)

\_\_\_\_\_  
(AUTHORIZED SIGNATORY)

\_\_\_\_\_  
(AUTHORIZED SIGNATORY AND POSITION - PRINT)

*Owner:*

The City of Coquitlam

\_\_\_\_\_  
(MANAGER, CAPITAL PROJECTS AND INSPECTIONS)  
Representative as Per G.C. 17

\_\_\_\_\_  
(MANAGER, DESIGN AND CONSTRUCTION)

**New Traffic Signal and Intersection Improvements at  
Coast Meridian Road and Highland Drive**

**Reference No: 79057**

**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. The following Addenda:
  - As issued
3. Supplementary General Conditions, if any;
4. General Conditions\*;
5. Supplementary Specifications, if any;
6. Detail Specifications, if any;
7. Specifications\*;
8. Supplementary Detail Drawings, if any;
9. Standard Detail Drawings\*;
10. Executed Form of Tender, including all Appendices;
11. Drawings listed in Schedule 2 to the Agreement –"List of Drawings", if any;
12. Instructions to Tenderers;
13. COQUITLAM "Supplementary Specifications Master Municipal Construction Documents" March 2022

**New Traffic Signal and Intersection Improvements at  
Coast Meridian Road and Highland Drive**

**Reference No: 79057**

**Schedule 2**

**LIST OF DRAWINGS**

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

**Bound in this Document:**

**Appendix A: Traffic Management Detail Specifications**

**Appendix B: Coquitlam Standard Detail Design**

**Appendix C: As-Built Records**

**Bound Separately: Contract Drawings**

TITLE	SHEET NO.	REVISION NO.	DATE
ISL ENGINEERING SERVICES LTD.			
COAST MERIDIAN AND HIGHLAND INTERSECTION SIGNAL DESIGN COVER PAGE	00	-	-
COAST MERIDIAN AND HIGHLAND GENERAL NOTES	1 OF 4	A	2024-07-11
COAST MERIDIAN AND HIGHLAND - ROAD WORKS LETDOWNS AND PAVEMENT MARKINGS	2 OF 4	A	2024-07-11
DMD & ASSOCIATES - ELECTRICAL CONSULTANTS LTD.			
COAST MERIDIAN ROAD AND HIGHLAND DRIVE TRAFFIC SIGNAL SITE PLAN, LEGEND AND NOTES	3 OF 4	1	2024-07-12
COAST MERIDIAN ROAD AND HIGHLAND DRIVE TRAFFIC SIGNAL ELEVATIONS	4 OF 4	1	2024-07-12

# ***Supplementary General Conditions***

## SUPPLEMENTARY GENERAL CONDITIONS

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**1.0 DEFINITIONS**

- 1.1 Abnormal Weather** 1.1.1 **(Replace clause 1.1.1 as follows):**  
Abnormal Weather” means temperature, precipitation, wind or other weather conditions in which the monthly average, differs from the statistical average for that condition in that period by more than one standard deviation, calculated based on data available from Environment Canada. Coquitlam’s Burke Mountain Rain Gauge will be used to compare the rainfall summary versus the available data from Environment Canada.  
[City of Coquitlam Rainfall](#)

**2.0 DOCUMENTS**

- 2.2 Interpretation** 2.2.4 (1) **(Replace clause 2.2.4 (1) as follows):**  
The Contract Documents shall govern and take precedence in the following order as listed in Schedule 1 of the Agreement, taking precedence over all Contract Documents.

**4.0 CONTRACTOR**

- 4.1 Control of the Work** 4.1.1 **(Add to clause 4.1.1 as follows):**  
The *Contractor* is responsible for all survey layout for the construction of the Work to the design specifications and/or elevations as shown on the contract drawings or as amended on site by the Contract Administrator.
- 4.1.2 **(Add to clause 4.1.2 as follows):**  
The Contractor shall not deposit any material upon any street, sidewalk, boulevard or other property, without the Contract Administrator’s or the Owner’s permission, nor shall they 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

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

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, they shall provide the Contract Administrator in writing at least (4) days in advance of such holiday, stating those places where said work is to be conducted. In case the Contractor fails to give such notice in advance of any Statutory Holiday, no work within the terms of the contract shall be done on such holiday.

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

**4.2 Safety**

4.2.2

***(Add new clause 4.2.2 as follows):***

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

**4.3 Protection of Work, Property and the Public**

4.3.1

***(Replace clause 4.3.1 as follows):***

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

4.3.5.1

***(Add clause 4.3.5.1 as follows):***

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

4.3.7

***(Add new clause 4.3.7 as follows):***

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

- |            |                              |       |   |
|------------|------------------------------|-------|---|
| <b>4.6</b> | <b>Construction Schedule</b> | 4.6.1 | <b><i>(Replace clause 4.6.1 as follows):</i></b><br>The Contractor shall within the time set out in the Form of Tender prepare and submit to the Contract Administrator for their approval a construction schedule (the Baseline Construction Schedule) indicating the planned start and completion dates of major activities of the Work. The Baseline Construction Schedule shall be in more detail than the Preliminary Construction Schedule and shall indicate completion of the Work in compliance with any specified Milestone Dates, including Substantial Performance. |
|            |                              | 4.6.6 | <b><i>(Replace clause 4.6.6 as follows):</i></b><br>The time for the performance of the Work shall commence on the date specified in the Notice to Proceed, or if not so specified, on the date the Notice to Proceed is issued. The Notice to Proceed will not be issued until the documentation required under paragraph 5.1.1 of the Form of Tender has been submitted and the construction schedule has been approved.  |
|            |                              | 4.6.8 | <b><i>(Add new clause 4.6.8 as follows):</i></b><br>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 their discretion upon receipt of a written request.   |
| <b>4.7</b> | <b>Superintendent</b>        | 4.7.4 | <b><i>(Add new clause 4.7.4 as follows):</i></b><br>The key personnel named in the Contractor's Tender response, shall remain in these key positions throughout the project. In the event that key personnel leave the Contractor's firm, or for any unknown reason are unable to continue fulfilling their role, the Contractor must propose a suitable replacement, and obtain written consent from the Owner. Acceptance of the proposed replacement is at the sole discretion of the Contract Administrator and the Owner.  |
| <b>4.8</b> | <b>Workers</b>               | 4.8.2 | <b><i>(Add new clause 4.8.2 as follows):</i></b><br>The Contractor shall, upon the request of the Contract Administrator, remove any person employed by them for the purposes of the Contract who, in the opinion of the Contract Administrator, is incompetent or has conducted themselves 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 their cost,

- a) Be responsible for storing all of the materials supplied for the Work either by themselves 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 themselves or the Owner to ensure that delivery will coincide with their 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 themselves or the Owner which are found to be stolen, missing or damaged while under their care;
- f) Replace all materials found to be defective in manufacture which have been supplied by themselves.

**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 them for the purposes of the Contract who, in the opinion of the Contract Administrator, is incompetent or has conducted themselves improperly, and the Contractor shall not permit the Subcontractor who has been removed to return to the Place of Work. The removal of a Subcontractor under this clause shall not be considered a Change and the Contract Price and the Contract Time shall not be adjusted.

**4.12 Test and Inspections**

4.12.1

***(Replace clause 4.12.1 as follows):***

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

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

4.12.11

***(Add clause 4.12.11 as follows):***

Failure to follow DFO/FLNRO BMPs and the approved permit for Instream Works or as instructed by Contract Administrator will result in shut-down of the work. The Contractor must take all steps to mitigate impacts to aquatic resources, environment and habitats before work can re-start on site. No claim will be accepted by the Owner for costs associated with this work 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 through the issue of a Change Order. These items will be paid at the contract unit price as part of regular progress payments. Only quantities used will be eligible for payment. No claim will be accepted for

unused Optional or Provisional quantities. Clause 9.4 Quantity Variations will not be applicable for these items.

**9.0 VALUATION OF CHANGES AND EXTRA WORK**

**9.2 Valuation Method 9.2.4**

***(Replace clause 9.2.4 as follows):***

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

**9.4 Quantity Variation 9.4.1**

***(Replace clause 9.4.1 as follows):***

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

**9.4.2 *(Delete clause 9.4.2 (2))***

**10.0 FORCE ACCOUNTS**

**10.1 Force Account Costs 10.1.1(1)**

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

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

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

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

**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 they give 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.

**13.3 Unavoidable Delay**      13.3.1      ***(Add to clause 13.3.1 as follows):***  
Beyond the reasonable control of the Contractor also includes pandemic or community outbreak

**13.8 Direction to Stop or Delay**      13.8.3      ***(Add new clause 13.8.3 as follows):***  
The Contract Administrator may order the Contractor to stop work if at any time the Contract Administrator is of the opinion that there exists a danger to life or property.

**13.9 Liquidated Damages for Late Completion**      13.9.1      ***(Replace clause 13.9.1 as follows):***  
If the Contractor fails to meet the Milestone Date for Substantial Performance as set out in the Form of Tender, paragraph 2.2 as may be adjusted pursuant to the provisions of the Contract Documents, then the Owner may deduct from any monies owing to the Contractor for the Work:

- (1) An amount of \$1,000.00 for each calendar day the actual *Substantial Performance* is achieved after the Substantial Performance Milestone Date; plus

(2) All direct out of pocket costs, such as costs for safety, security or equipment rental, reasonably incurred by the Owner as a direct result of such delay.

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

**18.0 PAYMENT**

**18.1 Preparation of Payment Certificate**

18.1.1

***(Replace clause 18.1.1 as follows):***

The Contract Administrator shall prepare and issue a certificate for the period ending the last calendar day of the month.

**18.4 Holdbacks**

18.4.2

***(Add to clause 18.4.2 as follows):***

At the sole discretion of the Contract Administrator, an amount equivalent to 10% of the contract award value or 200% of a reasonable estimate, whichever is higher, may be held without interest until all deficiencies have been remedied and accepted by the Contract Administrator.

**18.6 Substantial Performance**

18.6.5

***(Replace clause 18.6.5 as follows):***

The Owner may release any builders lien holdback on the 56th day following the date of Substantial Performance, or other date as required by law, but the Owner may hold back the amounts for any deficiencies or filed builders liens as provided in GC 18.4.2, 18.4.3 and 18.4.4.

18.6.6

***(Replace clause 18.6.6 as follows):***

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

The *Contractor* shall be the *Payment Certifier* responsible under Section 7 of the *Builders Lien Act* for certifying *Substantial Performance* of the *Work* of each *Subcontractor*. Prior to certifying completion for a *Subcontractor*, the *Contractor* shall consult the *Contract Administrator* and obtain the *Contract Administrator's* comments on the status of completion by the *Subcontractor*, including any deficiencies or defects in the *Subcontractor's Work* noted by

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



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**

***(Replace section 24.0 as follows):***

**24.1 General**

24.1.1

**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 them 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 their 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.

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



Whenever the Principal shall be, and declared by Oblige to be, in default under the Contract, the Oblige having performed Oblige'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 Oblige for completing the Contract in accordance with its terms and conditions, and upon determination by Oblige and Surety of the lowest responsible bidder, arrange for a contract between such bidder and Oblige 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 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

)  
)  
)  
)  
)

\_\_\_\_\_  
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:

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

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 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

)  
)  
)  
)  
)

\_\_\_\_\_  
PRINCIPAL

\_\_\_\_\_  
SURETY

\_\_\_\_\_

**APPENDIX III**

**CERTIFICATE OF INSURANCE**

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

A. This Certificate is issued to: Named Insured and Mailing Address:

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

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
-----	----	------------------------------

- |                          |                                     |                                 |
|--------------------------|-------------------------------------|---------------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Shoring and Underpinning Hazard |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Pile Driving and Vibrations     |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Excavation Hazard               |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Demolition                      |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Blasting                        |

\_\_\_\_\_  
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**

Owner: **CITY OF COQUITLAM**  
Contractor: \_\_\_\_\_  
Contract / Permit #: **79057**  
Project / Workplace: **New Traffic Signal and Intersection Improvements at Coast Meridian Road and Highland Drive** (the "Project")

By signing this Prime Contractor Designation form, the Contractor hereby:

1. agrees to be, and accepts designation as, the "prime contractor" for the purposes of the Workers Compensation Act, R.S.B.C. 2019, c. 1 (the "Act") and the Occupational Health and Safety Regulation, B.C. Reg. 223/2022 (the "Regulation") in respect of the Project and Workplace noted above;
2. represents and warrants that the Contractor is qualified and capable to perform the duties of prime contractor and that the undersigned signatory has the authority to accept designation as prime contractor and to bind the Contractor;
3. accepts the duty and responsibility for ensuring the activities of employers, workers and other persons at the Workplace relating to occupational health and safety are coordinated and agrees to do everything that is reasonably practicable to establish and maintain a system or process that will ensure compliance with the Act and the Regulation in respect of the Workplace;
4. covenants and agrees to comply with the occupational health and safety provisions of the Act, the Regulation, any other applicable regulations under the Act, and any applicable orders;
5. acknowledges and agrees that the Owner has provided the Contractor the information known to the Owner that is necessary to identify and eliminate or control hazards to the health or safety of persons at the Workplace; and
6. agrees that the designation as prime contractor hereunder may not be assigned or revoked without the prior written consent of the Owner.

**Prime Contractor Name:** \_\_\_\_\_

**Prime Contractor Address:** \_\_\_\_\_

\_\_\_\_\_  
**Prime Contractor Signature** **Date**

\_\_\_\_\_  
**Print Name**

*Please return a signed copy of this designation to the City of Coquitlam, 3000 Guildford Way, Coquitlam, BC, V3B 7N2. If you have any questions, please contact the City of Coquitlam Health & Safety Manager at 604-927-3070.*

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

# ***Supplementary Contract Specifications***

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

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**Supplementary Contract Specifications**

to the  
MASTER MUNICIPAL SPECIFICATIONS  
Volume II – Platinum Book

**New Traffic Signal and Intersection Improvements  
at Coast Meridian Road and Highland Drive**

CONTRACT 79057

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

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CONTRACT SPECIFIC NOTATIONS

1.00 CONTRACT SPECIFIC INSTRUCTIONS

- 1.01 **Schedule of Work** All work under this Contract is to be completed within the designated Contract Duration. The Contractor must provide sufficient resources in a continuous effort and site presence to complete all the work within the allotted time. All work must be completed on one of the streets before starting on the next street. The contractor may start the project early (weather dependent), but the project must still be completed in the given period of time (construction duration schedule as indicated in the FT Appendix 2).
- 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 Hydro, FORTIS BC GAS, Kinder Morgan, Telus, in the area of the place of Work where applicable.
- 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
  - Garbage/Green Waste/Recycling pick-up
  - City Utilities Maintenance (or representatives)
  - City Parks and Recreation Maintenance (or representatives)
  - Other City Contractors
- 1.05 **Waste Collection Coordination**
- .1 Contractor is responsible to accommodate all waste collection vehicles and cart pick up schedules throughout construction. Collection schedule can be found in <https://www.coquitlam.ca/157/Collection-Calendar-Guidelines> .
  - .2 If waste collection will be impacted the contractor is responsible to:
    - a. Provide advanced notification to:
      - i. The City's Solid Waste staff at 604-927-3500 or [wastereduction@coquitlam.ca](mailto:wastereduction@coquitlam.ca); and
      - ii. The City's Contract Administrator.
    - b. Provide access for collection trucks to closed streets due to road work; or
    - c. Move waste carts for collection:
      - i. The Contractor is required to ensure each cart is labelled with the property address and returned to the correct address after collection (each cart has its own individual cart identification code and is specifically assigned to each property). **Contractors will be responsible for the costs to replace missing carts.**
  - .3 Contractor's Request for Change in Collection Time (e.g. PM to AM):
    - i. The Contractor must provide residents with as much notice as possible – minimum 5 working days.
    - ii. The contractor must follow all conditions of Clause 1.04 and is responsible to deal with any missed collections. For example, taking garbage to the Coquitlam Recycling and Waste Centre or covering the cost associated for any missed collection to be rescheduled.

Questions: [wastereduction@coquitlam.ca](mailto:wastereduction@coquitlam.ca)

CONTRACT SPECIFIC NOTATIONS

<b>1.06</b>	<b>FORTIS BC Emergency Protocol</b>	In an emergency, gas pipeline rupture or leak, Contact Fortis BC 24 Hour Emergency Line (1-800-663-9911) and Fire Department (911) immediately and then City of Coquitlam's Utility Control Centre (604-927-6287).
<b>1.07</b>	<b>Lane Closure Restrictions and Hours of Work</b>	Refer to Appendix A: Traffic Management Detail Specifications.
<b>1.08</b>	<b>Schedule of Work</b>	All work under this Contract is to be completed within the designated Contract Duration. The Contractor must provide sufficient resources in a <u>continuous effort and site presence</u> to complete all the work within the allotted time, unless otherwise approved by <i>Contract Administrator</i> . As set out in the MMCD the Contractor must provide updates to the construction.
<b>1.09</b>	<b>Precautions</b>	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.
<b>1.10</b>	<b>Location of Existing Utilities</b>	<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 Gas Mains, Trans Mountain Pipeline, etc.) and service connections (water, storm, sanitary services at the mains and 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 BC One for location of outside agency utilities.</p> <p>The contractor will not receive any compensation or allowance for delays if work is halted due to utilities and 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>
<b>1.11</b>	<b>Manholes and Valves</b>	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.
<b>1.12</b>	<b>Temporary Asphalt Pavement Restoration</b>	The Contractor will be required to backfill all trenches (in paved areas) and place a temporary patch (50mm of hot mix asphalt), as per Coquitlam Standard Drawing COQ-G4, the same day excavation is made, unless otherwise approved by the Contract Administrator.
<b>1.13</b>	<b>Verification of Dimensions and Quantities</b>	Before proceeding with the work, the Contractor should 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.
<b>1.14</b>	<b>Site Safety</b>	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.

CONTRACT SPECIFIC NOTATIONS

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 for traffic safety.

**2.00 CONSTRUCTION ACTIVITY**

**2.01 Pavement Markings**

The Contractor will be responsible for temporary traffic markings necessary for traffic direction and safety until permanent markings are installed. The Contractor is responsible for the permanent pavement markings after paving is complete.

**2.02 Asphalt Milling Operations**

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

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.

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

**2.03 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.

**2.04 Site Clean-up During Construction and End of Construction**

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

The work will include cleaning of all catch basins periodically or as directed by the Contract Administrator within the Work area, or nearby location as affected by the Work, to a better 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.

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

**3.00 MANDATORY MEETINGS AND CONTRACTOR REPRESENTATIVES AND SUBCONTRACTORS**

**3.01 Pre-Construction Meeting Requirements**

After the Award of the Contract, the Contractor (Project Manager and 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:

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.

CONTRACT SPECIFIC NOTATIONS

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 Pre-Paving  
Site Meeting**

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

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

The Contractor Administrator must be in attendance at this meeting.

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

**3.04 Contract Superintendent  
and Subcontractors**

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

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

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

The Owner is not responsible for the direction of Subcontractors.

**3.05 Changes of Contractor  
Representatives &  
Subcontractors**

The Superintendent and Subcontractors indicated in the Form of Tender shall not be changed unless:

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

**3.06 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 & location of all walkways/sidewalks, all utilities, manhole rim, catchbasin rim, vaults, valve boxes and inverts affected by the work.

Legal Holdback will not be released until record documents have been submitted and accepted by the Contract Administrator.

**END OF SECTION**

QUALITY CONTROL

- 1.0 QUALITY**
- The Contractor shall provide a final product conforming to the Contract Documents and the intent of the work.
- The work is to be accurate to the dimensional and tolerance requirements of the contract.
- Payment will be subject to adjustments based on quality assurance tests performed by the Contract Administrator.
- 1.01 Quality Control (QC) by Contractor**
- The MMCD (2009) definition of “Quality Control” is the process by which the Contractor checks specific materials, products, and workmanship to ensure strict conformance with the Contract Documents.**
- The Contractor is fully responsible for quality control of the materials, production, and construction processes.
- Quality control tests shall be performed by the Contractor, at their own expense, to ensure that products meet the contract specifications.
- Failure by the Contractor to conduct adequate quality control testing during production and construction will negate the Contractor’s ability to appeal the quality assurance tests used for acceptance/rejection of the work.
- Under no circumstances will QC test results produced after completion of the Quality Assurance (QA) results be considered for appeal purposes.
- Any changes in the Work with respect to the location, grade, or line shall be approved in advance by the Contract Administrator. Failure to notify the Contract Administrator of changes in writing may result in rejection of Work.
- 1.02 Inspection of Work, Quality Assurance, and Material Testing, by the Owner**
- The MMCD (2009) definition of “Quality Assurance” means the process by which the Owner evaluates if the work is being constructed in accordance with the Contract Documents. This definition will be used for this contract.**
- The *Contract Administrator* will provide construction review through spot inspections and spot materials testing for Quality Assurance.
- Any materials testing results indicating a non-conformance to the Contract Documents will require construction corrective action by the Contractor.**
- All subsequent testing to corrective action to verify conformance to the Contract Documents will be the full responsibility of the Contractor.**
- Inspection review by the Owner will not relieve the Contractor from providing a product that meets or exceeds the requirements of the Contract Documents.
- 1.1 Inspection**
- Materials testing shall be as described in MMCD General Conditions, Section 4.12 with the following change:
- Delete Section 4.12.2(a) and insert the following:
- Where the MMCD specification clauses for Inspection and Testing indicate the Contract Administrator will arrange for all testing for work described in this section will be amended to read The Contractor will arrange for and pay for all testing for work described in this section. The testing shall take place at the following prescribed rates and as directed by the contract administrator. The contract administrator has the authority to call for testing, up to the rates and frequencies specified, at the Contractors cost.
- All testing covered under this item shall be performed by a CSA certified laboratory and technicians with copies of all test results to be sent directly to the Contract Administrator.

Re-testing resulting from failed first tests shall be at the Contractors expense.

**1.2 Survey Layout**

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

**1.3 Testing**

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

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

**1.4 Contractors Responsibilities**

Furnish labour and facilities to:

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

**1.5 Access to Work**

Allow inspection testing agencies access to Work.

**1.6 Tests**

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

1. Trench Backfilling and Compaction

- 1.1 Compaction: 1 test / 10 lm / 300mm lift
- 1.2 Sieve: 1 test / placed material / 50 m<sup>3</sup>

2. Granular Base

- 2.1 Compaction: 1 test / 500m<sup>2</sup> / 0.15m depth of granular base
- 2.2 Sieve: 1 test / placed material / 250 TONNES

3. Granular Subbase

- 3.1 Compaction: 1 test/500m<sup>2</sup> / 0.15m depth of granular subbase
- 3.2 Sieve: 1 test / placed material / 250 TONNES

4. Embankment (Subgrade)

- 4.1 Compaction: 1 test/ 50m<sup>2</sup> / 0.15m depth of fill
- 4.2 Sieve: 1 test / placed material / 100 TONNES

5. Asphalt

- 5.1 Marshall test: test per 250 TONNES placed per mix specified, min. 1 / day  
ASTM D1559, D3203, C117, C136
- 5.2 Superpave: test per 250 TONNES placed per mix specified, min. 1 / day  
CAI-SP2, ASTM D3203, C117, C136
- 5.3 Cores: 1 per 500 m<sup>2</sup>/lift
- 5.4 Continuous asphalt density testing during paving.

6. Subgrade Preparation

- 6.1 Compaction & Moisture: 1 test / 500 m<sup>2</sup>

7. Concrete Tests

- 7.1 Air, Slump & 1 Set Cylinders: 1 test / 10 m<sup>3</sup>, min. 1 set / day

**1.7 Measurement for Payment**

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

**END OF SECTION**

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 professional certified by the American Traffic Safety Services Association.</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 shall ensure safe passage of vehicles, cyclists and pedestrian through the work zone.</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 <a href="http://www.coquitlam.ca">http://www.coquitlam.ca</a>. The Contractor must follow the approved TMP. Any changes to this TMP must be submitted to City's Traffic Operations for approval.</p>
		Add 1.0.8	<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>
		Add 1.4.9.3.1	<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	<p>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.</p>



**1.5 Measurement for  
Payment**

Delete 1.5.1 and  
replace with the  
following

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

**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.

Follow all Federal and Provincial regulations and guidelines respecting protection of fish, fish habitat, and watercourses.

Delete 1.2.2.2 and replace with the following

Do not operate construction equipment in watercourses.

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 metres from the nearest stream, and is placed within a bermed and lined area, in order to prevent leaks or spills into the environment.

Add 1.4.3.9

Ensure that no equipment fueling or servicing is conducted within 15 metres of a stream.

ENVIRONMENTAL PROTECTION

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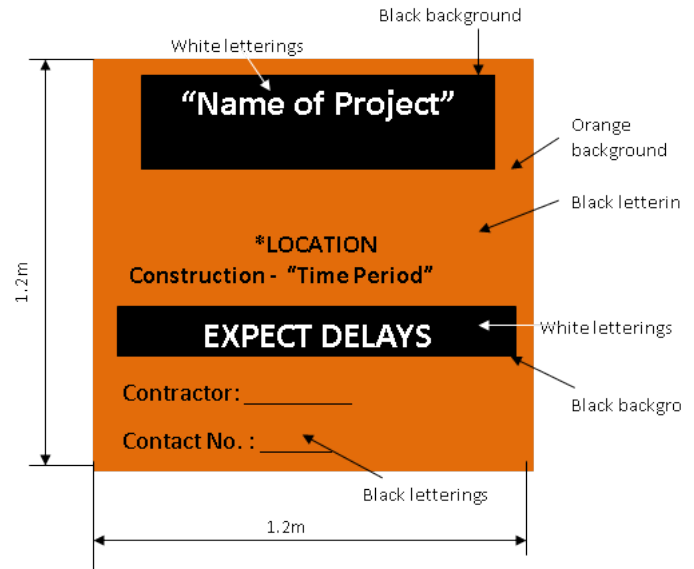
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| 1.6 | <b>Measurement and Payment</b>               | Delete 1.6.1 and replace with the following | Payment for all work performed under this section will be incidental to the payment for work described in other Sections.   |
| 1.9 | <b>Archaeological / Historical Resources</b> | 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**

**1.3 Measurement and Payment**

Delete 1.3.1 and replace with the following

Payment for the installation of 1.2m x 1.2m static construction notification signs (shown below) includes supply, placement, removal and will be paid for each sign placed as identified on the Schedule of Quantities and Prices and in the Contract Documents. Unit will be paid 50% for installation and 50% upon removal.



**END OF SECTION**

<b>1.4</b>	<b>Measurement and Payment</b>	Delete 1.4.3 and replace with the following	Payment for machine placed or hand formed C5 wide base concrete curb, including granular subbase & base, includes supply and placing of the concrete curb and gutter, tie-ins, transitions, subgrade preparation, compaction, saw cutting, and will cover all straight and curve sections and will be made separately for each specified type.  Payment for excavation and disposal of excavated material will all be considered as included under this item.
		Delete 1.4.5 and replace with the following	Payment for concrete sidewalks, letdowns, driveways, walkways, stamp concrete, paver stone, infills, concrete exposed aggregate and all concrete ramps includes supply and installation, saw cutting, granular base, regrading of driveways for proper tie-in, field fit and adjustments, subgrade preparation under the concrete sidewalks, in-fills, driveways and walkways, and will be made separately for each specified thickness and type of finish.  Payment for excavation and disposal of all excavated material will be considered as included under this payment item.
		Add 1.4.10	Payment for Detectable/Tactile Warning Surface Tile includes supply and placing of Access Tile Model # ACC-R_x_ (or approved equal) Truncated Dome Detectable Warning Tactile Surface replaceable cast in place - Yellow Color, installation as per the Manufacture's Specifications and as specified in the Schedule of Quantities and Prices.
<b>2.1</b>	<b>Materials</b>	Delete 2.1.5.1 and replace with the following	Hand-formed and hand-placed concrete:  Slump: 80 mm Air entrainment: 5 to 8%. Maximum aggregate size: 20 mm. Minimum cement content: 335 kg/m <sup>3</sup> . Minimum 28 day compressive strength: 32 MPa.
		Add 2.1.7	Tactile warning surface tile shall be replaceable cast-in-place style. Truncated domes shall be in square grid pattern with a 5 mm nominal raised height, base diameter of 23 mm and top diameter of 11.5 mm. Dome spacing range shall be between 40 mm – 60 mm.  Color of the panel shall be Federal Yellow (Y) per US Federal Standard 595B Table IV, Color No. 335.  Minimum size of the panel shall be 600 mm by 1200 mm.
<b>3.0</b>	<b>EXECUTION</b>		
<b>3.5</b>	<b>Concrete Placement</b>	Delete 3.5.9 and replace with the following	The <i>Contractor</i> is responsible for adjusting all utility manhole frames and valve boxes, belonging to Coquitlam and/or other agencies that are affected by the road works. All adjustments to utilities must be completed to the satisfaction of the utility owner. Riser rings will not be accepted.  The <i>Contractor</i> should note that certain utility owners may decide to complete their own adjustments. The <i>Contractor</i> will be required to cooperate with any utility company providing their own adjustments.  The <i>Contractor</i> shall be responsible to contact the appropriate utility company within a minimum of seventy-two (72) hours of the work. No adjustment shall be made without the written approval of the

utility company. All manholes must be vertically adjusted a minimum of twenty-four (24) hours prior to concrete placement.

**3.9 Expansion Joints**

Delete 3.9.1 and replace with the following

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

**END OF SECTION**

**ROADWAY LIGHTING**

<b>1.0</b>	<b>GENERAL</b>		
<b>1.3</b>	<b>Shop Drawings</b>	Delete 1.3.4 and replace with the following	Shop drawings for pole structures, where required, to be sealed by a Professional Engineer registered in British Columbia.
<b>1.4</b>	<b>Electrical Energy Supply</b>	Add 1.4.4	The Electrical Contractor shall process a letter of application to the City of Coquitlam for the Utility Company and attain all required permits.
<b>1.5</b>	<b>Contractor Qualifications</b>	Add 1.5.3	All on-site traffic signal installations shall be under the responsibility of a primary journeyman electrician with IMSA Level 1 Roadway Lighting Certification and have a minimum of three (3) years experience maintaining and installing street lighting systems. This primary journeyman electrician is expected to be on the work site and report work progress to City of Coquitlam's Traffic Operations staff, in addition to reporting to the Contract Administrator.
<b>1.6</b>	<b>Permits and Tests</b>	Add 1.6.4	Contractor shall provide the BC Safety Electrical Permit, and arrange all inspections with the City. The inspection entails, but not limited to, Coquitlam's Street Lighting Inspection Report, which can be obtained from Coquitlam's Traffic Operations staff.
		Add 1.6.5	Contractor to obtain approval of all buried portions of the installation from the City Inspector before any backfill is commenced.
<b>1.9</b>	<b>Measurement and Payment</b>	Add 1.9.4	Supply and installation of conduits / ducts to include all labor, equipment and materials required to complete the installation as specified in the contract and/or shown on Contract Drawings. Payment includes coordinating with Third Party Utilities for supply and delivery/pick up of supplied materials. Payment will be for each complete set of joint trench crossing as specified in the contract documents.
<b>2.0</b>	<b>PRODUCTS</b>		
<b>2.1</b>	<b>General</b>	Delete 2.1.2 and replace with the following	All products supplied to be new, in accordance with Contract Documents. All products are to meet Canadian Electrical Code requirements and be certified by either CSA, UL®, or Intertek Testing Systems (Warnock Hersey) and be supplied with the certifier's label.
		Delete 2.1.3 and replace with the following	All products shall be in accordance with the City of Coquitlam's List of Approved Materials and Products List. Any products not listed with in the Approved List shall default to the current BCMOTI specification.
		Delete 2.1.5 and replace with the following	Equipment models listed within the City of Coquitlam's List of Approved Materials and Products shall be confirmed with the City immediately prior to their order to ensure that they are current. Cut-sheets, equipment make, model and serial number list to be provided to the City by the Contractor.
<b>2.2</b>	<b>Conduit</b>	Add 2.2.1.3	All exposed metallic surfaces to be hot dip galvanized.
<b>2.3</b>	<b>Trench marker Tape</b>	Add 2.3.2	Detectable (Magnetic) marker tape shall be used in all trenches containing interconnection (communications) conduit.

ROADWAY LIGHTING

2.6	Concrete Bases	Add 2.6.2	Maximum of four (4) conduits shall enter the base of a luminaire pole, however more than four (4) may enter a service base.
2.8	Conductors and Cables	Add 2.8.5	.1 Minimum conductor size to be as follows, unless specified otherwise on Contract Drawing: .1 No 6 AWG for feeder conductors in conduit. .2 No 8 AWG for bond conductors in conduit. .3 No 12 AWG for luminaire conductors in poles.
2.9	Conductor Tags	Delete 2.9 and replace with the following	Refer to the City of Coquitlam's List of Approved Materials and Products.
2.11	Fuses and Fuse Holders	Delete 2.11 and replace with the following	Refer to the City of Coquitlam's List of Approved Materials and Products.
2.13	Receptacles	Add 2.13.3	Receptacles shall have a spring loaded cast aluminum covers.
		Add 2.13.4	Refer to the City of Coquitlam's List of Approved Materials and Products.
2.14	Luminaires	Add 2.14.6	Refer to the City of Coquitlam's List of Approved Materials and Products.
2.19	Service Panels	Add 2.19.1	Type 40A 120/240V, 60A 120/240V roadway lighting and 100A 120/240V combination roadway lighting / traffic signal, per Contract Drawing to include items listed within the 2009 MMCD Section 34 41 13 - Traffic Signals - 2.11.2
		Add 2.19.2	Refer to the City of Coquitlam's List of Approved Materials and Products.
2.20	Wire Anti-Theft Devices	Add 2.20.1	Handhole access shall utilize security covers with reinforced backing bars.
3.0	EXECUTION		
3.1	General	Add 3.1.5	During the installation of the lighting system, maintain the existing system as noted on the Contract Drawing. If temporary or permanent relocations of related lighting equipment are required, such equipment shall be reinstated as required under the Contract Documents or as directed by the Contract Administrator.
3.3	Concrete Bases	Add 3.3.7	Concrete service bases detailed on Standard Detail Drawings CE1.3 and CE1.4, Type C1 and C3 service bases shall have five (5) conduits. See Coquitlam Standard Detail Drawing SS-E7.3.
		Add 3.3.8	All concrete bases shall be pre-cast concrete only, unless noted on Contract Drawing or directed by the Contract Administrator.
3.4	Junction Boxes and Vaults	Delete 3.4.1 and replace with the following	Install junction boxes as shown on Standard Detail Drawings E2.2 to E2.4. Install vaults as shown on Coquitlam Standard Detail Drawing SS-E2.5.
		Add 3.4.5	Bell end fittings shall be installed in all conduits entering junction boxes or vaults.



**ROADWAY LIGHTING**

		Add 3.4.6	All junction boxes shall be provided with RPVC bars to support electrical connections and fuse holders. The RPVC bars shall be attached into the junction box side walls with the electrical connections/fuse holders tie-wrapped in place and installed in the up-right position.
		Add 3.4.7	Junction boxes requiring 3 or more sections must be approved by the City of Coquitlam’s Traffic Operations staff.
<b>3.5</b>	<b>Underground Conduit</b>	Delete 3.5.2 and replace with the following	Minimum cover over conduits to be 600 mm in boulevard areas and 900 mm in roadway areas, unless otherwise specified in the contract documents.
		Delete 3.5.3 and replace with the following	Place trench marker tape 300 mm above installed conduit in trench. Trench marker tape not required for conduits installed via trenchless technology.
		Delete 3.5.5 and replace with the following	Empty conduits shall have a No. 8 HB Yellow/Green Mk pull string and capped at both ends.
		Add 3.5.6	Conduit run shall contain no more than the equivalent of 4 – 90 degree bends.
		Add 3.5.7	Conduits shall be blown out with compressed air, from both ends if necessary, then swabbed out to remove stones, dirt, water and other material which may have entered during installation.
		Add 3.5.8	All conduits entering poles and cabinets shall be sealed with “Duct Seal”.
		Add 3.5.9	Conduit depth of bury to be recorded when a trenchless technology method is used.
		Add 3.5.10	Conduit shall not be bent in the field. Only factory bends will be accepted.
<b>3.7</b>	<b>Electrical</b>	Delete 3.7.2 and replace with the following	Mount electrical service panels in service base or on poles as shown on Standard Detail Drawings E7.2, E7.6 to E7.9, as well as Coquitlam Standard Detail Drawings SS-E7.3 to SS-E7.5.
<b>3.8</b>	<b>Wiring</b>	Delete 3.8.3 and replace with the following	Make conductor splices in handholes. See Standard Detail Drawing E7.11 for splice details.
		Delete 3.8.6 and replace with the following	Wire each luminaire and receptacle separately from the base of pole.
		Delete 3.8.7 and replace with the following	Neatly arrange and bundle wiring in junction boxes, pole handholes and service panels. Conductor connections in all access points to be installed in the up-right position, allowing for easy access
		Delete 3.8.11 and replace with the following	Bond all luminaires and receptacles with No. 12 RW90 green conductor, and steel junction box lids with No. 8 RW90 green conductor.
<b>3.9</b>	<b>Pole Mounted Receptacle</b>	Delete 3.9.1 and replace with the following	Pole mounted receptacles to be installed as detailed on the Contract Drawing and Coquitlam Standard Detail Drawings SS-E7.19 to SS-E7.23.

ROADWAY LIGHTING

3.10	Luminaires and Photocells	Add 3.10.4	NEMA wattage label shall be visible at the bottom of the luminaire on all fixtures.
3.11	Grounding & Bonding	Add 3.11.5	Ground plates and grounding conductors are to have a minimum of 5 meters clearance between them and other utility grounding.
		Add 3.11.6	Remove all paint around bonding studs on inside of pole to expose the galvanized or metal surface prior to bonding equipment.
3.13	Pole Finish Application	Delete 3.13 and replace with the following	<ol style="list-style-type: none"><li>.1 Prior to producing a powder finish product, the supplier must provide a Certificate of Compliance indicating that they have met or exceeded the following specifications. The supplier will name their independent testing agency and this information will be submitted to the City for their files.</li><li>.2 The application process will be as follows:<ol style="list-style-type: none"><li>.1 The pole or product will be hot dip galvanized.</li><li>.2 Powder will only be applied after the product is completely fabricated. No welding or bending will take place after the powder is applied.</li><li>.3 The pole or product will be thoroughly cleaned by brush blasting in accordance with SSPC-SP7. The brush blast will maintain a minimum profile of 0.5 mils. If brush blasting is done off site, then the product will be covered and shielded from any dirt or moisture during its return to the powder applicators facility. Where poles or products are not kept clean and dry or have any signs of flash rust they will be returned for further brush blasting.</li><li>.4 Once at the applicators facility the pole or product will be thoroughly cleaned and dried with an air gun. All hand marks or grease spots will be cleaned with a mild solvent.</li><li>.5 After brush blasting the entire pole or product will be pre-baked in an oven at 220 degrees C for at least 30 minutes to 1 hour, depending on steel thickness. The pre-baking must be done to prevent out-gassing during the curing cycle.</li><li>.6 The base powder coat will then be applied electrostatically while the pole or product is cooling from the 220 degrees C pre-bake period to allow the powder to melt and fuse to the surface. The base coat will be a minimum of 3 mils in thickness.</li><li>.7 After base coat is applied and set the topcoat will be applied to a thickness of 3 to 5 mils. The pole or product will be returned to the oven and heated to 190 to 220 degrees C (temperature will not exceed pre-bake) for a minimum of 25 minutes, depending on steel thickness. Thicker product material may require longer bake cycles to fully cure. Upon removal of the pole or product from the oven it will be left to rest until the pole or product is cool enough to the touch.</li><li>.8 Once the topcoat has cured and the poles or product cooled, they will then be individually wrapped (min 4" overlapping method) with 1/8" foam wrap over the entire pole or product. The poles or product will be bundled together and separated with suitable wood dunnage to avoid contact between the poles, product or other bundles. All bundles themselves will be fully wrapped with</li></ol></li></ol>

foam and with stretch-wrap as noted above. The poles or products will be handled and shipped with great care to prevent damage; damaged product will be cause for rejection of the item(s).

- .3 Testing process will be as follows:
  - .1 Each run of product in an oven will have at least one sample tested for:
  - .2 Adhesion – The finished powder surface will have minimum pull-off strength exceeding 1000 PSI as tested in accordance with ASTM D4541.
  - .3 Quality – The finished powder surface will be free from any holidays (skips or misses) as tested in accordance with ASTM D4541. The product will also be free from wrinkles, orange peel, cracking, pinholes, fish eyes, blisters, etc by visual inspection.
  - .4 Color – The color will be verified to be within 3 DE of specialized color.
  - .5 An independent firm such as CanSpec Testing who are qualified to test powder finish will do the testing at the supplier's expense. The result of tests must accompany the Certificate of Compliance and will be made available to the City or their representative upon request. A supplier who fails to test product as noted above will have their product rejected until the testing is completed and the product deemed acceptable by the testing agency.
  - .6 Where the tested product fails on a given production run then a minimum of 30 % of the entire production run will be tested. If no other failures are found then the individual failed product will be stripped, reapplied and re-tested until it passes. If any of the 30% of product tested fails then the entire order will be stripped, reapplied and retested until it passes.
- .4 Field repairs will be undertaken as required to fix any scratches or imperfections in the final finish. Field repairs will be done as follows:
  - .1 Feather the damaged area with sandpaper.
  - .2 Clean area with solvent.
  - .3 Let dry.
  - .4 Neatly brush on an application of Aliphatic Urethane Acrylic Semi-Gloss High Build applied at 2-4 mils DFT over the entire sanded and damaged area. The ambient conditions will be dry and over 10 degrees C when the paint is applied.
  - .5 The pole supplier will warranty the integrity of the surface for a minimum of 1 year from the date of installation. The warranty will include all labour and materials required to provide replacement product if required. The powder finish will be the responsibility of the pole supplier. The warranty will apply to fading, blistering, cracking or chipping of the surface.

**END OF SECTION**

2.0 PRODUCTS

2.3 Pit Run Gravel

Add to 2.3.2

The use of recycled concrete shall be approved by the *Contract Administrator* and the City prior to use.

Add 2.3.3

Asphalt millings free from contaminated and other extraneous material, conforming to the specified gradations may be used as pit run gravel. The use of asphalt millings shall be approved by the *Contract Administrator* and the City prior to use.

2.7 Granular Pipe Bedding and Surround Material

Add to 2.7.1

All recycled or other extraneous materials shall be approved by *Contract Administrator* and the City prior to use.

2.10 Granular Base

Delete 2.10.2

Add 2.10.3

All 25 mm minus granular base is to conform to the following gradation specifications for Collector / Arterial Roads:

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

Add 2.10.4

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

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

Add 2.13

Thermal backfill shall be durable, inert, crushed gravel made of granite or limestone and shall be free from clay and organic material that conforms to the following grading requirements:

ASTM D422-63 Sieve	Sieve Opening Size (mm)	Percent by Weight Passing
3/4"	19	100
3/8"	9.5	50 to 100
#4	4.75	35 to 70
#10	2	22 to 45
#40	0.425	5 to 20
#200	0.075	0 to 8

**2.11 Recycled Aggregate  
Material**

Delete 2.11.1 and  
replace with the  
following

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

**END OF SECTION**

**1.4 Measurement and  
Payment**

Delete 1.4.1 and  
replace with the  
following

Payment for all clearing and grubbing will be incidental to payment for Work described in other Sections and include removal and disposal of all branches, stumps, trees, debris, hedges, timbers, logs and vegetation to complete the work and as shown on the Contract Drawings or as directed by the Contract Administrator. Works include cutting of branches & falling of trees affected by Work to create the necessary clearance to accommodate the construction and intended function of the Work, and as shown on Contract Drawing.

