

# Request for Proposals: Pemberton North Water System Metering Project



**SQUAMISH - LILLOOET**  
REGIONAL DISTRICT

Issue date: Jun 26, 2025

Closing Date: Jul 23, 2025

Contact: Ali Chapple, [achapple@slrd.bc.ca](mailto:achapple@slrd.bc.ca)

# Request for Proposals: Pemberton North Water System Metering Project

**Issue date:** Jun 26, 2025  
**Closing Time and Date:** Jul 23, 2025 @ 4pm

## QUERIES

Queries and requests for clarification related to this Request for Proposals (“**RFP**”) are to be submitted, in writing, to the following contact person (the “**Contact Person**”).

Ali Chapple, Project Manager, Squamish-Lillooet Regional District  
Box 219, Pemberton, BC, V0N 2L0  
E-mail: [ACHapple@slrd.bc.ca](mailto:ACHapple@slrd.bc.ca)

The Squamish-Lillooet Regional District (“**Regional District**”) will determine, at its sole discretion, whether the query requires response and such responses will be made available to all by issue of addenda posted on the Regional District’s website ([www.slrd.bc.ca/](http://www.slrd.bc.ca/)). No verbal conversation will affect or modify the terms of this RFP.

The Request for Proposals consists of the following:

- This Page;
- Section 1 Administrative Requirements;
- Section 2 Instructions to Proponents;
- Section 3 Project Details;
- Section 4 Schedules; and
- Section 5 Appendices.

## PROPONENT SECTION:

(A person authorized to sign on behalf of the Proponent **must** complete and sign below and submit this page as part of the Proposal)

- **The accompanying Proposal is submitted in response to the above-referenced Request for Proposals, including any addenda.**
- **Through submission of the Proposal, the Proponent agrees to the terms and conditions of the Request for Proposals and agrees that any inconsistent provisions in the Proposal will be as if not written and do not exist.**
- **The Proponent has carefully read and examined the Request for Proposals (including the Administrative Requirements) and has conducted such other investigations as were prudent and reasonable in preparing the Proposal.**
- **The Proponent agrees to be bound by statements and representations made in Proposal.**

*Legal Name and Address of Proponent (include “Doing Business As” name, if applicable):*

\_\_\_\_\_  
\_\_\_\_\_

*Phone Number of Proponent:* \_\_\_\_\_

*Email Address of Proponent:* \_\_\_\_\_

*Signature of Authorized Representative:* \_\_\_\_\_

*Name and Title (i.e. President, Director, etc.):* \_\_\_\_\_

# 1. Administrative Requirements

## A. Definitions

Throughout this RFP, the following definitions apply:

“Contract” means the written agreement resulting from this RFP executed by the SLRD and the Contractor;

“Contractor” means the successful Proponent to this RFP who enters into a written Contract with SLRD;

“must”, or “mandatory” means a requirement that must be met in order for a Proposal to receive consideration;

“Proponent” means an individual or company that submits (or intends to submit) a Proposal;

“Proposal” means the document submitted by the Proponent;

“SLRD” means the Squamish-Lillooet Regional District;

“RFP” means the process described in this document;

“should” or “desirable” means a requirement having a significant degree of importance to the RFP.

## B. Terms and Conditions

The following terms and conditions will apply to this RFP. Submission of a Proposal in response to this RFP indicates acceptance of all the terms herein and that are included in any addenda issued by the SLRD. Provisions in Proposals that contradict any of the terms of this RFP will be as if not written and do not exist.

## C. Acknowledgment Form

The Proponent is advised to complete and return the Acknowledgment Form attached hereto as Schedule A. This form may be delivered by fax or email and will facilitate the further receipt by the Proponent of any addenda to the RFP.

## D. Addenda

Whether or not the Proponent has returned the Acknowledgment Form, the Proponent is required to regularly check the SLRD’s website for any updated information and addenda issued before the closing date. If there is any discrepancy in the RFP documentation, the SLRD’s original file will prevail.