Payment includes trimming of small branches from trees or hedges as required, branch cutting/pruning to have a clean cut flush to branch collar and use of an approved tree paint to repair damage to surviving vegetation where branches have been removed.

Existing grass and top soil removal will be will be incidental to payment for work described in other Sections.

**END OF SECTION**

SHRUB AND TREE PRESERVATION

1.3	<b>Measurement and Payment</b>	Delete 1.3.1 and replace with the following	Payment for all work, performed under this section will be incidental to payment for work described in other Sections.
2.0	<b>PRODUCTS</b>		
2.1	<b>Materials</b>	Add 2.1.10	Protective Fencing: Posts - Pressure treated wood 100 mm dia.; Post to be 1.8 m to 2.0m in height at 2.0 m O.C. Snow fence as per Coquitlam Approved Products List; Flagging Tape - 4" Orange glow - 'Tree Retention Area'.
2.0	<b>EXECUTION</b>		
3.1	<b>Existing Trees</b>	Add 3.1.7	The <i>Contractor</i> is responsible to minimize damage to all trees which are to remain.
		Add 3.1.8	The <i>Contractor</i> will be responsible for all claims and costs including the cost of examination by an Arborist, repair, removal and replacement of trees, as required by the Arborist, the <i>Contract Administrator</i> and the City for tree damage where proper notification was not received from the <i>Contractor</i> . Damage will be assessed based on the International Society of Arboriculture Guidelines. The term shall be for a period of one year following the date of Substantial Performance of the <i>Work</i> .
		Add 3.1.9	Place protective fencing/barricades as per Coquitlam Standard Detail Drawings COQ-R26, where identified on the Contract Drawings. <i>Contractor</i> shall maintain fence in good condition during construction.
		Add 3.1.10	When work is to be performed inside fenced areas, <i>Contractor</i> shall take care to avoid damage to existing vegetation. Work to be done inside areas of existing vegetation to be retained includes: <ul style="list-style-type: none"> <li>.1 Removal of isolated trees as directed by the <i>Contract Administrator</i> and the City.</li> <li>.2 Selective pruning and tree removal at edges to create tidy and well-shaped forest edge.</li> <li>.3 Placing planting soil and planting of trees.</li> </ul>
		Add 3.1.11	Do not park, service or fuel vehicles within the vegetation retention areas.
3.4	<b>Pruning</b>	Add 3.4.2	Do not cut roots or branches of retained trees without approval of the <i>Contract Administrator</i> and the City.

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**



**1.8 Measurement and Payment**

Delete 1.8.4 and replace with the following

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

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

Delete 1.8.5 and replace with the following

Payment for Common Excavation includes:

1. Unless noted in the Schedule of Quantities and Prices as removal in square meters, common excavation will be measured in cubic meters calculated from measurements taken by the Contract Administrator in the areas of excavation for road widening areas.
2. Cross-sections will be taken after clearing and grubbing and after stripping of existing topsoil immediately prior to excavation of material to be incorporated into work.
3. Where determined by the Contract Administrator that truck box volume will be used to determine excavation quantities the volume per load shall be determined using 75% of the truck load quantity. The following is to be used for payment:

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

4. Contractor to provide truck slips detailing location type of common excavation, time loaded and location of dump site. The slips are to be given to Contract Administrator by the end of shift or Contract Administrator can deny quantities subsequently submitted.
5. Payment for on site re-use includes excavation, transport, temporary stockpiling, placement, compaction, boning, adjustment of moisture content, spreading and grading of material anywhere on site or within the work zone, as needed, to establish the roadway & pathway cross-section.

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

Delete 1.8.10 and  
replace with the  
following

Payment for replacement of areas of unsuitable granular base, granular subbase or sub-grade revealed during proof rooling will include excavation with off-site disposal, supply, installation & compaction of granular base material (25 mm minus), and all remedial work required to achieve a suitable base. Payment with be based on the cubic metre volume removed.

**2.0 PRODUCTS**

**2.2 Specified Materials**

Delete 2.2.1.3

Pit Run Sand

Delete 2.2.1.4

River Sand

Delete 2.2.2

**END OF SECTION**

---

COLD MILLING

1.5      **Measurement and  
Payment**      Add 1.5.4

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

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

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

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

**END OF SECTION**

GRANULAR BASE

<b>1.4</b>	<b>Measurement and Payment</b>	Delete 1.4.1 and replace with the following	Payment for granular Base for sidewalk and walkway construction is included in payment for sidewalk under Section 03 30 20S.
		Delete 1.4.2 and replace with the following	Measurement for granular base for each specified thickness will be for the actual area placed.
		Delete 1.4.3 and replace with the following	Payment for Subsection 1.4.1 & 1.4.2 above includes supply, placement and compaction of granular base material, adjustment of moisture content, and boning to establish the road cross-section, factored into the unit price bid in the Schedule of Quantities and Prices. Payment includes submission of tickets as loads are delivered. Tickets not submitted within 72 hours of load delivery to site will not be paid.
		Delete 1.4.4 and replace with the following	Payment for removal of unsuitable subgrade including disposal off-site prior to direct placement of granular subbase will be made under Section 31 24 13S – Roadway Excavation, Embankment and Compaction.
<b>2.0</b>	<b>PRODUCTS</b>		
<b>2.1</b>	<b>Granular Base</b>	Add 2.1.1.3	25 mm minus crushed gravel conforming to the gradation specifications for Collector/Arterial Roads under Section 31 05 17S – 2.10.3.
<b>3.0</b>	<b>EXECUTION</b>		
<b>3.5</b>	<b>Proof Rolling</b>	Delete 3.5.1 and replace with the following	For proof rolling, use fully loaded single axle, to 80 KN (18, 000 lb) minimum, dump truck.
		Add 3.5.7	Prior to paving with asphalt concrete, the base surface shall be checked by the <i>Contract Administrator</i> and the City, for deflections utilizing a Benkelman Beam, in order to insure that the final rebound requirements can be obtained with the asphalt pavement. In the event that such deflection are in excess of those required to produce the final standards, than the base shall be adequately strengthened by additional gravel or asphalt concrete to insure that final deflections as follows are not exceeded.  The Benkelman spring rebound value of the completed pavement surface shall not at any point exceed 0.75 mm for arterial industrial roads and lanes, 1.15 mm for collector roads, and 1.5 mm for local roads and lanes as determined in the procedures outlined in the Transportation Association of Canada publication “Pavement Management Guide.”

**END OF SECTION**

ASPHALT TACK COAT

- |     |                                |   |   |
|-----|--------------------------------|---|---|
| 1.5 | <b>Measurement and Payment</b> | Delete 1.5.1 and replace with the following | Payment for all work performed under this Section will be incidental to payment for work described in other Sections unless shown otherwise in the Schedule of Quantities and Prices.   |
|     |                                | Delete 1.5.2 and replace with the following | Pavement surface cleaning, as per section 32 01 11, and all other work incidental to the application of tack coat is deemed to be incidental to payment for work described in other Sections unless shown otherwise in the Schedule of Quantities and Prices.   |
| 3.0 | <b>EXECUTION</b>               |   |   |
| 3.2 | <b>Application</b>             | Add to 3.2.3                                | Asphalt tack coat to be applied using a truck mounted spray bar unless otherwise approved by the <i>Contract Administrator</i> and the City. Contractor shall demonstrate, to the <i>Contract Administrator</i> and the City, prior to application that all spray nozzles are operational and providing a consistent application. |

**END OF SECTION**

1.0 GENERAL

1.4 Submission of Mix Design

Delete 1.4.1 and replace with the following

Submit asphalt concrete mix design, including RAP content and trial mix test results to Contract Administrator for review at least two weeks prior to commencing work.

1.5 Measurement and Payment

Delete 1.5.1 and replace with the following

Payment for asphaltic concrete paving includes all construction joint preparation, surface milling to tie into existing asphalt, saw cutting, supply and placing of the asphaltic concrete, compaction and cleaning frames, covers and lids of castings affected and taped temporary pavement markings. Payment also includes reinstating existing asphalt curb/ drainage lip as shown on Contract drawings.

Curb face cleaning of dust and debris prior to asphalt paving will be considered incidental to the work as described above.

Measurement for asphaltic concrete paving for the specified design mixes will be made at the respective unit prices bid in the Schedule of Quantities and Prices and incorporated into Work will be asphalt concrete actually based on weigh tickets provided to the Contract Administrator as loads are delivered. Payment includes submission of tickets as loads are delivered. Tickets not submitted within 72 hours of load delivery to site will not be paid.

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

**MILLED SURFACES MUST BE PAVED WITHIN 48 HOURS PERIOD (2 DAYS).**

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

Delete 1.5.3 and replace with the following

Payment for machine/hand placed asphaltic concrete driveways includes all construction joint preparation, tie-in to curb, tie-in to new or existing asphalt, saw cutting, supply and placing of the asphaltic concrete, tack coat, compaction, cleaning frames, covers and lids of castings affected.

Measurement for asphaltic concrete paving for the specified design mixes will be made at the respective unit prices bid in the Schedule of Quantities and Prices will be made for asphalt concrete actually based on weigh tickets provided to the Contract Administrator as loads are delivered. Payment includes submission of tickets as loads are delivered. Tickets not submitted within 72hours of load delivery to site will not be paid.

Payment for this item includes all applicable materials, specifications and work described in 1.5.1.

Add 1.5.9

The Contractor or the Owner may request adjustment of the unit prices submitted for Asphalt Pavement if the Composite Rack Posting (CRP) varies by more than 5.0% from Tender Closing Date to

the time the asphalt paving is actually performed. The CRP is a composite of the available Rack Postings for PG 64-22 FOB Langley BC. Requests for asphalt pavement unit price adjustment must be made prior to commencing asphalt paving. Payment for asphalt paving performed prior to a request for price adjustment will be made at the unit price submitted. Unit prices will be increased or decreased as applicable using the following formula:

Adjustment = (CRP work - CRP tender) x ACvolume  
Adjustment is the amount in dollars per tonne the unit price is modified. CRPwork is the CRP at the time paving is performed. CRP tender is the CRP at the Tender Closing Date. AC volume is the mixture design percent asphalt content, by volume.

**1.6 Inspection and Testing** Add 1.6.3 Test cores are to be taken in the areas of new paving and will include cores along construction joints to ensure compliance with the required design and compaction.

**2.0 PRODUCTS**

**2.1 Materials** Add 2.1.2.1 Usage of recycled asphalt shingles or any other materials not specified in the Contract Documents will not be permitted.

Add 2.1.2.2 Usage of softening agents, rejuvenators, or recycling agents will not be permitted.

**2.2 Mix Design** Delete 2.2.2 and replace with the following Mix may contain up to a maximum of 10 % by mass of RAP for Upper Course Asphalt and 15 % by mass of RAP for Lower Course Asphalt without a special mix design. The *Contract Administrator* and the City may approve higher proportion of RAP if *Contractor* demonstrates ability to produce mix meeting requirements of the specification.

Delete 2.2.3.2 Marshall Stability and replace with the following Marshall Stability at 60°C for both lower and upper courses to be 10 KN min.

**3.0 EXECUTION**

**3.3 Preparation** Delete 3.3.3 and replace with the following The *Contractor* is responsible for adjusting all utility manhole frames and valve boxes, belonging to Coquitlam and/or other agencies that are affected by the road works. All adjustments to utilities must be completed to the satisfaction of the utility owner. Utility adjustment within the paved surface will be considered incidental to the *Work* unless otherwise noted in the *Contract Documents*.

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

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

All manholes must be vertically adjusted a minimum of twenty-four (24) hours prior to paving. The use of riser rings for adjusting manhole frames and value boxes will not be permitted.

**3.7 Joints**

Delete 3.7.5 and  
replace with the  
following

Construct lap joints at locations as shown on the *Contract Drawings*  
and as directed in the field by the *Contract Administrator* and the  
City.

**END OF SECTION**



PAINTED PAVEMENT MARKINGS

1.0 GENERAL

1.2 Scope

Delete 1.2.1 and replace with the following

Pavement Markings: Miscellaneous taped temporary and permanent pavement paint markings including pedestrian crosswalk, merge and diverge markings, stop lines, solid and broken line road lane markings including edge lines of merge and diverge markings, bike symbols, etc. to be provided as shown on the *Contract Drawing*.

1.5 Measurement and Payment

Delete 1.5.2 and replace with the following

All permanent markings shall be marked with thermoplastic manufactured by LAFRENTZ ROAD MARKINGS or approved equal by the Contract Administrator, unless shown otherwise in the Schedule of Quantities and Prices.

Delete 1.5.3 and replace with the following

The lump sum payment for permanent thermoplastic pavement markings and eradication of the existing pavement markings covers supplying all materials and completing all the permanent thermoplastic pavement markings necessary to provide markings as shown on the Contract Drawings.

NOTE: PAYMENT FOR PERMANENT THERMOPLASTIC PAVEMENT MARKINGS WILL NOT BE MADE UNTIL ALL TEMPORARY PAVEMENT MARKINGS AND REFLECTIVE DEVICES HAVE BEEN REMOVED.

Delete 1.5.4 and replace with the following

Payment for signage includes all sign poles, bases, sleeves, sign relocations and sign installations (complete). The City will supply signs.

1. Installation of each new sign pole, cap, sleeve and trapezoidal base includes all costs to supply all materials, labour and equipment and incidentals, as shown on Standard Detail Drawings SS-E11.1 & SS-E11.2, necessary to the install sign structure as shown on the Contract Drawings and as directed by the Contract Administrator.

2. Installation of each new sign pole, cap, sleeve, galvanized steel bracket for no post barrier, as per MOT Drawing # SP635-3.8.3, includes all costs to supply all materials, labour and equipment and incidentals necessary to the sign structure as shown on the Contract Drawings and as directed by the Contract Administrator.

3. The unit price payment is for each city supplied aluminum sign installed on a sign pole includes sign mount clamps & all costs to supply all materials, labour and equipment and incidentals necessary to install each sign as directed by the Contract Administrator.

4. Installation of each aluminum sign on a lamp standard pole or sign pole includes sign mount clamps and all costs to supply all materials, labour and equipment and incidentals necessary to install each sign as directed by the Contract Administrator.

2.0 PRODUCTS

Delete 2.1.1 and replace with the following

All permanent paint markings shall be marked with thermoplastic manufactured by LAFRENTZ Road Markings, HITEX North America (HiBrite Extrude Thermoplastic), or ENNIS-FLINT (Extruded Thermoplastic).

2.1 Materials

Delete 2.1.6 and replace with the following

Pavement Markings:

Delete 2.1.7 and  
replace with the  
following

Thermoplastic material

- .1 Material composition shall be at the discretion of the manufacturer subject to the approval of the Contract Administrator and the City. Each formulation shall be identified by a code number.
- .2 No retained water when tested by ASTM D-570.
- .3 Specific gravity of the supplied product shall be within 3 % of that specified for the selected formulation.
- .4 Material shall not deteriorate upon contact with deicing chemicals, gasoline, diesel fuel or grease dropped by traffic.
- .5 Material shall not break down, deteriorate, scorch or discolour, if held within the application temperature range specified by the manufacturer for a period of four hours and it must be able to be reheated from room temperature to the application temperature four (4) times without showing any of these detrimental effects.
- .6 When applied at the temperature recommended by the manufacturer and at a film thickness of 2 to 4 mm, the material shall set solid and show no tracking under traffic after elapsed times as follows:
  - .1 Two (2) minutes at an air temperature of 10° C, relative humidity less than 75 %, and road surface temperature from 10° C to 20° C.
  - .2 Five (5) minutes at an air temperature of 32° C, relative humidity less than 75 %, and road surface temperature from 35° C to 50° C.
  - .3 The drying time under conditions intermediate between the two air temperatures shall be interpolated using a straight line model.
- .7 The quantity, type, and gradation of the component reflecting glass spheres premixed in the thermoplastic material shall be at the discretion of the manufacturer, but shall provide retroreflection levels specified below.

**3.0 EXECUTION**

Add to 3.3.1.3

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

**3.3 Application**

Delete 3.3.3.3 and  
replace with the  
following

Thermoplastic material shall be heated in the melter to a temperature of 382 °F.

**END OF SECTION**

STORM SEWERS

<b>1.6 Measurement and Payment</b>	Delete 1.6.1 and replace with the following	Payment for storm sewer will be made at the unit price bid for storm sewer (regardless of depth) consistent with pipe materials, diameters and backfill requirements shown on the Contract Drawings and described under individual payment items in the Schedule of Quantities.
	Delete 1.6.2 and replace with the following	Payment for storm sewers includes trench excavation, dewatering, bypass pumping, on-site reuse of surplus/displaced material, removal and disposal of existing pipes, supply and installation of all pipe, wyes, cap, fittings and related materials, tie-ins to existing or new storm pipe or manhole other than noted in Clause 1.6.9, construction joints, bedding, import backfill, native backfill, granular base, granular Subbase, cleaning and flushing, testing (if applicable), videoing and all other work and materials necessary to complete installation as shown on Contract Drawings and specified under this Section; and  Measurement for storm sewer will be made horizontally from manhole centerline to manhole centerline over surface work has been completed.  Native excavated material approved for re-use as trench backfill shall be at the sole discretion of the Contract Administrator. All cobbles greater than 150 mm diameter removed and disposed off-site and shall be granular in nature and free from organic materials. Native excavated material shall not be used as trench backfill where moisture content does not permit compaction to specified density. Where native excavated material is unacceptable for use as trench backfill, imported trench backfill shall be supplied, placed, and compacted to specified density.  Payment for concrete driveway and curb & gutter will be made under Section 03 30 20S.  Payment includes by-pass pumping to include all pumps, labour and materials required to facilitate the work. Payment for the by-pass pumping will be incidental. Measurement for storm sewer will be made along the ground from the start of new pvc pipe to the terminus of the new pvc pipe.
	Delete 1.6.3 and replace with	Payment for new service connections includes 150mm SDR28 PVC pipe, shear band couplers, bends, increaser, pvc wye, stubs, caps, sanded stubs, manhole preparation, inserta tee, Le-Ron inspection chamber c/w locking collar and green lid and all related fittings and components specified and/or shown on Standard Detail Drawings. Payment includes all applicable service pipes, materials and work described in 1.6.2.  Measurement for service connection will be for each complete service installed, including the inspection chamber, length of service pipe installed and length of riser.
	Add 1.6.3.1	Payment for storm service connection repair/replacement includes 150mm SDR28 PVC pipe, shear band couplers, bends, sanded stubs, inserta tee, increaser, stubs and all related fittings and components specified and/or shown on Standard Detail Drawings. Payment includes all applicable service pipes, materials and work described in 1.6.2 unless specified otherwise in the Schedule of Quantities and Prices.

STORM SEWERS

Measurement and payment for storm lead repair/replacement will be made at the unit price bid per lineal meter of service lead installed as measured along the ground from the downstream end of work done in Clause 1.6.4 to the terminus of the repair.

Delete 1.6.4 and replace with

The lump sum payment is to supply and install Le-Ron molded storm inspection chambers c/w locking collar & green lid including the riser as per COQ-S7A, COQ-S8A and MMCD S9 at each location. The tendered price is to include all labour, shear band couplers, 2m PVC SDR 28 pipe stubs and all related fittings and components specified and/or shown on Standard Detail Drawings and all such other items that may be required to complete the work as specified. Payment includes all applicable materials and work described in 1.6.2.

A City crew will be inspecting the service connection by hand video prior to the Contractor's installing the IC. The Contractor shall notify the City inspector once the section of the service connection is ready for hand video. Payment includes assisting City crew in hand videoing the service connection. Based on the hand video result, City assessment or apparent condition of the pipe, repair/replacement is to be done under Clause 1.6.3.1. Repair/replacement shall only be done as approved by Contract Administrator or City inspector.

**NOTE: Depth specified on the utility connection record without an IC is typically measured from the top of the clean out wye.**

Brooks Boxes with a steel lid are to be provided for inspection chambers located in driveways as necessary. Payment for the Brooks Boxes on a driveway will be incidental.

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

Delete 1.6.5 and replace with the following

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

Measurement for catchbasin leads or lawn basin leads will be made horizontally from mainline pipe to centreline of catchbasin or lawn basin for each pipe size installed with no regards to depth range.

Delete 1.6.6 and replace with the following

Payment for french drain, dispersal trench, retention trench includes all applicable materials and work described in 1.6.2, and will include pvc pipe, excavation, removal and disposal of excavated or displaced material, trench dam, clean out, perforated pipe, growing medium, tie-in into catch basins/lawn basins and/ or storm sewer, drain rock, fittings, filter fabric surround and all other work incidental to complete the work as shown on the Contract Drawing and COQ-SW3 / COQ-SW4.

Pyment for catch basins and lawn basins will be made under Section 33 44 01S – Clause 1.5.2.

**2.0 PRODUCTS**

**2.2 PVC Pipe, Mainline Smooth Wall**

Delete 2.2.1 pipe size ranges and replace with the following

200 mm dia. – 375 mm dia. to ASTM D3034  
450 mm dia. – 1,200 mm dia. to ASTM F679

**2.3 PVC Pipe, Mainline Profile**

Delete 2.3

STORM SEWERS

<b>2.6</b>	<b>Service Connections</b>	Delete 2.6.1 and replace with the following  Delete 2.6.8.1  Delete 2.6.8.2 and replace with the following  Add 2.6.8.3	Storm service connections to be PVC DR 28 150 mm diameter minimum or as specified on <i>Contract Drawings</i> .  Connections to PVC pipe to be made with a performed wye fitting where mainline pipe is 300 mm diameter or smaller. For connections to PVC mainline pipe larger than 300 mm diameter an insertable tee for PVC pipe is permitted.  Insertable tee fitting shall have a rubber collar which inserts into the mainline pipe to form a tight seal and shall have stainless steel band to secure the tee insert. The tee insert shall be a standard bell end with depth control lugs. The joint shall provide a minimum seal of 90 kPa on concrete and polyethylene pipe, and 190 kPa on PVC pipe.
<b>2.9</b>	<b>Granular Pipe Bedding and Surround Material</b>	Delete 2.9.3	Pipe bedding shall be 19 mm clear crushed rock or as approved by the <i>Contract Administrator</i> and the City.
<b>3.0</b>	<b>EXECUTION</b>		
<b>3.8</b>	<b>Connections to Existing Mainline Pipe</b>	Delete 3.8.3 and replace with the following	For new connections to existing, smooth wall or profile, mainline sewers 300 mm and smaller, shall be made by removal of the section of the main and replacement with a preformed PVC wye fitting complete with stubs and double hub PVC couplings for PVC mains and approved shear band couplings for other mainline materials.  For new connections to existing mainline greater than 300 mm, use of insertable tee will be permitted.
<b>3.10</b>	<b>Service Connection Installation</b>	Delete 3.10.3 replace with the following	Inspection chambers shall be provided on all storm service connections as per Standard Detail Drawing S7. If inspection chamber is located in driveway, lane, or paved surface, Series 37 Brooks concrete box with lid shall be installed as per Standard Detail Drawing S9.
<b>3.12</b>	<b>Inspection and Testing</b>		The contractor shall video inspect completed storm sewers under 900 mm in diameter and all service connections following completion of the installation. The video inspection report shall be in a form specified by the Contract Administrator and the City. Copies of the video DVD and written report shall be forwarded to the Contract Administrator and the City. Refer to Section 33 01 30.1 and 33 01 30.1S CCTV Inspection of Pipelines.
<b>3.16</b>	<b>Permanent Capping of Service Connections</b>	Add 3.16.1  Add 3.16.2	Permanent capping of existing storm sewer connections to be completed as per Coquitlam Standard Detail Drawing COQ-S18.  A trenchless method of permanently capping a service may be required on an arterial road or on a road which has been paved within 5 years, as directed by the Manager.  The trenchless technology used to cap the service must be approved by the Manager.

END OF SECTION

MANHOLES AND CATCHBASINS

1.0 GENERAL

1.1 Related Work

Add 1.1.6

Hot Mix Asphalt Concrete  
Pavement

Section 32 12 16

Add 1.1.7

Portland Cement Concrete  
Paving

Section 32 13 13

1.5 Measurement and  
Payment

Delete 1.5.2 and  
replace with the  
following

Payment includes supply and installation of new catchbasin/lawnbasin as described in Schedule of Quantities and Prices including catch basin base, concrete barrel, concrete riser, pvc sanded stub, donut ring, off-set sump, H2O rated concrete frame/lid, metal frame, top inlet and grate, aluminum trapping hood and all labor, material and equipment required to complete the work from specified invert to finishing level and as per Standard Detail Drawing as described in Schedule of Quantities and Prices. Payment includes excavation, disposal of surplus excavated material, base preparation, bedding, import backfill, catchbasin/lawnbasin preparation to accommodate catchbasin/lawnbasin connection, installation of all in-situ concrete work, all labor, material, equipment and necessary work for installing the catchbasin/lawnbasin.

Catchbasin/lawnbasin lead work will be made under Section 33 40 01S – Clause 1.6.5.

Delete 1.5.3 and  
replace with the  
following

Adjustment of tops of existing units will be measured in units adjusted as defined below and paid for under their respective Item in the Schedule of Quantities.

No payment will be made under these items for cleaning Valve Boxes, Monument Boxes, Manhole Frames & Covers and Lids of Castings as part of the operation for asphaltic concrete paving.

No Payment will be made for adjusting External Utilities Valve Boxes, Monument Boxes, Gas valve boxes, Lawn Drains, Cleanouts and Inspection Chambers, these adjustments will be treated as incidental work unless otherwise specified.

All manholes & valve boxes must be vertically adjusted a minimum of 24 hours prior to paving.

1. Manhole frames and lids adjustment and replacement will be defined as supplying and installing a new manhole frame and lid and setting to the finished grade. Adjustments and replacements shall include jackhammering, removal and disposal of the existing frame and lid, replacement, removal of concrete bricks, addition or removal of precast concrete riser rings, cement mortar, supply and installation of new manhole frame and lid set to final grade, temporary asphalt ramping and all other incidental work.

Manhole frames and lids adjustments ONLY is the re-use of existing frames and lids and all the necessary work as described above.

2. Water Valve Box replacements will be defined as supplying and installing a new Nelson Type Terminal City Water Valve Box frame & lid and setting to the finished grade. Replacements shall include jackhammering, removal and disposal of the existing frame and lid and all other

incidental work. Adjustment of water valves on existing new watermain

3. Catchbasins frame and lid replacement will be defined as setting as supplying and installing a new catchbasin frame & lid to the correct elevation. Adjustments shall include jackhammering, removal of the existing grating and frame and all other incidental work. Payment includes excavation, disposal, removal of concrete bricks, removal or addition of precast concrete riser rings, cement mortar, disposal of surplus excavated material, cast-in-place concrete, pipes, fittings and related materials together with all labour, materials and equipment required. Catch basin lead work is considered to be incidental to payment for catch basin lead work described in other sections.

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

**2.0 PRODUCTS**

- |                      |  |   |
|----------------------|--|---|
| <b>2.1 Materials</b> | Add 2.1.7.3                                  | Any frame and cover assembly creating a point load on the concrete riser rings will not be permitted. |
|                      | Delete 2.1.12 and replace with the following | Catchbasin lids manufactured to ASTM C478M  |
|                      | Delete 2.1.16.2                              |   |
|                      | Delete 2.1.17                                |   |

**3.0 EXECUTION**

- |                                    |  |  |
|------------------------------------|--|--|
| <b>3.1 Excavation and Backfill</b> | Add 3.1.2                                      | For manholes, when base gravels are complete, excavate for grade rings and manhole frame assembly. Do not disturb the compacted road base beyond the excavation requirement.   |
| <b>3.3 Manhole Installation</b>    | Delete 3.3.12.2 and replace with the following | Allowable products are precast concrete risers and cast-in-place form system. Individual riser heights shall be 50mm, 75mm, or 100mm.  |
|                                    | Delete 3.3.12.5 and replace with the following | Proper layer of grout between the spacers, covering the entire surface of the rings, should be utilized.   |
|                                    | Delete 3.3.15 and replace with the following   | Install drop structures as shown on the contract drawings to Coquitlam Standard Detail Drawing COQ-S4 and Standard Detail Drawing S3. Maximum allowable inside ramp shall be 250 mm invert to invert.  |
|                                    | Delete 3.3.17 and replace with the following   | Ensure frames conform to design contour of pavement or existing surface. Manhole lids left raised in preparation for overlay paving shall have a rubberized protector ring or asphalt ramp. The use of riser rings for adjusting manhole frames will not be permitted. |
| <b>3.5 Catchbasin Installation</b> | Delete 3.5.1 and replace with the following    | Install catchbasins as shown on Coquitlam Standard Detail Drawings COQ-S11A, COQ-S11B and Standard Detail Drawing S11, to general standards and installation procedures described under 3.3 of this Section.   |

**END OF SECTION**

<b>1.0</b>	<b>GENERAL</b>		
<b>1.3</b>	<b>Shop Drawings</b>	Delete 1.3.4 and replace with the following	Shop drawings for pole structures, where required, to be sealed by a Professional Engineer registered in British Columbia.
<b>1.4</b>	<b>Electrical Energy Supply</b>	Add 1.4.4	The Electrical <i>Contractor</i> will process a letter of application to the City of Coquitlam for the Utility Company and attain all required permits.
<b>1.5</b>	<b>Contractor Qualifications</b>	Add 1.5.3	All on-site traffic signal installations shall be under the responsibility of a primary journeyman electrician with IMSA Level 2 Signal Certification and have successfully completed at least five (5) traffic signal system installations. This primary journeyman electrician is expected to have to be at the <i>Place of Work</i> and report work progress to City of Coquitlam's Traffic Operations staff, in addition to reporting to the <i>Contract Administrator</i> .
		Add 1.5.4	<p><u>Fibre Optic Cable:</u></p> <p>.1 All fibre optic cable installations workmanship, material and/or installation practices and activity will be equal to or better than the standards established by the CAN/CSA T529-530-M90 Standards and the Canadian Electrical Code.</p> <p>.2 Those retained to complete the work must be authorized, trained and certified by the manufacturers they represent. They must have a minimum of two (2) years experience installing and testing multimode and single mode cables of all types as well as experience with LC and SC connectors.</p> <p>.3 Those retained to complete the work must have experience installing cabling for FDDI (Distribution System Data Interface) compliant 100 Mbit/sec, SONET, ATM, Token Ring or Ethernet networks using industry accepted systems and practices. Experience with leading manufactures fiber products and systems would be beneficial.</p> <p>.4 Those retained to complete the work must be prepared, trained and equipped to properly test the fibre cabling system, including the fibre transmission media and connectors. Each optical fibre of each section of cable will be tested using an "Optical Time Domain Reflectometer" (OTDR) and will meet the specifications before installation. After installation an "Optical Light-loss Testing Sets" (OLTS) will be mandatory to determine cable length, locate any fibre breaks or anomalies, measure attenuation of fibre's, connectors and assess fibre uniformity. Those retained to complete the work will provide a report showing all values measured during these tests.</p>
<b>1.6</b>	<b>Permits and Tests</b>	Add 1.6.5	<i>Contractor</i> shall provide the BC Safety Electrical Permit, and arrange all inspections with the City. The inspection entails, but not limited to, Coquitlam's "Intersection and Cabinet Start-up Checklist", which can be obtained from Coquitlam's Traffic Operations staff.
<b>2.0</b>	<b>PRODUCTS</b>		
<b>2.1</b>	<b>General</b>	Delete 2.1.2 and replace with the following	All products supplied to be new, in accordance with <i>Contract Documents</i> . All products are to meet Canadian Electrical Code requirements and be certified by either CSA, UL®, or Intertek Testing Systems (Warnock Hersey) and be supplied with the certifier's label.



TRAFFIC SIGNALS

		Delete 2.1.3 and replace with the following	All products shall be in accordance with the City of Coquitlam's List of Approved Materials and Products List. Any products not listed with in the Approved List shall default to the current BCMOTI specification.
		Delete 2.1.5 and replace with the following	Equipment models listed within the City of Coquitlam's List of Approved Materials and Products shall be confirmed with the City immediately prior to their order to ensure that they are current. Cut-sheets, equipment make, model and serial number list to be provided to the City by the <i>Contractor</i> for each traffic signal location. Material supplied by City of Coquitlam and installed by <i>Contractor</i> , shall be shown in the <i>Contract Documents</i> .
2.2	Conduit	Add 2.2.1.3	All exposed metallic surfaces to be hot dip galvanized.
2.3	Trench marker Tape	Add 2.3.2	Detectable (manetic) market tape shall be used in all trenches containing interconnection (communications) conduit.
2.5	Concrete Junction Boxes	Delete 2.5 and replace with the following	Refer to the City of Coquitlam's List of Approved Materials and Products. For Concrete Vaults: Refer to Coquitlam Standard Detail Drawing SS-E2.5.
2.8	Conductor Tags	Delete 2.8 and replace with the following	Refer to the City of Coquitlam's List of Approved Materials and Products.
2.10	Fuse and Fuse Holders	Delete 2.10 and replace with the following	Refer to the City of Coquitlam's List of Approved Materials and Products.
2.11	Service Panels	Add 2.11.5	Refer to the City of Coquitlam's List of Approved Materials and Products.
2.16	Traffic and Pedestrian Signals	Delete 2.16.1 and replace with the following	Traffic signal heads to be yellow polycarbonate with 300 mm round signal indications, and conform to Section 601 Signal and Pedestrian Heads BCMOTI E&SMS V1. All primary and secondary signal heads shall have yellow aluminum backboards with 75 mm border of yellow prismatic retro-reflective sheeting (3M™ Scotchlite™ Diamond Grade™ VIP Reflective Sheeting Series 3990 or approved alternate).
		Delete 2.16.2 and replace with the following	Fire signal head assembly as per Coquitlam Standard Detail Drawing SS-E5.19.
		Add 2.16.3	Signal head backboards with plumbizer gaps or knock out sections will not be accepted for adjustable bracket signal head mounting method.
2.17	LED Signal Modules	Delete 2.17 and replace with the following	Refer to the City of Coquitlam's List of Approved Materials and Products.
2.19	Signal Mounting Hardware	Add 2.19.8	Primary signal head safety cable to be 3/32" galvanized steel aircraft cable.
		Add 2.19.9	Refer to the City of Coquitlam's List of Approved Materials and Products.

TRAFFIC SIGNALS

2.20	<b>Audible Signals</b>	Delete 2.20 and replace with the following	Refer to the City of Coquitlam's List of Approved Materials and Products.
2.21	<b>Pedestrian /Cyclist Pushbuttons</b>	Delete 2.21 and replace with the following	Refer to the City of Coquitlam's List of Approved Materials and Products.
2.22	<b>Luminaires</b>	Add 2.22.6	Refer to the City of Coquitlam's List of Approved Materials and Products.
2.29	<b>Illuminated Crosswalk Signs</b>	Delete 2.29 and replace with the following	Refer to the City of Coquitlam's List of Approved Materials and Products. Illuminated sign safety cable to be 3/32" galvanized steel aircraft cable.
3.0	<b>EXECUTION</b>		
3.1	<b>General</b>	Add 3.1.5	During the installation of the traffic signal system, maintain the existing traffic signal and/or signs as noted on the <i>Contract Drawing</i> . If temporary or permanent relocations of related traffic signal equipment or signs are required, such equipment shall be reinstated as required under the <i>Contract Documents</i> or as directed by the <i>Contract Administrator</i> .
3.3	<b>Concrete Bases</b>	Add 3.3.7	Concrete service bases detailed on Standard Detail Drawings CE1.3 and CE1.4, Type C1 and C3 service bases shall have five (5) conduits. See Coquitlam Standard Detail Drawing SS-E7.3.
		Add 3.3.8	Lifting cables on concrete controller bases shall be removed after base installation.
		Add 3.3.9	All concrete bases shall be pre-cast concrete only, unless noted on <i>Contract Drawing</i> or directed by the <i>Contract Administrator</i> .
3.4	<b>Junction Boxes and Vaults</b>	Delete 3.4.1 and replace with the following	Install junction boxes as shown on Standard Detail Drawings E2.2 to E2.4. Install vaults as shown on Coquitlam Standard Detail Drawing SS-E2.5.
		Add 3.4.5	Bell end fittings shall be installed in all conduits entering junction boxes or vaults.
		Add 3.4.6	Junction boxes requiring 3 or more sections must be approved by the City of Coquitlam's Traffic Operations staff.
		Add 3.4.7	All junction boxes shall be provided with RPVC bars to support electrical connections and fuse holders. The RPVC bars shall be attached into the junction box side walls with the electrical connections/fuse holders tie-wrapped in place and installed in the up-right position.

TRAFFIC SIGNALS

<b>3.5</b>	<b>Underground Conduit</b>	Delete 3.5.2 and replace with the following	Minimum cover over conduits to be 600 mm in boulevard areas and 900 mm in roadway areas, unless otherwise specified in the contract documents.
		Delete 3.5.3 and replace with the following	Place trench marker tape 300 mm above installed conduit in trench. Trench marker tape not required for conduits installed via trenchless technology.
		Delete 3.5.5 and replace with the following	Empty conduits shall have a No. 8 HB Yellow/Green Mk pull string and capped at both ends.
		Add 3.5.6	Conduit run shall contain no more than the equivalent of 4 – 90 degree bends.
		Add 3.5.7	Conduits shall be blown out with compressed air, from both ends if necessary, then swabbed out to remove stones, dirt, water and other material which may have entered during installation.
		Add 3.5.8	All conduits entering poles and cabinets shall be sealed with “Duct Seal”.
		Add 3.5.9	Conduit depth of bury to be recorded when a trenchless technology method is used.
		Add 3.5.10	Traffic signal communications conduit shall enter and leave junction boxes through bell end fittings in the horizontal position (no bends) and shall run straight through the junction box unless a change in alignment occurs, or as otherwise specified on the <i>Contract Drawing</i> .
		Add 3.5.11	Conduit shall not be bent in the field. Only factory bends will be accepted.
		<b>3.7</b>	<b>Traffic Signal and Pedestrian Head Mounting</b>
Add 3.7.5	Primary traffic signal heads shall be safety cabled to the traffic signal pole arm using 3/32” galvanized steel aircraft cable looped through the traffic signal backboard and fastened with a rope clip.		
<b>3.8</b>	<b>Audible Signals</b>	Delete 3.8.1 and replace with the following	Install audible signal in accordance with Coquitlam Standard Detail Drawing SS-E5.12.

**TRAFFIC SIGNALS**

<b>3.10</b>	<b>Luminaires and Photocells</b>	Add 3.10.4	NEMA wattage label shall be visible at the bottom of the luminaire on all fixtures.
<b>3.13</b>	<b>Electrical Service Panels</b>	Delete 3.13.1 and replace with the following	Mount electrical service panels in service base or on poles as shown on Standard Detail Drawings E7.2, E7.6 to E7.9, as well as Coquitlam Standard Detail Drawings SS-E7.3 to SS-E7.5.
<b>3.14</b>	<b>Wiring</b>	Delete 3.14.3 and replace with the following	With the exception of conductor spliced of detector loop wires to shield cables, make conductor splice in pole handholes. Make splices of detector loop wires to shielded cable in junction boxes.
		Delete 3.14.13 and replace with the following	Bond all signal heads and luminaires with No. 12 RW90 green conductor, and steel junction box lids with No. 8 RW90 green conductor.
		Add 3.14.14	Detector loop cable splices shall be soldered with rosin core solder (no acid core or acid flux) then cap with waterproof gel filled wire nut and tape with vinyl di-electric tape. Suspend and ty-wrap splices at top of junction box with open end of wire nut pointing down. Loop shield drain conductor shall cut and be isolated from the system ground. See Coquitlam Standard Detail Drawing SS-E8.4.
<b>3.16</b>	<b>Traffic Controller</b>	Add 3.16.8	Silicone sealant shall be applied to both sides of the rubber gasket, which is placed between the traffic signal cabinet and the concrete base to ensure a weather tight seal.
		Add 3.16.9	Traffic cabinet interior shall be kept dry during inclement weather.
<b>3.19</b>	<b>Advance Warning Signs</b>	Add 3.19.2	Contrary to Standard Detail Drawing E10.3, Item A shall be a 300 mm signal head section with LED display.
		Add 3.19.3	Advance warning signs shall have yellow prismatic retro-reflective sheeting (3M™ Scotchlite™ Diamond Grade™ VIP Reflective Sheeting Series 3990 or approved alternate).
<b>3.20</b>	<b>Grounding &amp; Bonding</b>	Add 3.20.5	Ground plates and grounding conductors are to have a minimum of 5 meters clearance between them and other utility grounding.
		Add 3.20.6	Grounding rod or plate electrodes shall not be installed inside the traffic signal cabinet base.
		Add 3.20.7	Remove all paint around bonding studs on inside of pole to expose the galvanized or metal surface prior to bonding equipment.

TRAFFIC SIGNALS

**3.22 Pole Finish  
Application**

Delete 3.22 and  
replace with the  
following

- .1 Prior to producing a powder finish product the supplier must provide a Certificate of Compliance indicating that they have met or exceeded the following specifications. The supplier will name their independent testing agency and this information will be submitted to the City for their files.
- .2 The application process will be as follows:
  - .1 The pole or product will be hot dip galvanized.
  - .2 Powder will only be applied after the product is completely fabricated. No welding or bending will take place after the powder is applied.
  - .3 The pole or product will be thoroughly cleaned by brush blasting in accordance with SSPC-SP7. The brush blast will maintain a minimum profile of 0.5 mils. If brush blasting is done off site then the product will be covered and shielded from any dirt or moisture during its return to the powder applicators facility. Where poles or products are not kept clean and dry or have any signs of flash rust they will be returned for further brush blasting.
  - .4 Once at the applicators facility the pole or product will be thoroughly cleaned and dried with an air gun. All hand marks or grease spots will be cleaned with a mild solvent.
  - .5 After brush blasting the entire pole or product will be pre-baked in an oven at 220 degrees C for at least 30 minutes to 1 hour, depending on steel thickness. The pre-baking must be done to prevent out-gassing during the curing cycle.
  - .6 The base powder coat will then be applied electrostatically while the pole or product is cooling from the 220 degrees C pre-bake period to allow the powder to melt and fuse to the surface. The base coat will be a minimum of 3 mils in thickness.
  - .7 After base coat is applied and set the topcoat will be applied to a thickness of 3 to 5 mils. The pole or product will be returned to the oven and heated to 190 to 220 degrees C (temperature will not exceed pre-bake) for a minimum of 25 minutes, depending on steel thickness. Thicker product material may require longer bake cycles to fully cure. Upon removal of the pole or product from the oven it will be left to rest until the pole or product is cool enough to the touch.
  - .8 Once the topcoat has cured and the poles or product cooled, they will then be individually wrapped (min 4" overlapping method) with 1/8" foam wrap over the entire pole or product. The poles or product will be bundled together and separated with suitable wood dunnage to avoid contact between the poles, product or other bundles. All bundles themselves will be fully wrapped with foam and with stretch-wrap as noted above. The poles or products will be handled and shipped with great care to prevent damage; damaged product will be cause for rejection of the item(s).
- .3 Testing process will be as follows:
  - .1 Each run of product in an oven will have at least one sample tested for:

- .2 Adhesion – The finished powder surface will have minimum pull-off strength exceeding 1000 PSI as tested in accordance with ASTM D4541.
  - .3 Quality – The finished powder surface will be free from any holidays (skips or misses) as tested in accordance with ASTM D4541. The product will also be free from wrinkles, orange peel, cracking, pinholes, fish eyes, blisters, etc by visual inspection.
  - .4 Color – The color will be verified to be within 3 DE of specialized color.
  - .5 An independent firm such as CanSpec Testing who are qualified to test powder finish will do the testing at the supplier’s expense. The result of tests must accompany the Certificate of Compliance and will be made available to the City or their representative upon request. A supplier who fails to test product as noted above will have their product rejected until the testing is completed and the product deemed acceptable by the testing agency.
  - .6 Where the tested product fails on a given production run then a minimum of 30 % of the entire production run will be tested. If no other failures are found then the individual failed product will be stripped, reapplied and re-tested until it passes. If any of the 30% of product tested fails then the entire order will be stripped, reapplied and retested until it passes.
- .4 Field repairs will be undertaken as required to fix any scratches or imperfections in the final finish. Field repairs will be done as follows:
- .1 Feather the damaged area with sandpaper.
  - .2 Clean area with solvent.
  - .3 Let dry.
  - .4 Neatly brush on an application of Aliphatic Urethane Acrylic Semi-Gloss High Build applied at 2-4 mils DFT over the entire sanded and damaged area. The ambient conditions will be dry and over 10 degrees C when the paint is applied.
  - .5 The pole supplier will warranty the integrity of the surface for a minimum of 1 year from the date of installation. The warranty will include all labour and materials required to provide replacement product if required. The powder finish will be the responsibility of the pole supplier. The warranty will apply to fading, blistering, cracking or chipping of the surface.

<b>3.26</b>	<b>Uninterruptable Power Supply</b>	Add 3.26.2	Uninterruptable power supply/cabinet to be installed on the side of the traffic controller cabinet as detailed on the <i>Contract Drawing</i> and Coquitlam Standard Detail Drawing SS-E7.24.
<b>3.28</b>	<b>Illuminated Street Name Signs</b>	Add 3.28.1	Install illuminated street name signs as detailed on the <i>Contract Drawing</i> and Coquitlam Standard Detail Drawing SS-E5.18
		Add 3.28.2	Illuminated street name signs shall be safety cabled to the traffic signal pole arm using 3/32” galvanized steel aircraft cable.

<b>3.29</b>	<b>Emergency Vehicle Pre-emption</b>	Add 3.29.1	Emergency vehicle pre-emption system to be installed as detailed on the <i>Contract Drawing</i> and Coquitlam Standard Detail Drawing SS-E5.16.
		Add 3.29.2	Cable shall be continuous with a minimum of 2m of cable slack to be provided at each end, with no splices. Cabinet termination to be completed by City.
<b>3.32</b>	<b>Owner Supplied Materials</b>	Add 3.32.1	Those retained to complete the work must notify the City in writing (seven) 7 days prior to the time materials are required.
		Add 3.32.2	Unless otherwise noted, those retained to complete the work will make all necessary arrangements and pay all costs for the collection of the materials and for delivery to the <i>Place of Work</i> . They will assume responsibility for materials at the time they are picked up.
		Add 3.32.3	<p>Owner supplied materials generally consist of the following:</p> <ul style="list-style-type: none"><li>.1 Traffic controller equipment and cabinet.</li><li>.2 Uninterruptable power supply equipment and cabinet.</li><li>.3 Emergency pre-emption equipment.</li></ul> <p>The exact list of materials supplied by the Owner to be confirmed with the City of Coquitlam Traffic Operations staff and <i>Contract Administrator</i>. In the case of private development projects requiring City supplied materials, the cost for supply and installation of these materials will be borne by the Developer.</p>
<b>3.33</b>	<b>Fibre Optic Cable</b>	Add 3.33	<ul style="list-style-type: none"><li>.1 Fibre optic cables will be terminated to a twelve (12) port LC coupler panel.</li><li>.2 When installing Fibre Optic Communications Conduit, Fibre optic warning tape (150 mm wide orange plastic tape labelled "WARNING FIBRE OPTIC COMMUNICATIONS CABLE") and Detectable (Magnetic) marker tape is to be placed over all conduits containing fibre optic cable.</li><li>.3 During installation of new boxes or with all existing boxes ensure that they have been cleared of any soil, sand or gravel and other materials that have accumulated in the base of the junction box. Ensure that all empty conduits have a proper RPVC coupling and cap inserted (friction fit - DO NOT GLUE) into each duct. Once the conduit is populated, replace cap with bell coupling and glue in place.</li><li>.4 All communication conduits will be flushed with water and dried with compressed air. This process will be followed by pulling through a suitable size Blowing Mouse, a clean soft cloth and new No. 8 HB Yellow/Green Mk pull string</li><li>.5 Perform a visual inspection of the proposed cable route and be aware of any potential problem areas. Locations in which cables will be terminated must be inspected and plans made for hardware and cable slack storage. Space and access for termination of the cable should be considered prior to starting the job. Develop a cable placement plan based upon the cable</li></ul>

- route survey and your available equipment and personnel resources. Submit a plan to the City for acceptance prior to starting work.
- .6 Be aware that any damage due to excessive pulling, bending, or crushing, may alter the cable's transmission characteristics to the extent that the cable section will have to be replaced at the Project's expense.
  - .7 Fibre optic cables will be installed in continuous runs in conduit between the traffic signal controller cabinets (no splices are allowed).
  - .8 DO NOT EXCEED THE MINIMUM BEND RADIUS OF THE FIBRE. During installation do not exceed the minimum bend radius as specified by the manufacture.
  - .9 DO NOT IMPROPERLY PULL OR EXCEED THE CABLE'S RATED PULLING TENSION as specified by the cable manufacturer. Excess pulling may not actually break the fibre, but it can cause the fibre attenuation to increase so that the installed system may not operate within the specified requirements.
  - .10 DO NOT EXCEED THE VERTICAL RISE SPECIFICATION as specified by the cable manufacturer unless intermediate tension relief is used. Secure the cable to new or existing supports wherever possible.
  - .11 Take precautions to protect reeled and unreeled cable from any source of damage, whether attended or unattended. Be particularly careful with pre-connected sections of cable produced to meet specific length requirements as any damage to the cable may require replacement of the entire section.
  - .12 If the cable must be unreeled during installation, the "figure-eight" configuration should be used to prevent kinking or twisting. Do not coil the cable in a continuous direction except for lengths of 30 meters or less. The preferred size of the "figure-eight" is about 4.5 meters in length, with each loop about 1.5 meters to 2.4 meters in diameter.
  - .13 If a cable puller is used, ensure that the recommended pulling tension of the cable is not exceeded. Do not pull through junction boxes, especially 90-degree conduit fittings, unless precautions are taken to maintain the minimum bend radius.
  - .14 When installing cable in conduits, ensure the conduit does not exceed the minimum bend radius. Avoid pull boxes unless the maximum bend radius can be maintained. In controller cabinets, fibre optic cables will be tied together with ty-wraps. Each cable will be labelled within 10 cm of the terminated ends with a tag and text stating the street intersection of the opposite cable end. Cables will be tagged in the controller cabinet and all other access points with "CAUTION, FIBRE OPTIC CABLE" tags. Leave enough cable slack at termination points to allow the cable to be routed through the termination hardware to a polishing/splicing table, plus a minimum of 3 meters additional slack. Cable slack will be coiled and secured with Velcro ties for breakaway protection. Cable to termination panel will be secured to cabinet with ty-wraps
  - .15 If cable lubricants are necessary, ensure that they are compatible with the cable's outer sheath. Refer to the lubricant



specification sheet to ensure compatibility. In all cases avoid the use of detergent-based lubricants, as these types of lubricants promote stress cracks.

- .16 Excess cable inside pull boxes will be coiled and mechanically secured in place with Velcro straps such that the minimum bend radius is not exceeded and the cable is suspended above the pull box. The Velcro straps are to provide 'breakaway' protection in the event of an accidental dig-up between pull boxes.
- .17 Adhesive warning labels 3M – 5016 – FO type or accepted alternate will be affixed to each fibre optic cable in each access point. Access points include pull boxes and traffic signal controller cabinets. Decal strip holders, 3M – 5012 or accepted alternate, will be used and will be secured in place using cable ties. Warning labels will be oriented so they are visible and are not blocked by other cables or equipment.
- .18 After installation, each segment of each fibre will be tested using an Optical Time Domain Reflectometer (OTDR) and power meter equipment. Testing will be done in each direction on each fibre and at both 1310nm and 1550nm wavelengths. Launch cable will be used as per the OTDR manufacturer's specifications. Those retained to complete the work will provide a report detailing the results of each test including OTDR test results in graphical format, cable length, any fibre breaks or anomalies, attenuation of fibre's, connectors and fibre uniformity.
- .19 Final testing and inspection of the cable installation will be conducted with the City on-site.

**END OF SECTION**

***Appendix A –  
Traffic Management Detail  
Specifications***

- 1.0 GENERAL**
- 1.1 Related Works .1 Traffic Regulation MMCD Section 01 55 00S.
- 1.2 References .1 WorkSafe BC, Occupational Health and Safety (OHS) Regulation, Section 18 – Traffic Control.
- .2 B.C. Ministry of Transportation (MOT) Traffic Control Manual for Work on Roadways.
- 1.3 Project Requirements .1 Hours of Work and Traffic Restrictions for this project are identified in **APPENDIX 1** of this document.
- A Road and Sidewalk Closure Permit form application must be submitted to City's Traffic Operation Division 5 working days prior to start of work.
- .2 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 2** 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 [www.coquitlam.ca/closure](http://www.coquitlam.ca/closure).
- 1.4 Measurement and Payment .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.
- 2.0 PRODUCTS**
- 2.1 Traffic Management Plan .1 The Contractor is required to assign a Traffic Manager for the Contract with the responsibility of preparing the Traffic Management Plan and the Traffic Control Plans, as well as

the responsibility for continuing implementation of traffic control for the Work.

- .2 The Traffic Management Plan (TMP) will consist of the following components:
  - .1 Identification of risks to traffic during the Work.
  - .2 Traffic Control Plans for individual stages of the construction.
  - .3 Incident Management Plan for the response to an unplanned event and recording of incident information.
- .3 Submission of the TMP is to be made to the *Contract Administrator* within five (5) days of the *Notice of Award* of the *Contract*, and must be approved by the *Contract Administrator* prior to start of the *Work*.
- .4 Review of the TMP will be performed by the Contract Administrator. Comments for revisions to the TMP will be returned to the *Traffic Manager* for implementations.
- .5 The Contractor shall comply with all the requirements of applicable laws, rules, regulations, codes and orders of the municipal and other appropriate authorities concerned with work on streets or highways and shall post proper notices and/or signals, and provide necessary barriers, guards, lights, flagmen or watchmen as may be necessary for proper maintenance of traffic and protection of persons and property from injury or damage. All costs involved in respect to the above requirements will be deemed to be included in the Contract Price.
- .6 The Contractor shall give due notice to local police and fire departments prior to beginning construction and shall comply in all respects with their requirements.
- .7 The Contractor, during the progress of the work, shall make adequate provision to accommodate the normal traffic along streets and highways immediately adjacent to or crossing the work so as to cause the minimum of inconvenience to the general public.
- .8 The Contractor is required to maintain local traffic and driveway access during all stages of construction. This

- includes maintaining a 1.5m width walkway or pathway through the construction site for pedestrians.
- .9 Where existing streets or roads are not available as detours, all traffic shall be permitted to pass through the work with as little inconvenience and delay as possible unless otherwise provided or authorized by the Contract Administrator. If half the street only is 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) 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.
- .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
- .1 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 .1 Any proposed detours must be approved by the Contract Administrator and conducted in accordance with the approved Traffic Plan and the Traffic Control Manual for Work on Roadways.
- 3.6 Abrupt Changes in Surface Elevations .1 The Contractor shall minimize any abrupt changes in roadway elevation left exposed to traffic during both working and non-working hours.
- 3.7 Cyclist and Pedestrian Access .1 The Contractor shall make provision for pedestrians, wheel chairs and bicycles to have safe access across the work zone at all times. If this cannot be readily accommodated, then acceptable detours and appropriate signs shall be provided.
- 3.8 Temporary Pavement Markings .1 The Contractor shall be responsible for the application and removal of all temporary pavement markings and reflective devices.

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.

All temporary markings must be removed after installation of permanent markings.

**4.0 TRAFFIC RESTRICTIONS**

- 4.1 Road and Sidewalk Closure Permits .1 See APPENDIX 1 - CONTRACT HOURS OF WORK and TRAFFIC RESTRICTIONS.
- .2 A City of Coquitlam Road and Sidewalk Closure Permit is required for each instance of closure and will be valid for a maximum period of one (1) week and, if still necessary, re-submittal of a Road and Sidewalk Closure Request is required.

A copy of the approved Road and Sidewalk Closure and Lane Closure Permit must be held on site by both the Site Superintendent and the person/company responsible for the traffic control implementation.

- .3 **A full road closure will not be 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.
- .5 Some of the construction work sites are located near schools. Contractor should make arrangements to accommodate traffic during school pickup and drop off times.

## **5.0 CONSTRUCTION OPERATIONS**

- 5.1 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](http://www.coquitlam.ca) and can be found under **Residents, Transit & Transportation, Truck Routes**.
- 5.2 Road Specific Considerations
  - .1 Ensure that Traffic Management Plan accommodates businesses and residences during construction activities.
- 5.3 Work stoppage due to traffic
  - .1 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 or creating unreasonable delays.
- 5.4 Construction Activity and Signage
  - .1 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.



**APPENDIX 1**  
**CONTRACT HOURS OF WORK and TRAFFIC RESTRICTIONS**

<b>1.0</b>	<b>GENERAL</b>	
1.1	Contract Number	79057
1.2	Contract Name	New Traffic Signal and Intersection Improvements at Coast Meridian Road and Highland Drive
1.3	Contract Limits	As shown on the Contract Drawings
<b>2.0</b>	<b>ROAD SECTION</b>	
2.1	<b>Coast Meridian Road</b>	.1 During peak times lane closures will not be permitted. Peak times are as follows: <ul style="list-style-type: none"><li>• Southbound – 7:00 a.m. to 9:00 a.m.</li><li>• Northbound – 3:00 p.m. to 5:00 p.m.</li></ul>
<b>3.0</b>	<b>HOURS OF WORK</b>	
3.1	Allowable Hours of Work	.1 Unless there are other contract restrictions for work times, work can be performed during the normal weekday working hours of <b>07:00 hrs to 19:00 hrs</b>
		.2 Work is allowable on Saturdays but is restricted to a <b>09:00 hrs to 17:00 hrs</b>
		.3 No work is allowed on Sundays or statutory holidays without specific permission arranged through the Contract Administrator.
<b>4.0</b>	<b>OPERATIONS</b>	
4.1	Truck Routes	.1 The Contractor is restricted to the City's designated Truck Routes. The current Truck Route Map is available on the City's website at <a href="http://www.coquitlam.ca">www.coquitlam.ca</a> and can be found under <b>Residents/Transit &amp; Transportation/Trucking Routes</b> .

These supplementary Specifications must be read in conjunction with the Master Municipal Specifications contained in the Master Municipal Construction Documents (Platinum), Volume II, 2009.

APPENDIX 2



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, 2023)~~ ~~Payment Methods - If approved, payment options will be emailed to the applicant.~~

Application Date: \_\_\_\_\_

City Project Number (if applicable): \_\_\_\_\_

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](http://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](mailto: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](mailto: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

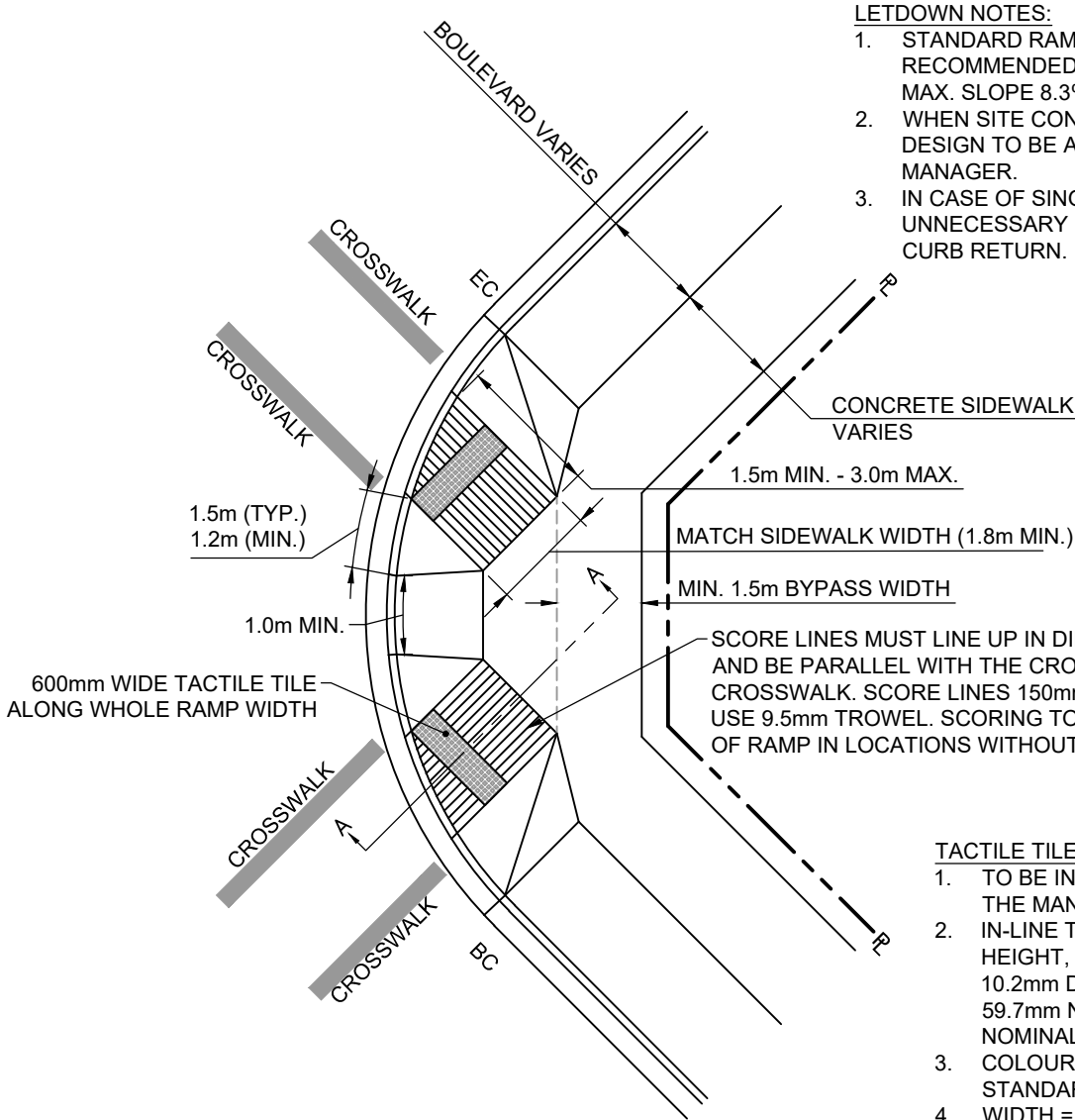
\_\_\_\_\_

Date

\_\_\_\_\_

Traffic Technologist or Designate

***Appendix B –  
Coquitlam Standard  
Detail Drawings***



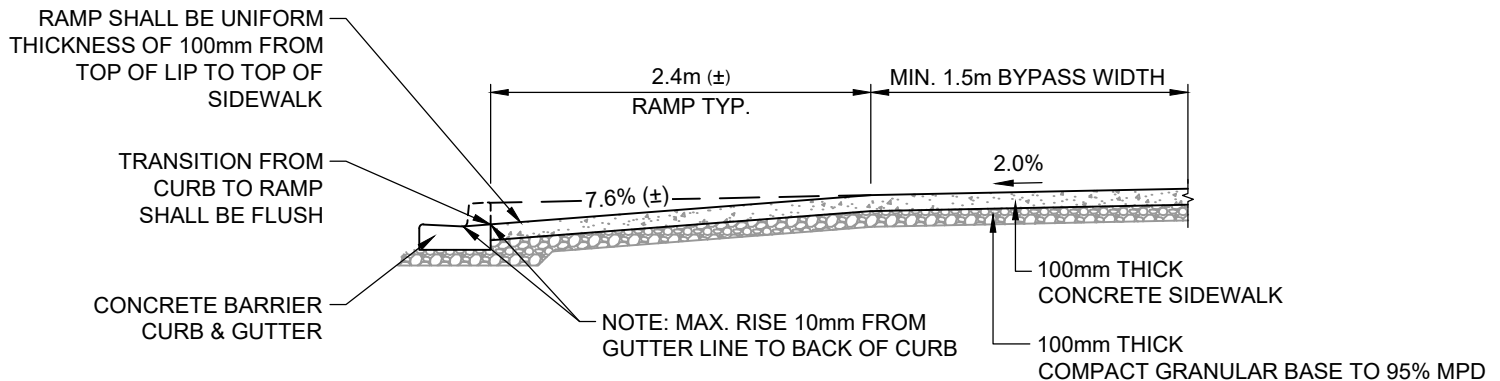
**LETDOWN NOTES:**

1. STANDARD RAMP LENGTH: 2.4m AT CENTRE OF RAMP. RECOMMENDED RAMP SLOPE: 7.6% (±) MAX. SLOPE 8.3% (1:12) WHERE TOPOGRAPHY PERMITS.
2. WHEN SITE CONDITIONS DO NOT PERMIT TYPICAL LAYOUT DESIGN TO BE APPROVED BY THE CITY ENGINEERING MANAGER.
3. IN CASE OF SINGLE CROSSING: REMOVE UNNECESSARY LETDOWN AND EXTEND BOULEVARD TO CURB RETURN.

**TACTILE TILE NOTES:**

1. TO BE INSTALLED ONLY WHEN PRESCRIBED BY THE MANAGER.
2. IN-LINE TRUNCATED DOME PATTERN 5.1mm IN HEIGHT, 22.9mm DIAMETER AT THE BASE AND 10.2mm DIAMETER AT THE TOP OF DOME SPACED 59.7mm NOMINAL DIAGONALLY AND 43.2mm NOMINAL SIDE BY SIDE EXCEPT FOR RADIUS TILE.
3. COLOUR: FEDERAL YELLOW PER U.S. FEDERAL STANDARD 595B, TABLE IV, COLOR NO.335.
4. WIDTH = 600mm, LENGTH = RAMP WIDTH
5. REFER TO COQUITLAM APPROVED PRODUCTS LIST FOR ACCEPTABLE SUPPLIERS.

**SPLIT LETDOWN**



**SECTION A-A CURB RAMP**

PLOTTED: 19-NOV-20

**SPLIT LETDOWN AT INTERSECTION WITH BOULEVARD**

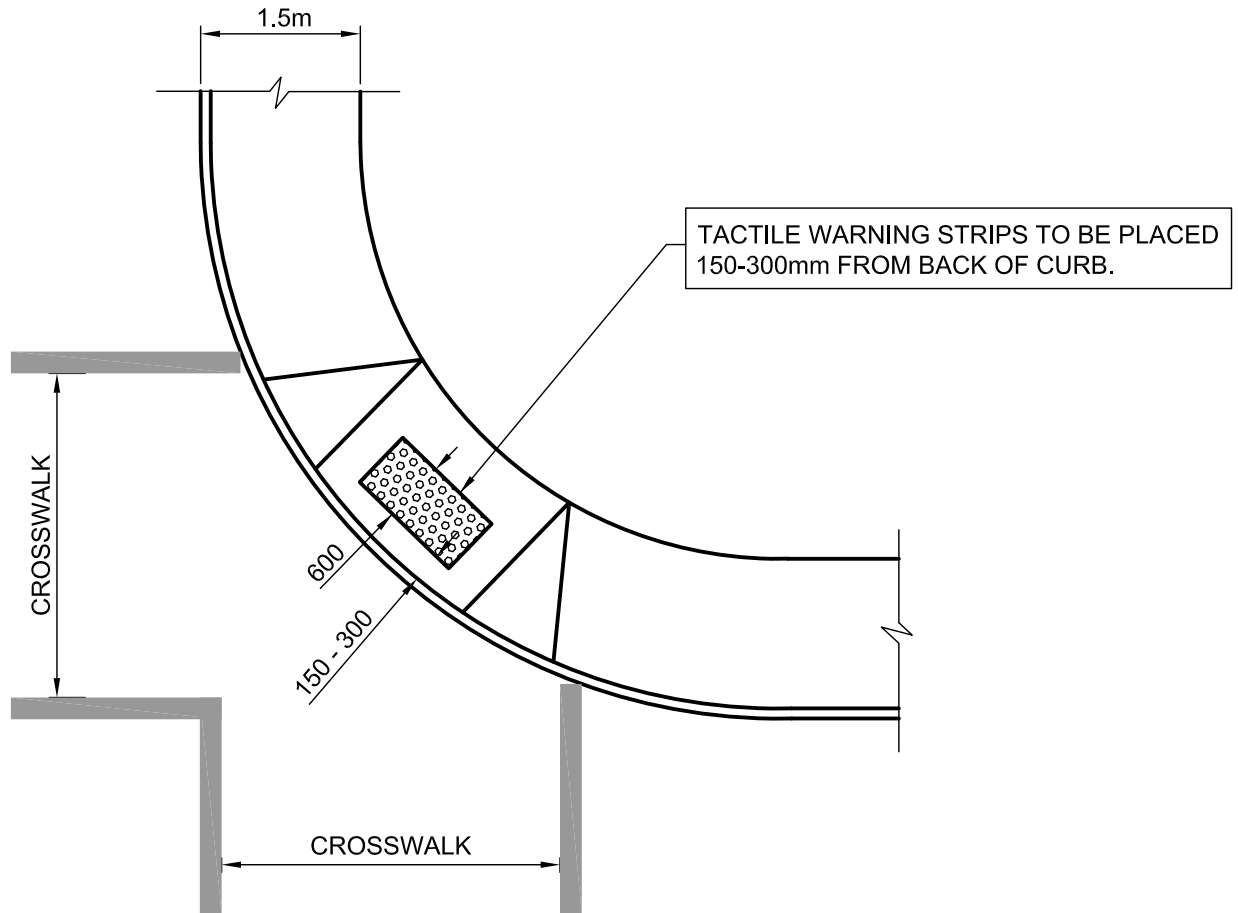
DATE: NOV/2020

DRAWN: GA

SCALE: N.T.S.

DRAWING NUMBER:

**COQ-C9A**



**NOTES:**

- 1) TACTILE TILES SHALL BE CAST IN PLACE OR SURFACE MOUNTED AND SHALL BE MADE OF VITRIFIED POLYMER COMPOSITE (VPC) OR HOMOGENOUS GLASS AND CARBON FIBRE REINFORCED COMPOSITE. THE TILES SHALL BE AN EPOXY POLYMER COMPOSITION WITH ULTRA VIOLET STABILIZED COATING EMPLOYING ALUMINUM OXIDE PARTICLES IN THE TRUNCATED DOMES. TO ACHIEVE THE DESIRED STRUCTURAL INTEGRITY THE COMPOSITE MUST CONTAIN A MINIMUM OF THREE FULL SHEETS OF FIBREGLASS AND ONE WOVEN SHEET. THE TILE SHALL INCORPORATE AN IN-LINE DOME PATTERN OF TRUNCATED DOMES 5.1mm (0.2") IN HEIGHT, 22.9mm (0.9") DIAMETER AT THE BASE AND 10.2mm (0.4") DIAMETER AT TOP OF DOME SPACED 59.7mm (2.35") NOMINAL AS MEASURED ON A DIAGONAL AND 43.2mm (1.70") NOMINAL AS MEASURED SIDE BY SIDE EXCEPT FOR RADIUS TILE. FOR WHEELCHAIR SAFETY THE FIELD AREA SHALL CONSIST OF A NON-SLIP SURFACE WITH A MINIMUM OF 40-90° RAISED POINTS 1.1mm (0.045") HIGH PER SQUARE INCH. THE TILE SHALL BE SOUND AMPLIFYING.
- 2) SEE COQUITLAM APPROVED PRODUCTS LIST FOR ACCEPTABLE TACTILE SUPPLIERS.
- 3) COLOUR: FEDERAL YELLOW PER U.S. FEDERAL STANDARD 595B, TABLE IV, COLOR NO.335.
- 4) SIZE: 600mm x 1200mm

PLOTTED: 19-Feb-16

ALL DIMENSIONS IN METRES.

**TACTILE STRIP PLACEMENT**

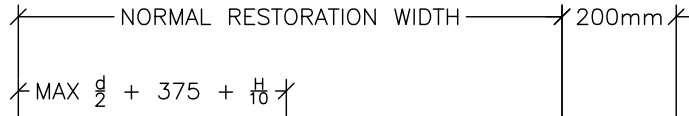
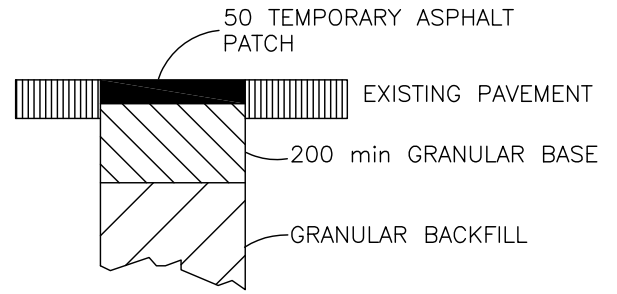
DATE: NOV/2015  
 DRAWN:  
 SCALE: N.T.S.

DRAWING NUMBER:  
**COQ-C9E**

ALL DIMENSIONS IN MILLIMETRES

$d$  = PIPE DIA IN mm

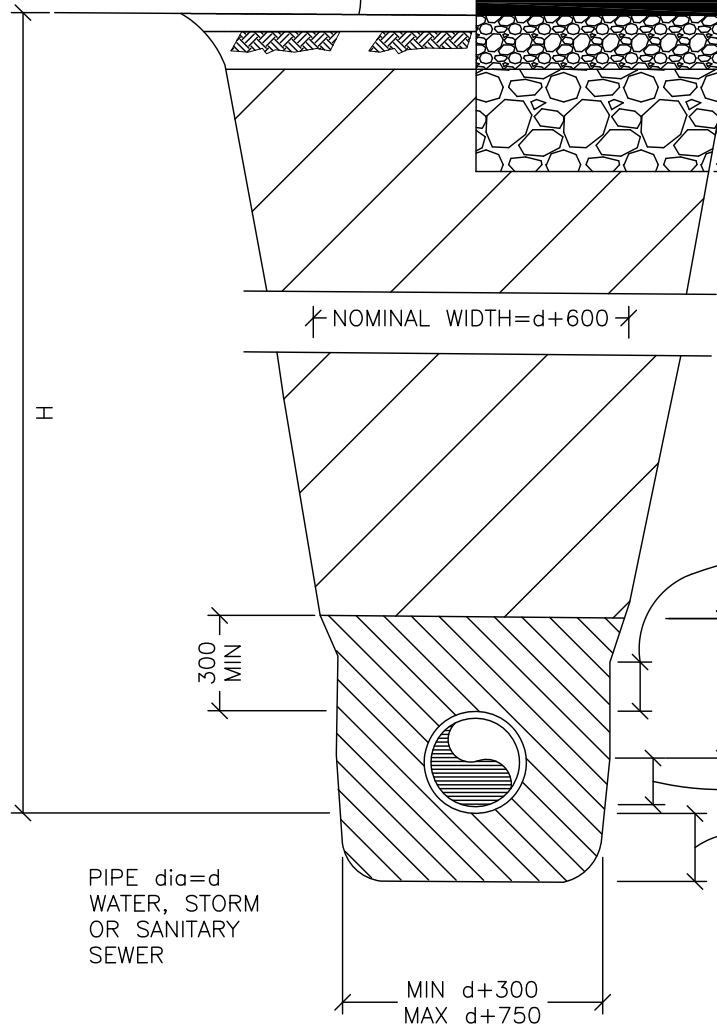
$H$  = TRENCH DEPTH IN mm



**TEMPORARY PATCH**

100 TOP SOIL AND SEED TO MATCH EXISTING

MIN DEPTH OF ASPHALT TO MATCH EXISTING



ASPHALT KEY 35 MIN.

100 - 19 MINUS CRUSHED GRANULAR BASE GRAVEL COMPACTED TO 95% MODIFIED PROCTOR

200 SELECT GRANULAR SUB-BASE GRAVEL COMPACTED TO 95% MODIFIED PROCTOR

NOMINAL WIDTH =  $d + 600$

MACHINE PLACED BACKFILL WELL TAMPED IN 300 LIFTS FREE OF ROOTS - NO STONES GREATER THAN 150

NATIVE MATERIAL UNLESS OTHERWISE SPECIFIED

VERTICAL TRENCH TO EXTEND MIN 100 ABOVE TOP OF PIPE

SELECT BACKFILL - WELL COMPACTED - MAX SIZE SHALL NOT EXCEED 25 (75 FOR DUCTILE) BUT WITH NO STONES OF THIS SIZE ADJACENT TO THE PIPE

$\frac{d}{2} + 25$

100 min BEDDING UNDER PIPE  
150 min IN ROCK EXCAVATION

PIPE dia =  $d$   
WATER, STORM  
OR SANITARY  
SEWER

MIN  $d + 300$   
MAX  $d + 750$

PLOTTED: 16-Oct-14

**TRENCH DETAILS FOR STANDARD SECTION**

DATE:	JUNE/2014
DRAWN:	REY
SCALE:	N.T.S.

DRAWING NUMBER:

**COQ-G4**

PLASTIC CAP

SIGN MOUNTING CLAMP (GLOBE FOUNDRIES LTD. TYPE HSI-2 3/8 OR APPROVED ALTERNATIVE). ALL BOLTS, NUTS AND WASHERS SHALL BE STAINLESS STEEL.  
FOR NUMBER OF CLAMPS SEE DETAIL RIGHT.

SIGN HEIGHT	NUMBER OF BOLTS
UP TO 750 HIGH	2
751 TO 1260 HIGH	3

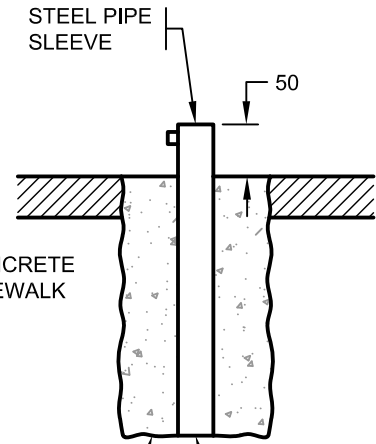
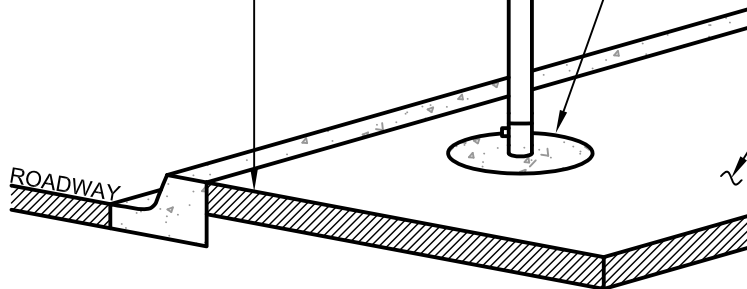
ALUMINUM SIGNS

PREDRILLED HOLES IN ALUMINUM SIGN

2 3/8" (O.D.) ASTM A-53 GRADE B SCHEDULE 40 GALVANIZED STEEL PIPE (LENGTH OF PIPE VARIES TO SUIT SIGN)

SIGN MOUNTING HEIGHTS VARY (SEE NOTE 2)

CORE DRILL 200mmØ x 375mm DEEP HOLE IN CONCRETE SIDEWALK. INSTALL PIPE SLEEVE IN CONCRETE. TROWEL FINISH TOP OF CONCRETE FLUSH WITH FINISHED GRADE.



IN CONCRETE SIDEWALK OR MEDIAN ONLY

BACKFILL HOLE WITH CONCRETE | MAINTAIN HOLE FOR DRAINAGE

SLEEVE INSTALLATION DETAIL

NOTES

1. CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 30 MPa PRIOR TO POST INSTALLATION.
2. SIGNS ARE TO BE MOUNTED AT A HEIGHT OF 2.2m FROM THE FINISHED SURFACE UNLESS OTHERWISE NOTED ON THE CONTRACT DRAWINGS.

WHERE INSTALLED IN GRAVEL SHOULDER OR ASPHALT ISLANDS, INSTALL POST ON CONCRETE BASE AS PER COQUITLAM STANDARD DETAIL DRAWING SS-E11.2

PLOTTED: 19-Feb-16

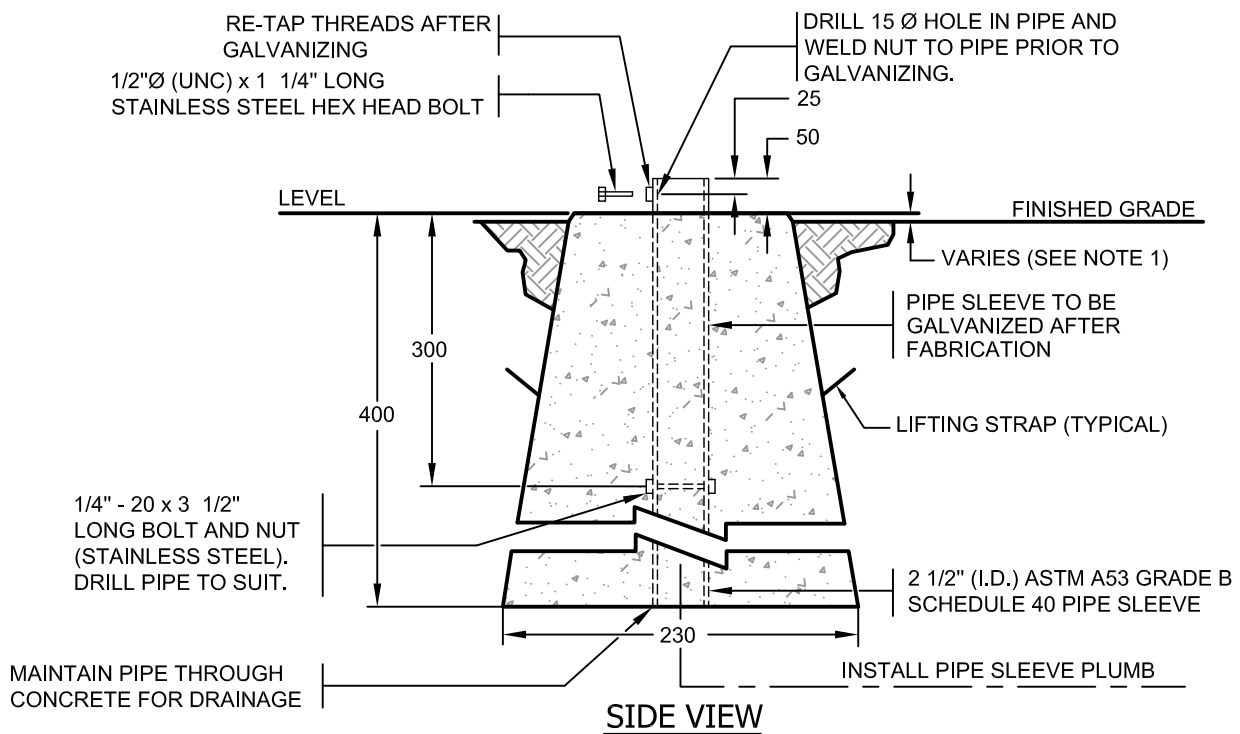
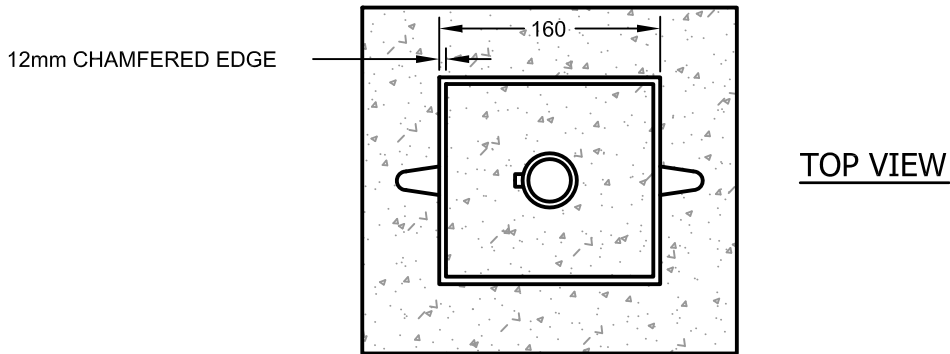
ALL DIMENSIONS IN METRES.

**ROUND STEEL SIGN POST  
INSTALLATION DETAILS**

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

DRAWING NUMBER:  
**SS-E11.1**





BASE TYPE	APPLICATION	APPROXIMATE MASS	VOLUME OF CONCRETE
a	SINGLE POST SIGNS IN PAVED ISLANDS OR CONCRETE SIDEWALKS	37 kg	0.015 m <sup>3</sup>

### NOTES

1. BASE SHALL BE INSTALLED 25mm ABOVE FINISHED GRADE EXCEPT WHERE INSTALLED IN SIDEWALK IT SHALL BE FLUSH WITH TOP OF SIDEWALK WITH NO CHAMFERED EDGE.

PLOTTED: 19-Feb-16

ALL DIMENSIONS IN METRES.

TRAPEZOIDAL CONCRETE BASE FOR ROUND STEEL SIGN POST (PRECAST)

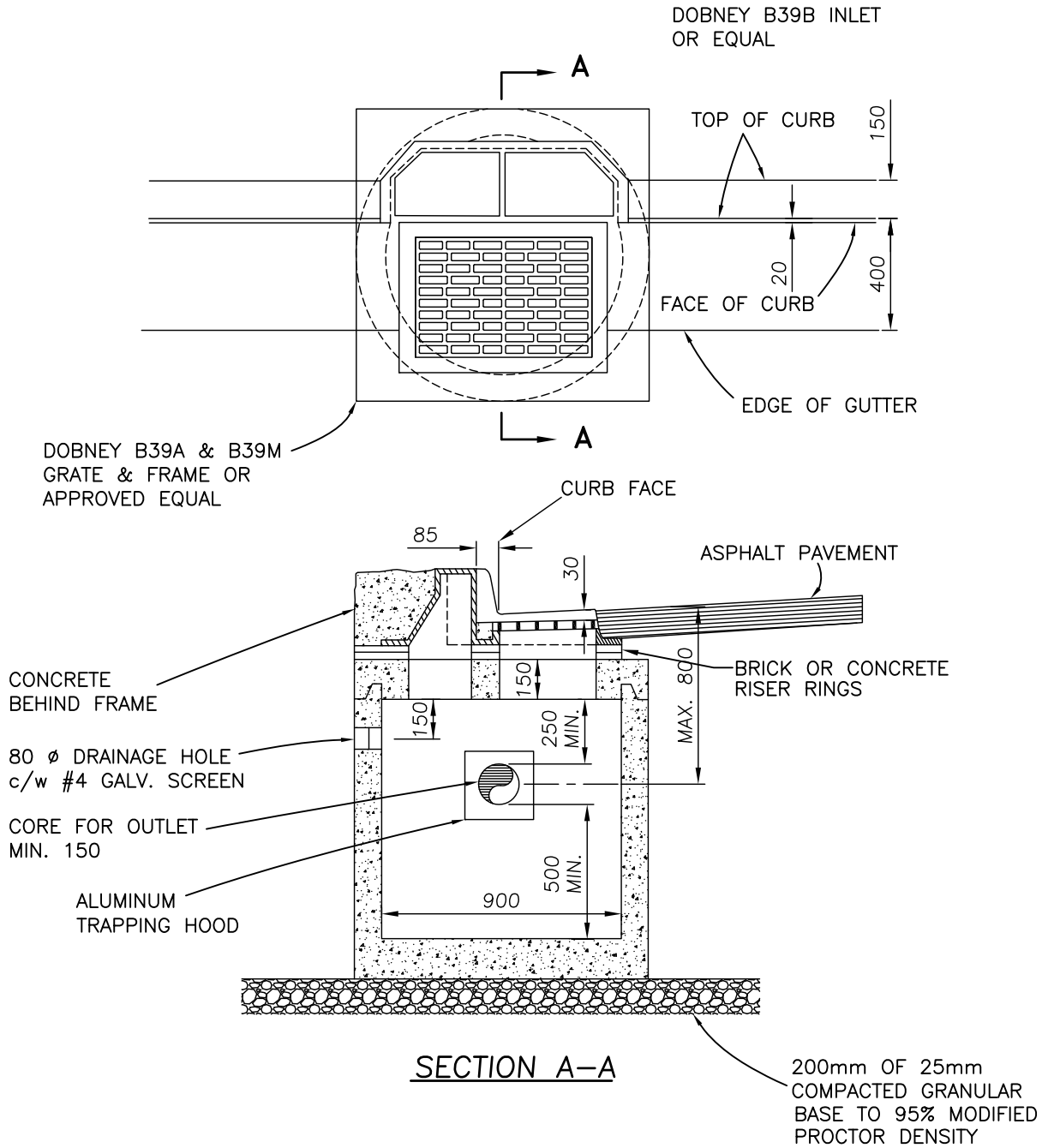
DATE: NOV/2015

DRAWN:

SCALE: N.T.S.