## E. Late Proposals

A Proposal will be marked with its receipt time at the closing location. Only a Proposal received and marked before the closing time will be considered to have been received on time. A Proposal received after the closing time may not be considered. In the event of a dispute, the receipt time of the Proposal is as recorded by the SLRD at the closing location will prevail. The Proponent is advised to verify prior to the closing time that the SLRD has received the Proposal.

## F. Eligibility

A Proposal may not be evaluated if the Proponent’s current or past corporate or other interests may, in the SLRD’s opinion, give rise to a conflict of interest in connection with the project described in this RFP. If a Proponent is in doubt as to whether there might be a conflict of interest, the Proponent is advised to consult with the Contact Person prior to submitting a Proposal.

## G. Evaluation

The evaluation of the Proposal will be by staff of the SLRD but may include consultants/contractors of the SLRD. The SLRD’s intent is to enter into a Contract with

the Proponent who has been evaluated as having the most desirable proposal.

The SLRD may, at its discretion, request clarifications or additional information from Proponents with respect to any Proposals, make such requests to only selected Proponents, and consider such clarifications or additional information in evaluating the Proposals.

## H. Negotiation/Negotiation Delay

The SLRD reserves the right, prior to awarding the Contract, to negotiate changes to the scope of work (including pricing to meet budget) with the successful Proponent without advising any other Proponent or allowing any other Proponent to vary their Proposal as a result of the changes to the scope of work or to the contract documents and the SLRD may enter into a changed or different contract with the successful Proponent without liability to Proponents who were not awarded the Contract.

If a Contract cannot be negotiated within 14 days of notification of the successful Proponent, the SLRD may, at its sole discretion at any time thereafter, terminate negotiations with such Proponent and either negotiate a Contract with the next qualified Proponent, reissue the RFP, or terminate the RFP process and not enter into a Contract with any of the Proponents.

## I. Request for Debriefing

Unsuccessful Proponents may request a debriefing with the SLRD, which may, at the SLRD’s option, be conducted via telephone or email. However, the SLRD will not provide information regarding the other Proposals.

## J. Alternative Solutions

If alternative solutions are to be offered, the Proponent should consult with the Contact Person prior to submitting the Proposal.

## K. Changes to Proposals

By submission of a clear and detailed written notice, the Proponent may amend or withdraw its Proposal prior to the closing date and time. Upon closing time, all Proposals become final. The Proponent will not change the wording of the Proposal after closing and no words or comments will be added to the Proposal unless requested by the SLRD for purposes of clarification.

## L. Proponents’ Expenses

The Proponent is solely responsible for its own expenses in preparing the Proposal and in subsequent negotiations with the SLRD, if any. Regardless of whether or not the SLRD elects to reject all Proposals, the SLRD will not be liable to any Proponent for any claims, whether for costs or damages incurred by the Proponent in preparing the Proposal, loss of anticipated profit in connection with any final Contract, or any other cause of action whatsoever.

## M. Limitation of Damages

Further to the preceding paragraph, the Proponent, by submitting a Proposal, agrees that it has no cause of action, for any reason whatsoever, relating to the Contract or in respect of the competitive process, in excess of an amount equivalent to the reasonable costs incurred by the Proponent in preparing the Proposal and the Proponent, by submitting a Proposal, waives any claim for loss of profits if no Contract is made with the Proponent.