DRAWING NUMBER:

SS-E11.2



- NOTES:
1. REFER TO CONTRACT DRAWINGS, SECTION 33 44 01 FOR DETAILED SPECIFICATIONS.
  2. PLACE 0.05 cu m DRAIN ROCK ADJACENT TO DRAINAGE HOLE WHEN BACKFILLING.

PLOTTED: 19-Nov-18

**SIDE INLET CATCH BASIN ASSEMBLY**

DATE: AUGUST/2014  
 DRAWN: REY  
 SCALE: N.T.S.

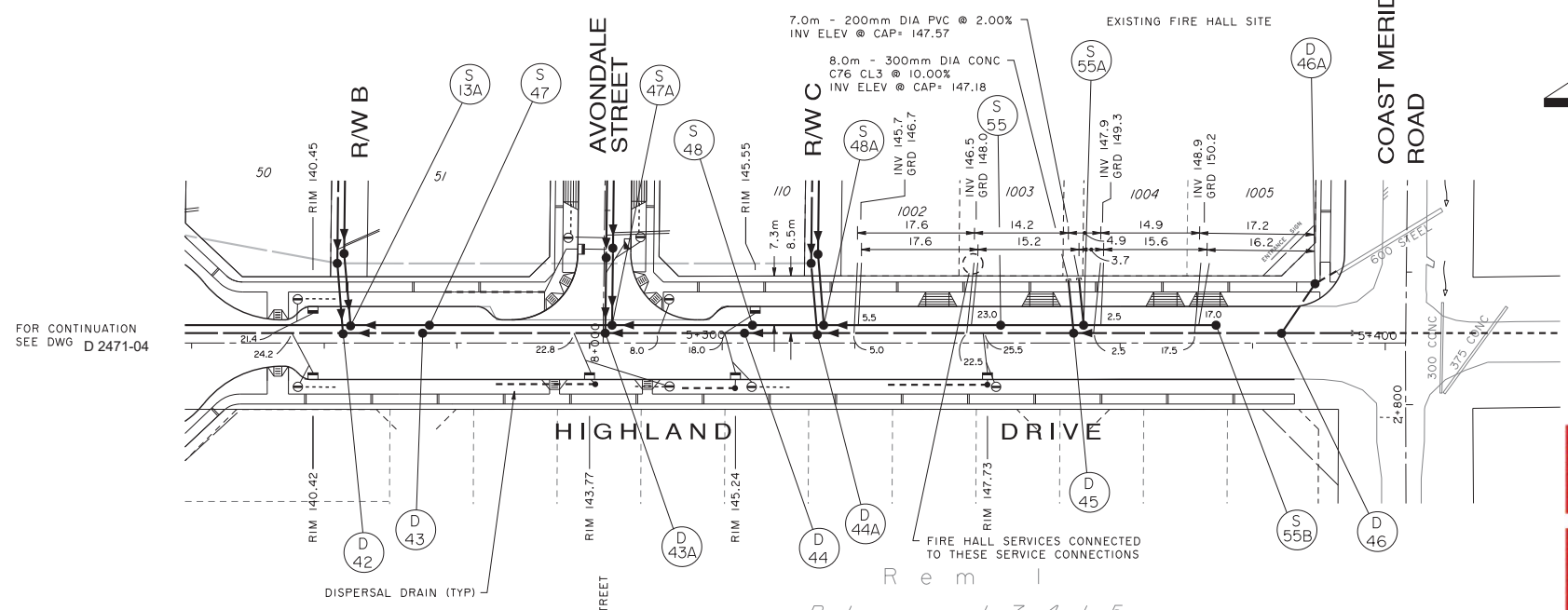
DRAWING NUMBER:  
**COQ-S11A**

# ***Appendix C – As-Built Record Drawings***

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



Plan 5  
Plan 45412



- NOTES:**
- UNLESS OTHERWISE INDICATED STORM SERVICE CONNECTIONS ARE 150mm DIAMETER PVC
  - UNLESS OTHERWISE INDICATED SANITARY SERVICE CONNECTIONS ARE 100mm DIAMETER PVC
  - ALL PVC PIPE MANUFACTURED BY ROYAL PIPE SYSTEMS
  - ALL CONCRETE PIPE MANUFACTURED BY LANGLEY CONCRETE GROUP

- C. 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 DIA PVC, DR 28
    - DOUBLE CB - 200mm DIA PVC, DR 35
    - MANHOLES - PRECAST REINFORCED CONCRETE
      - 1050mm DIA MH - MAINS UP TO 450mm DIA
      - 1200mm DIA MH - MAINS 525mm AND 600mm IN DIA
      - 1350mm DIA MH - MAINS 675mm AND 750mm IN DIA
      - 1500mm DIA MH - MAINS 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 COO-S16.
  - STANDARD CATCHBASINS SHALL BE INSTALLED AS PER MMCD STANDARD DRAWING S11. SIDE INLET CATCHBASINS SHALL BE INSTALLED AS PER CITY OF COQUITLAM STANDARD DRAWING COO-S11A. CATCHBASIN RIM ELEVATIONS FOR STANDARD AND SIDE INLET CATCHBASINS SHALL BE SET 30mm BELOW FINISHED GRADE.
  - INSPECTION CHAMBERS SHALL BE INSTALLED AS PER MMCD STANDARD DRAWING S9 FOR CONNECTIONS UP TO 200mm AND AS PER MMCD STANDARD DRAWING S10 FOR CONNECTIONS GREATER THAN 200mm.
  - ROAD SUBGRADE DRAINS SHALL BE INSTALLED WHERE DIRECTED BY THE CITY, OR THE ENGINEER, AS PER CITY OF COQUITLAM STANDARD DRAWING COO-C3A.
  - STORM CONNECTION TO BE 150mm DIA PVC UNLESS OTHERWISE NOTED.
  - TRENCHING SHALL BE AS PER CITY OF COQUITLAM STANDARD DRAWING COO-G4.

**IMPORTANT:**  
HYDRO, GAS AND TELEPHONE ARE NOT SHOWN ON THE CITY OF COQUITLAM AS-BUILTS OR RECORD DRAWINGS. CONTACT BC HYDRO, TERASEN GAS AND TELUS FOR CURRENT AS-BUILTS PERTAINING TO THESE UTILITIES.

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

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

- 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 COO-S16.
  - INSPECTION CHAMBERS SHALL BE INSTALLED FOR ALL CONNECTIONS AS PER MMCD STANDARD DRAWING S9.
  - SANITARY CONNECTION TO BE 100mm DIA PVC UNLESS OTHERWISE NOTED.
  - TRENCHING SHALL BE AS PER CITY OF COQUITLAM STANDARD DRAWING COO-G4.

FOR CONTINUATION SEE DWG D 2471-04

FOR CONTINUATION SEE DWG D 2471-04



**• D 2471-05  
S 1841-05**

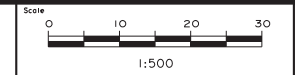
STATION	PIPE LENGTH	DIAMETER	MATERIAL	CL	SL	INVERT	GRD	MANHOLE	REMARKS
5+240	11.4m	200mm	DIA PVC DR35	CL3	6.57%	N 139.15 W 139.10	E 139.13	S 47	
5+260	27.2m	200mm	DIA PVC DR35	CL3	7.28%	N 141.93 W 141.88	E 141.91	S 48	
5+280	21.1m	200mm	DIA PVC DR35	CL3	7.06%	N 143.42 W 143.40	E 143.43	S 48A	
5+300	8.9m	200mm	DIA PVC DR35	CL3	10.00%	N 144.37 W 144.32	E 144.35	S 55	
5+320	26.8m	200mm	DIA PVC DR35	CL3	7.99%	N 146.50 W 146.49	E 146.50	S 55A	
5+340	11.9m	200mm	DIA PVC DR35	CL3	6.97%	N 147.35 W 147.33	E 147.34	S 55B	
5+360	19.3m	200mm	DIA PVC DR35	CL3	4.76%	N 148.24 W 148.24	E 148.24	D 46	
5+400	10.6m	675mm	DIA CONC C76 CL3	CL3	4.80%	N 147.35 W 147.35	E 147.39	D 46	
5+420	30.8m	675mm	DIA CONC C76 CL3	CL3	8.08%	N 138.34 W 138.16	E 138.17	D 42	
5+440	31.5m	200mm	DIA PVC DR35	CL3	6.51%	N 139.15 W 139.13	E 139.13	D 43	
5+460	26.7m	675mm	DIA CONC C76 CL3	CL3	7.42%	N 141.16 W 141.01	E 141.01	D 43A	
5+480	21.0m	675mm	DIA CONC C76 CL3	CL3	7.04%	N 143.77 W 143.40	E 143.40	D 44	
5+500	9.2m	675mm	DIA CONC C76 CL3	CL3	8.04%	N 145.50 W 145.50	E 145.26	D 44A	
5+520	38.7m	675mm	DIA CONC C76 CL3	CL3	7.33%	N 146.35 W 146.02	E 146.03	D 45	
5+540	31.4m	675mm	DIA CONC C76 CL3	CL3	4.45%	N 146.03 W 147.35	E 147.39	D 45	
5+560	3.4m	675mm	DIA CONC C76 CL3	CL3	4.45%	N 147.35 W 147.35	E 147.39	D 45	
5+580	10.6m	675mm	DIA CONC C76 CL3	CL3	4.80%	N 147.35 W 147.35	E 147.39	D 45	
5+600	10.3m	675mm	DIA CONC C76 CL3	CL3	9.32%	N 139.15 W 139.10	E 139.13	D 42	

**InterCAD**  
CONSULTING ENGINEERS

NO.	DATE	REVISIONS	BY	APPROVED
2	08-03-11	As Constructed	J.R.	
1	07-06-14	Added Temporary Storm Sewer West of RW C	B.E.	
E	07-07-06	Issued For Construction	J.R.	
D	07-04-03	Revised As Per City Comments On Third Submission	D.Y.	
C	07-02-23	Third Submission for City Approval	D.Y.	
B	06-10-27	Second Submission for City Approval	D.Y.	
A	06-07-07	First Submission for City Approval	D.Y.	

Client: **Wesbild**

Project: **Upper Hyde Creek Neighbourhood**



Title: **Storm and Sanitary Sewers**

Design: **R. SKAPSKI**  
Drawn: **D. YOUNG**

Pier Date: **5/8/2009**  
Plot Time: **12:02:12 PM**  
Drawing Number: **AC45-D8-205**  
Revision: **2**



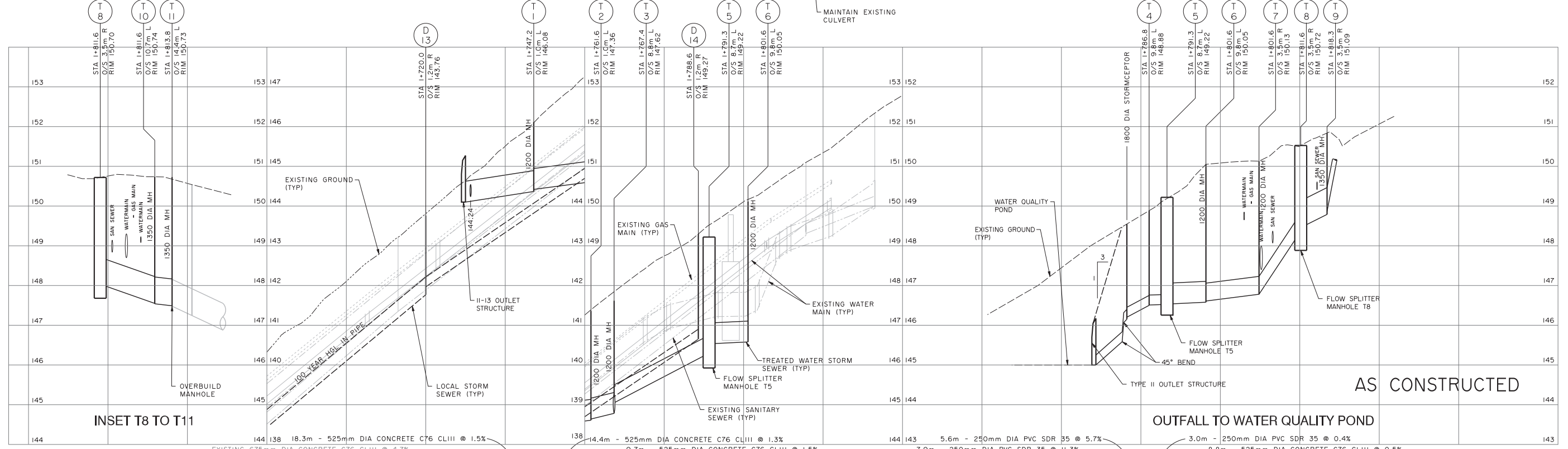
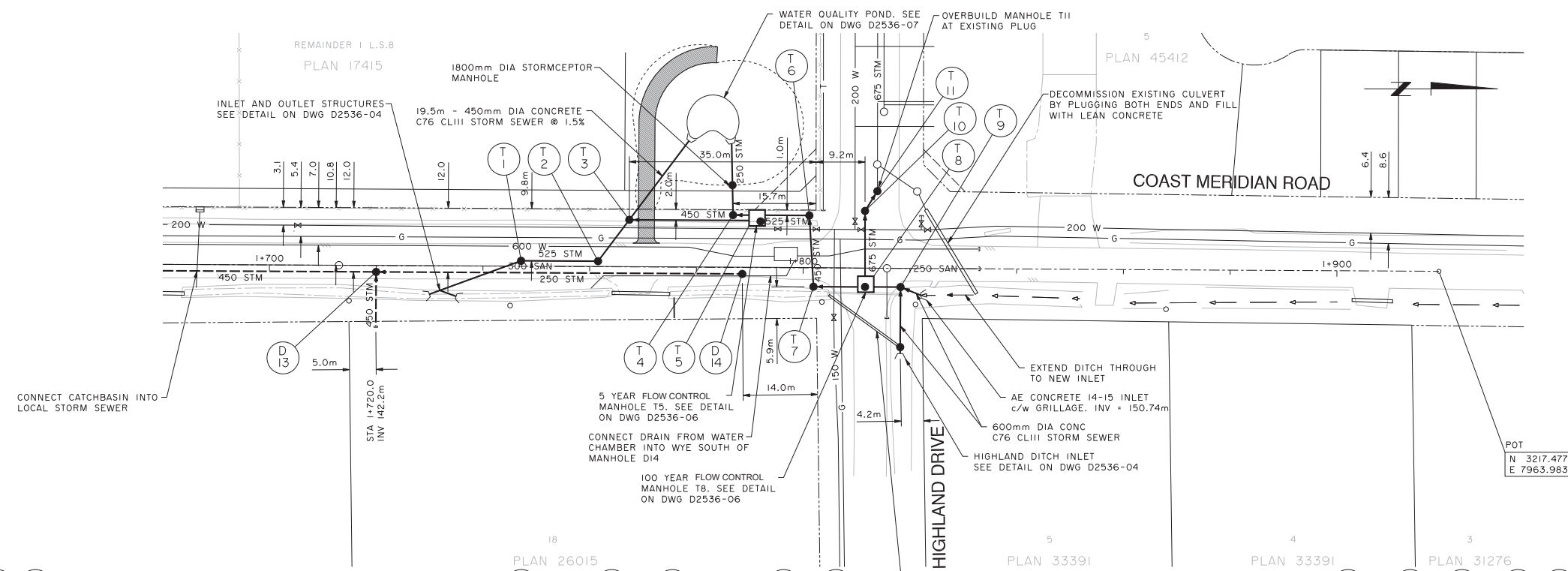


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**NOTE:**  
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- NOTES:**
1. ALL MANHOLES ARE 1050mm DIAMETER UNLESS OTHERWISE NOTED.
  2. CONTRACTOR TO COORDINATE WITH OWNERS OF PROPERTIES FRONTING COAST MERIDIAN ROAD TO ENSURE THAT DISRUPTIONS TO ACCESS AND MUNICIPAL SERVICES ARE MINIMIZED.
  3. CONTRACTOR TO REINSTATE DRIVEWAYS TO MATCH EXISTING.



Station	Structure / Pipe	Material / Size	Length	Slope	Notes
1+680	EXISTING	675mm DIA CONCRETE C76 CLIII		4.7%	
1+700	NEW	4.4m - 675mm DIA CONCRETE C76 CLIII @ 1.0%	4.4m	1.0%	
1+700	NEW	8.6m - 450mm DIA CONCRETE C76 CLIII @ 8.4%	8.6m	8.4%	
1+720	NEW	12.8m - 675mm DIA CONCRETE C76 CLIII @ 3.4%	12.8m	3.4%	
1+740	NEW	68.6m - 250mm DIA PVC DR 35 @ 6.8%	68.6m	6.8%	
1+760	NEW	14.4m - 525mm DIA CONCRETE C76 CLIII @ 1.3%	14.4m	1.3%	
1+780	NEW	9.7m - 525mm DIA CONCRETE C76 CLIII @ 1.5%	9.7m	1.5%	
1+800	NEW	8.3m - 525mm DIA CONCRETE C76 CLIII @ 0.5%	8.3m	0.5%	
1+820	NEW	7.9m - 250mm DIA PVC SDR 35 @ 11.3%	7.9m	11.3%	
1+840	NEW	13.3m - 450mm DIA CONCRETE C76 CLIII @ 1.3%	13.3m	1.3%	
1+840	NEW	8.3m - 450mm DIA CONCRETE C76 CLIII @ 6.0%	8.3m	6.0%	
1+840	NEW	5.1m - 675mm DIA CONCRETE C76 CLIII @ 4.9%	5.1m	4.9%	
1+840	NEW	8.8m - 525mm DIA CONCRETE C76 CLIII @ 0.5%	8.8m	0.5%	
1+840	NEW	3.0m - 250mm DIA PVC SDR 35 @ 0.4%	3.0m	0.4%	

**InterCAD**  
CONSULTING ENGINEERS

City of Coquitlam

Coast Meridian Road  
Drainage Improvements

Scale: 1:500

Design: G. WOOD  
Drawn: R. ZECHEL

Storm Sewer  
Plan and Profile

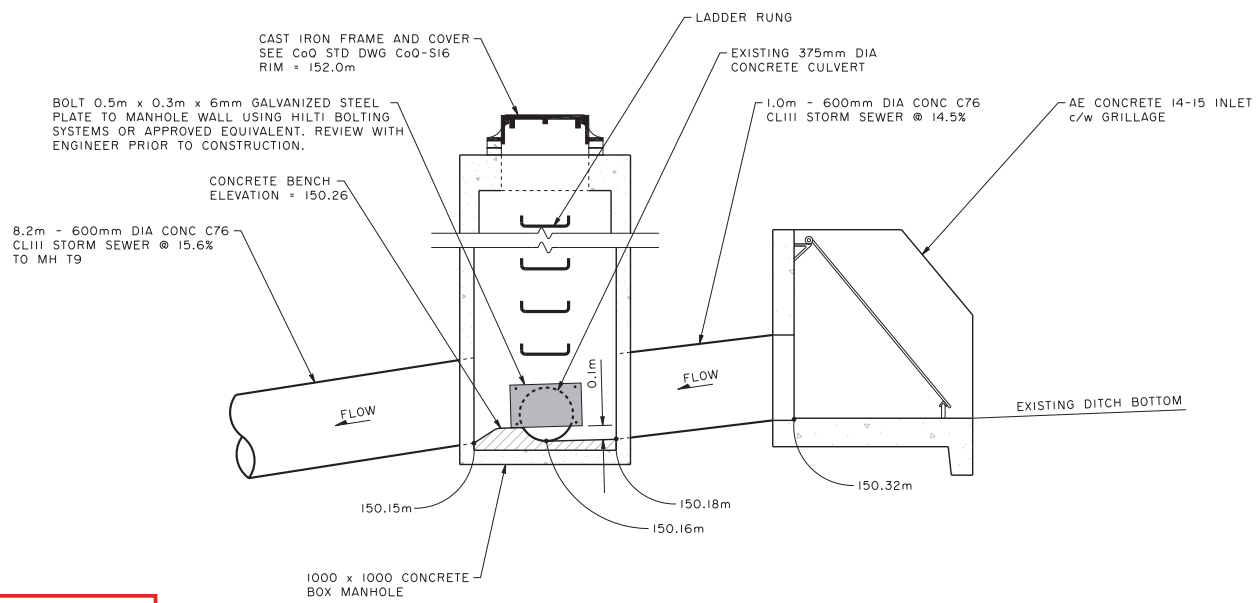
Drawing Number: **D2536-03**

NO.	DATE	AS CONSTRUCTED	REVISIONS	BY	APPROVED
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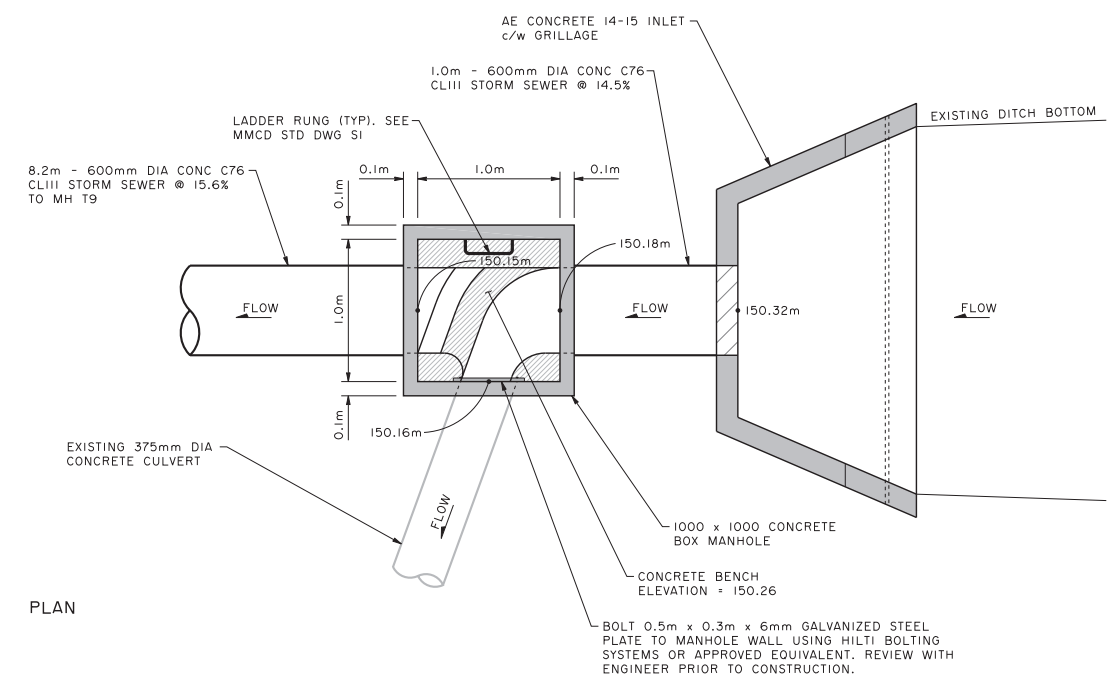
Pier Date: 15 MAY 12

Plot Time: 09:31:04

Revision: **1**



PROFILE  
**HIGHLAND DITCH INLET DETAIL**  
SCALE 1:25

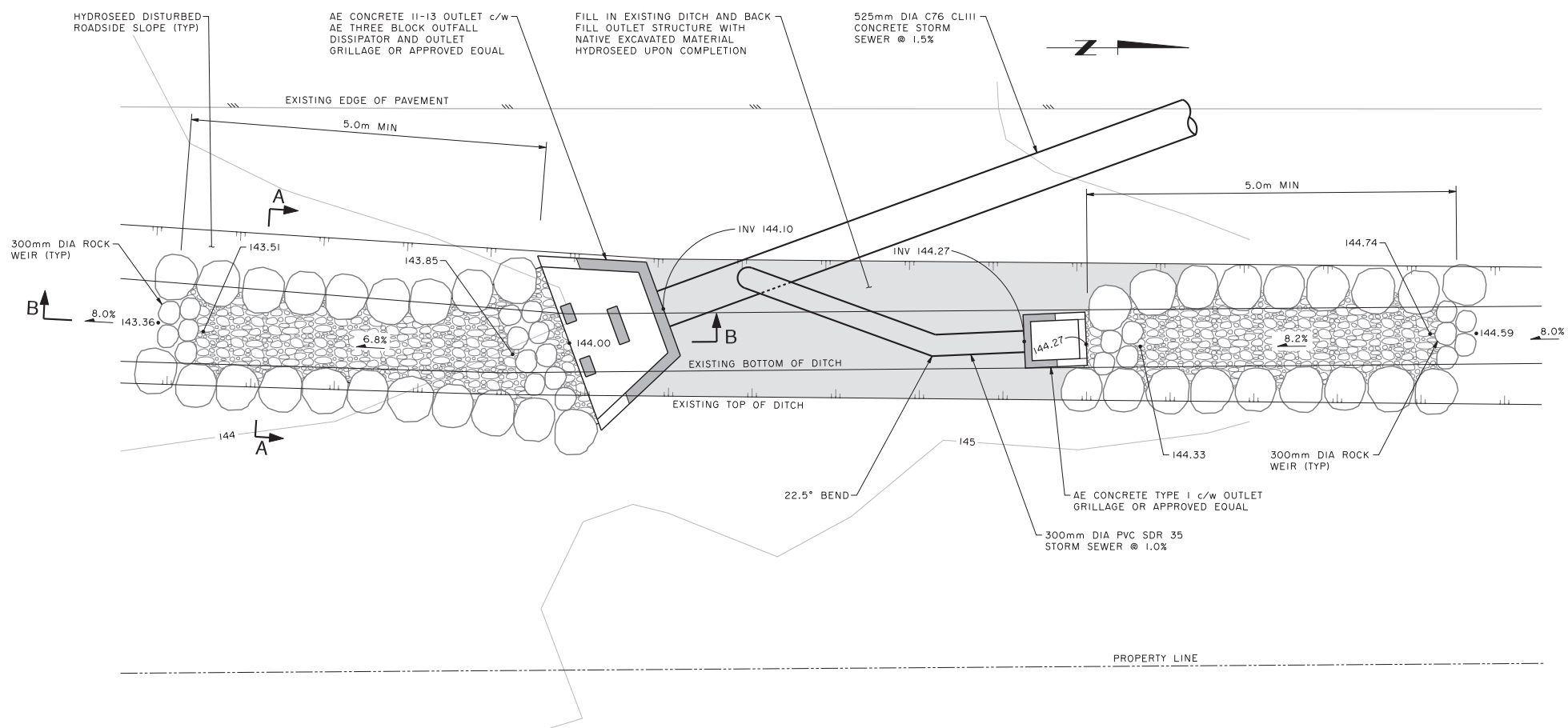


PLAN

**IMPORTANT:**  
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**WATER QUALITY POND OUTFALL TO EXISTING DITCH**  
SCALE 1:40

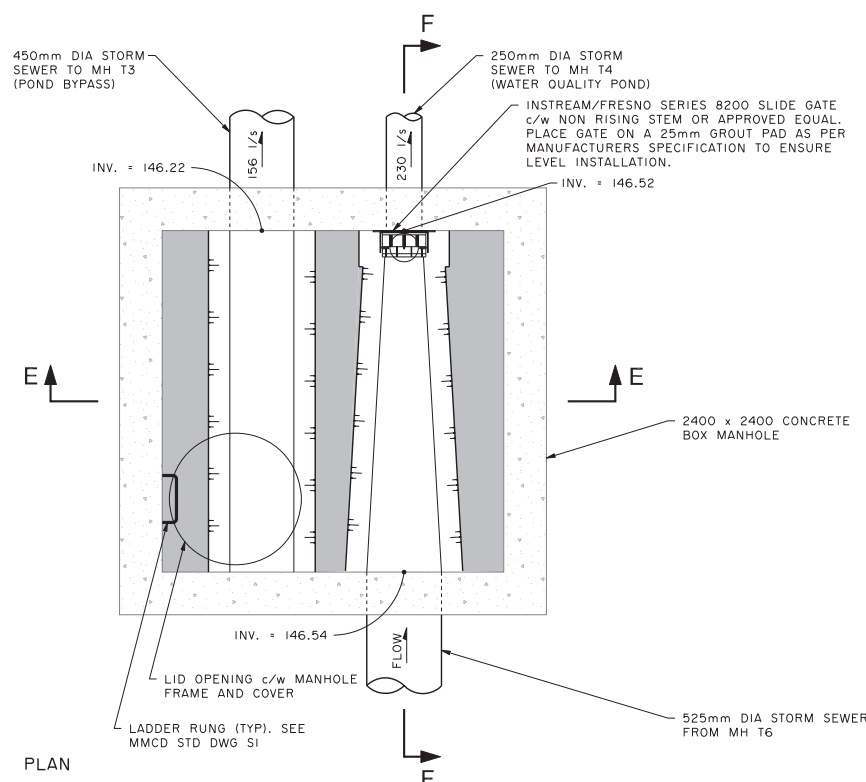
AS CONSTRUCTED

**InterCAD**  
CONSULTING ENGINEERS

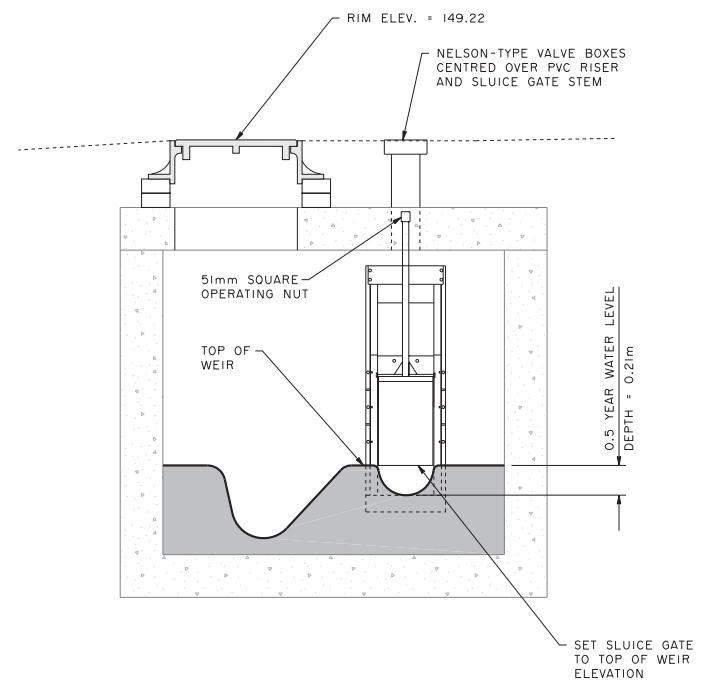
NO.	DATE	AS CONSTRUCTED	REVISIONS	BY	APPROVED
1	05-30-12	AS CONSTRUCTED		RZ	

Client	City of Coquitlam		Scale	AS SHOWN		Title	Typical Sections	
Project	Coast Meridian Road Drainage Improvements		Design	G. WOOD	Drawn	R. ZECHEL	Drawing Number	D2536-04
			Plot Date	15 MAY 12	Plot Time	09:31:31	Revision	1

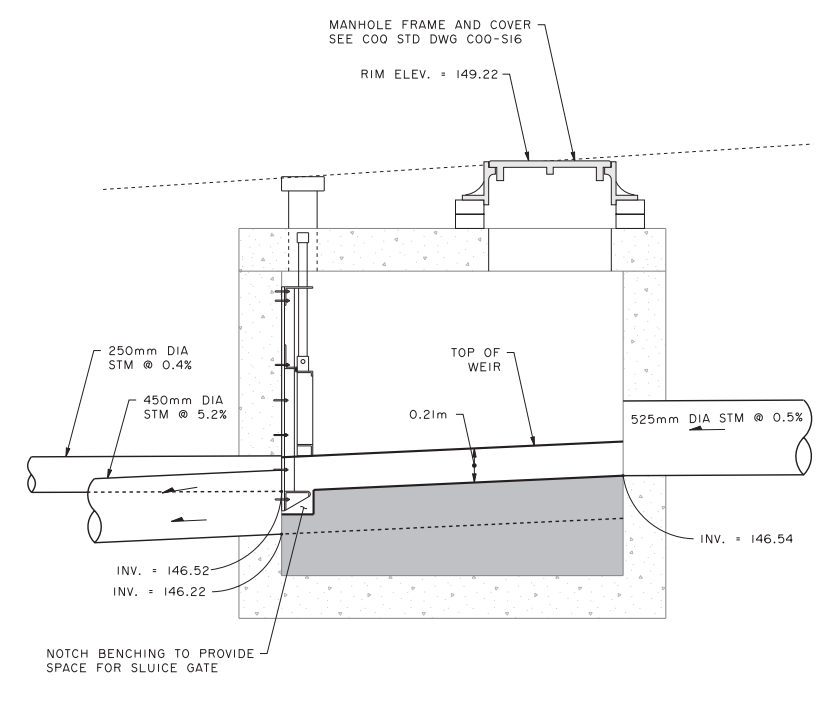




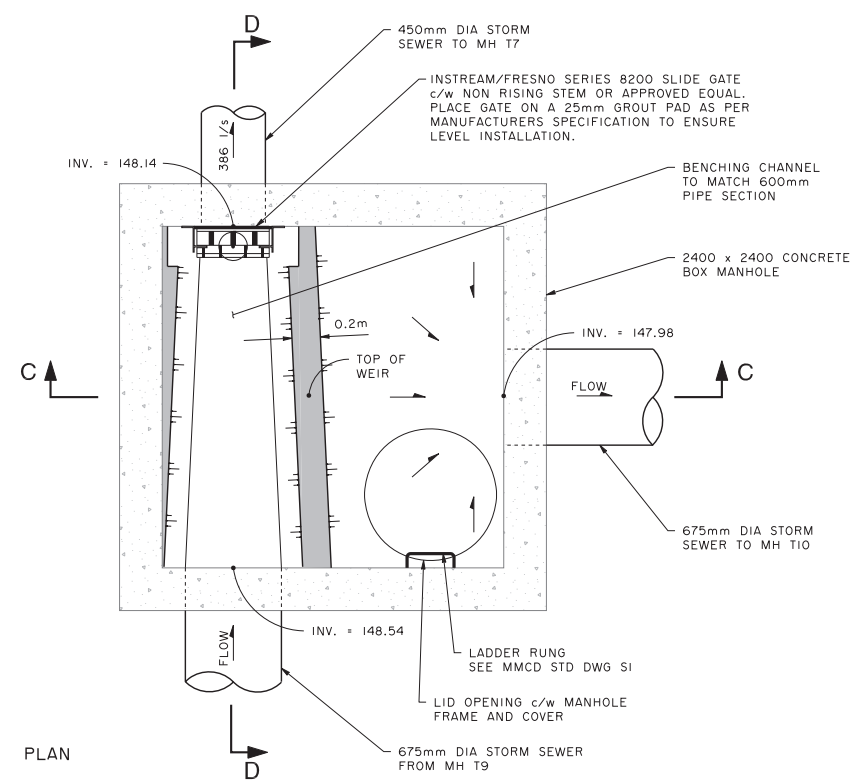
PLAN  
5 YEAR FLOW CONTROL MANHOLE T5  
SCALE 1:25



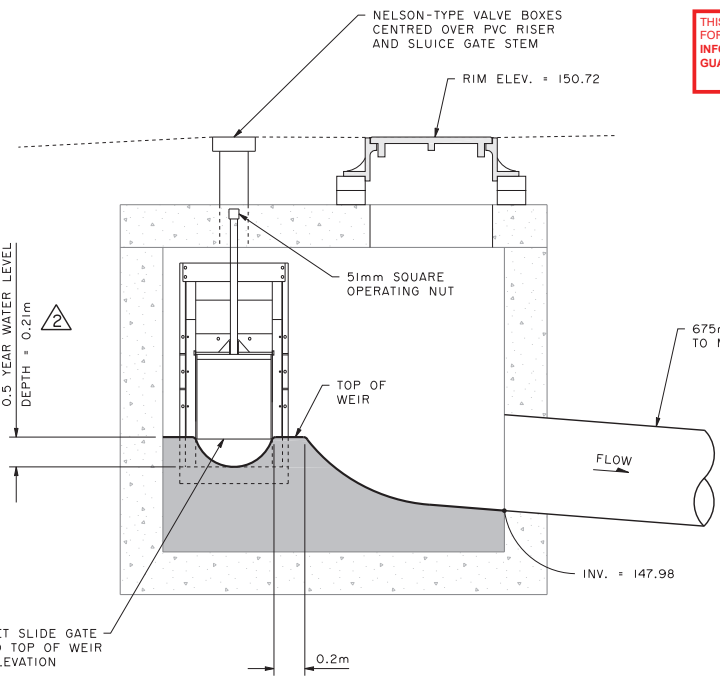
SECTION E



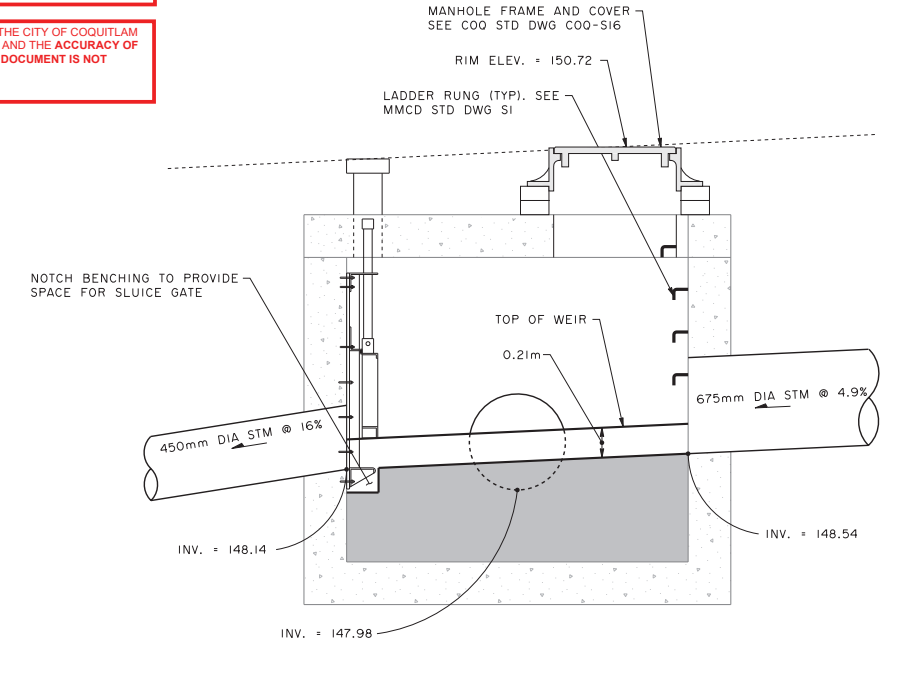
SECTION F



PLAN  
100 YEAR FLOW CONTROL MANHOLE T8  
SCALE 1:25



SECTION C



SECTION D

**IMPORTANT:**  
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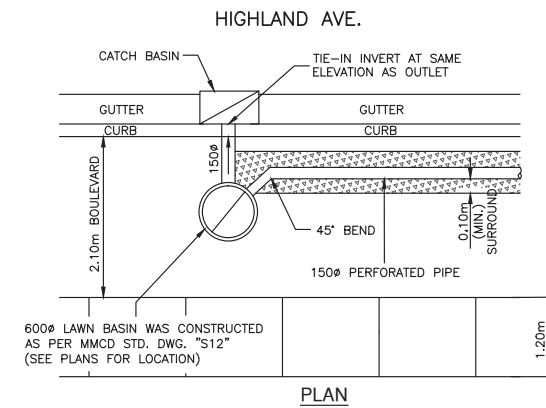
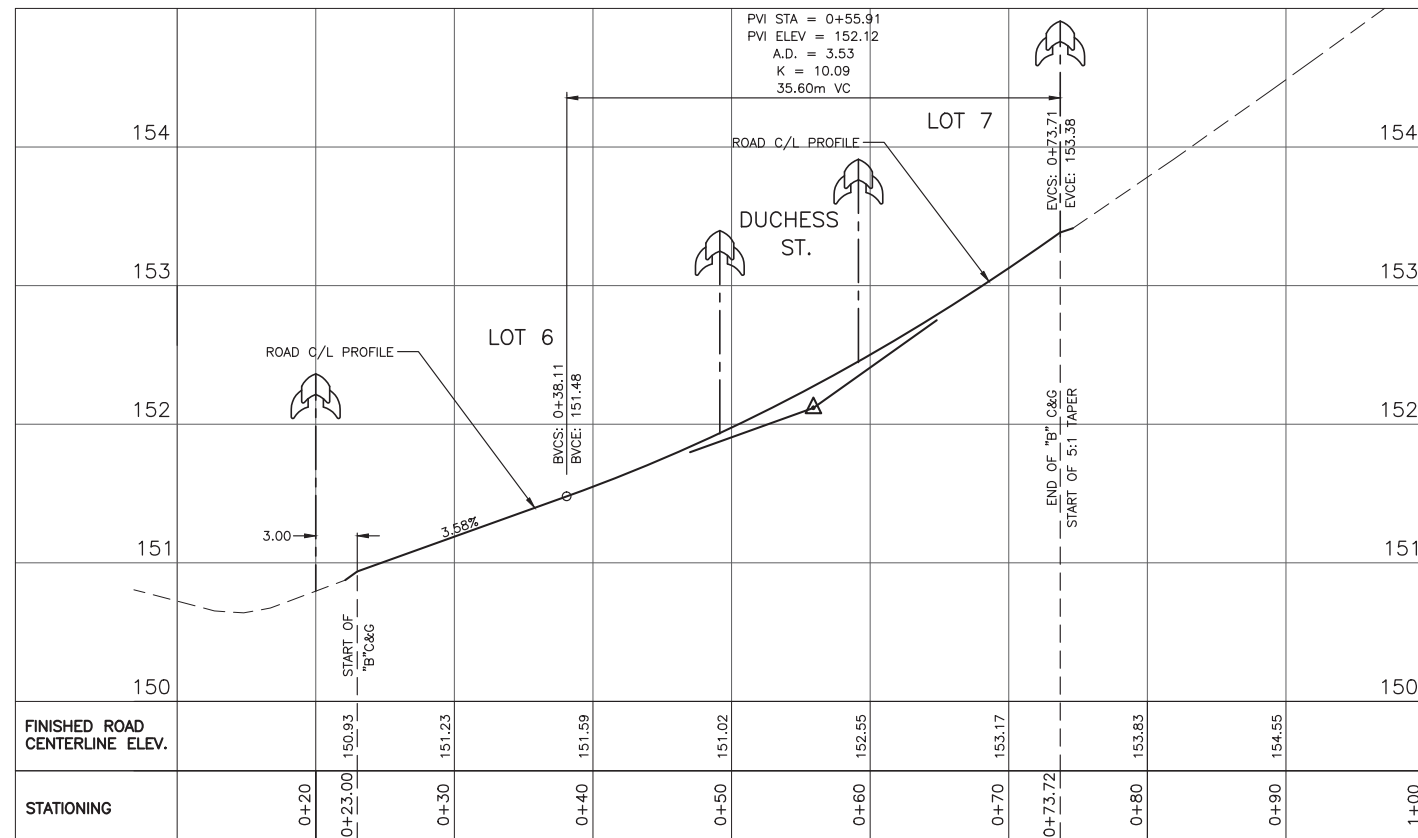
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AS CONSTRUCTED