- N. Proposal Validity**  
Proposals will be open for acceptance for at least 90 days after the closing time. The accuracy and completeness of the Proposal shall be the sole responsibility of the Proponent and any errors or omissions shall be corrected at the Proponent's expense.
- O. Firm Pricing**  
Prices will be firm for the entire Contract period unless this RFP specifically states otherwise.
- P. Currency and Taxes**  
Prices quoted are to be:
- in Canadian dollars;
  - inclusive of all fees;
  - exclusive of disbursements, for which a detailed estimate shall be provided by the Proponent; and
  - inclusive of all applicable taxes, broken out.
- Q. Completeness of Proposal**  
By submitting the Proposal, the Proponent warrants that, if this RFP is to design, create or provide a system or manage a program, all components required to run the system or manage the program have been identified in the Proposal or will be provided by the Contractor at no charge.
- R. Subcontracting**  
The use of a subcontractor(s) (who should be identified in the Proposal) may be acceptable. This includes a joint submission by two Proponents having no formal corporate links. However, in this case, one of these Proponents must be prepared to take overall responsibility for successful performance of the Contract and this should be defined in the Proposal.
- However, a proposed subcontractor whose current or past corporate or other interests may, in the SLRD's opinion, give rise to a conflict of interest in connection with the subject-matter of the RFP may not be acceptable. This includes, but is not limited to, a subcontractor involved in the preparation of this RFP. If a Proponent is in doubt as to whether a proposed subcontractor may give rise to a conflict of interest, the Proponent should consult with the Contact Person prior to submitting a Proposal.
- Where applicable, the names of approved sub-contractors listed in the Proposal will be included in the Contract. The addition of new subcontractors, or any other changes to the subcontractor list, as set out in the Contract will not be allowed without the written consent of the Regional District.
- S. Acceptance of Proposals**  
This RFP is not an agreement to purchase goods or services. The SLRD is not bound to enter into a Contract with the Proponent who submits the lowest priced Proposal or with any Proponent. The SLRD will assess Proposals in light of the evaluation criteria. The SLRD is under no obligation to receive further information, whether written or oral, from any Proponent.
- Neither acceptance of the Proposal nor execution of a Contract will constitute approval of any activity or development contemplated in any Proposal that requires any approval, permit or license pursuant to any federal, provincial, regional district or municipal statute, regulation or by-law.
- T. Definition of Contract**  
Notice in writing to a Proponent that it has been identified as the successful Proponent and the subsequent full execution of a written Contract will constitute a Contract for the goods or services, and no Proponent will acquire any legal or equitable rights or privileges relative to the goods or services until the occurrence of both such events.
- U. Contract**  
By submitting a Proposal, the Proponent agrees that should its Proposal be successful the Proponent will enter into a Contract with the SLRD in substantially the terms set out in Schedule D, "Draft Services Agreement".
- V. Liability for Errors**  
While the SLRD has used considerable efforts to ensure information in this RFP is accurate, the information contained in this RFP is supplied solely as a guideline for the Proponents. The information is not guaranteed or warranted to be accurate by the SLRD, nor is it necessarily comprehensive or exhaustive. Nothing in this RFP is intended to relieve the Proponents from forming their own opinions and conclusions with respect to the matters addressed in this RFP.
- W. Modification of Terms**  
The SLRD reserves the right to modify the terms of this RFP at any time in its sole discretion. This includes the right to cancel this RFP at any time prior to entering into a Contract with the successful Proponent.
- X. Ownership of Proposals**  
All Proposals submitted to the SLRD become the property of the SLRD. They will be received and held in confidence by the SLRD, subject to the provisions of this RFP and the *Freedom of Information and Protection of Privacy Act*.
- Y. Use of Request for Proposals**  
Any portion of this document, or any information supplied by the SLRD in relation to this RFP may not be used or disclosed, for any purpose other than for the submission of the Proposal. Without limiting the generality of the foregoing by submission of the Proposal, **the Proponent agrees to hold in confidence all information supplied by the SLRD in relation to this RFP.**
- Z. Reciprocity**  
The SLRD may consider and evaluate a Proposal from other jurisdictions on the same basis that the government purchasing authorities in those jurisdictions would treat a similar Proposal from a British Columbia supplier.
- AA. No Lobbying or Solicitation**  
The Proponent must not attempt to communicate directly or indirectly with any employee, contractor or representative of the SLRD, including the members of the evaluation team and any elected officials of the SLRD, or with members of the public or the media, about the project described in this RFP or otherwise in respect of the RFP, other than as expressly directed or permitted by the SLRD herein or otherwise.
- BB. Collection & Use of Personal Information**  
The Proponent is solely responsible for familiarizing itself and for ensuring that it complies, with the laws applicable to the collection and dissemination of information, including resumes and other personal information concerning employees and employees of any subcontractors. If this RFP requires the Proponent to provide the SLRD with personal information of employees or subcontractors who have been included as resources in response to this RFP, the Proponent will ensure that it has obtained written consent from each of those persons before forwarding such personal information to the SLRD. Such written consents are to specify that the personal information may be forwarded to the SLRD for the purposes of responding to this RFP and use by the SLRD for the purposes set out in the RFP. The SLRD may, at any time, request the original consents or copies of the original consents from the Proponent, and upon such request being made, the Proponent will immediately supply such originals or copies to the SLRD.

# Water Metering Program Supply and Installation Services

## Introduction

The SLRD is requesting proposals from qualified and experienced firms for the implementation of Advanced Metering Infrastructure on the water service connections within the service area. This effort is part of the Water Meter Pilot Project launched by the Ministry of Housing and Municipal Affairs of British Columbia to promote water metering by providing funding for universal metering to selected water systems across British Columbia.

The primary drivers for the SLRD's Water Metering Program are to:

1. Reduce per capita water use.
2. Manage system water loss.
3. Optimize water system operation and management.

The scope of the project is to be completed by **March 31, 2027**.

Proponents must submit a solution that meets the full scope of the project as described below. If teaming is required to meet the objectives outlined in this RFP, vendors are encouraged to form partnerships. The proposal must clearly identify the Prime Contractor who will be responsible for the overall performance of the contract. The Prime Contractor will take full responsibility for all aspects of the contract, including the performance of any subcontractors.

## Terms and Abbreviations

The following terms and definitions are used herein:

AMI - Advanced Metering Infrastructure  
ANSI - American National Standards Institute  
AWWA - American Water Works Association  
CCDC - Canadian Construction Documents Committee  
CIS - Customer Information System  
SLRD - Squamish Lillooet Regional District  
CSA - Canadian Standards Association  
DCU - Data Collection Unit  
GIS - Geographical Information System  
ICI - Industrial, Commercial and Institutional  
MDMS - Meter Data Management System  
Ministry - Ministry of Housing and Municipal Affairs of British Columbia  
MIU - Meter Interface Unit (Endpoint)  
Pilot - Water Meter Pilot Project  
RFP - Request for Proposal  
SaaS - Software as a Service  
SFR - Single-Family Residential

## Water System Overview

In January 2020, the SLRD undertook a study into the Pemberton North water system. This study looked at the some of the challenges facing the system, including leakage, increasing demand, aging systems, and financial restrictions.

As a result of the study, several areas were identified where efficiencies could be realized to help the SLRD to reduce costs, and manage the water system asset in a way that would help to increase the service life and reliability of the system.

Given the irrigation demands associated with the large lot sizes in the PNWS area and existing water use patterns, the report notes that it is very likely that water metering would result in considerable water use reduction.

In May 2025, the SLRD successfully applied to the British Columbia Water Meter Pilot Project from the Ministry of Housing and Municipal Affairs, and was allocated \$343,815.00 to carry out the recommended water metering in the Pemberton North Water System.

The Pemberton North Water System purchases water from the Village of Pemberton, and as such, is connected to the Village of Pemberton water network. The Village of Pemberton has also successfully applied for the Water Meter Pilot Project.

## **Terms of Payment**

The successful Proponent will be required to invoice on a monthly basis unless otherwise agreed. The successful proponent can invoice for work completed on a linear meter basis or as agreed with the SLRD.