NO.	DATE	REVISIONS	BY	APPROVED
1	03-30-12	AS CONSTRUCTED	RZ	

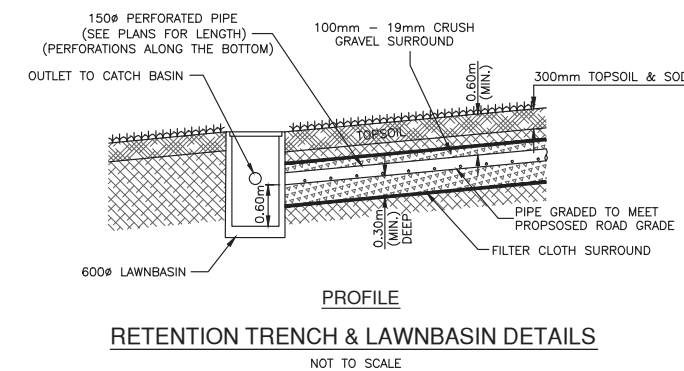
Client	City of Coquitlam		Scale	AS SHOWN		Title		Construction Details	
Project	Coast Meridian Road Drainage Improvements		Design	G. WOOD	Drawn	R. ZECHEL		Drawing Number	D2536-06
			Plot Date	15 MAY 112	Plot Time	09:32:04		Revision	1



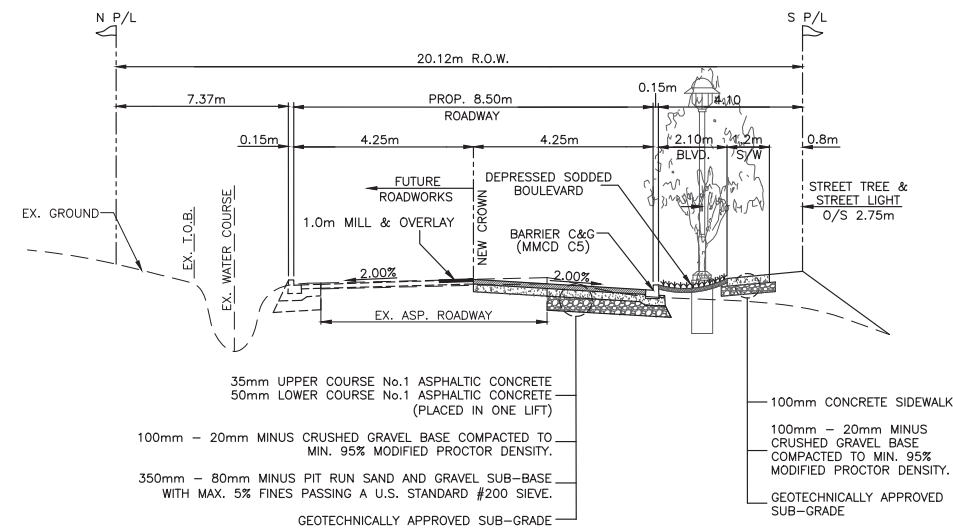
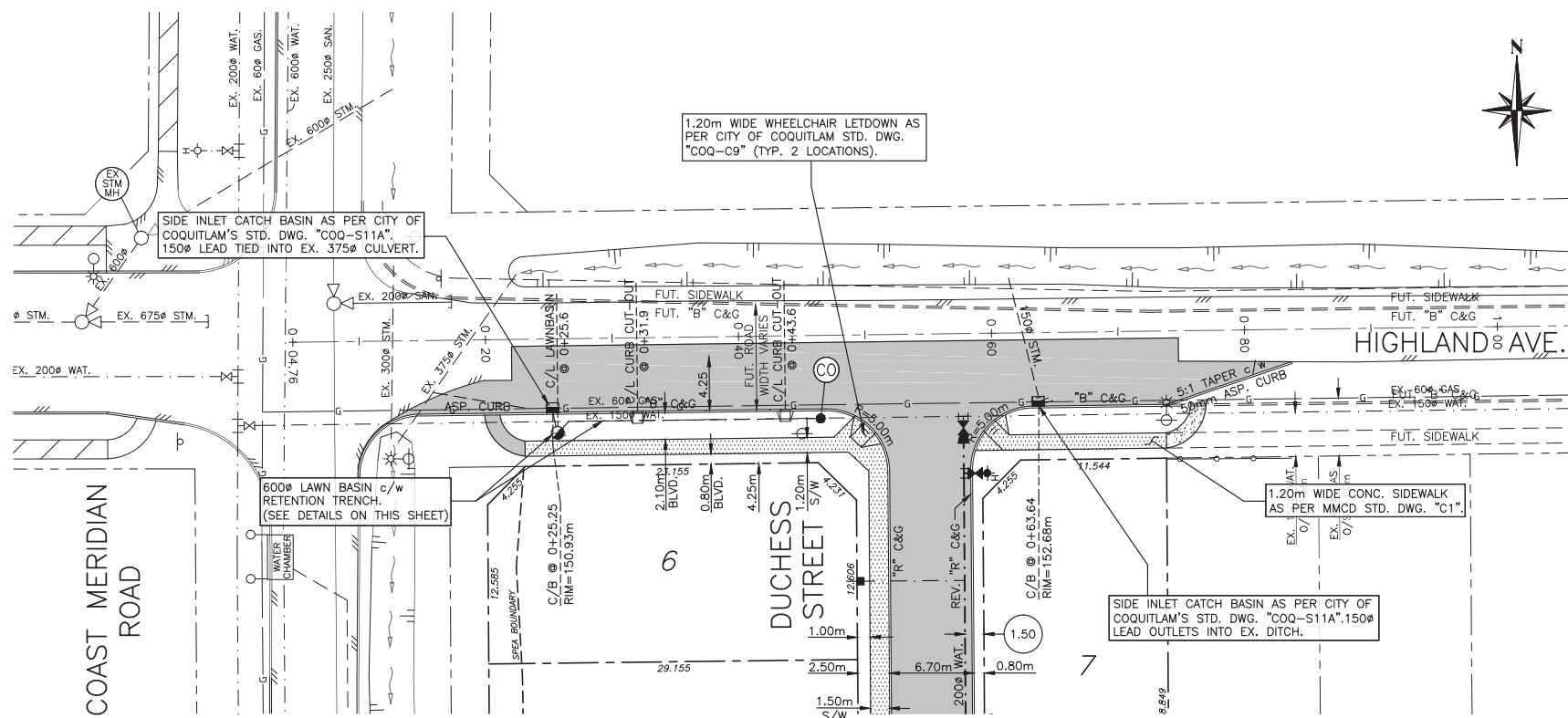
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RETENTION TRENCH & LAWNBASIN DETAILS  
NOT TO SCALE



HIGHLAND AVENUE  
TYPICAL SECTION  
20.12m R.O.W. SECTION  
NOT TO SCALE

COQ. REC. DWG. NO.  
R0202-1  
D2623-1



LANDMARK ENGINEERING & PLANNING LTD.  
#226-3030 LINCOLN AVE., COQUITLAM, BC, V3B 6B4  
TELEPHONE 604-357-3541 FAX 604-357-3799

CIVIC ADDRESS  
1415 COAST MERIDIAN ROAD  
COQUITLAM, B.C.  
(P.I.D. 008-797-111)

PROPOSED SUBDIVISION PLAN OF LOT 18,  
SECTION 18, TOWNSHIP 39, NEW WESTMINSTER  
DISTRICT, PLAN 26015

ALL DIMENSIONS ARE IN METRES EXCEPT AS OTHERWISE NOTED  
ALL PIPE SIZES ARE IN MILLIMETERS

REVISION	DESCRIPTION	DRAWN	DATE	APPROVED
F	AS CONSTRUCTED	JRG	11/15/12	GSW
D	ISSUED FOR CONSTRUCTION	JRG	4/19/12	GSW
C	FINAL REVISIONS AS PER CITY'S COMMENTS	JRG	2/21/12	GSW
B	REVISIONS AS PER CITY'S COMMENTS	JRG	11/01/11	GSW
A	ISSUED FOR APPROVAL	JRG	8/16/11	GSW

DEVELOPER: NORTH AMERICA HOMES ENTERPRISE LTD.  
2877 McLAREN COURT COQUITLAM, BC, V3B 8G2  
TEL: (604) 552-5865 FAX: (604) 552-5867

DRAWING TITLE:  
**ROAD WORKS - HIGHLAND AVE.**  
1415 COAST MERIDIAN ROAD, COQUITLAM

SEAL

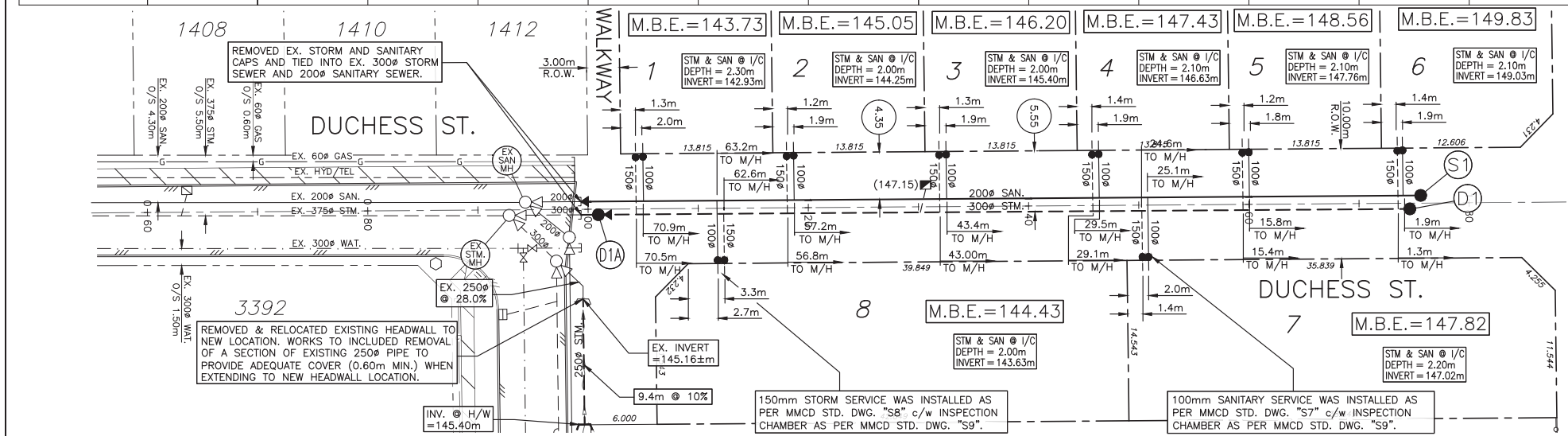
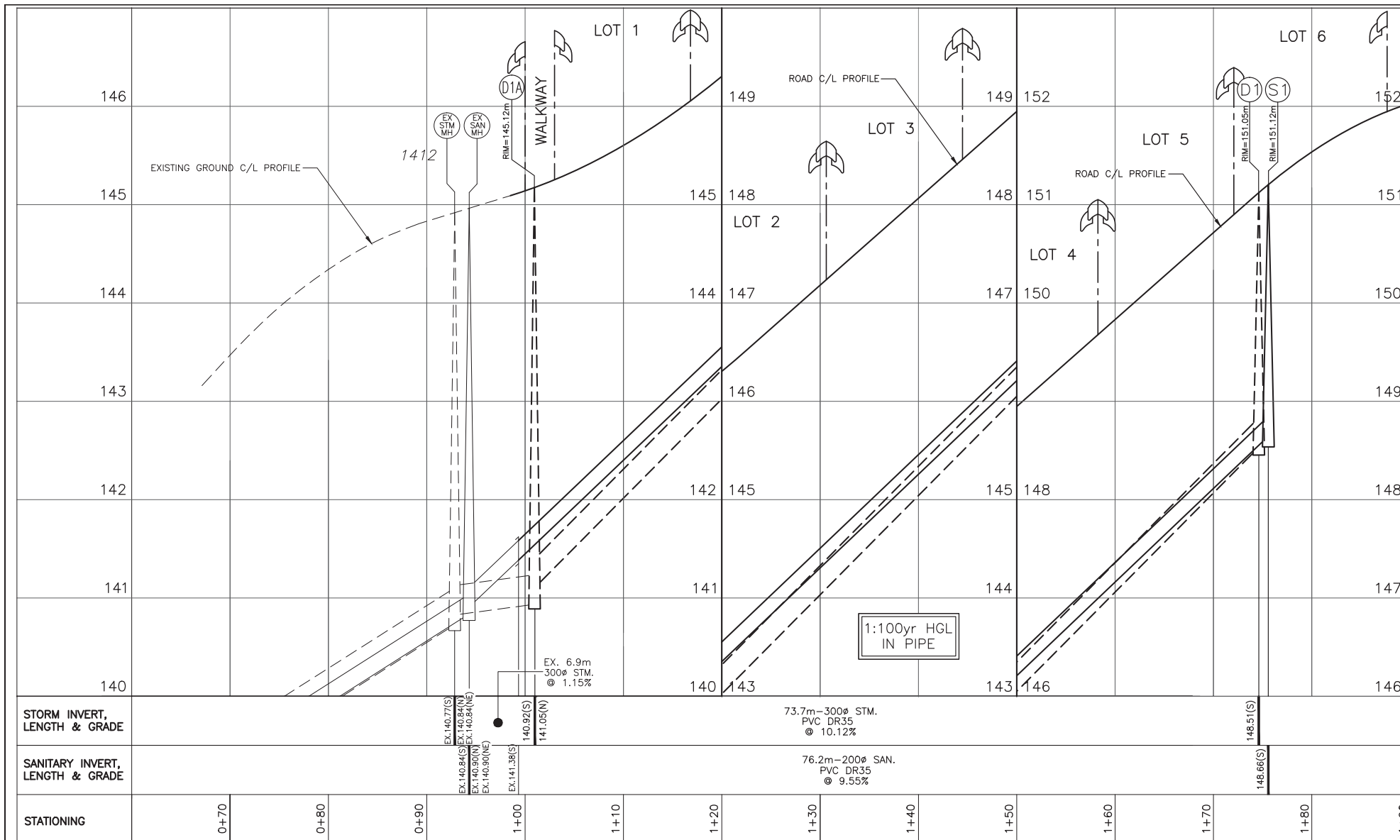
DATE AUGUST 16, 2011	PROJECT NUMBER 2011-04-HIGHLAND
DRAWN JRG	DRAWING NUMBER LEAP 19
DESIGNED GSW	SHEET 1 OF 3
APPROVED GSW	REVISION E
DESTROY ALL PRINTS BEARING PREVIOUS NUMBER	CHECKED J.R.G. G.S.W.

CITY OF COQUITLAM  
**ROAD WORKS - HIGHLAND AVE.**  
1415 COAST MERIDIAN ROAD, COQUITLAM

COQUITLAM PROJECT NO.  
10-013748-01SD

SCALE:  
HOR. 1:250  
VER. 1:25

COQUITLAM FILE NO.



**SANITARY SEWER**

1. SANITARY SEWER MATERIALS CONFORMS TO MMCD SECTION 02721 AND WITH THE SUPPLEMENTARY SPECIFICATIONS AND DETAILED DRAWINGS TO MMCD 2000 EDITION, UNDER THE CITY OF COQUITLAM ENGINEERING STANDARDS, LATEST REVISION AND AS SPECIFIED ON THE DRAWINGS ACCEPTED FOR CONSTRUCTION BY THE CITY.
2. SANITARY SEWER MAINS ARE 200mmØ PVC DR35 PIPE.
3. FOR TYPICAL TRENCH SECTION SEE CITY OF COQUITLAM STD. DWG. COQ-G4.
4. ALL SANITARY SEWER SERVICE CONNECTIONS ARE 100mm DIAMETER PVC DR28 PIPE C/W INSPECTION CHAMBER (MMCD STD. DWG. "S9") CENTERED AT A 300mm OFFSET FROM PROPERTY LINE AND INSTALLED AS PER MMCD STD. DWG. "S7".
5. FOR MANHOLE DETAILS SEE MMCD STD. DWG. "S1", "S2" AND "S3". ALL MANHOLES SHALL BE 1050mm DIAMETER.

**STORM SEWER**

1. STORM SEWER MATERIALS CONFORM TO MMCD SECTION 02721 AND WITH THE SUPPLEMENTARY SPECIFICATIONS AND DETAILED DRAWINGS TO MMCD 2000 EDITION, UNDER THE CITY OF COQUITLAM ENGINEERING STANDARDS, LATEST REVISION AND AS SPECIFIED ON THE DRAWINGS ACCEPTED FOR CONSTRUCTION BY THE CITY.
2. STORM SEWER MAINS ARE 300mmØ PVC DR35 PIPE.
3. FOR TYPICAL TRENCH SECTION SEE CITY OF COQUITLAM STD. DWG. COQ-G4.
4. ALL STORM SEWER SERVICE CONNECTIONS ARE 150mm DIAMETER PVC DR28 PIPE c/w INSPECTION CHAMBER (MMCD STD. DWG. "S9") CENTERED AT A 300mm OFFSET FROM PROPERTY LINE AND INSTALLED AS PER MMCD STD. DWG. "S8".
5. FOR TOP INLET CATCH BASIN DETAILS SEE MMCD STD. DWG. S11.
6. FOR SIDE INLET CATCH BASIN DETAILS SEE CITY OF COQUITLAM'S STD. DWG. COQ-S11A c/w SUPPLEMENT TR24C INLET, LOCATED WITHIN "B" C&G.
7. FOR MANHOLE DETAILS SEE MMCD STD. DWG. "S1", "S2" AND "S3". ALL MANHOLES ARE 1050mm DIAMETER, UNLESS STATED OTHERWISE.

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COQ. REC. DWG. NO.  
S1951  
•D2623-2

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#226-3030 LINCOLN AVE., COQUITLAM, BC, V3B 6B4  
TELEPHONE 604-357-3541 FAX 604-357-3799

CIVIC ADDRESS  
1415 COAST MERIDIAN ROAD  
COQUITLAM, B.C.  
(P.I.D. 008-797-111)

PROPOSED SUBDIVISION PLAN OF LOT 18,  
SECTION 18, TOWNSHIP 39, NEW WESTMINSTER  
DISTRICT, PLAN 26015

ALL DIMENSIONS ARE IN METRES EXCEPT AS OTHERWISE NOTED  
ALL PIPE SIZES ARE IN MILLIMETERS

REVISION	DESCRIPTION	DRAWN	DATE	APPROVED
F	AS CONSTRUCTED	JRG	11/15/12	GSW
D	ISSUED FOR CONSTRUCTION	JRG	4/19/12	GSW
C	FINAL REVISIONS AS PER CITY'S COMMENTS	JRG	2/21/12	GSW
B	REVISIONS AS PER CITY'S COMMENTS	JRG	11/01/11	GSW
A	ISSUED FOR APPROVAL	JRG	8/16/11	GSW

DEVELOPER: NORTH AMERICA HOMES ENTERPRISE LTD.  
2877 McLAREN COURT COQUITLAM, BC, V3B 8G2  
TEL: (604) 552-5865 FAX: (604) 552-5867

DRAWING TITLE:  
**STORM & SANITARY WORKS  
DUCHESS ST.**  
1415 COAST MERIDIAN ROAD, COQUITLAM

SEAL

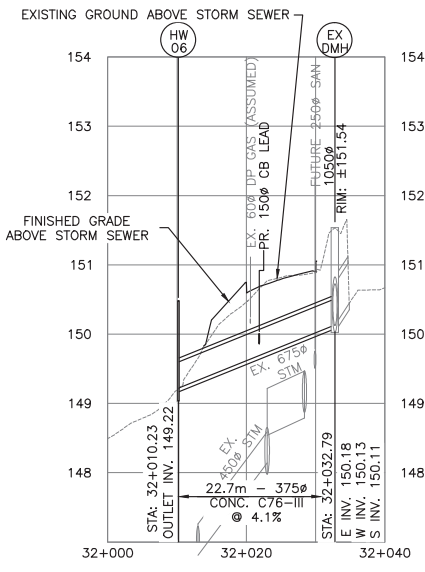
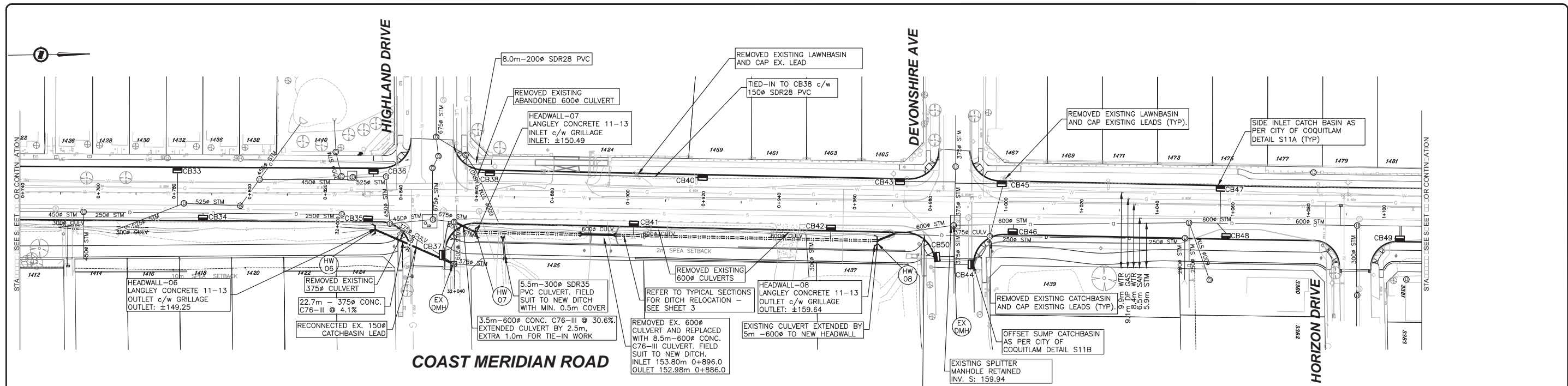
DATE AUGUST 16, 2011	PROJECT NUMBER 2011-04-HIGHLAND	CITY OF COQUITLAM <b>STORM &amp; SANITARY WORKS DUCHESS ST.</b>
DRAWN JRG	DRAWING NUMBER LEAP 19	
DESIGNED GSW	SHEET 3 OF 3	
APPROVED GSW	REVISION E	
DESTROY ALL PRINTS BEARING PREVIOUS NUMBER	CHECKED J.R.G. G.S.W.	

SCALE:  
HOR. 1:250  
VER. 1:25

COQUITLAM PROJECT NO.  
10-013748-01SD

COQUITLAM FILE NO.





**IMPORTANT:**  
HYDRO, GAS, TELEPHONE AND CABLE ARE NOT SHOWN ON THE CITY OF COQUITLAM AS-BUILTS OR RECORD DRAWINGS. CONTACT BC HYDRO, FORTIS BC, TELUS AND SHAW FOR CURRENT AS-BUILTS PERTAINING TO THESE UTILITIES.

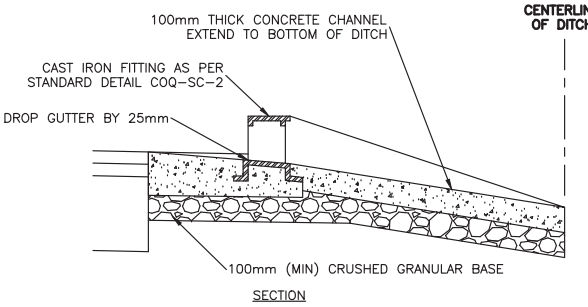
**NOTE:**  
LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY AND SHOULD BE CONFIRMED BY A PIPE LOCATOR AND MANUAL DIGGING. ALL OR ANY EXISTING STRUCTURES ARE NOT NECESSARILY SHOWN.

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CONTRACTOR PRELOCATED ALL TIE-INS AND EX. UTILITY CROSSINGS PRIOR TO CONSTRUCTION (TYP.)

CATCHBASIN RIM ELEVATION TABLE:

LABEL	CB TYPE	STREET	STATION	GUTTER	RIM
CB33	S11A	COAST MERIDIAN	0+780.92	145.60	145.58
CB34	S11A	COAST MERIDIAN	0+787.77	146.16	146.14
CB35	S11A	COAST MERIDIAN	0+831.38	149.57	149.55
CB36	S11A	COAST MERIDIAN	0+832.80	149.62	149.60
CB37	S11B	HIGHLAND	0+850.27	150.88	150.86
CB38	S11A	COAST MERIDIAN	0+863.46	151.81	151.79
CB39	-	NOT INSTALLED	-	-	-
CB40	S11A	COAST MERIDIAN	0+919.72	156.55	156.53
CB41	INLET	COAST MERIDIAN	0+901.74	156.58	156.56
CB42	INLET	COAST MERIDIAN	0+953.87	160.34	160.32
CB43	S11A	COAST MERIDIAN	0+971.90	160.81	160.79
CB44	S11B	DEVONSHIRE	0+991.02	162.29	162.27
CB45	S11A	COAST MERIDIAN	0+998.77	162.81	162.79
CB46	S11A	COAST MERIDIAN	1+002.06	163.18	163.16
CB47	S11A	COAST MERIDIAN	1+056.70	167.07	167.05
CB48	S11A	COAST MERIDIAN	1+058.02	167.36	167.34
CB49	S11A	COAST MERIDIAN	1+104.26	171.45	171.43
CB50	S11A	DEVONSHIRE	0+989.00	-	-



CURB INLET DETAIL  
NTS

COQ. AS-BUILT NO.  
D2834-03



#503, 4190 Lougheed Hwy, Burnaby, B.C. V5C 6A8  
T: (604)629-2696 F: (604)629-2698

Revised Drawings

Notes

Scale

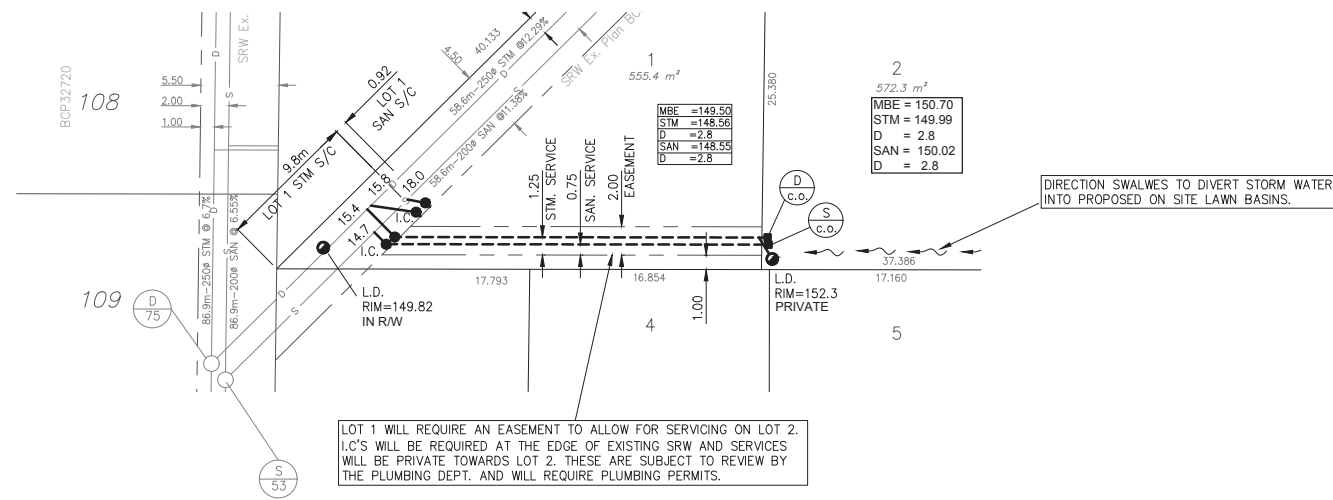
INE RECORD DRAWINGS  
 INE ISSUED FOR CONSTRUCTION  
 INE ADDENDUM  
 MA CCM ISSUED FOR TENDER  
 MA CCM FOR REVIEW  
 MA CCM DETAILED DESIGN  
 MA CCM PRELIMINARY DESIGN  
 N D R E

D  
 C  
 Dr  
 CCM  
 C  
 SPT  
 A



S  
 Dr  
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 E

Project: COAST MERIDIAN ROAD  
 (DAVID AVENUE TO HARPER ROAD)  
 COAST MERIDIAN RD STORM ORIS: STA TO  
 RECORD DRAWINGS



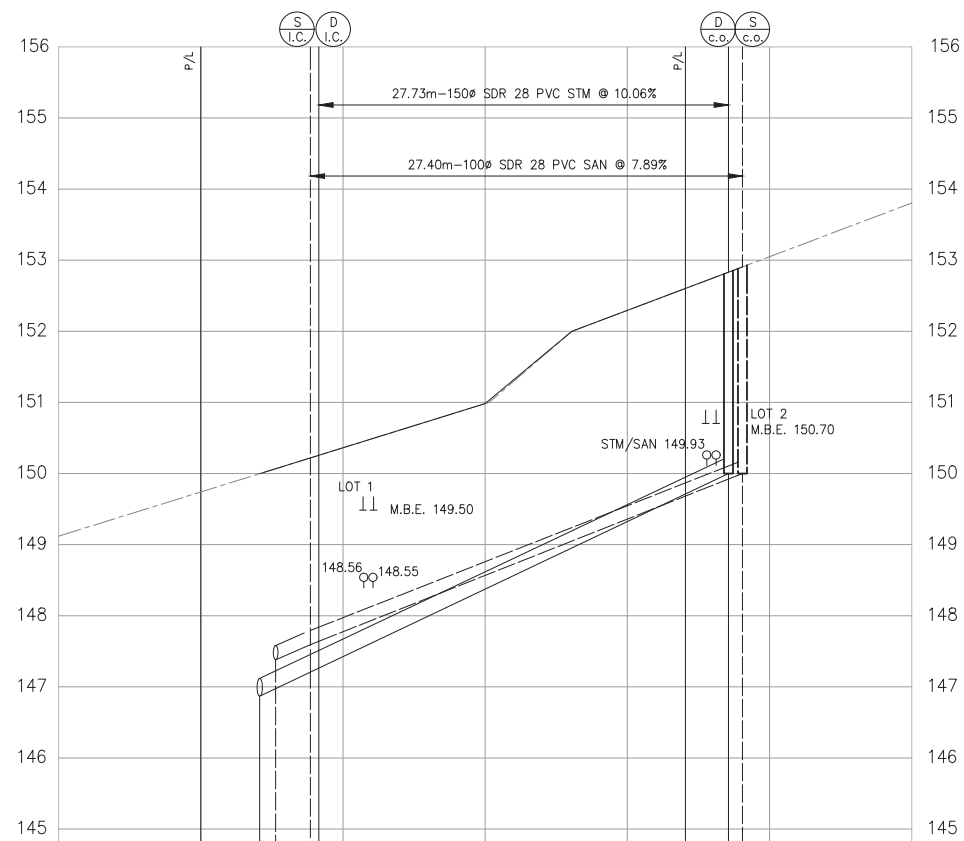
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**SANITARY AND STORM NOTES**

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE MASTER MUNICIPAL SPECIFICATIONS CONTAINED IN THE CONTRACT DOCUMENTS, CITY OF COQUITLAM'S SUBDIVISION AND DEVELOPMENT SERVICING BYLAW NO. 3558.
2. ALL WORK SHALL BE IN ACCORDANCE WITH CITY OF COQUITLAM'S STREAM AND DRAINAGE SYSTEM PROTECTION BYLAW NO. 3447.
3. ALL SINGLE FAMILY STORM SEWER SERVICE CONNECTIONS SHALL BE 150mm MIN. DIAMETER PVC SDR 28 COMPLETE WITH MANUFACTURED WYES AS PER THE MMCD STD. DET. S8 AND INSPECTIONS CHAMBERS PER THE MMCD STD. DET. S9.
4. ALL SINGLE FAMILY SANITARY SEWER SERVICE CONNECTIONS SHALL BE 100mm MIN. DIAMETER PVC SDR 28 COMPLETE WITH MANUFACTURED WYES AS PER MMCD STD. DET. S7 AND INSPECTION CHAMBERS AS PER THE MMCD STD. DET. S9.
5. ALL SINGLE FAMILY STORM/SANITARY SEWER SERVICE CONNECTIONS TO BE TIED INTO STORM/SANITARY SEWER MAIN AT 2.0% MIN.
6. INSTALL SANITARY AND STORM INSPECTION CHAMBERS INSIDE OF EXISTING R.O.W.
7. INSTALL SANITARY AND STORM CLEANOUTS FOR LOT 2
8. INSTALLATION OF THE SANITARY AND STORM LINES FOR LOT 2 WILL REQUIRE A PLUMBING PERMIT



**LEGEND**

MBE = MINIMUM BASEMENT ELEVATION  
SAN = SANITARY INVERT @ PL  
STM = STORM INVERT @ PL

CONTRACTOR TO EXPOSE & VERIFY EXIST SERVICES @ CROSSINGS TO AVOID ANY DAMAGES

CONSTRUCT NEW STM & SAN CONNECTIONS AS PER MMCD DWG'S S7 & S8

STM INVERTS	146.75 S 146.80 N	146.80 E 147.10 E	150.00 W	STM INVERTS
SAN INVERTS	147.28 S 147.33 N	147.38 E 147.60 E	150.00 W	SAN INVERTS
STATION	1+04.2 1+05.3 1+07.7 1+08.3		1+37.1 1+38.1 1+40	STATION

COQ. AS-BUILT NO.  
D2941  
S2137

REV	DATE	DESCRIPTION	DR
2	FEB 13/18	AS-CONSTRUCTED	
1	AUG 26/16	1ST SUBMISSION	ABM

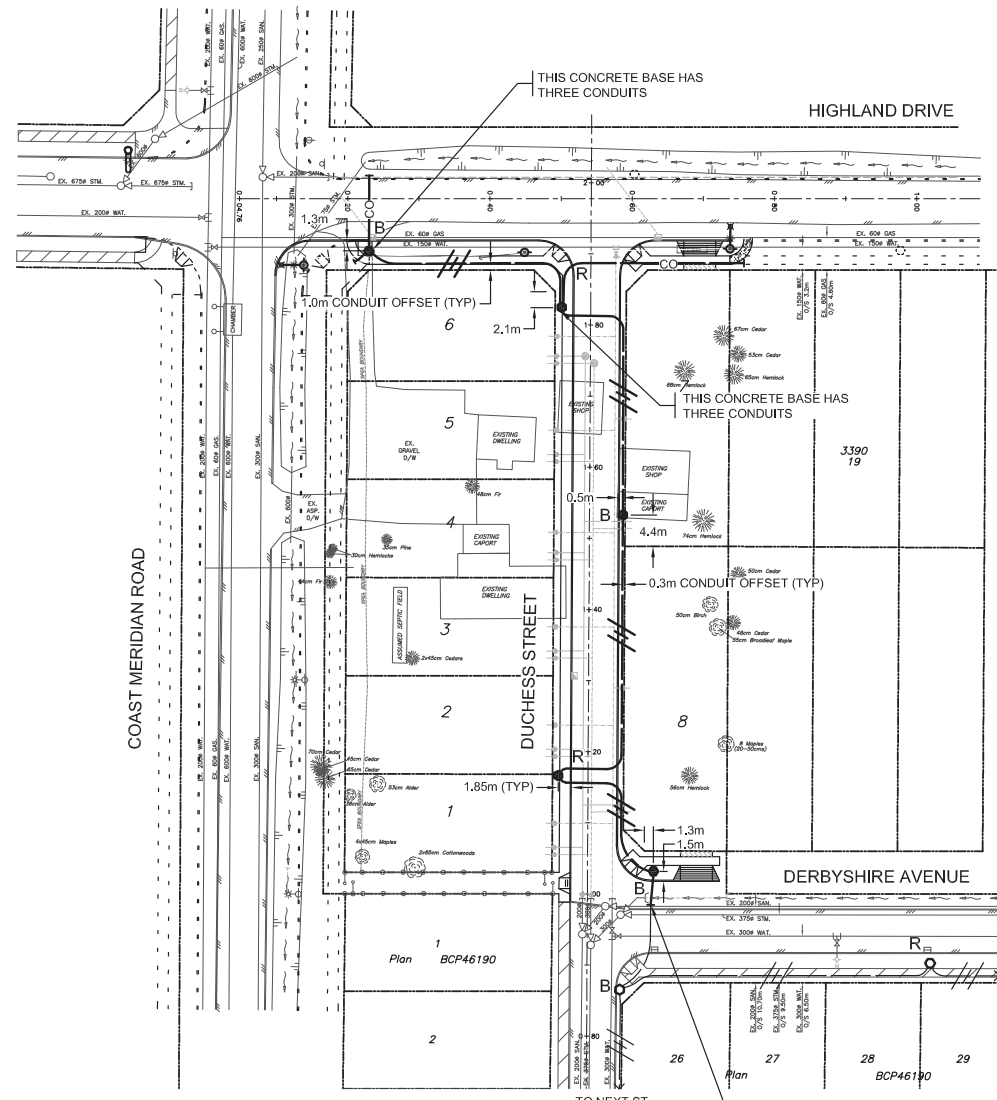
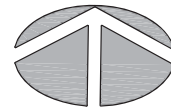
CITY OF COQUITLAM  
1424 COAST MERIDIAN  
COQUITLAM

CITY OF COQUITLAM

1424 COAST MERIDIAN  
COQUITLAM

**ABM ENGINEERING SERVICES**  
Box 185, Maple Ridge, B.C. V2X 7G1 Phone (604) 462-7121

TITLE <b>STM SAN PRIVATE EASEMENT</b>	PROJECT NO. 0
SCALE HOR. 1:250	DRAWING NO. C-2101-01
DATE 22-06-16	SHEET NO. 10 OF 10
VER. ABM	JOB NO. C-2101-10
DRAWN AJD	CHECKED ABM
DESIGN ABM	



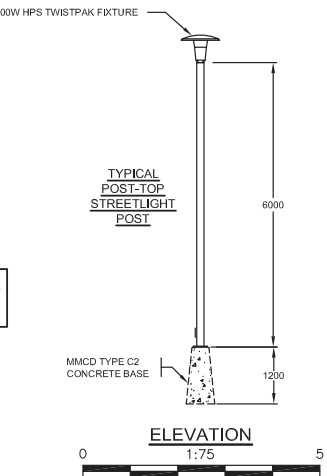
REFER TO DMD PROJECT No. 3015-11-01 FOR THE CONTINUATION OF STREET LIGHTING ON DERBYSHIRE AVE. AND DUCHESS ST.