## **Services to be Metered**

Supply and installation of:

- 3 SFR small diameter (50 mm) new exterior meter/pit assemblies;
- 58 SFR small diameter (38 mm) new interior meter assemblies;
- 56 SFR small diameter (25 mm) new interior meter assemblies

## **Scope**

### **1. PHASE 1: INVESTIGATION**

Prior to the installation of water meters, vendors shall conduct a thorough reconnaissance to identify and document existing service locations, curb stops, and other relevant infrastructure. The vendor shall review all SLRD provided data and perform on site investigation to identify and resolve gaps in information. This preliminary assessment will provide clarity to the Phase 2 scope and is essential to ensure a smooth and efficient installation process.

The following are the requirements for the investigation phase:

**Service Location Identification:** Vendors shall identify and map all service locations within the project area. This includes:

- Confirming the addresses of all properties to be serviced.
- Mapping the location of service lines from the water main to each property. It is envisioned that this be completed by visual inspection in locating curb stops, and/or electromagnetic pipe locating. Electromagnetic pipe locating will involve energizing the service from the curb stop location, from an external hose bib or from within the house at the service entry location. The

vendor shall produce a service plan for each service which provides distances from fence lines or other surface features or an accurate GPS location to facilitate meter installations.

- Vendors shall locate and accurately document the position of all curb stops.
- Where service lines cannot be located by electromagnetic methods at the proposed meter location (poly with no tracing wire), the vendor shall identify and map the location of the service entry at the building.

**Infrastructure Assessment: During the investigations** vendors shall assess the condition of existing infrastructure to identify any potential issues that may impact the installation process. This includes:

- Noting service lines showing signs of wear, corrosion, or damage.
- Identify all properties where curb stops are not found.
- Identify all properties where no information could be found by the methods described above.

**Documentation:** Vendors shall compile detailed documentation of their findings, including maps, photographs, and condition notes. This documentation shall be provided to the SLRD for review and approval prior to the commencement of installation activities.

Vendors shall coordinate with SLRD representatives to ensure all relevant information is shared and any concerns are addressed.

By conducting a comprehensive reconnaissance, vendors can ensure that all necessary preparations are made for the successful installation of water meters. This approach aligns with the SLRD's goals of thorough planning, efficient execution, and minimizing disruptions to residents.

## 2. PHASE 2: SUPPLY AND INSTALLATION

The Proponent's (Contractor's) responsibilities include:

- Supply and installation of meters including meter boxes and meter setters.
- Supply and installation of data logging and communication devices (meter interface units, or "MIUs") capable of encoding, storing, and transmitting meter reading and other data, such as tampering alerts.
- Supply and installation of a Head-end computer hardware and software, or a service, to collect, store, and manage the data which is delivered through the network.
- Supply and installation of a meter data management system (MDMS) system which can store meter reads and consumption data and allow that data to be queried, exported and summarized, and from which standard reports can be generated.
- Coordination, scheduling, communications, and documentation of all installation services.
- Site restoration of paved and landscaped surfaces.
- Proper disposal of hazardous materials.
- Provision of all necessary radio licenses, firmware, third party software or operating systems to ensure a complete and working system.
- Shipping and managing the inventory of AML equipment during the course of project deployment.
- All related documentation, including technical manuals and operating procedures.
- Training of SLRD's employees in endpoint installation, maintenance, diagnosis, and troubleshooting, as well as system use, operation and maintenance and customer support.

Include the number of employees to be trained and their roles, as well as the type of training required (on-site vs. remote).

- Testing of all software, hardware, and procedures prior to the deployment of the system and at major milestones.
- Quality Control during the term of the project as well as a one-year maintenance term.

### **3. PHASE 3: SOFTWARE AS A SERVICE (SAAS)**

Vendors shall enter into a SaaS contract to provide all necessary subscriptions, updates and maintenance for all software required. The SaaS contract shall include:

- Ongoing technical support and maintenance services, including software updates and troubleshooting.
- Scaling to accommodate future growth and increased data volumes.
- Ongoing seamless integration with existing utility systems, including billing, CIS, and GIS.
- Continuous monitoring of the AMI system to detect and resolve any issues promptly.
- An intuitive user interface for utility staff to manage and monitor the AMI system.
- A dedicated customer service team to assist with any inquiries or concerns.
- Robust security measures to protect sensitive data and ensure compliance with relevant regulations and standards.
- Regular security audits and reports to the SLRD.
- The annual fees for these items shall be fixed and include all required software subscriptions, updates, maintenance and support for a period of ten years.