**LEGEND**

- POST-TOP STREETLIGHT POST (6.0m - 100W HPS TYPE 2 DISTRIBUTION, TWISTPAK)
- POST-TOP STREETLIGHT POST (6.0m - 100W HPS TYPE 2 DISTRIBUTION, TWISTPAK)
- DAVIT STREETLIGHT POLE
- FUTURE POST-TOP STREETLIGHT POLE
- R LUMINAIRE ON RED PHASE CONDUCTOR
- B LUMINAIRE ON BLACK PHASE CONDUCTOR
- /// 3 No.6 RW90 ST. LTG. & 1 No.8 RW90 BOND IN 30mm RPVC
- 30mm RPVC STUB OUT FOR FUTURE EXTENSION (CAP & MARK LOCATION)
- 30mm RPVC CONDUIT ONLY
- /// 3 No.6 RW90 ST. LTG. & 1 No.8 RW90 BOND IN 30mm RPVC
- BC HYDRO POLE
- BC HYDRO POLE C/W LEASE LIGHT (TO REMAIN)

**STREET LIGHTING NOTES:**

1. UNLESS OTHERWISE INDICATED, ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MMCD (CURRENT ISSUE) AND THAT OF THE CITY OF COQUITLAM CURRENT SUBDIVISION CONTROL BYLAW AND MUST PASS THEIR INSPECTIONS. PLEASE CONTACT THE PROJECT COORDINATOR 72 HOURS PRIOR TO COMMENCING CONSTRUCTION.
2. CHECK BEFORE YOU DIG. THE CONTRACTOR SHALL REFER TO CIVIL 'AS-BUILT' DRAWINGS FOR ALL UTILITIES. SERVICE LOCATIONS AND DETAILS. THE EXACT LOCATION OF THESE UTILITIES SHALL BE DETERMINED ON SITE.
3. PRIOR TO STREET LIGHT BASE INSTALLATIONS, THE CONTRACTOR SHALL ENSURE THAT ALL STREET LIGHT POLES AND FIXTURES SHALL BE A MINIMUM OF 3.0m CLEAR OF ALL HYDRO POLES AND OVERHEAD PRIMARY WIRES, AND 0.3m CLEAR OF ALL OVERHEAD SECONDARY WIRES.
4. THE CONTRACTOR SHALL NOTIFY PROVINCIAL AND MUNICIPAL INSPECTORS 24 HOURS PRIOR TO COMMENCEMENT OF UNDER GROUND AND ELECTRICAL WORK.
5. THE CONTRACTOR SHALL OBTAIN ALL EQUIPMENT APPROVAL PERMITS FROM THE ELECTRICAL SAFETY BRANCH. THE ELECTRICAL SAFETY BRANCH SHALL BE MADE AWARE OF THE (POSSIBLE) USE OF AN IRRIGATION SYSTEM WITHIN THE STREET LIGHT POLES.
6. MINIMUM DEPTH FOR UNDER GROUND DUCTING SHALL BE 600mm BELOW BOULEVARD AND SIDEWALKS, AND 900mm BENEATH ASPHALT, AND AS PER COQUITLAM STANDARD DRAWINGS E-6.
7. ALL POLES, ARMS, SERVICE BASES, ETC. ARE TO BE GALVANIZED, PRIMED AND POWDER-COATED IN COLOUR EQUIVALENT TO COQUITLAM LAMP STANDARD GREEN. GENERAL PAINT #16-214 BY 12736 EXTERIOR UV STABILIZED INDUSTRIAL ENAMEL, OR WEST COAST ENGINEERING GREEN FERN COQUITLAM PWD P5389-9.
8. ALL POLE HAND HOLE ACCESS SHALL UTILIZE WEST COAST ENGINEERING BULLDOG COVERS, RE-ENFORCED BACKING BARS AND PROVIDED WITH ROUND HOCKEY PUCK STYLE LOCKS. IF NOVA POLES SUPPLIED, USE THESE ITEMS:  
NOVA HAND HOLE COVER (FINISHED IN SAME COLOUR AS POLE) P/N: SMALL OPENING - USE P20-CS47-501; LARGE OPENING - USE P20-CS47-501; NOVA SECURITY BAR P/N: P20-CS-501; NOVA SECURITY BOLT P/N: H11-SB-AD.375L (STAINLESS STEEL, 3/8-16 x 3 INCHES, LEFT HAND THREAD.), WEST COAST ENGINEERING LOCK KEYS AND/OR NOVA POLE SECURITY TOOL BIT SHALL BE PROVIDED TO COQUITLAM TRAFFIC OPERATIONS. CONTACT TERRY WILSON, TRAFFIC SIGNAL TECHNICIAN TO ARRANGE DELIVERY.
9. LUMINAIRES ON BLACK PHASE CONDUCTOR ARE IDENTIFIED WITH A "B" DESIGNATION NEXT TO THE PROPOSED / EXISTING LUMINAIRES
10. LUMINAIRES ON RED PHASE CONDUCTOR ARE IDENTIFIED WITH A "R" DESIGNATION NEXT TO THE PROPOSED / EXISTING LUMINAIRES
11. EACH LUMINAIRE SHALL BE WIRED WITH No. 12 RW90. BLACK AND WHITE FOR 120V SERVICE, BLACK AND RED FOR 240V SERVICE.
12. EACH STREET LIGHT LUMINAIRE SHALL BE PROVIDED WITH A TRON HEB-AA WATER-RESISTANT FUSE HOLDER, C/W 2 TYPE "L" INSULATING BOOTS OR APPROVED EQUIVALENT. EACH FUSE HOLDER SHALL BE PROVIDED WITH ONE 10-A BUSS KTK-TYPE FUSE, WIRED IN LIVE CONDUCTOR(S). FOR 240V SERVICES, ONE FUSE SHALL BE IN EACH LIVE CONDUCTOR. THE FUSE HOLDER(S) SHALL BE ACCESSIBLE FROM THE HAND HOLE ACCESS AT THE POLE BASES.
13. ALL LUMINAIRES SHALL BE BONDED WITH A No. 12 RW90 CONDUCTOR (GREEN). THE CONTRACTOR SHALL SUPPLY A PIGTAIL SPLICE WITH A RING LUG TERMINAL FOR THE BOND STUD.
14. THE BONDING STUD IN EACH POLE SHALL COMPRISE OF ONE 3/8-16 BOLT 2.0 INCHES LONG, ONE SPLIT LOCK WASHER, AND TWO HEX NUTS. THE SPLIT LOCK-WASHER SHALL BE SLD ONTO THE BOLT ON THE INSIDE OF THE POLE, AND HELD TIGHTLY IN PLACE WITH THE FIRST NUT. THIS NUT SHALL BE TIGHTENED TO SPECIFICATION. THE RING TERMINAL SHALL BE SANDWICHED BETWEEN THE TWO HEX NUTS. THE LAST NUT HOLDS THE RING TERMINAL IN PLACE. THIS NUT SHALL BE TIGHTENED TO SPECIFICATIONS. THE POLE MANUFACTURER/CONTRACTOR SHALL ENSURE THE AREA AROUND THE BONDING NUT ON THE INSIDE OF THE POLE IS PAINT FREE TO OBTAIN A SOLID MECHANICAL AND ELECTRICAL BONDING CONNECTION. THE INTERIOR PAINTED SURFACE SURROUNDING THE BOND STUD OPENING SHALL BE GROUND OFF TO BARE STEEL FOR ELECTRICAL BOND ADHERENCE. THE BOND STUD SHALL BE INSTALLED IMMEDIATELY AFTER GRINDING.
15. ALL POLES SHALL BE BONDED WITH A No. 8 RW90 CONDUCTOR (GREEN). THE CONTRACTOR SHALL SUPPLY A PIGTAIL SPLICE WITH A RING LUG TERMINAL FOR THE BOND STUD.
16. ALL UNDERGROUND AND IN-POLE SPLICES SHALL BE SEALED WITH TAPE CONSISTING OF BISHOP BISEAL, PHILLIPS ROTUNDRON OR 3M SELF-HOLDING TAPE; COVERED WITH PVC TAPE AND DIPPED IN 3M SCOTCHCOAT (OR APPROVED EQUIVALENT).
17. ALL JUNCTION BOXES SHALL BE PROVIDED WITH RPVC BARS TO SUPPORT THE ELECTRICAL CONNECTIONS, AND FUSE HOLDERS. THE RPVC BARS SHALL BE ATTACHED INTO THE JUNCTION BOX SIDEWALLS, AND THE ELECTRICAL CONNECTIONS / FUSE HOLDERS, WILL BE TIE-WRAPPED IN PLACE.
18. ALL JUNCTION BOXES WITH METALLIC LIDS SHALL BE BONDED WITH A No. 8 RW90 CONDUCTOR (GREEN). THE CONTRACTOR SHALL SUPPLY A PIGTAIL SPLICE WITH A RING LUG TERMINAL FOR THE BOND STUD.
19. EMPTY CONDUITS / CONDUITS ONLY (CO) SHALL BE PROVIDED WITH A NYLON PULL LINE, AND EACH END SHALL BE CAPPED.
20. STANDING WATER IS NOT PERMITTED IN CONDUITS. CONDUITS WITH WATER SHALL BE BLOWN CLEAR OF WATER.
21. HYDRO SERVICE (DIP) CONNECTIONS SHALL BE PER MMCD OR PER BC HYDRO STANDARDS.
22. CONTRACTOR SHALL PROVIDE 3 SETS OF SHOP DRAWINGS FOR ALL DECORATIVE STREET LIGHTS, POLES AND RECEPTACLES TO DMD & ASSOCIATES LTD. PRIOR TO ORDER.



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**SITE PLAN**  
0 1500 25

ILLUMINANCE DESIGN CRITERIA		
ITEM	DESIGN REQUIREMENTS	DESIGN ACHIEVED
STREET NAME(S)	DUCHESS STREET	
PEDESTRIAN ACTIVITY	LOW	
ROAD CLASSIFICATION	LOCAL	
ILLUMINATION TYPE	6.0m POST-TOP 100W HPS TYPE 2 DISTRIBUTION	
SPACING (MAX)	49.0m STAGGERED	
ILLUMINANCE LEVEL (AVG.)	4.0 LUX	4.0 LUX
ILLUMINANCE UNIFORMITY RATIO (AVG. MIN.)	6.0:1	1.8:1

ILLUMINANCE DESIGN CRITERIA		
ITEM	DESIGN REQUIREMENTS	DESIGN ACHIEVED
STREET NAME(S)	DERBYSHIRE AVENUE	
PEDESTRIAN ACTIVITY	LOW	
ROAD CLASSIFICATION	LOCAL	
ILLUMINATION TYPE	6.0m POST-TOP 100W HPS TYPE 2 DISTRIBUTION	
SPACING (MAX)	39.5m STAGGERED	
ILLUMINANCE LEVEL (AVG.)	4.0 LUX	4.0 LUX
ILLUMINANCE UNIFORMITY RATIO (AVG. MIN.)	6.0:1	1.7:1

ILLUMINANCE DESIGN CRITERIA		
ITEM	DESIGN REQUIREMENTS	DESIGN ACHIEVED
STREET NAME(S)	HIGHLAND DRIVE	
PEDESTRIAN ACTIVITY	LOW	
ROAD CLASSIFICATION	LOCAL	
ILLUMINATION TYPE	6.0m POST-TOP 100W HPS TYPE 2 DISTRIBUTION	
SPACING (MAX)	40.0m STAGGERED	
ILLUMINANCE LEVEL (AVG.)	4.0 LUX	4.4 LUX
ILLUMINANCE UNIFORMITY RATIO (AVG. MIN.)	6.0:1	1.7:1

\* BASED ON ULTIMATE DESIGN

SERVICE ON DERBYSHIRE AVENUE			
ITEM	No. OF LIGHT	WATTAGE (W)	CURRENT (A)
SERVICE SIZE	40A - 120/240V		
EXISTING LOAD (CCT. R)	2	150W	3,34A
EXISTING LOAD (CCT. B)	1	150W	1,87A
EXISTING LOAD (CCT. R)	4	100W	4,72A
EXISTING LOAD (CCT. B)	5	100W	5,90A
ADDED LOAD (CCT. R)	2	100W	2,36A
ADDED LOAD (CCT. B)	3	100W	3,54A
TOTAL LOAD (CCT. R)	8	150W/100W	10,42A
TOTAL LOAD (CCT. B)	7	150W/100W	11,11A
VOLTAGE DROP (%)	2,88%		

COQ. REC. DWG. No.  
**E1117**

No.	DATE	BY	CHKD	REVISION
3	2013-04-05	RAC		RECORD DRAWING
2	2012-03-05	RAC		FINAL APPROVAL SUBMISSION
1	2011-11-01	RAC		REVISED TO SUIT CITY COMMENTS
	2011-07-27	RAC		FIRST SUBMISSION

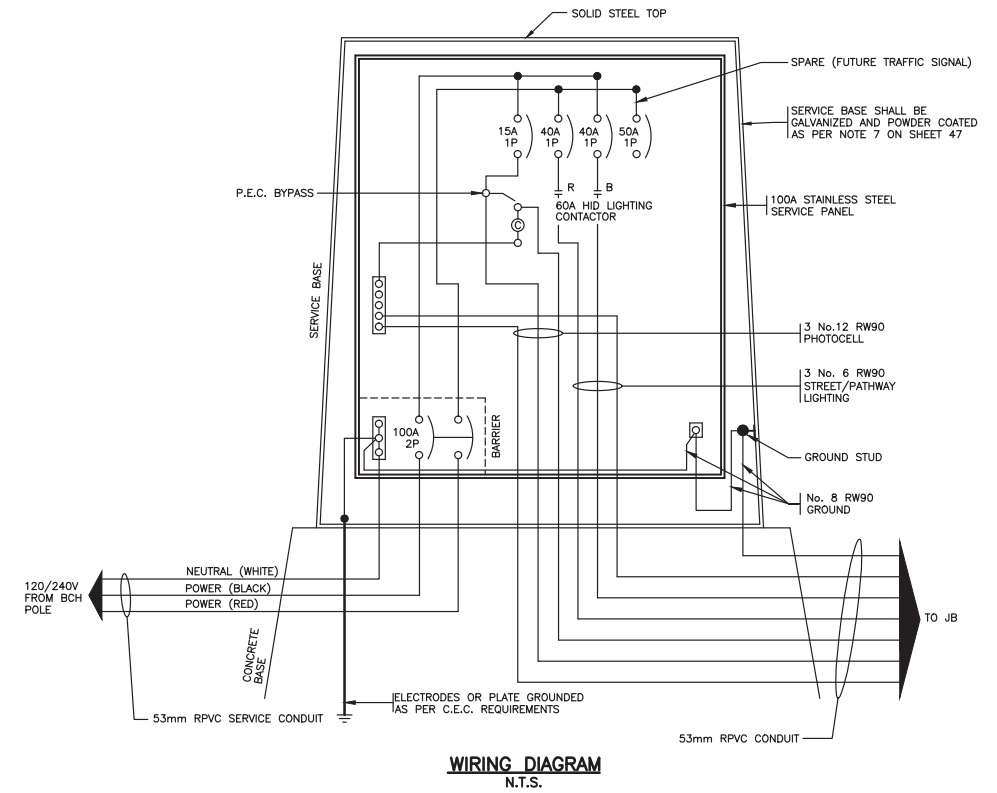
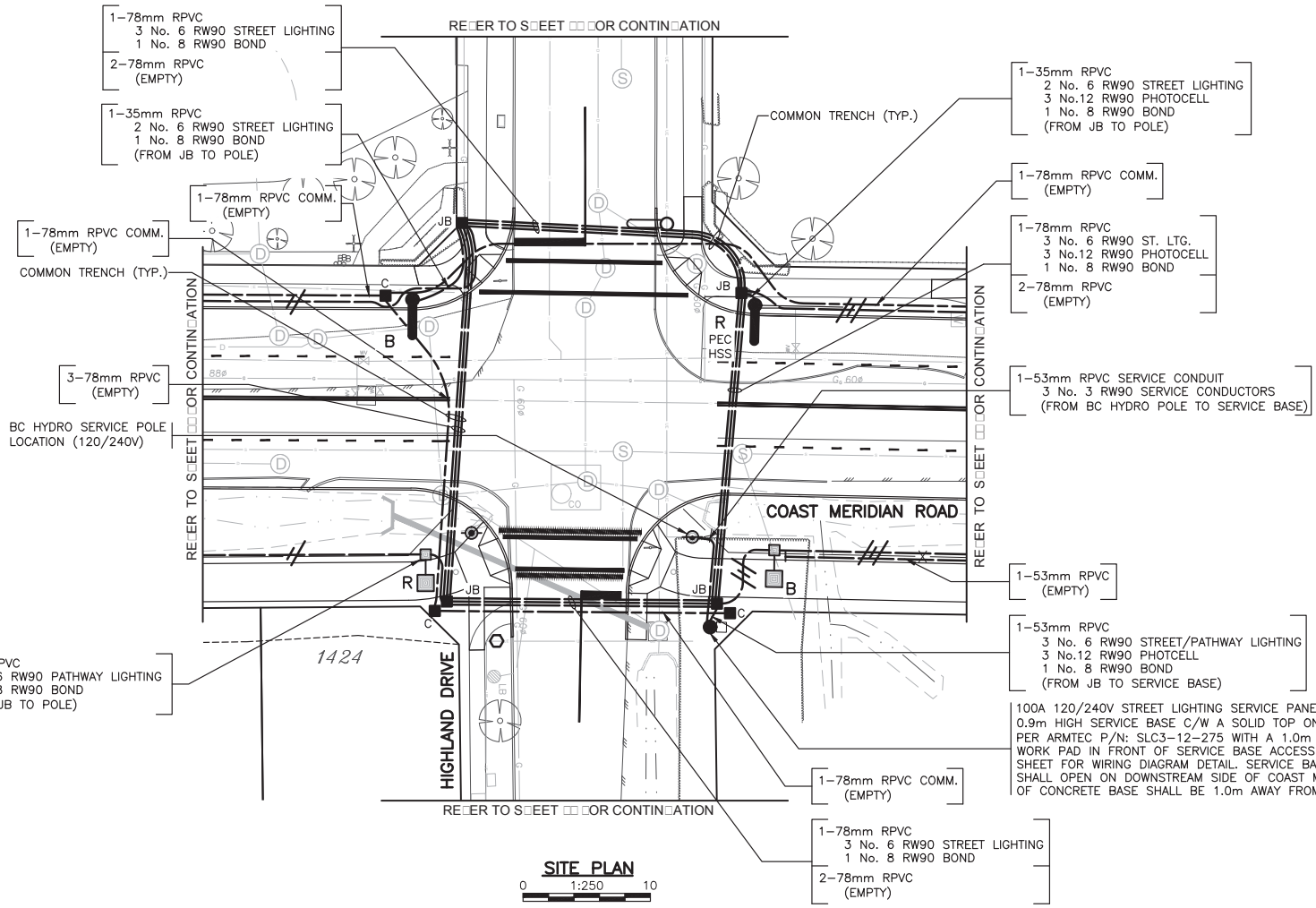
North America Homes Enterprises 2877 McLaren Court, Coquitlam, BC V3B 8G2 (Phone: 778-891-8136)		
<b>STREET LIGHTING</b> HIGHLAND DRIVE, DUCHESS STREET AND DERBYSHIRE AVENUE COQUITLAM, BC		
PROJECT No.	SHEET No.	REVISION
3523-11-01 of 01	1 of 1	3

**DMD & Associates Ltd.**  
#12-17358 104A Avenue  
Surrey, BC, Canada V4N 5M3  
www.dmdeng.com 604/589-9010  
office@dmdeng.com Fax 604/589-9012

DESIGNED	R. CASPERS
DRAWN	R. CASPERS
CHECKED	
DATE	JULY 21, 2011
SCALE:	AS SHOWN
SEAL	

DRAWING REFERENCE		
CANCEL PRINTS BEARING PREVIOUS LETTER		





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**JUNCTION BOX NOTES**

- CONCRETE VAULTS AND JUNCTION BOXES LOCATED IN NON-PAVED OR NON-SIDEWALK AREAS ARE TO BE PROTECTED FROM MOWER OR EROSION/VEGETATION DAMAGE WITH A 200mm WIDE x 150mm DEEP CONCRETE COLLAR FLUSH WITH TOP EDGES OF THE TOP OF THE BOX LID. COLLAR TO SLOPE DOWN AWAY FROM BOX OPENING AT 3% TO DIRECT WATER AWAY FROM BOX OPENING.
- JUNCTION BOXES IN SIDEWALK AREAS SHALL BE SUPPORTED BY CONCRETE MATERIALS ON ALL SIDES WITH A 200mm WIDE x 150mm DEEP CONCRETE COLLAR FLUSH WITH TOP OF SIDEWALK AND THE TOP OF THE BOX LID.
- JUNCTION BOXES FOR ELECTRICAL APPLICATIONS (TRAFFIC SIGNALS, STREET LIGHTING, ETC.) - THE LIDS SHOULD BE ETCHED ELEC, JUNCTION BOXES FOR COMMUNICATIONS - THE LIDS SHOULD BE ETCHED COMM, ALL UPPERCASE LETTERS.
- SYNERTEC 24 x 36 x 36 PULL BOXES SHALL BE INSTALLED AS SHOWN ON STANDARD DETAIL MMCD DRAWING E2.3 C/W BOLT 2 PIECE DOWN LIDS. REPLACE 150mm FINE DRAIN ROCK WITH 300mm FINE DRAIN ROCK.
- ALL JUNCTION BOXES SHALL BE 2 SECTIONS DEEP. BOTTOM OF JUNCTION BOXES SHALL BE OPEN. BOTTOM SECTIONS SHALL BE SUPPORTED WITH CONCRETE BRICKS AND USE CRUSHED GRAVEL TO DRAIN WATER.
- ALL BOLT DOWN JUNCTION BOX LIDS SHALL BE TIER 15 (20K) RATED.

CONDUCTOR COLOUR CODE		
ITEM	CIRCUITS	CONDUCTOR COLOUR
STREET/PATHWAY LIGHTING LUMINAIRES	B	BLACK
	R	RED
PHOTOCELL	POWER	BLACK
	SWITCH LEG	RED
PANEL SUPPLY	POWER	BLACK
	POWER	RED
NEUTRAL	NEUTRAL	WHITE
GROUND/BOND	GROUND/BOND	GREEN

NOTE: T.T. DENOTES TAPE TRACER.

120V SERVICE LOAD ON SOUTHEAST QUADRANT OF COAST MERIDIAN ROAD AND HIGHLAND AVENUE INTERSECTION (CCTS. 2 & 4)						
(100A - 120/240V SERVICE PANEL)						
WATTAGE (W)	CCT. PHASE	EXISTING	REMOVED	NEW	TOTAL No. OF LIGHTS	CURRENT (A)
43W (LED)	R	0	0	4	4	1.43A
	B	0	0	5	5	1.79A
250W (HPS)	R	0	0	5	5	12.75A
	B	0	0	4	4	10.20A
2.36% VOLTAGE DROP						

REFER TO SHEET 47 FOR ADDITIONAL STREET LIGHTING NOTES AND LEGEND

COQ. REC. DWG. No.  
E1234-01TS

No.	DATE	BY	CHK'D	REVISION
.	2014-05-16	JDM	.	ISSUED FOR REVIEW
1	2014-05-27	JDM	.	ISSUED FOR TENDER
2	2014-06-25	JDM	.	ISSUED FOR CONSTRUCTION
3	2016-06-20	AM	.	RECORD DRAWING

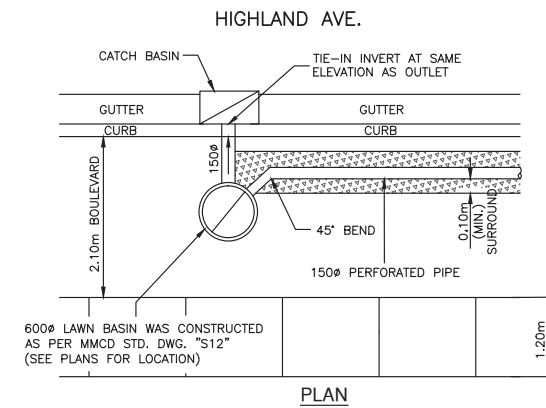
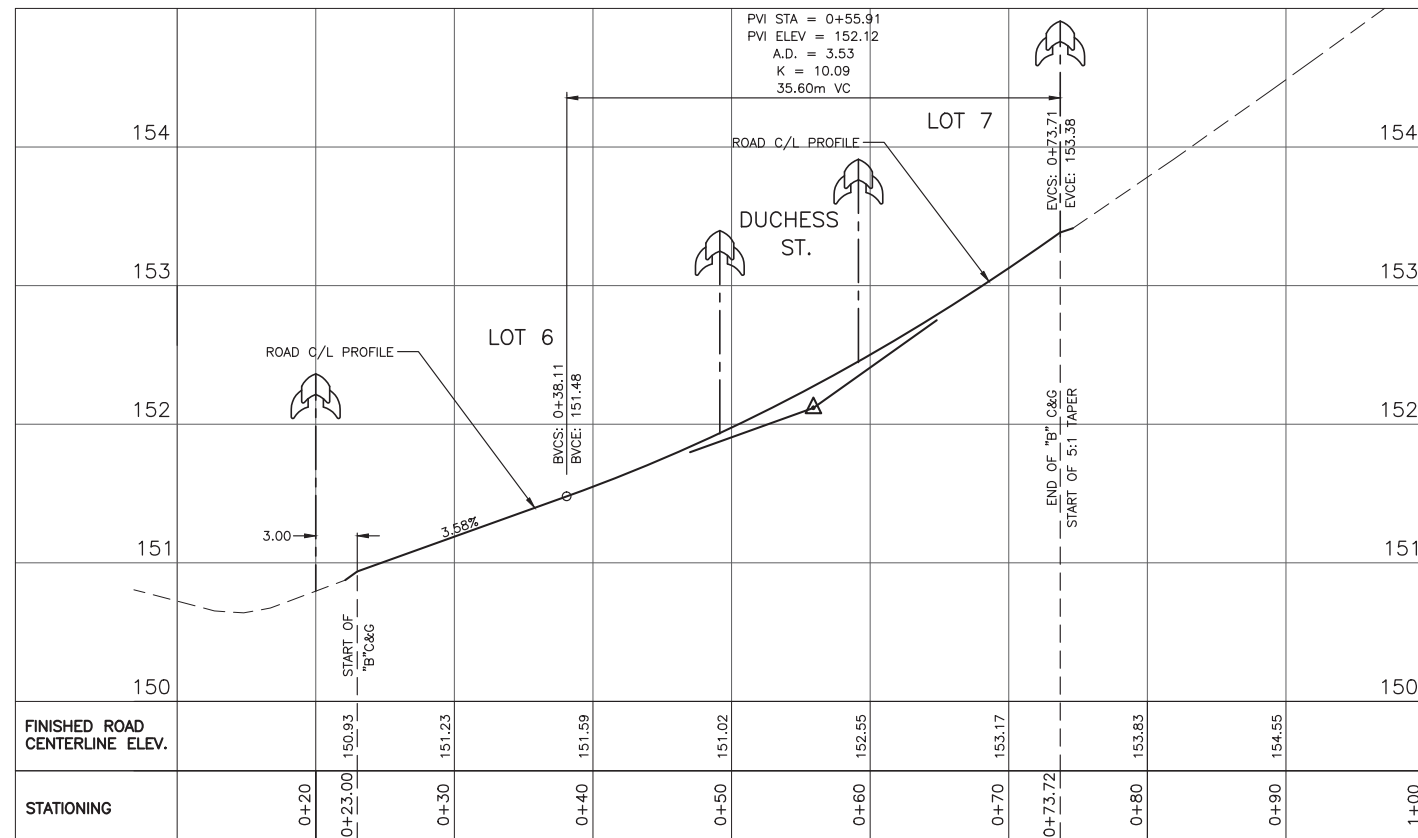
Infrastructure Systems Ltd.  
#503 - 4190 Lougheed Highway, Burnaby, BC V5C 6A8

TRAFFIC SIGNAL PRE-DUCTING  
COAST MERIDIAN ROAD  
AT HIGHLAND DRIVE  
COQUITLAM, BC

PROJECT No. 4484-14-09 of 09  
SHEET No. 55 of 58  
REVISION 3

**DMD**  
DMD & Associates Ltd.  
#12-17358 104A Avenue  
Surrey, BC, Canada V4N 5M3  
www.dmdeng.com 604/589-9010  
office@dmdeng.com Fax 604/589-9012

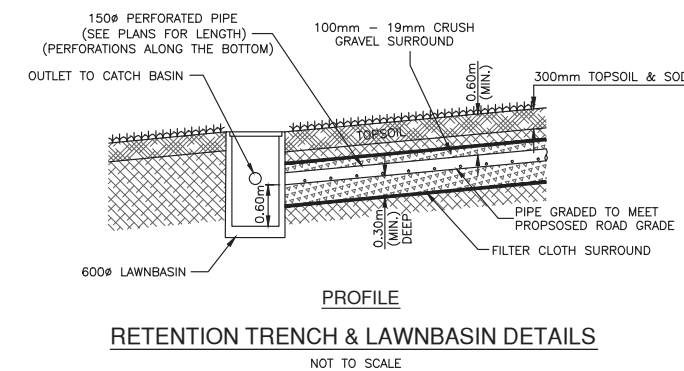
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DRAWN	ARVIND MUTTI
CHECKED	NEIL BRIGHT
DATE	APRIL 21, 2014
SCALE:	AS SHOWN
SEAL	



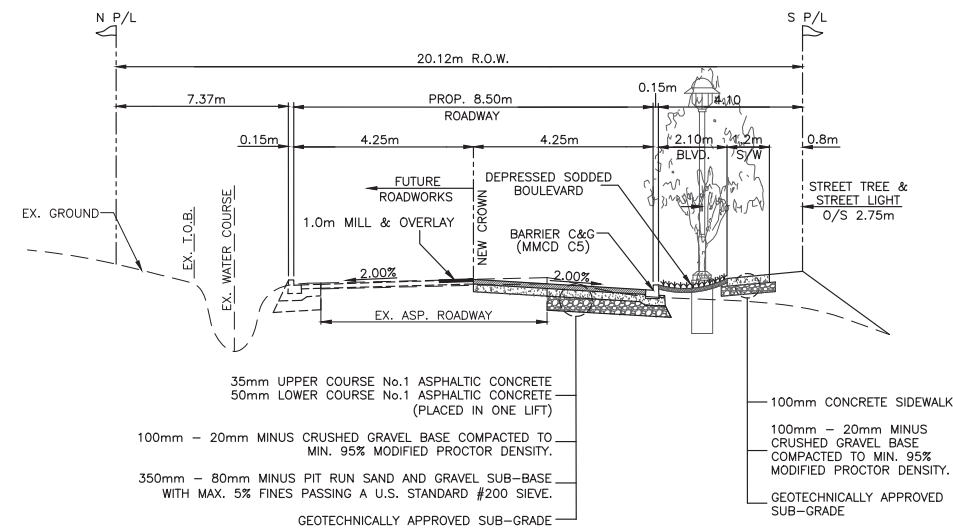
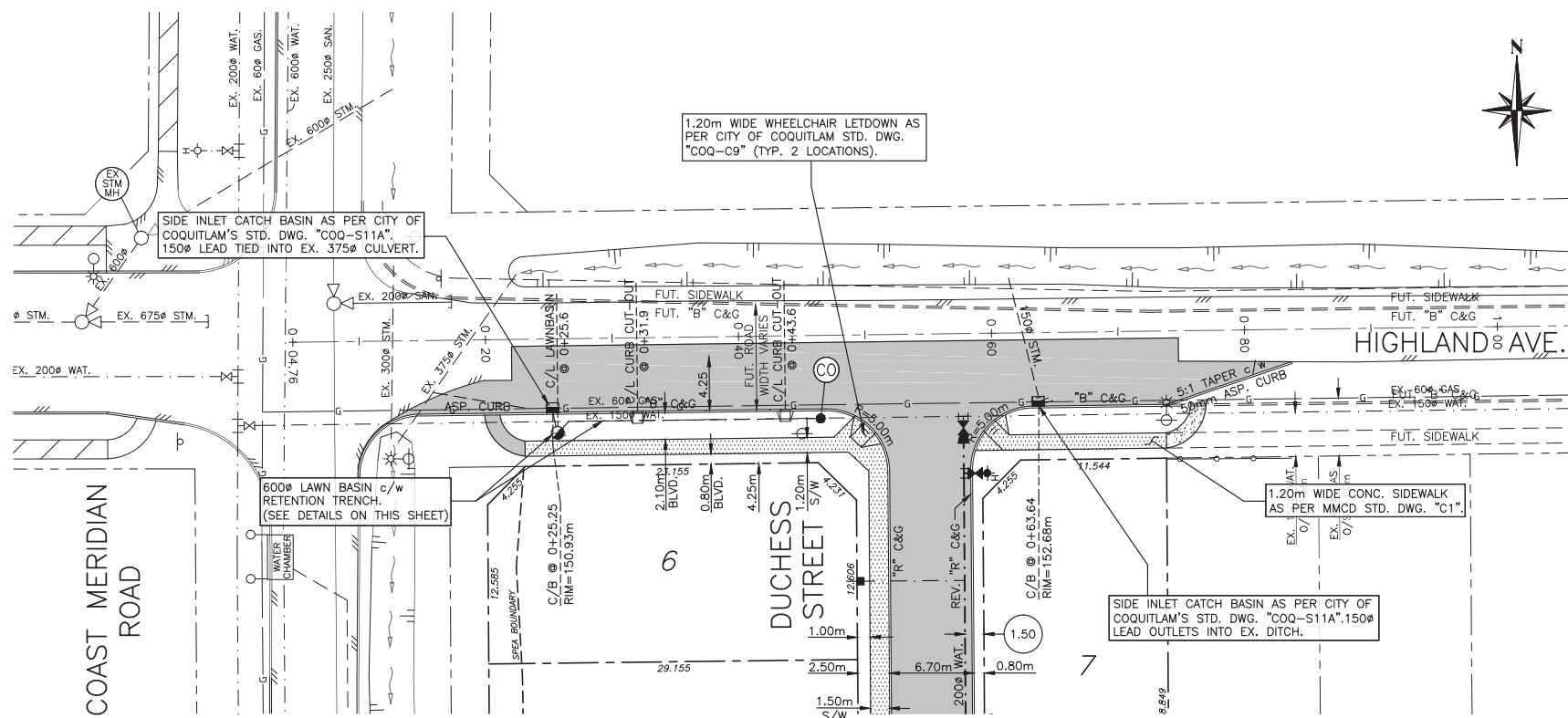
**IMPORTANT:**  
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**RETENTION TRENCH & LAWNBASIN DETAILS**  
NOT TO SCALE



**HIGHLAND AVENUE**  
TYPICAL SECTION  
20.12m R.O.W. SECTION  
NOT TO SCALE

COQ. REC. DWG. NO.  
● R0202-1  
D2623-1



**LANDMARK ENGINEERING & PLANNING LTD.**  
#226-3030 LINCOLN AVE., COQUITLAM, BC, V3B 6B4  
TELEPHONE 604-357-3541 FAX 604-357-3799

CIVIC ADDRESS  
1415 COAST MERIDIAN ROAD  
COQUITLAM, B.C.  
(P.I.D. 008-797-111)

PROPOSED SUBDIVISION PLAN OF LOT 18,  
SECTION 18, TOWNSHIP 39, NEW WESTMINSTER  
DISTRICT, PLAN 26015

ALL DIMENSIONS ARE IN METRES EXCEPT AS OTHERWISE NOTED  
ALL PIPE SIZES ARE IN MILLIMETERS

REVISION	DESCRIPTION	DRAWN	DATE	APPROVED
F	AS CONSTRUCTED	JRG	11/15/12	GSW
D	ISSUED FOR CONSTRUCTION	JRG	4/19/12	GSW
C	FINAL REVISIONS AS PER CITY'S COMMENTS	JRG	2/21/12	GSW
B	REVISIONS AS PER CITY'S COMMENTS	JRG	11/01/11	GSW
A	ISSUED FOR APPROVAL	JRG	8/16/11	GSW

DEVELOPER: NORTH AMERICA HOMES ENTERPRISE LTD.  
2877 McLAREN COURT COQUITLAM, BC, V3B 8G2  
TEL: (604) 552-5865 FAX: (604) 552-5867

DRAWING TITLE:  
**ROAD WORKS - HIGHLAND AVE.**  
1415 COAST MERIDIAN ROAD, COQUITLAM

SEAL

DATE AUGUST 16, 2011	PROJECT NUMBER 2011-04-HIGHLAND
DRAWN JRG	DRAWING NUMBER LEAP 19
DESIGNED GSW	SHEET 1 OF 3
APPROVED GSW	REVISION E
DESTROY ALL PRINTS BEARING PREVIOUS NUMBER	CHECKED J.R.G. G.S.W.

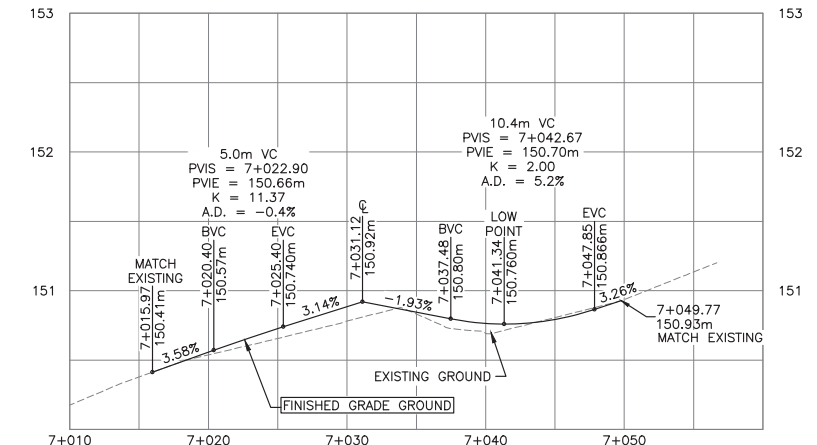
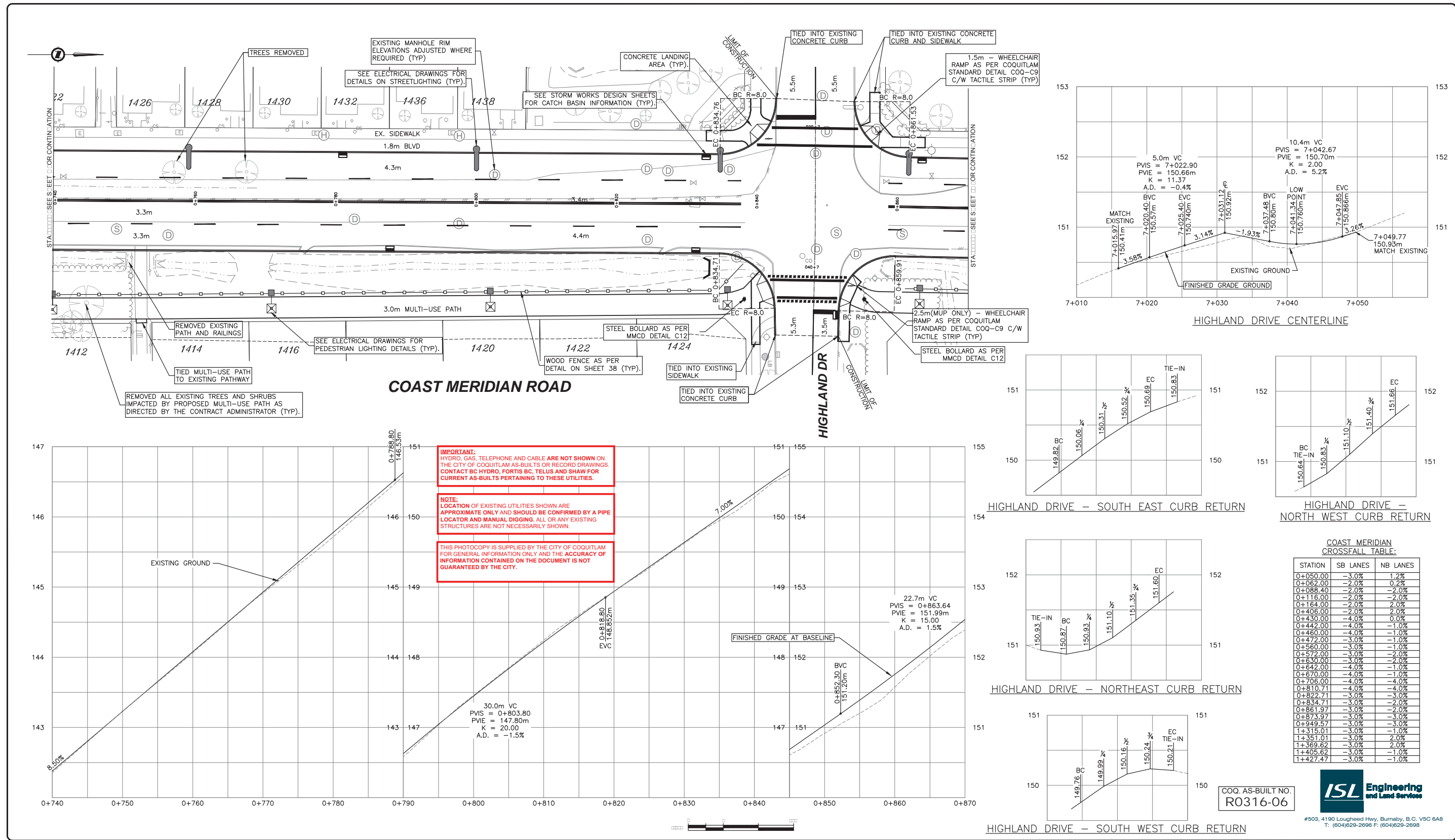
**CITY OF COQUITLAM**  
**ROAD WORKS - HIGHLAND AVE.**  
1415 COAST MERIDIAN ROAD, COQUITLAM

COQUITLAM PROJECT NO.  
10-013748-01SD

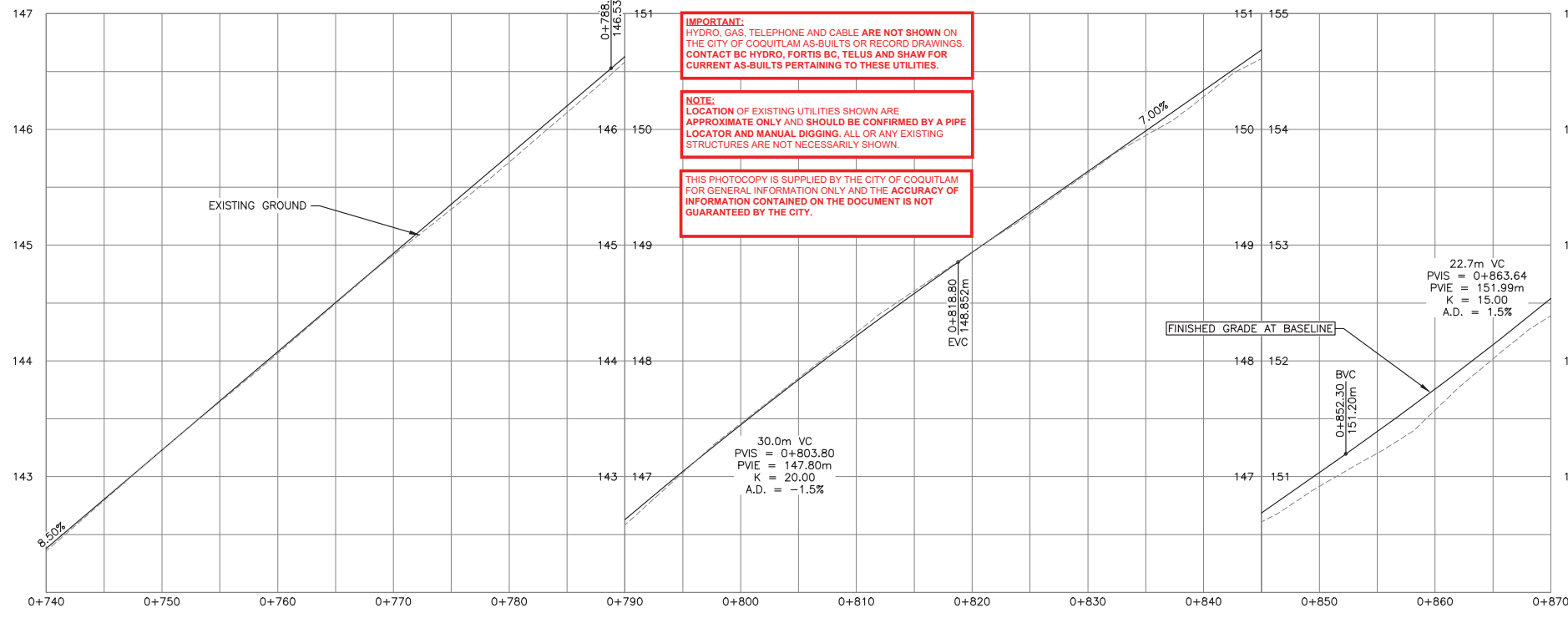
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HOR. 1:250  
VER. 1:25

COQUITLAM FILE NO.





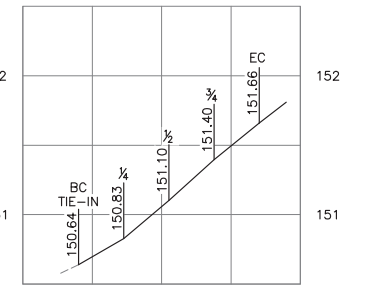
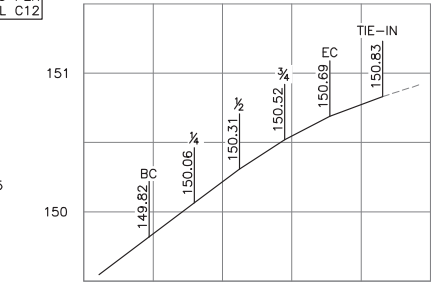
**COAST MERIDIAN ROAD**



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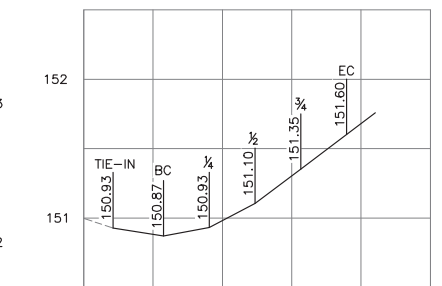
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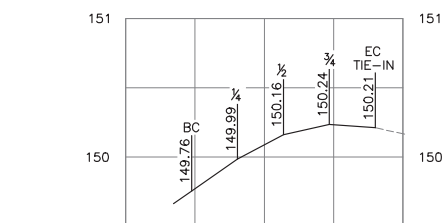


HIGHLAND DRIVE - SOUTH EAST CURB RETURN

HIGHLAND DRIVE - NORTH WEST CURB RETURN



HIGHLAND DRIVE - NORTHEAST CURB RETURN



HIGHLAND DRIVE - SOUTH WEST CURB RETURN

**COAST MERIDIAN CROSSFALL TABLE:**

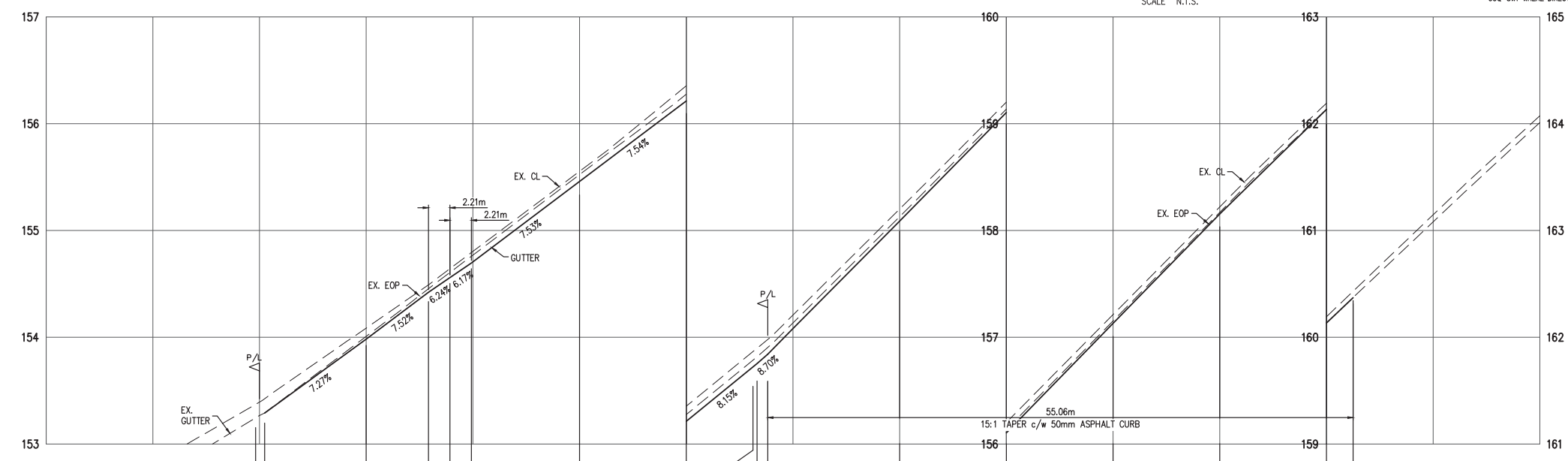
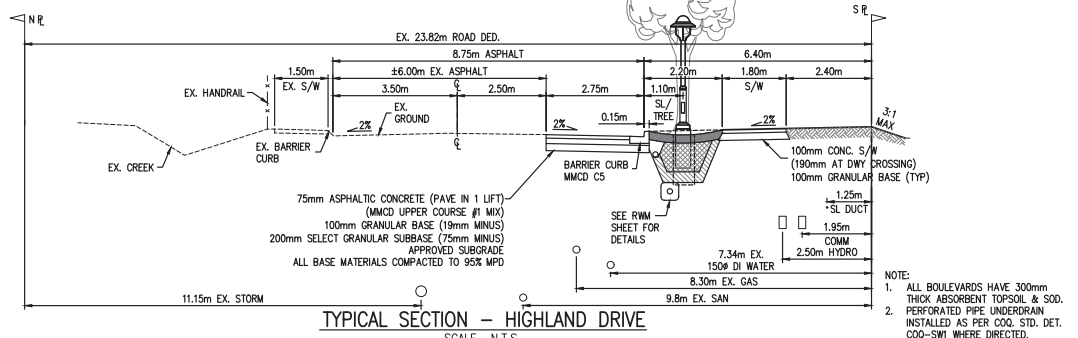
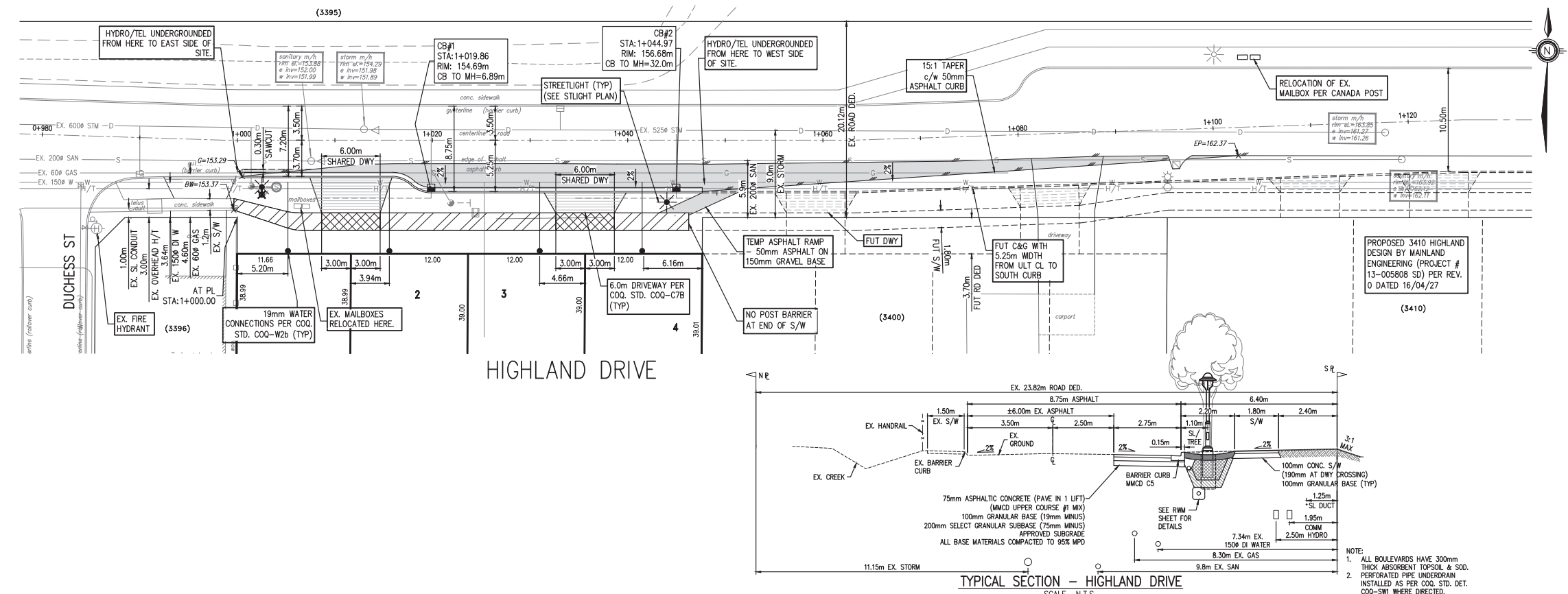
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0+050.00	-3.0%	1.2%
0+062.00	-2.0%	0.2%
0+088.40	-2.0%	-2.0%
0+116.00	-2.0%	-2.0%
0+164.00	-2.0%	2.0%
0+406.00	-2.0%	2.0%
0+430.00	-4.0%	0.0%
0+442.00	-4.0%	-1.0%
0+460.00	-4.0%	-1.0%
0+472.00	-3.0%	-1.0%
0+560.00	-3.0%	-1.0%
0+572.00	-3.0%	-2.0%
0+630.00	-3.0%	-2.0%
0+642.00	-4.0%	-1.0%
0+670.00	-4.0%	-1.0%
0+706.00	-4.0%	-4.0%
0+810.71	-4.0%	-4.0%
0+822.71	-3.0%	-3.0%
0+834.71	-3.0%	-2.0%
0+861.97	-3.0%	-2.0%
0+873.97	-3.0%	-3.0%
0+949.57	-3.0%	-3.0%
1+315.01	-3.0%	-1.0%
1+351.01	-3.0%	2.0%
1+369.62	-3.0%	2.0%
1+405.62	-3.0%	-1.0%
1+427.47	-3.0%	-1.0%

COQ. AS-BUILT NO.  
R0316-06



#503, 4190 Lougheed Hwy, Burnaby, B.C. V5C 6A8  
T: (604)629-2696 F: (604)629-2698

<p>REVISIONS</p> <table border="1"> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>													<p>DATE: Friday, June 03, 2016 3:54:55 PM</p>	<table border="1"> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </table>																																													<p>COQUITLAM</p> <p>Engineering and Land Services</p>	<p>PROJECT: COAST MERIDIAN ROAD DAVID AVENUE TO HARPER ROAD</p> <p>RECORD DRAWING</p>



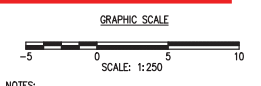
EX. C/L GRADE	153.42	154.09	154.49	154.64	154.79	155.55	156.35	156.90	156.98	158.20	159.20	160.21	161.22	162.19	162.37
EX. EOP GRADE		154.01	154.45	154.61	154.76	155.52	156.28	156.82	156.90	158.13	159.14	160.15	161.17	162.14	162.37
SOUTH GUTTER GRADE	153.29	153.98	154.42	154.56	154.70	155.46	156.21	156.75	156.84	158.09	159.10	160.11	161.11	162.11	162.37
BACK OF SIDEWALK	154.24	154.69	154.81	154.93	154.93	155.69	156.44	156.95	157.64	158.09	159.10	160.11	161.11	162.11	162.37
STATION	START S/W MATCH EX 0+999.63	1+000.48	1+010	PC/1+015.84	PPC/1+017.65	1+019.86	1+030	1+040	END S/W CONS 1+046.23	1+046.23	1+070	1+080	1+090	1+100	1+102.50

**COQ AS BUILT  
W3345-01  
R0384-01**

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LEGEND	
<b>Proposed</b>	<b>Existing</b>
STORM SEWER - D	UTILITY POLE - D
SAN SEWER - S	FIRE HYDRANT - S
GAS - G	IRON PIN - G
WATER - W	BASEMENT ELEV - G
UG ELECTRIC - BCH	EDGE OF PAVT - G
UG TELEPHONE - BCT	
VALVE - V	
MANHOLE - M	

**CoreGroup CONSULTANTS**  
LAND DEVELOPMENT SERVICES  
320-8988 FRASERTON COURT  
BURNABY, BC V5J 5H8  
tel. (604)299 0605 fax. (604)299 0629

**BENCHMARK:**  
ELEVATIONS ARE DERIVED FROM OCM 75H3696 LOCATED APPROX. 190m EAST OF THE INTERSECTION OF COAST MERIDIAN ROAD AND QUEENSTON AVE.  
ELEVATION = 139.497m



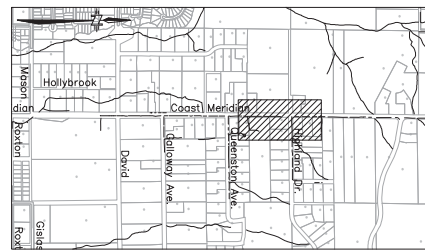
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2	12/21/17	MM	CN
1	04/04/17	MM	CN
0	03/13/17	MM	CN

**THE CITY OF COQUITLAM** Engineering Department

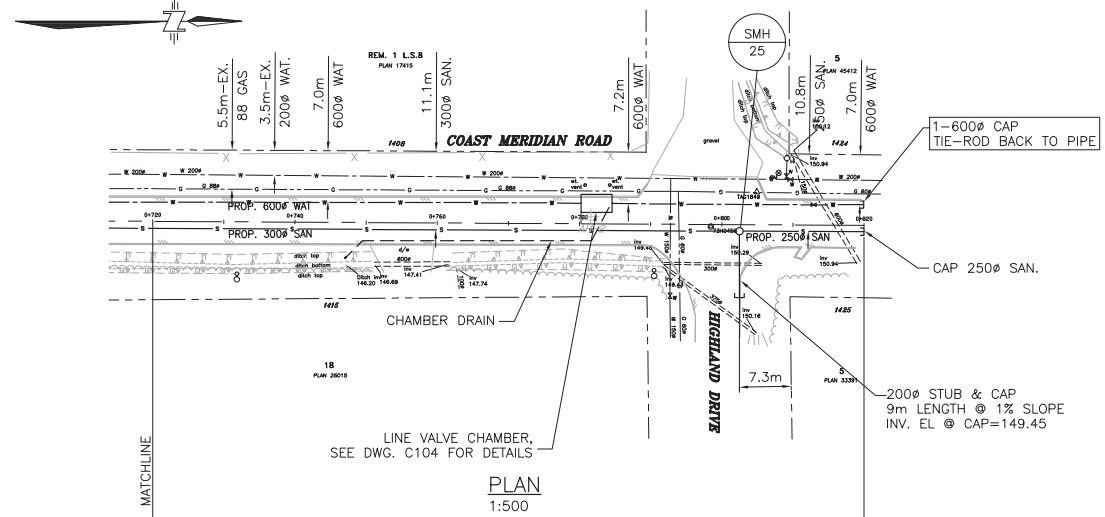
DESIGNED - TU  
DRAWN - MM  
METRIC SCALE - 1:250H/25V  
APPROVED - CN  
DATE - MAY 03, 2018

**RECORD DRAWINGS**  
ROAD & WATERWORKS PLAN  
HIGHLAND DRIVE

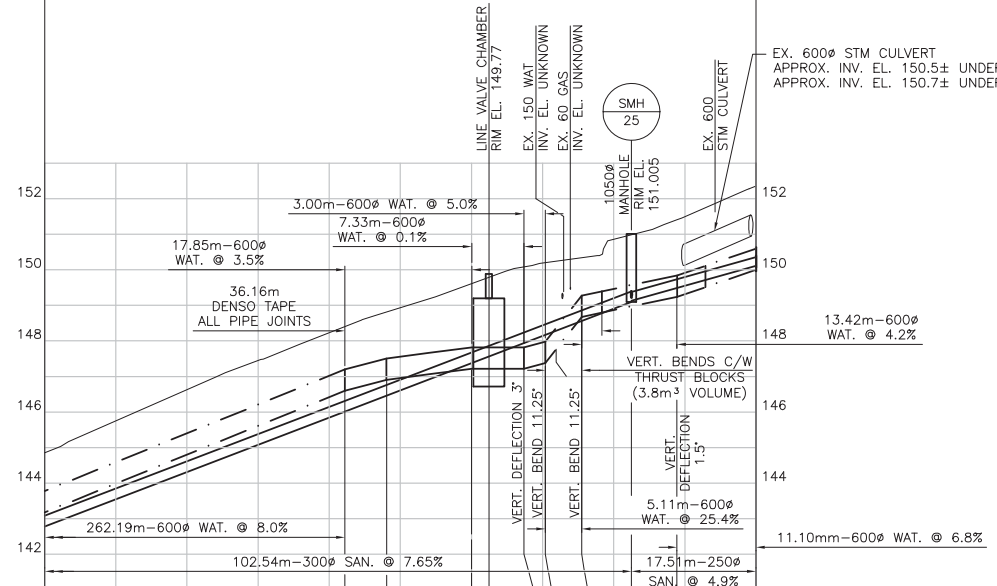
FILE - 15-112386-SD  
CONSULTANTS DWG No- 1780  
CITY DWG No-  
SHEET 4 OF 19



KEY PLAN  
N.T.S.



PLAN  
1:500



PROPOSED WAT. INVERT ELEVATION (m)		146.60	146.91	147.22	147.23	147.38	148.68	149.095 (S) 149.125 (N) 149.205 (E)	149.24	150.00
PROPOSED SAN. INVERT ELEVATION (m)										150.11
STATION (ALONG CONTROL LINE)	0+720	0+762.19	0+768.05	0+780.04	0+782.45	0+787.37	0+790.37	0+795.48	0+802.49	0+820

**GENERAL NOTES:**

- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS (MMCD) 2000 EDITION AND CITY OF COQUITLAM SUPPLEMENTARY SPECIFICATIONS, UNLESS OTHERWISE NOTED.
- NOTIFY CITY OF COQUITLAM A MINIMUM OF 7 DAYS IN ADVANCE OF ANY REQUIRED UTILITY RELOCATIONS.
- CONTRACTOR TO MAKE BC ONE CALL TO CONFIRM LOCATION OF EXISTING UTILITIES AND PROVE ALL EXISTING UTILITIES AND CONNECTIONS BY TRIAL EXCAVATION PRIOR TO CONSTRUCTION. CONTRACTOR TO ADVISE ENGINEER OF ANY POTENTIAL CONFLICTS MINIMUM 72 HOURS IN ADVANCE OF ANY WORK.
- INFORMATION ON EXISTING UTILITIES IS BASED ON RECORD DRAWINGS AND IS APPROXIMATE ONLY. CONTRACTOR IS REQUIRED TO CONFIRM EXACT LOCATION AND ELEVATION OF EXISTING UTILITIES BY CAREFUL TRIAL EXCAVATION ON SITE. ADVISE ENGINEER IN WRITING MINIMUM 72 HOURS IN ADVANCE OF INSTALLATION OF PROPOSED SERVICES.
- SEDIMENT AND EROSION CONTROL WORKS TO REMAIN DURING ENTIRE DURATION OF CONSTRUCTION, AND UNTIL SUCH TIME THAT THE LANDSCAPING AND SURFACE VEGETATION IS RESTORED TO EXISTING CONDITIONS.
- AS BUILT DRAWINGS: CONTRACTOR TO MAINTAIN AS BUILT RECORD OF DRAWINGS ON SITE AT ALL TIMES. UPON COMPLETION OF WORK, CONTRACTOR TO PROVIDE ONE CLEAN SET OF DRAWINGS MARKED CLEARLY "IN RED LINES" ACCURATE AS BUILT INFORMATION.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL SURVEY LAYOUT DURING CONSTRUCTION, USING BENCHMARK INFORMATION PROVIDED ON CONTRACT DRAWINGS. ALL EXISTING BENCHMARKS/MONUMENTS SHOWN ON THE TITLE/COVER PAGE SHALL BE UNDISTURBED DURING CONSTRUCTION.
- EVERY EFFORT TO BE MADE TO SAVE EXISTING LANDSCAPING WITHIN THE ROAD R.O.W. LANDSCAPING TO BE RESTORED TO ITS ORIGINAL OR BETTER CONDITION. IN THE EVENT OF LANDSCAPING REMOVAL THE PROPERTY OWNER SHALL BE ADVISED OF THE REMOVAL AND THE LANDSCAPING PLACED IN OWNER'S YARD UPON THEIR REQUEST.
- CONTRACTOR RESPONSIBLE FOR POTENTIAL FLOW DIVERSION & TEMPORARY PUMPING FOR ALL TRENCH WORK, WATERMAIN RELOCATION, DITCH RESTORATION & SEWER TIE-IN CONNECTION WORK. ALL SUCH FLOW DIVERSION/PUMPING WORK MUST BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, ENVIRONMENTAL MANAGEMENT PLAN AND NOTES SHOWN ON THE CONTRACT DRAWINGS.

**WATERMAIN NOTES:**

- DUCTILE IRON PIPE: THICKNESS CLASS 50, CONFORMING TO AWWA C151 AND STANDARD CEMENT MORTAR LINED TO AWWA C104. JOINTS MANUFACTURED IN ACCORDANCE WITH AWWA C111 AND FIELD LOK GASKETS ON ALL JOINTS.
- MAXIMUM PIPE DEFLECTION AT JOINT TO BE 2 DEGREES FOR 600mm DIA PIPE AND 4 DEGREES FOR 200mm DIA PIPE OR 60% OF MANUFACTURER'S MAXIMUM RECOMMENDATIONS.
- FITTINGS: COMPACT DUCTILE IRON FITTINGS TO AWWA C153
- RESTRAINTS: RESTRAIN ALL PIPE, BENDS AND FITTINGS WITH FIELD LOK GASKETS AND THRUST BLOCKS ON EXISTING PIPING. PROVIDE HEAVY DUTY POLYETHYLENE BETWEEN CONCRETE AND FITTING. KEEP JOINTS FREE OF CONCRETE.
- VALVES: ALL GATE VALVES IN ACCORDANCE WITH CITY STANDARDS AND SHALL INCLUDE ALL APPURTENANCES WITH STAINLESS STEEL BOLTS AND NUTS.
- ALL BOLTS AND NUTS TO ASTM A307, GRADE B STEEL, HEX HEAD. PROTECT ALL BURIED BOLTS, FLANGES AND NUTS WITH DENSO TAPE (TYPICAL).
- CONTRACTOR SHALL PROVIDE 48 HOURS NOTICE TO THE CONTRACT ADMINISTRATOR PRIOR TO CONDUCTING SWABBING, PRESSURE TESTING, DISINFECTING AND FLUSHING OF THE WATERMAIN. TESTING TO CONFORM TO CITY OF COQUITLAM AND AWWA REQUIREMENTS, WITH TEST PRESSURES OF 225 PSI

**SANITARY SEWER NOTES:**

- ALL GRAVITY SANITARY SEWERS TO BE PVC DR 35.
- SANITARY SEWER TO BE TESTED IN ACCORDANCE WITH MMCD AND CITY SPECIFICATIONS.

**CHAMBER NOTES:**

- FABRICATED STEEL PIPE & FITTINGS TO BE SCHEDULE NO. 40 STEEL PIPE FOR SIZES TO 250mm, AND 9.5mm WALL FOR 300mm AND LARGER.
- ALL 75mm DIAMETER AND LARGER PIPE, INSIDE WETTED SURFACES TO BE SANDBLASTED, EPOXY LINED AND COATED TO AWWA C-210 AND NSF-61 SPECIFICATION. FINISH COATING WILL BE BLUE ENAMEL. ALL VALVES TO BE EPOXY LINED INTERNALLY TO AWWA C-210 AND NSF-61.
- ALL BURIED FITTINGS (FLANGES, COUPLINGS, BOLTS AND NUTS) TO BE PROTECTED WITH DENSO MASTIC AND TAPE. RESTRAIN ALL BURIED PIPE JOINTS USING FIELD LOK GASKETS.
- ALL FITTINGS, VALVES AND CONTROL PIPING (STAINLESS STEEL) SHALL BE IN ACCORDANCE WITH CITY OF COQUITLAM PRV STATION REQUIREMENTS.
- OUTSIDE OF CHAMBER TO BE PAINTED WITH ASPHALT EMULSION AND INSIDE PAINTED WITH TWO COATS OF WHITE PAINT.
- CONTRACTOR TO CONFIRM EXACT LOCATION AND ELEVATION OF EXISTING WATERMANS AND OTHER UTILITIES BY TRIAL EXCAVATION MINIMUM TWO WEEKS PRIOR TO CARRYING OUT WORK AND PRIOR TO ORDERING CHAMBER. CONTRACTOR TO ADVISE CONTRACT ADMINISTRATOR IN CASE OF CONFLICTS.
- CONTRACTOR TO SUBMIT SHOP DRAWINGS TO CONTRACT ADMINISTRATOR FOR REVIEW, MINIMUM TWO WEEKS IN ADVANCE OF WORK.
- PRESSURE REDUCING VALVES, COMPLETE WITH STAINLESS STEEL PIPING, FITTINGS, ARION PILOTS AND PIPING SCREENS.
- CHAMBER EXCAVATION AND BACKFILL
  - EXCAVATE WITH CARE FOR CHAMBER AND PIPING, ENSURE THAT FOUNDATION OF EXISTING STRUCTURES, UTILITIES, POLES ADJACENT TO EXCAVATED AREAS ARE NOT DAMAGED, WEAKENED OR IMPAIRED.
  - ENSURE THE BOTTOM OF EXCAVATION IS UNDISTURBED SOIL, LEVEL AND FREE OF ALL LOOSE, SOFT OR ORGANIC MATTER AND IS PROTECTED AND KEPT DRY UNTIL THE CONCRETE IS PLACED. THOROUGHLY COMPACT THE BASE OF THE EXCAVATION PRIOR TO FOUNDATION CONSTRUCTION, TO DENSIFY THE SOIL LOOSENED BY EXCAVATION EQUIPMENT.
  - USE HAND-OPERATED COMPACTION EQUIPMENT WITHIN 1m OF WALLS AND FOOTINGS.
  - BACKFILL LAYERS ALTERNATELY ON BOTH SIDES OF INSTALLED WORK TO EQUALIZE LOADING.
  - USE GRANULAR SUB BASE FOR BACKFILLING BEHIND CHAMBER WALLS UP TO THE BASE COURSE LEVEL.

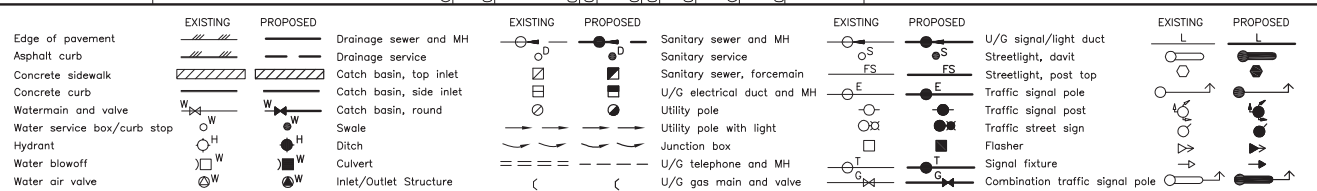
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Ref. S 1827-01-02 • S 1827-03 W 3032-03



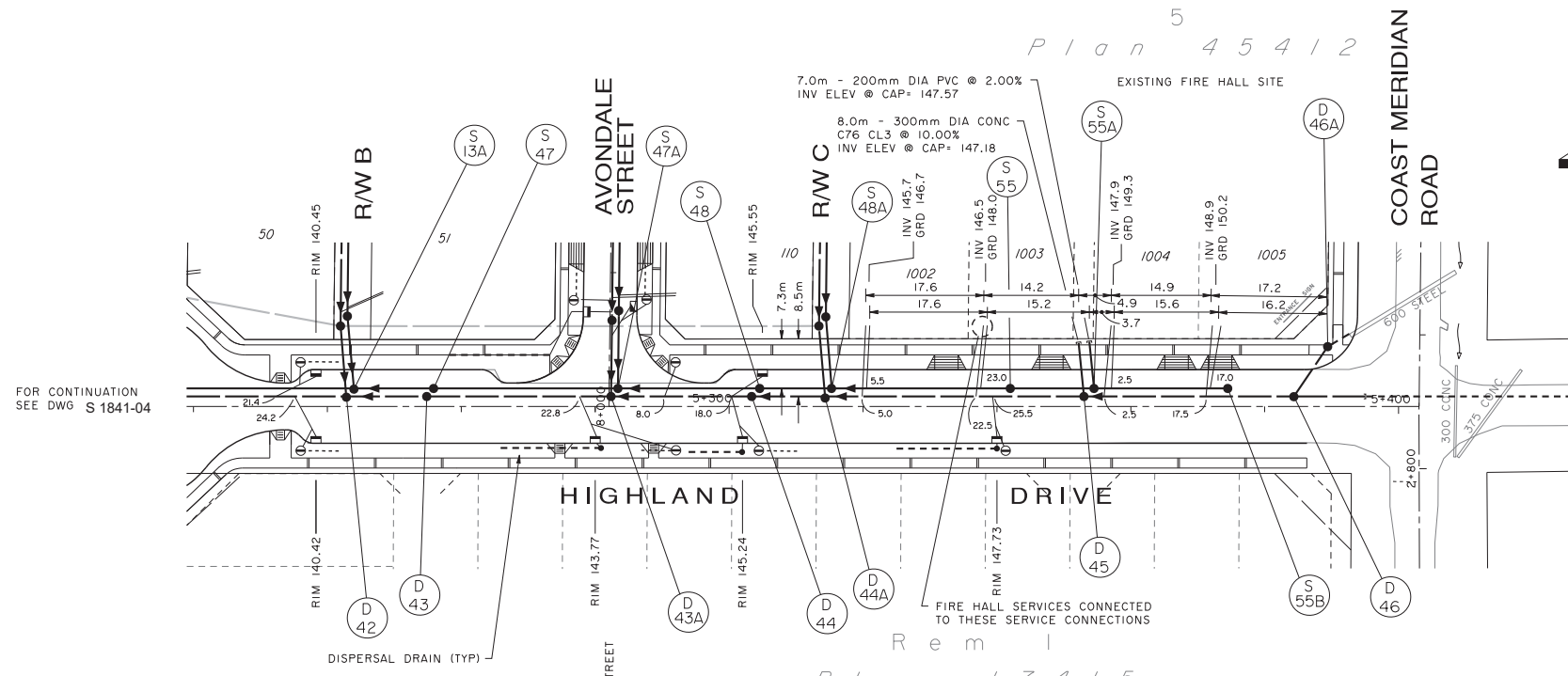
**Earth Tech**  
A Tyco International Ltd. Company

Earth Tech Inc. 1901 Rosser Avenue, 6th Floor Burnaby, B.C. V6C 6S3  
TEL: (604) 298-0411 FAX: (604) 294-8697

REV'D	DATE	DR'N	CH'D
6	04/10/09	RI	SN
5	03/18/08	RI	SN
4	02/27/07	RI	SN
3	01/02/07	RI	KM
2	12/1/06	RI	AS
1	11/03/06	RI	AS

CITY OF COQUITLAM		ENGINEERING
DESIGNED - AS	COAST MERIDIAN	ET FILE 96262
DRAWN - RI	WATER AND SANITARY SEWER STA. 0+720 TO STA. 0+820	CONSULTANTS DWG No- C103
METRIC SCALE - H 1:500, V 1:100	PLAN, PROFILE AND GENERAL NOTES	CITY DWG No
APPROVED-		SHEET 3 OF 6
DATE - October, 2006		





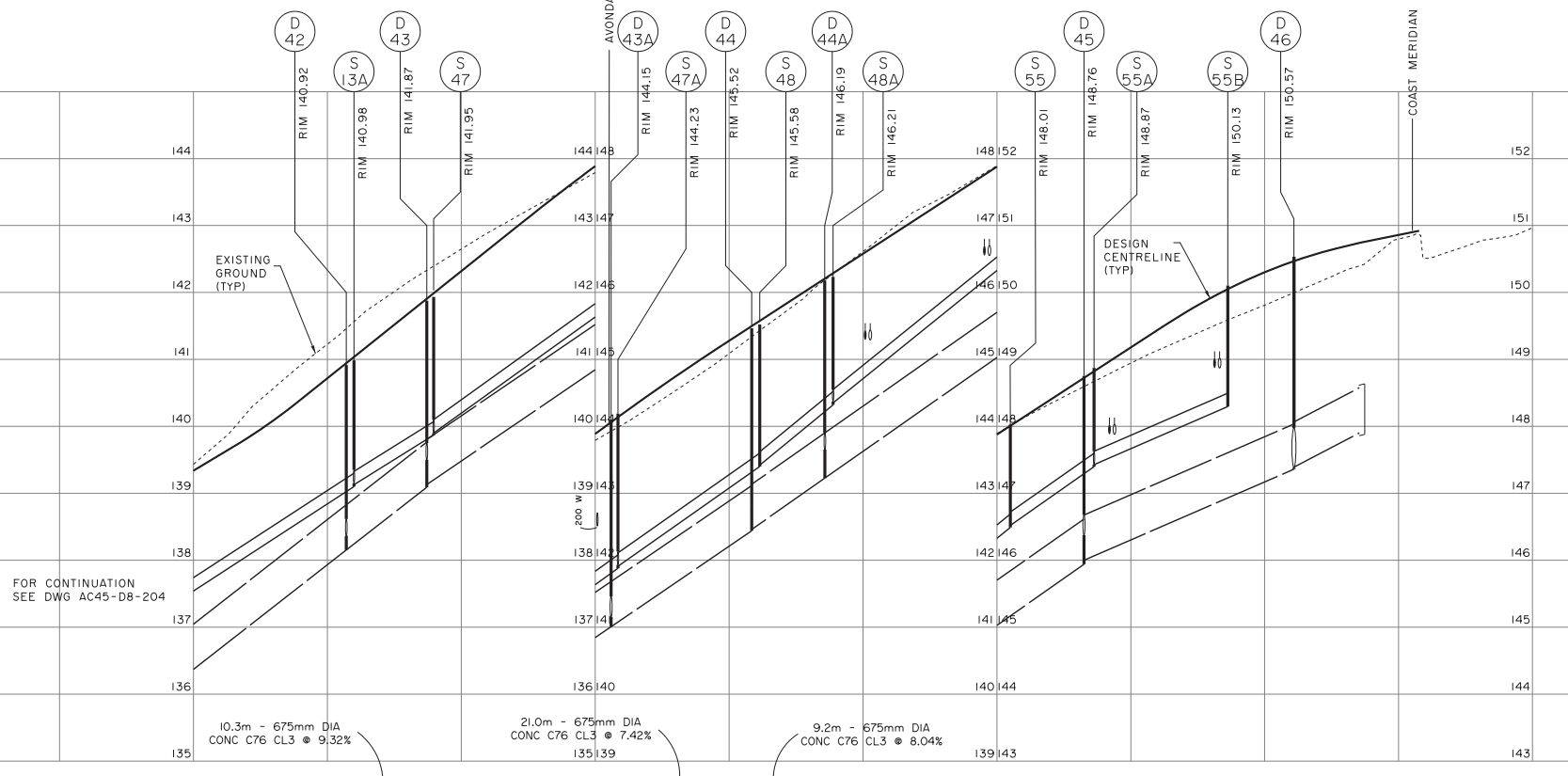
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- NOTES:**
- UNLESS OTHERWISE INDICATED STORM SERVICE CONNECTIONS ARE 150mm DIAMETER PVC
  - UNLESS OTHERWISE INDICATED SANITARY SERVICE CONNECTIONS ARE 100mm DIAMETER PVC
  - ALL PVC PIPE MANUFACTURED BY ROYAL PIPE SYSTEMS
  - ALL CONCRETE PIPE MANUFACTURED BY LANGLEY CONCRETE GROUP

- C. 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 DIA PVC, DR 28
    - DOUBLE CB - 200mm DIA PVC, DR 35
    - MANHOLES - PRECAST REINFORCED CONCRETE
      - 1050mm DIA MH - MAINS UP TO 450mm DIA
      - 1200mm DIA MH - MAINS 525mm AND 600mm IN DIA
      - 1350mm DIA MH - MAINS 675mm AND 750mm IN DIA
      - 1500mm DIA MH - MAINS 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.
  - STANDARD CATCHBASINS SHALL BE INSTALLED AS PER MMCD STANDARD DRAWING S11. SIDE INLET CATCHBASINS SHALL BE INSTALLED AS PER CITY OF COQUITLAM STANDARD DRAWING COQ-S11A. CATCHBASIN RIM ELEVATIONS FOR STANDARD AND SIDE INLET CATCHBASINS SHALL BE SET 30mm BELOW FINISHED GRADE.
  - INSPECTION CHAMBERS SHALL BE INSTALLED AS PER MMCD STANDARD DRAWING S9 FOR CONNECTIONS UP TO 200mm AND AS PER MMCD STANDARD DRAWING S10 FOR CONNECTIONS GREATER THAN 200mm.
  - ROAD SUBGRADE DRAINS SHALL BE INSTALLED WHERE DIRECTED BY THE CITY, OR THE ENGINEER, AS PER CITY OF COQUITLAM STANDARD DRAWING COQ-C3A.
  - 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 AS PER MMCD STANDARD DRAWING S9.
  - SANITARY CONNECTION TO BE 100mm DIA PVC UNLESS OTHERWISE NOTED.
  - TRENCHING SHALL BE AS PER CITY OF COQUITLAM STANDARD DRAWING COQ-G4.



FOR CONTINUATION SEE DWG AC45-D8-204

Station	Length	Diameter	Material	Slope	Notes	Station	Material
5+240	11.4m	200mm	DIA PVC DR35	6.57%		5+240	STORM SEWER
5+260	27.2m	200mm	DIA PVC DR35	7.28%		5+260	STORM SEWER
5+290	21.1m	200mm	DIA PVC DR35	7.06%		5+290	STORM SEWER
5+300	8.9m	200mm	DIA PVC DR35	10.00%		5+300	STORM SEWER
5+320	26.8m	200mm	DIA PVC DR35	7.99%		5+320	STORM SEWER
5+340	11.9m	200mm	DIA PVC DR35	6.97%		5+340	STORM SEWER
5+360	19.3m	200mm	DIA PVC DR35	4.76%		5+360	STORM SEWER
5+400	10.6m	675mm	DIA CONC C76 CL3	4.80%		5+400	SANITARY SEWER
5+420						5+420	STATION



**D 2471-05**  
**• S 1841-05**

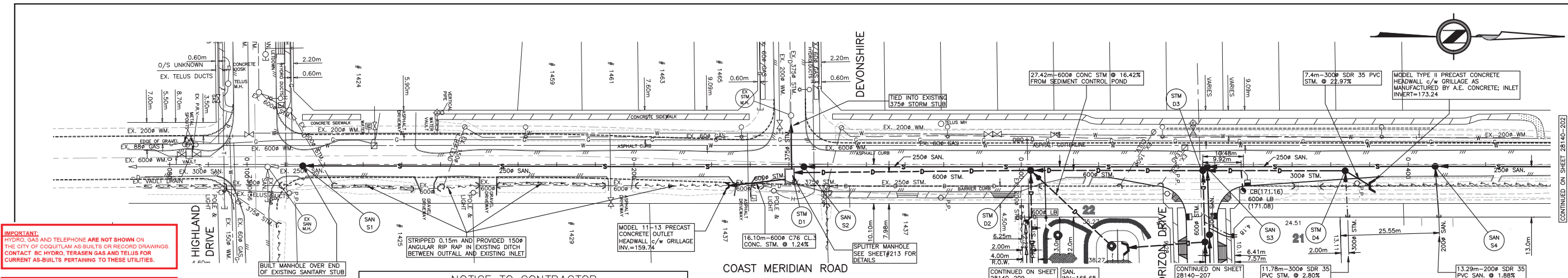
**InterCAD**  
CONSULTING ENGINEERS

NO.	DATE	REVISIONS	BY	APPROVED
2	08-03-11	As Constructed	J.R.	
1	07-06-14	Added Temporary Storm Sewer West of RW C	B.E.	
E	07-07-06	Issued For Construction	J.R.	
D	07-04-03	Revised As Per City Comments On Third Submission	D.Y.	
C	07-02-23	Third Submission for City Approval	D.Y.	
B	06-10-27	Second Submission for City Approval	D.Y.	
A	06-07-07	First Submission for City Approval	D.Y.	

Client: **Wesbild**  
Project: **Upper Hyde Creek Neighbourhood**

Scale: 1:500  
Design: R. SKAPSKI  
Drawn: D. YOUNG  
Plot Date: 5/8/2009  
Plot Time: 12:02:12 PM

Title: **Storm and Sanitary Sewers**  
**Highland Drive**  
Drawing Number: **AC45-D8-205**  
Revision: **2**

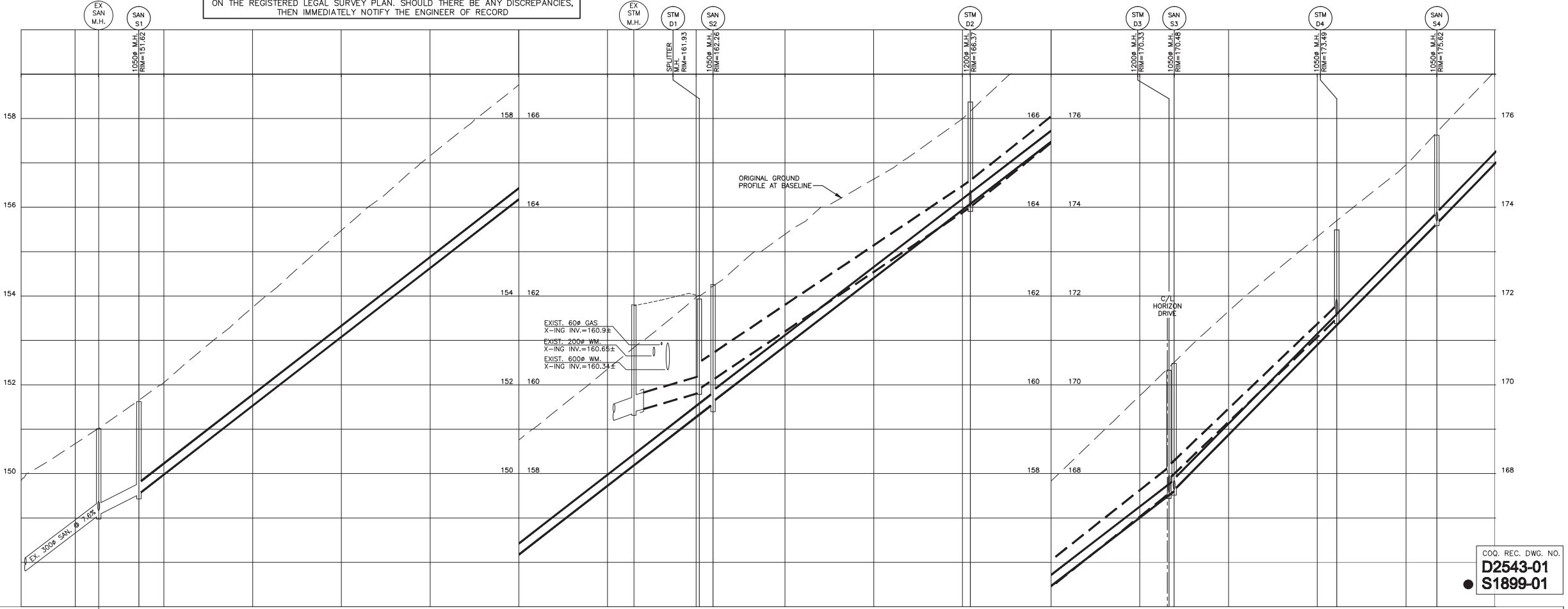


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**NOTICE TO CONTRACTOR**  
IT IS THE RESPONSIBILITY OF THE CONTRACTOR'S SURVEYOR TO VERIFY THAT ALL LEGAL SURVEY DIMENSIONS SHOWN ON THE ENGINEERS DRAWINGS AGREE WITH THOSE ON THE REGISTERED LEGAL SURVEY PLAN. SHOULD THERE BE ANY DISCREPANCIES, THEN IMMEDIATELY NOTIFY THE ENGINEER OF RECORD



COQ. REC. DWG. NO.  
**D2543-01**  
**S1899-01**

STORM INV., LENGTH, SIZE, TYPE AND GRADE	SANITARY INV., LENGTH, SIZE, TYPE AND GRADE	CHAINAGE
14.75m - 375 $\phi$ C14 CL. 3 CONC. STM. @ 2.92% 62.20m - 600 $\phi$ C76 CL. III CONC. STM. @ 6.53% 44.50m - 600 $\phi$ C76 CL. III CONC. STM. @ 7.98% 37.05m - 300 $\phi$ SDR 35 PVC STM. @ 9.74%	129.45m - 250 $\phi$ SDR 35 PVC SAN. @ 7.74% 103.95m - 250 $\phi$ SDR 35 PVC SAN. @ 7.75% 59.20m - 250 $\phi$ SDR 35 PVC SAN. @ 10.22% 32.60m - 250 $\phi$ SDR 35 PVC SAN. @ 10.21%	0+106.305 0+114.350 0+149.54N 0+240.719 0+243.80 0+301.769 0+346.587 0+347.749 0+384.289 0+406.95

Proposed	Existing	Legend
STORM SEWER - D	STORM SEWER - D	DITCH - [Symbol]
SAN SEWER - S	SAN SEWER - S	UTILITY POLE - [Symbol]
GAS - G	GAS - G	FIRE HYDRANT - [Symbol]
WATER - W	WATER - W	IRON PIN - [Symbol]
UG ELECTRIC - BCH	UG ELECTRIC - BCH	BASEMENT ELEV - [Symbol]
UG TELEPHONE - BCT	UG TELEPHONE - BCT	EDGE OF PWMT - [Symbol]
VALVE - [Symbol]	VALVE - [Symbol]	INTEG SURVEY MON - [Symbol]
MANHOLE - [Symbol]	MANHOLE - [Symbol]	

The location of existing underground utilities are shown in an approximate way only & have not been independently verified by the contractor or its representative. The contractor shall determine the exact location of all existing utilities before commencing work, and agrees to be fully responsible for any & all damages which might be occasioned by the contractor's failure to locate and preserve any and all underground utilities.

**APLIN & MARTIN CONSULTANTS LTD**  
201-12448 82 Avenue, Surrey, B.C. Canada V3W 3E9  
Tel: (804) 597-9056, Fax: (804) 597-9061, E-mail: general@aplinmartin.com

**LEGAL:**  
NORTH 1/2 LOT 2 AND PARCEL A (L70711E) OF LOT 2 BOTH OF SEC 18 TP 40 NWD PLAN 23487

**BENCHMARK:**  
ELEVATIONS ARE GEODETIC AND REFER TO MONUMENT: OCM 73H0457  
MONUMENT ELEVATION: 179.94 m  
LOCATED AT: ON COAST MERIDIAN RD. BETWEEN HIGHLAND DR. AND HARPER RD.

REV'D	DATE	DRN	CH'D
5	20 JUNE '11	KAL	MEC
4	22 FEB '11	KAL	MEC
3	8 AUG '09	MJC	MEC
2	JUNE 27/09	MJC	MEC
1	APRIL 29/09	KAL	MEC

**CITY OF COQUITLAM Engineering Department**

DESIGNED - MEC  
DRAWN - MJC  
METRIC SCALE - H 1:500  
SCALE - V 1:50  
APPROVED - MEC  
DATE - AUGUST 2008

**STORM AND SANITARY SEWER COAST MERIDIAN ROAD SHEET 1**

FILE - 28140  
CONSULTANTS DWG No- 28140-201  
CITY DWG No- 07-014385 SD  
SHEET 201

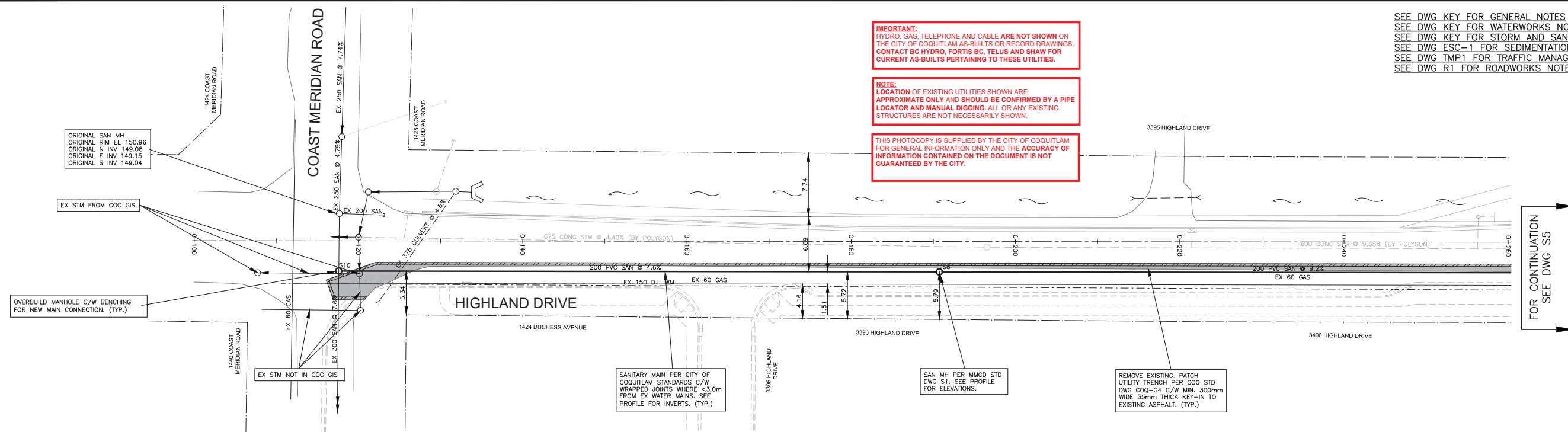


SEE DWG KEY FOR GENERAL NOTES  
 SEE DWG KEY FOR WATERWORKS NOTES  
 SEE DWG KEY FOR STORM AND SANITARY NOTES  
 SEE DWG ESC-1 FOR SEDIMENTATION CONTROL NOTES  
 SEE DWG TMP1 FOR TRAFFIC MANAGEMENT NOTES  
 SEE DWG R1 FOR ROADWORKS NOTES AND TYPICAL SECTIONS

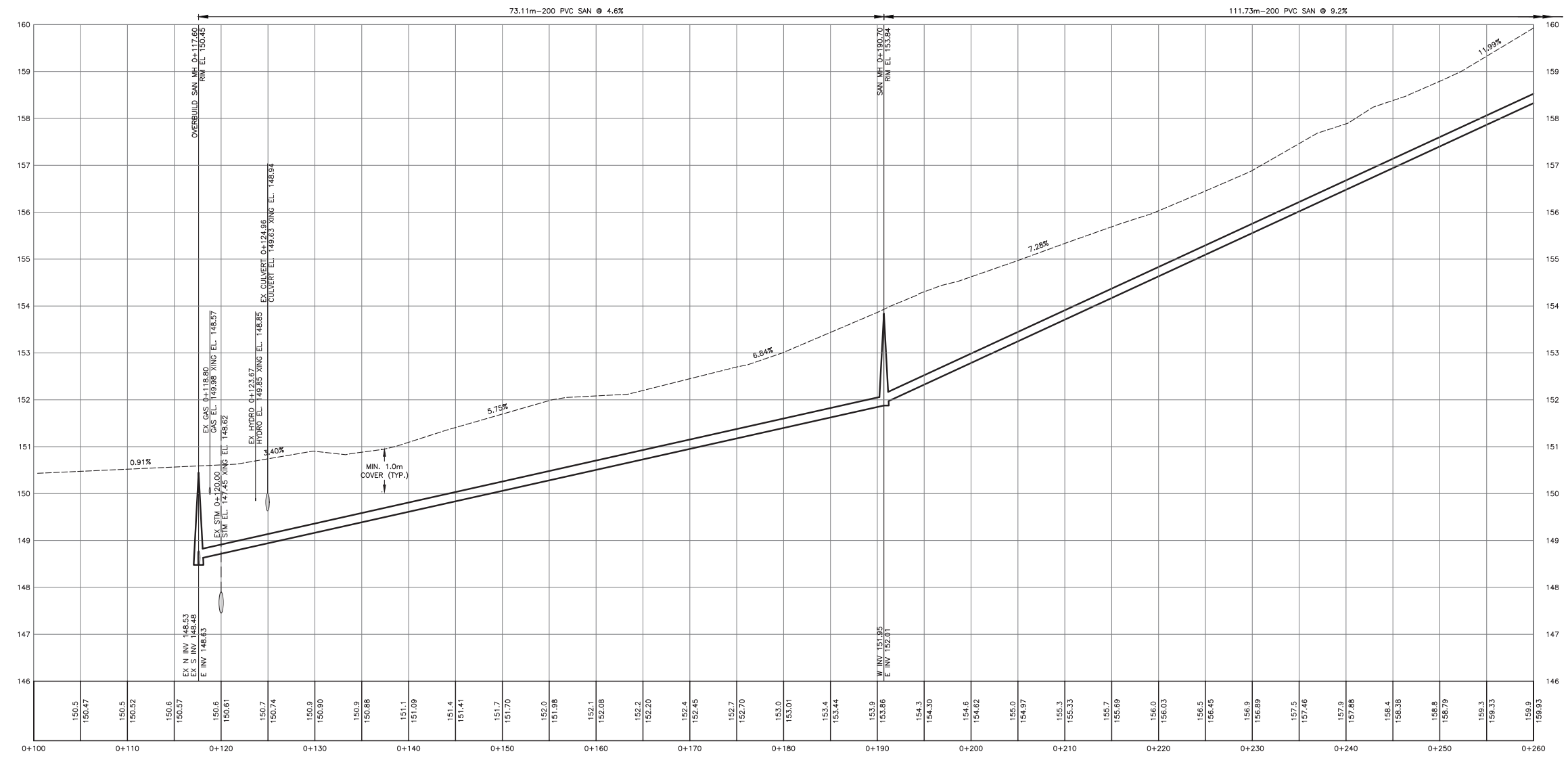
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FOR CONTINUATION  
 SEE DWG S5



5	APR.02.14	REVISED PER CITY COMMENTS	DJC	9	JUL.11.16	REVISED PER CITY COMMENTS	AGC	client	<b>BOLD PROPERTIES INC.</b> 1423 - 1455 DAYTON STREET COQUITLAM, BRITISH COLUMBIA	www.creus.ca <b>CREUS Engineering Ltd</b> Civil Engineers P: 604-987-9070 F: 604-987-0071 200 - 901 WEST 16TH ST NORTH VANCOUVER, BC V7P 1R2	COPYRIGHT RESERVED THIS DRAWING AND DESIGN ARE AND AT ALL TIMES REMAIN THE EXCLUSIVE PROPERTY OF CREUS ENGINEERING LTD. AND CANNOT BE REPRODUCED OR DISTRIBUTED WITHOUT WRITTEN CONSENT. © 2012 CREUS ENGINEERING LTD.	designed by K.B.H.	title SANITARY HIGHLAND DRIVE (0+100 - 0+260)	scales hor: 1:250 vert: 1:50
4	JAN.14.14	ISSUED FOR TENDER	KBH	8	FEB.16.16	RECORD DRAWING PER COC COMMENTS	AGC	project				drawn by M.C.	file no. 12109	drawing no. S6
3	JAN.08.14	REISSUED FOR SUBDIVISION APPROVAL	KBH	7	APR.02.15	AS CONSTRUCTED	AGC			checked by F.M.C.				
2	OCT.18.13	ISSUED FOR SUBDIVISION APPROVAL	KBH	6	MAY.07.14	ISSUED FOR CONSTRUCTION	DJC			date DEC.14.12				
no.	date	revision	chk'd	no.	date	revision	chk'd							

COQ. AS-BUILT NO.  
 S2069-05

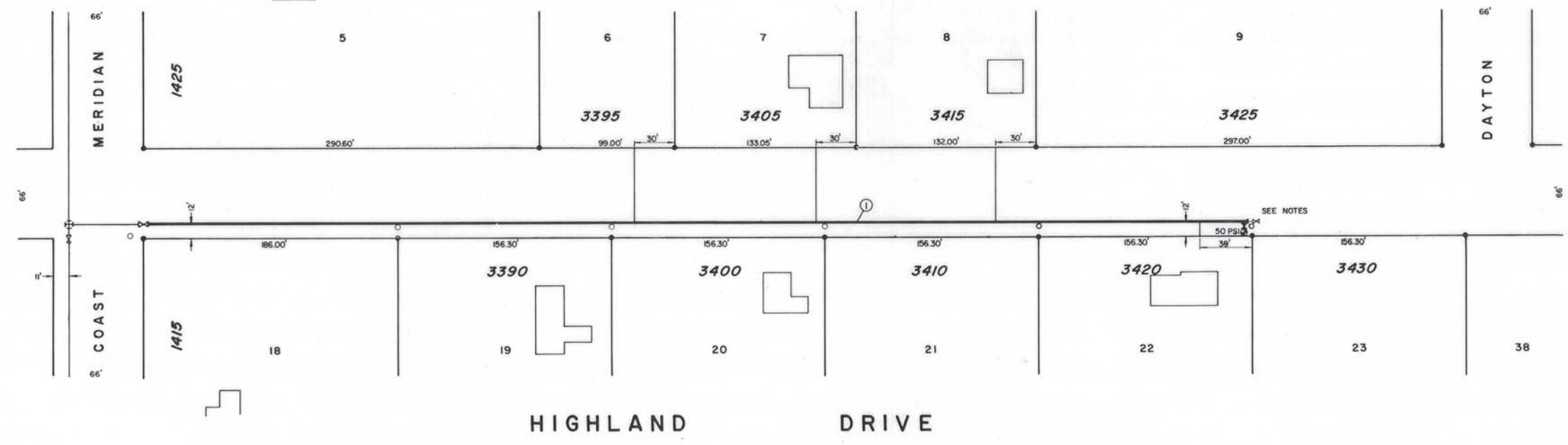


W 547

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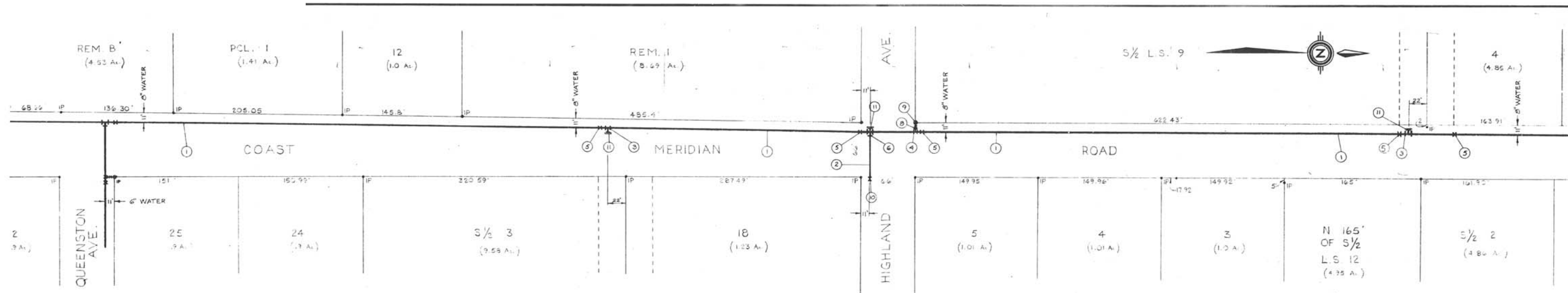
NUMBER	STORE NO.	DESCRIPTION	QUANTITY
1	1710	6" # DUCTILE IRON PIPE	810' ±

- NOTES**
- (1) 6" H.M. X 2" I.P.T. REDUCER & 2" VALVE MOVED FROM END OF EXISTING MAIN.
  - (2) FUTURE HYDRANT TO BE INSTALLED AT DAYTON AVE. & HIGHLAND DRIVE INTERSECTION.
  - (3) B.C. HYDRO POLES ARE LOCATED 10' ± NORTH OF SOUTH E. OF HIGHLAND DRIVE.

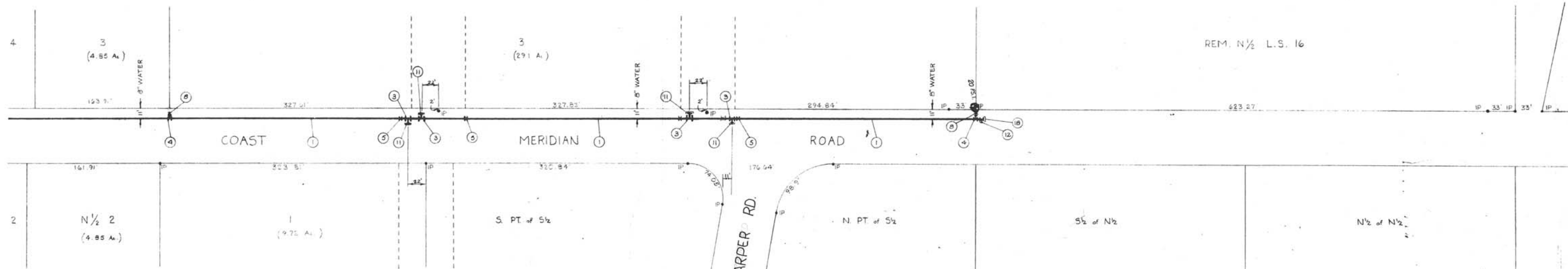
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W 547

<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>NO</th> <th>DATE</th> <th>BY</th> <th>REVISIONS</th> <th>CHK'D</th> <th>NO</th> <th>DATE</th> <th>BY</th> <th>REVISIONS</th> <th>CHK'D</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	NO	DATE	BY	REVISIONS	CHK'D	NO	DATE	BY	REVISIONS	CHK'D																					<p><b>LEGEND</b></p> <table style="width:100%;"> <tr> <td>ST. SEWER</td> <td>—ST—</td> <td>UTILITY POLE</td> <td>○</td> <td>STORM INLET TYPES</td> <td>○</td> </tr> <tr> <td>SAN. SEWER</td> <td>—SAN—</td> <td>FIRE HYDRANT</td> <td>⊙</td> <td>IA</td> <td>IB</td> </tr> <tr> <td>GAS</td> <td>—G—</td> <td>BENCH MARK</td> <td>△</td> <td>IC</td> <td>ID</td> </tr> <tr> <td>WATER</td> <td>—W—</td> <td>IRON PIN</td> <td>●</td> <td>IE</td> <td>IF</td> </tr> <tr> <td>VALVE</td> <td>—V—</td> <td>MAN HOLE</td> <td>⊕</td> <td></td> <td></td> </tr> <tr> <td>DITCH</td> <td>—D—</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	ST. SEWER	—ST—	UTILITY POLE	○	STORM INLET TYPES	○	SAN. SEWER	—SAN—	FIRE HYDRANT	⊙	IA	IB	GAS	—G—	BENCH MARK	△	IC	ID	WATER	—W—	IRON PIN	●	IE	IF	VALVE	—V—	MAN HOLE	⊕			DITCH	—D—					<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>DESIGNED BY</td> <td>APP'D</td> </tr> <tr> <td>DRAWN BY BUD WEST</td> <td>DATE</td> </tr> <tr> <td>CHECKED BY <i>Kayne Smith</i></td> <td>SCALE</td> </tr> <tr> <td>DATE FEB 7, 1973</td> <td>HOR. = 1" = 40'</td> </tr> <tr> <td></td> <td>VERT. = 1" = 40'</td> </tr> </table>	DESIGNED BY	APP'D	DRAWN BY BUD WEST	DATE	CHECKED BY <i>Kayne Smith</i>	SCALE	DATE FEB 7, 1973	HOR. = 1" = 40'		VERT. = 1" = 40'	<p><b>DISTRICT OF COQUITLAM</b> ENGINEERING DEPARTMENT</p>	<p>TITLE 6" # WATERMAIN ON HIGHLAND DRIVE EAST OFF COAST MERIDIAN ROAD</p>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>FILE NO</td> <td>547</td> </tr> <tr> <td>DWG. NO</td> <td>994420-015</td> </tr> <tr> <td>PAGE</td> <td>1 OF 1</td> </tr> </table>	FILE NO	547	DWG. NO	994420-015	PAGE	1 OF 1
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\* LOCATION OF 8" WATERMAIN IS APPROXIMATE AND SHOULD BE VERIFIED IN THE FIELD



NO.	STORE NO.	DESCRIPTION	QUANTITY	NO.	STORE NO.	DESCRIPTION	QUANTITY
1		8" DUCTILE PIPE	4,833 ±	16	3306	6" HM x 22 1/2" ELBOW	1
2		6" DUCTILE PIPE	1,920 ±	17	3212	6" HM CROSS	1
3	3634	6" x 8" x 6" HM TEE	12	18	3106	8" HM CAP	3
4	3632	6" HM x 6" HM x 6" FLG TEE	3				
5	3710	8" VALVE	16				
6	3214	6" x 6" x 6" HM CROSS	1				
7	3626	6" HM x 6" HM x 6" FLG TEE	4				
8	3706	6" HM x 6" FLG VALVE	7				
9	3402	6" NO. 1 HYDRANT	5				
10	3708	6" VALVE	5				
11	3104	6" HM CAP	16				
12	3636	6" HM TEE	3				
13	3628	6" HM TEE	2				
14	3208	6" HM CROSS	1				
15	3308	6" HM x 45° ELBOW	2				

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SEE DRAWING 1030-69 FOR AS CONSTRUCTED DRAWING.

THIS IS A REDUCED DRAWING

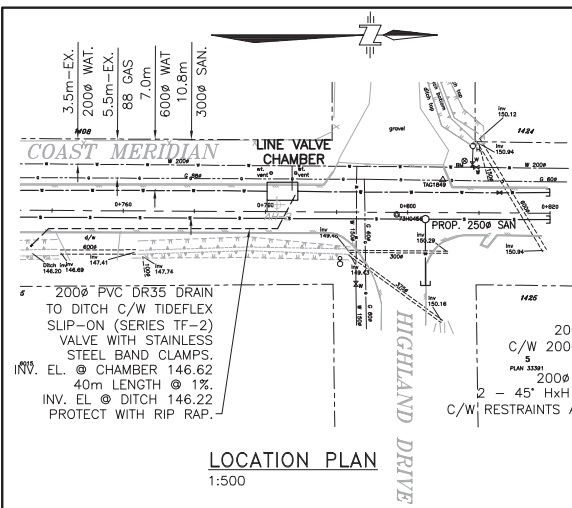
W-1021-4-2

<b>REVISIONS</b> (Empty table for revisions)		<b>THE CORPORATION OF THE DISTRICT OF COQUITLAM</b> INSTALLATION OF 8" C.I. WATER MAIN ON COAST MERIDIAN RD. & 6" C.I. ON QUEENSTON AVE.	
Designed by: Drawn by: <b>W.C. FORBETH</b> Checked by: <b>L.T.S.</b> Approved by: <i>[Signature]</i>	Scale: 1" = 50'	Date: AUG 25, 1969	Plan no.: (Queenston) 1030-69 (Coquitlam) 1021-4

<b>LEGEND</b> PROPOSED: ST SEWER (ST), SAN SEWER (SAN), GAS (G), WATER (W), U-G ELEC (BOH), U-G TEL (BCT) EXISTING: ST, SAN, G, W, BOH, BCT VALVE (V), MANHOLE (M) STORM INLET TYPES: I, II, III, IV DITCH (D), UTILITY POLE (UP), FIRE HYDRANT (FH), IRON PN (IP), BASEMENT ELEV. (BE), EDGE OF PVMT (EP)	DESIGNED - DRAWN - CHECKED - DATE -	APP'D - DATE - SCALE: HORIZ - VERT -	<b>DISTRICT OF COQUITLAM</b> <b>ENGINEERING DEPARTMENT</b>	<b>WATERMANS</b> <b>COAST MERIDIAN ROAD</b> DAVID AVE. TO HARPER RD.	FILE - DWG - 1021-4 SHEET 2 OF 2
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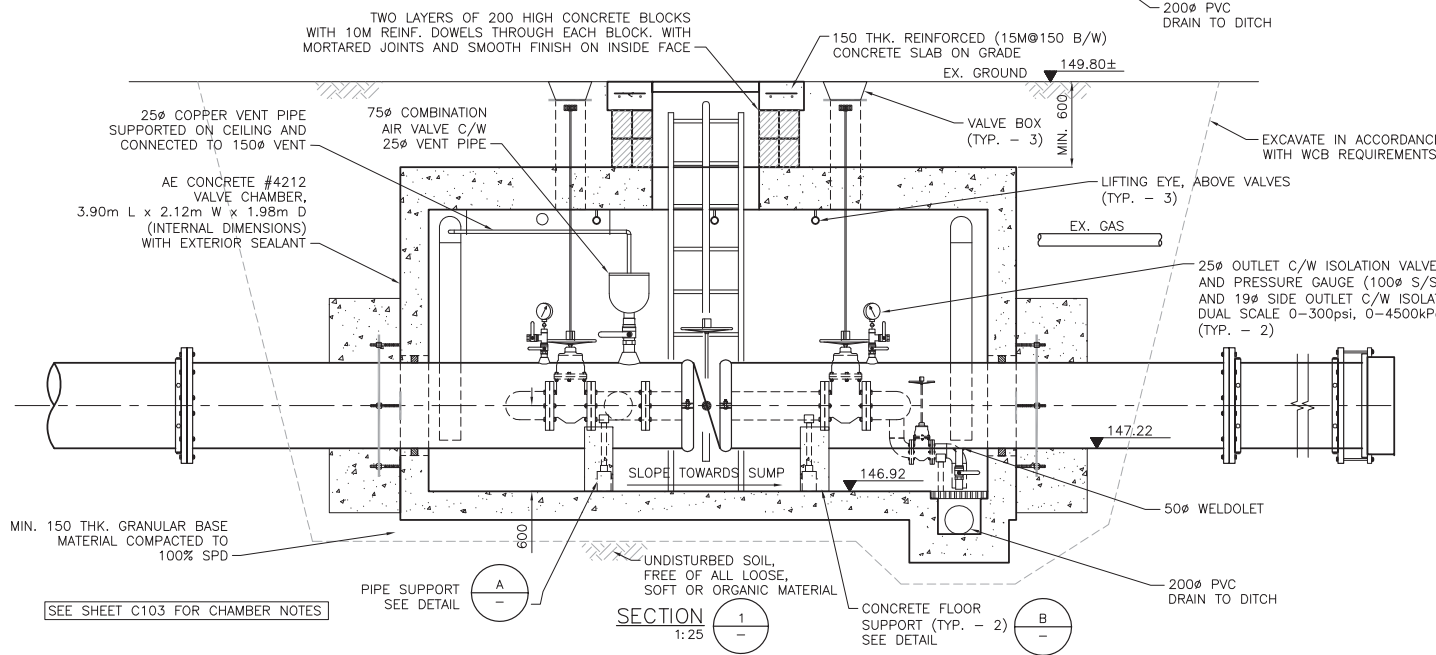
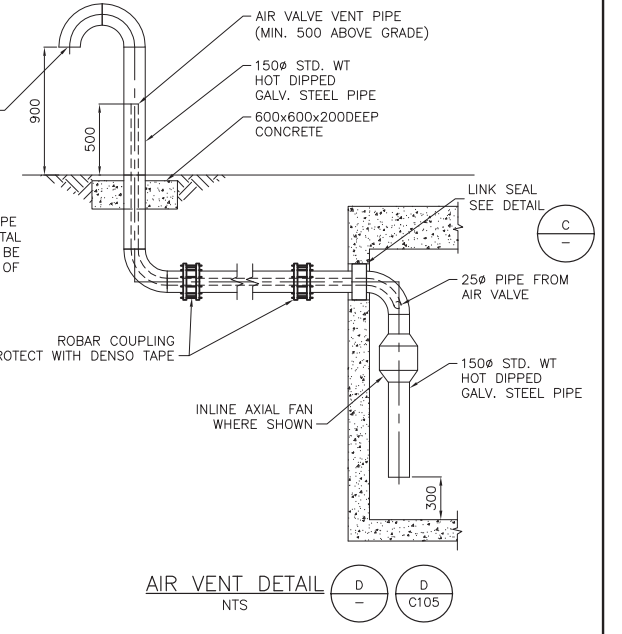
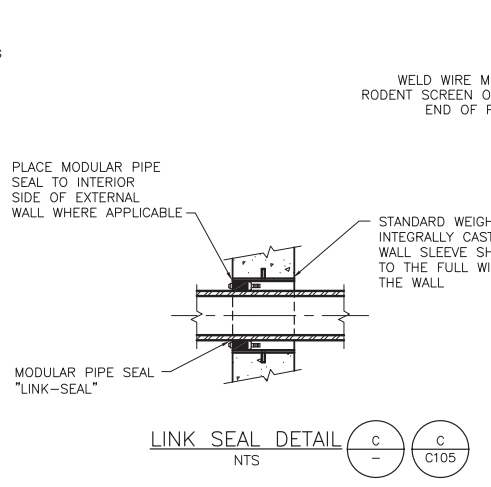
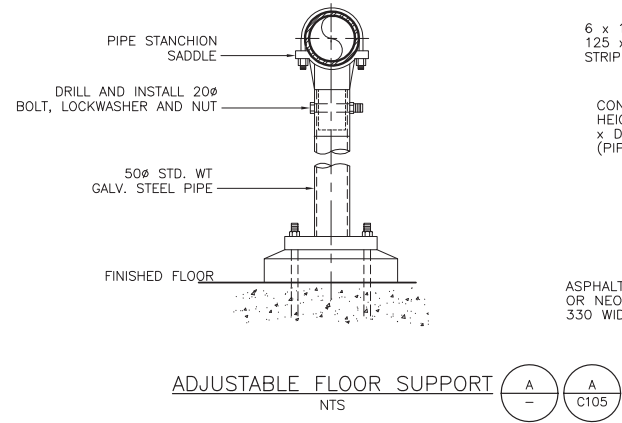
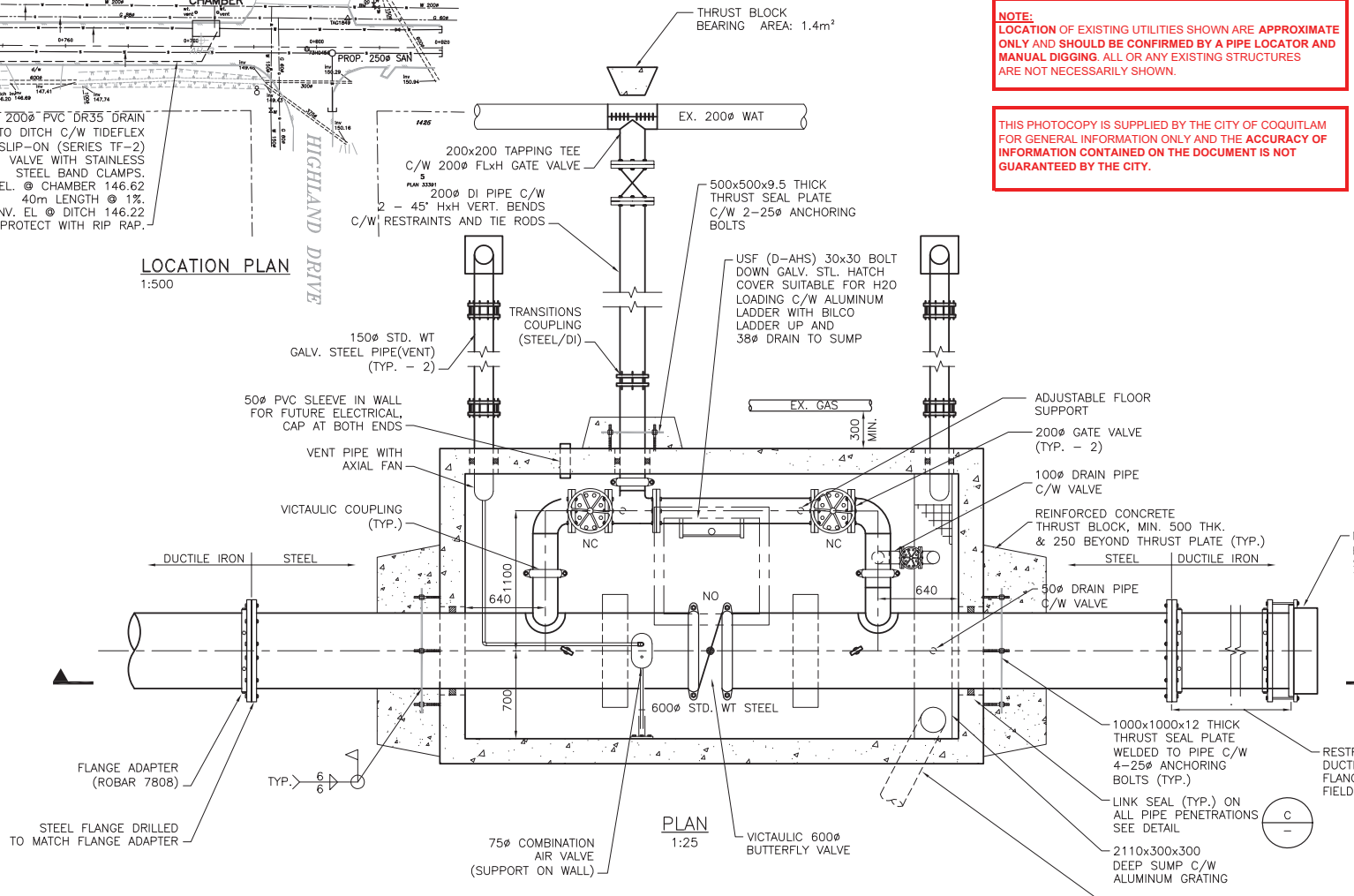
W 3032-04



**IMPORTANT:**  
HYDRO, GAS AND TELEPHONE ARE NOT SHOWN ON THE CITY OF COQUITLAM AS-BUILTS OR RECORD DRAWINGS. CONTACT BC HYDRO, TERASEN GAS AND TELUS FOR CURRENT AS-BUILTS PERTAINING TO THESE UTILITIES.

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

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



EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED
Edge of pavement	Asphalt curb	Concrete sidewalk	Concrete curb	Watermain and valve	Water service box/curb stop	Hydrant	Water blowoff
Water air valve	Drainage sewer and MH	Drainage service	Catch basin, top inlet	Catch basin, side inlet	Catch basin, round	Swale	Ditch
Culvert	Inlet/Outlet Structure	Sanitary sewer and MH	Sanitary service	Sanitary sewer, forcemain	U/G electrical duct and MH	Utility pole	Utility pole with light
Junction box	U/G telephone and MH	U/G gas main and valve	U/G signal/light duct	Streetlight, davit	Streetlight, post top	Traffic signal pole	Traffic signal post
Flasher	Signal fixture	Combination traffic signal pole					

**EarthTech**  
A Tyco International Ltd. Company

Earth Tech Inc. 1001 Rosser Avenue, 6th Floor Burnaby, B.C. V6C 6S3  
PH: (604) 298-0101 FAX: (604) 294-8697

REV'D	DATE	DR'N	CH'D
6	04/10/09	RI	SN
5	03/18/08	RI	SN
4	02/27/07	RI	SN
3	01/02/07	RI	KM
2	12/1/06	RI	AS
1	11/03/06	RI	AS

**CITY OF COQUITLAM** ENGINEERING

DESIGNED - AS  
DRAWN - RI  
METRIC SCALE - AS SHOWN  
APPROVED - AS  
DATE - October, 2006

**COAST MERIDIAN**  
LINE VALVE CHAMBER  
COAST MERIDIAN / HIGHLAND DR.  
PLAN, SECTION AND DETAILS

ET FILE 96262  
CONSULTANTS DWG No- C104  
CITY DWG No  
SHEET 4 OF 6

Ref. W 3032-03



W 3032-04

- NOTES:**
- ALL DUCTILE IRON PIPE MANUFACTURED BY CANADA PIPE COMPANY LTD.
  - ALL WATER SERVICE CONNECTIONS ARE 19mm DIA COPPER, TYPE K

**IMPORTANT:**  
HYDRO, GAS AND TELEPHONE ARE NOT SHOWN ON THE CITY OF COQUITLAM AS-BUILTS OR RECORD DRAWINGS. CONTACT BC HYDRO, TERASEN GAS AND TELUS FOR CURRENT AS-BUILTS PERTAINING TO THESE UTILITIES.

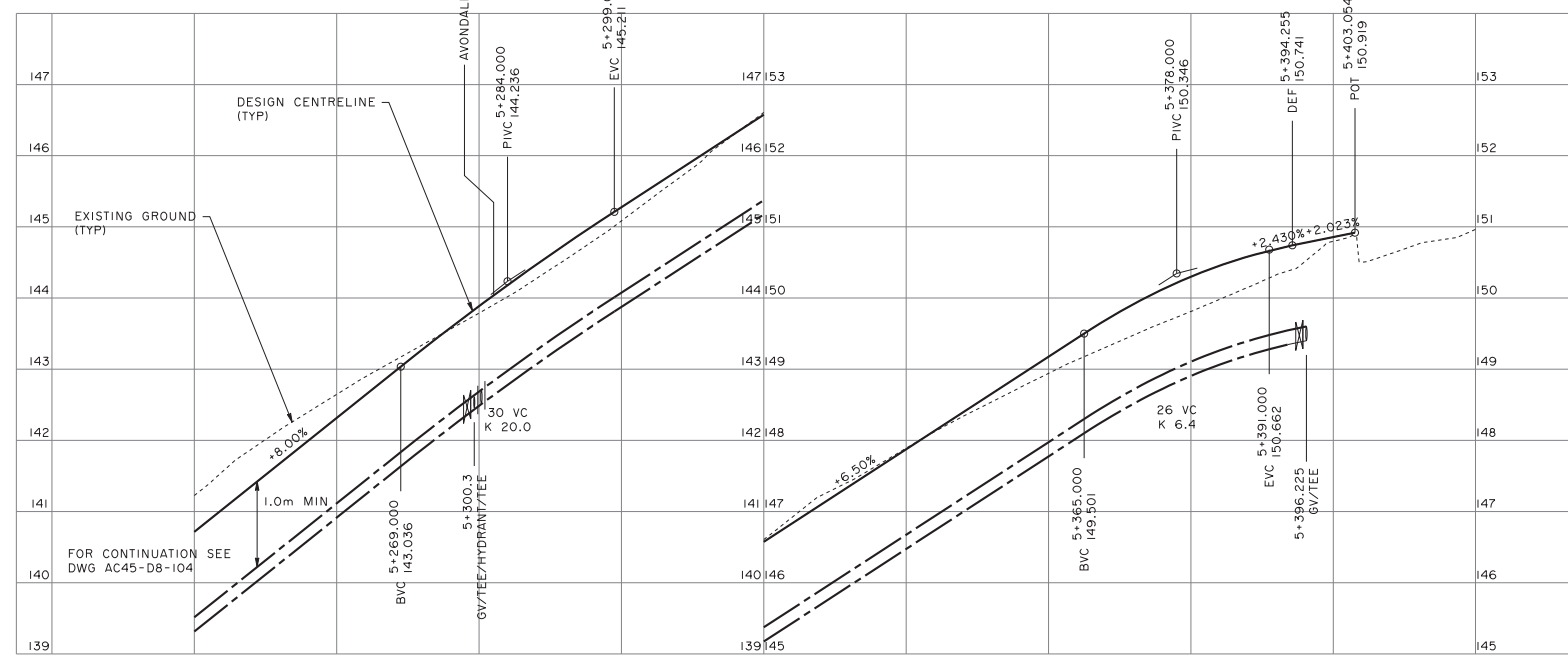
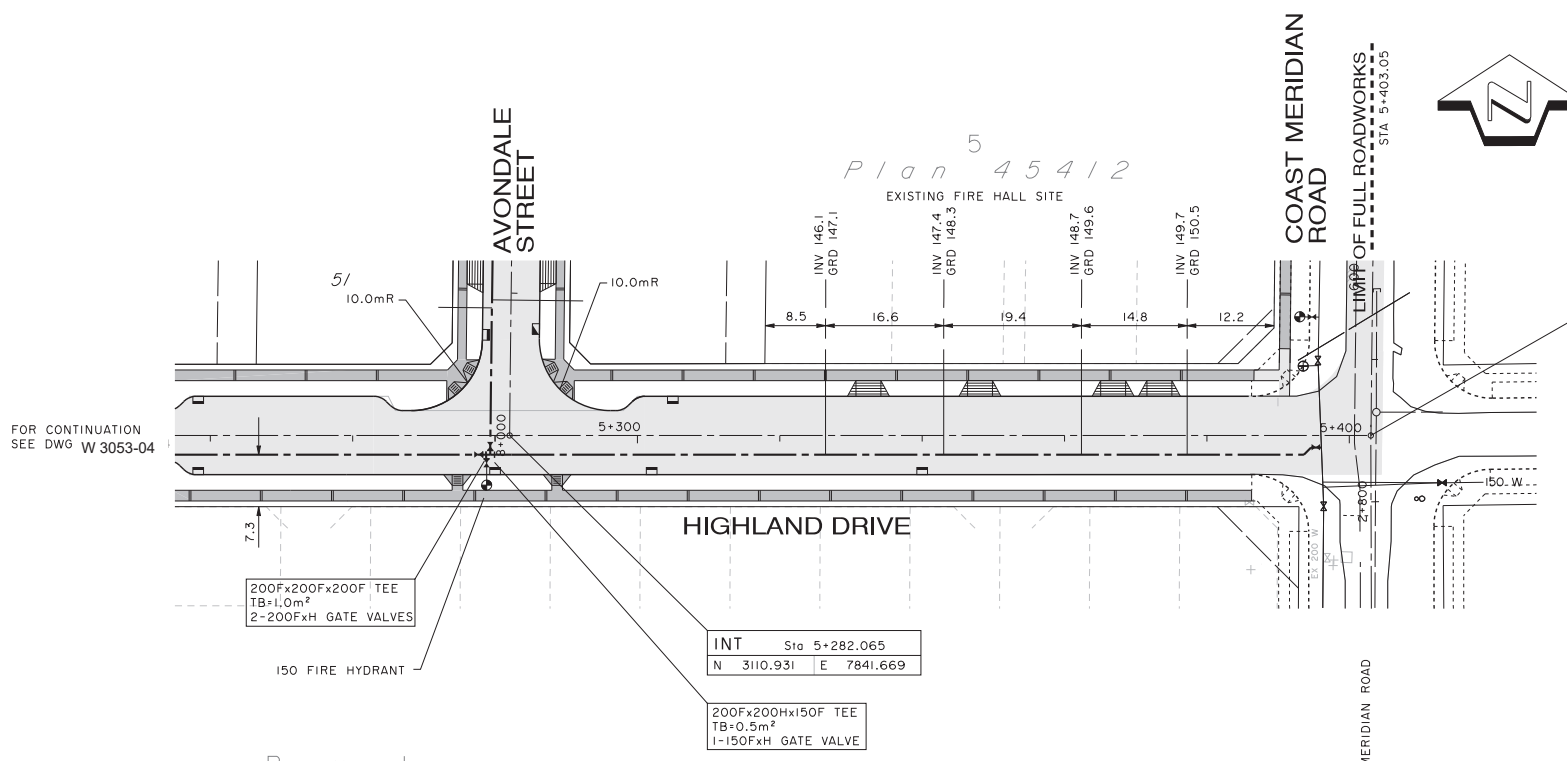
**NOTE:**  
LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY AND SHOULD BE CONFIRMED BY A PIPE LOCATOR AND MANUAL DIGGING. ALL OR ANY EXISTING STRUCTURES ARE NOT NECESSARILY SHOWN.

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INT Sta 5+403.046  
N 3110.767 E 7962.651

- B. WATERMAIN**
- UNLESS OTHERWISE INDICATED WATERMAIN PIPE MATERIAL SHALL BE:
    - PVC CLASS 150 OR 200, DR 18
    - DUCTILE IRON CLASS 50, CEMENT MORTAR LINED
  - FIRE HYDRANT LEADS SHALL BE DUCTILE IRON CLASS 50.
  - FITTINGS SHALL BE GREY IRON SUITABLE FOR 1380 kPa 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 C600 OR ONE-HALF MAXIMUM DEFLECTION RECOMMENDED BY PIPE MANUFACTURER. JOINT DEFLECTION IS NOT PERMITTED FOR PVC PIPE UNLESS HIGH DEFLECTION PVC COUPLINGS (RATED FOR 1380 kPa OPERATING PRESSURE) ARE USED.
  - TESTING AND CHLORINATION OF WATERMANS TO BE PERFORMED BY THE CONTRACTOR AND WITNESSED BY CITY OF COQUITLAM'S ENGINEERING AND PUBLIC WORKS INSPECTOR.
  - JOINTS SHALL BE RETAINED WITH UNI-FLANGE SERIES 1300 FITTINGS WHERE REQUIRED.
  - WATER SERVICE CONNECTION TO BE AS PER THE MMCD STD DWG 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.

AS CONSTRUCTED



200mm DIA CL50 DUCTILE IRON										WATERMAIN			
140.606	142.206	143.956	145.342	146.466	147.875	149.285	150.540					L1. GUTTER EL.	
140.716	142.316	143.886	145.276	146.576	147.875	149.175	150.352					CENTERLINE EL.	
140.606	142.206	143.776	145.166	146.466	147.765	149.065	150.171					R1. GUTTER EL.	
5+260.0 -2.00%	5+265.0 -2.00%	5+275.0 +2.00%	5+298.0 +2.00%	5+308.0 -2.00%	5+335.0 -2.00%	5+345.0 +2.00%	5+375.0 -2.00%	5+391.6 +6.73%					PAVEMENT CROSSFALL
5+260.0 -2.00%							5+375.0 -2.00%	5+391.6 -6.32%					CL STATION
5+240	5+260	5+280	5+300	5+320	5+340	5+360	5+380	5+400	5+420				



R 0128-05  
W 3053-05

<b>InterCAD</b> CONSULTING ENGINEERS	2 09-03-11 As Constructed J.R. 1 07-08-14 Relocated Driveway B.E. E 07-07-06 Issued For Construction J.R. D 07-04-27 Revised As Required for New Subdivision Layout D.Y. C 07-02-23 Third Submission for City Approval D.Y. B 06-10-27 Second Submission for City Approval D.Y. A 06-07-07 First Submission for City Approval D.Y.	Client: <b>Wesbild</b> Project: <b>Upper Hyde Creek Neighbourhood</b>	Scale: 1:500 Design: R. SKAPSKI Drawn: D. YOUNG Plot Date: 6/30/2009 Plot Time: 10:18:15 AM	Title: <b>Roadworks and Watermain</b> <b>Highland Drive</b> Drawing Number: <b>AC45-D8-105</b> Revision: <b>2</b>
	NO. DATE REVISIONS BY APPROVED			