## **Vendor Supplied Materials**

Meters must be capable of collecting customer data on at least hourly intervals and transmitting the data to central data collection points.

Water meters shall meet the following standards:

- AWWA Standard C715.
- NSF/ANSI 61 Certified.

Meter registers must:

- Comply with all applicable requirements of AWWA C707-05.
- Transmit meter readings via radio frequency or cell.
- Show and store measurements in cubic metres and the flow reading on the register shall have a minimum of 3 decimal places.
- Log at least 90 days of hourly consumption data.
- Include leak, tamper and reverse flow detection.

Meters installations should follow the guidelines in the AWWA M6 manual "Water Meters—Selection, Installation, Testing, and Maintenance, 5<sup>th</sup> edition.

All piping, pipe fittings and jointing methods must comply with the latest requirements of the BC Plumbing Codes and AWWA Standards.

## **Proposal Format and Evaluation**

Proponents, at a minimum shall submit all basic information requirements described herein and the pricing schedule. Failure to respond to any of the information requirements or to fully complete the pricing schedule may result in the proposal being considered incomplete and not given any consideration in the assessment process.

Proponents are encouraged to provide information demonstrating an understanding of the SLRD's goals and objectives and describe an appropriate work plan. The SLRD is open to consider any innovative or alternate approaches as may be presented by vendors.

The SLRD's Evaluation Committee will evaluate the Proponents' responses, including financial data, Proponents' references, Proponents' experience and other data relating to the Proponents' responsibility and qualifications to perform the Project satisfactorily. Weighting information is below.

Proponents should follow the format below in their submission.

## **Project Understanding**

- Demonstrate a clear understanding of the SLRD's objectives requirements and needs, and your approach to meeting those objectives.
- Identify opportunities and challenges that may surface and plans to mitigate those challenges.

## **Proposed Solution**

- Describe approach and systems used for communicating, planning, scheduling, and managing implementation services, include customer scheduling and communications.
- Describe the methods by which you will perform the services outlined in the scope.
- Identify the specific employees and subcontractors that will be involved in each task.
- Provide cost control procedures and discuss your method for monitoring the project timeframe, quality of work and budget.
- Describe your experience with dispute resolution.
- Describe how your proposed hardware and software solution meets the SLRD's project objectives, and scope.
- Provide hardware specifications, including, but not limited to, any ISO certifications, make, model, expected service life and maintenance requirements.
- Option to include additional requirements or interoperability requirements.

## **Firm Qualifications and Experience**

For the Proponent and their subcontractors each:

- Provide a list of projects completed in the last 3 years.
- Provide project descriptions for the three most relevant projects in terms of staff and scope. Ideally the experience will focus on communities of a comparable size and scope. Add other criteria (e.g., working collaboratively with First Nations, working in remote areas etc.) Include a reference with phone number with each project.
- For Proponent teams, identify experience working together on relevant projects.

## **Proposed Project Team**

Provide resumes for all management, supervisory and field staff (including subcontractor staff) who will be involved in the project; identify clearly their role in the project.

## **Pricing**

**Phase 1:** Provide a cost for identifying and resolving data gaps, including project management and communication activities as needed.

**Phase 2:** Provide a detailed, itemized cost that includes all hardware, software, installation, and project management activities.

**Phase 3:** SaaS costs should include annual maintenance, ongoing fees, or other fees for the first ten years. At a minimum, complete the cost tables provided (Appendix A). Proponents may also choose to append supporting documentation if additional detail is available and helpful in evaluating the proposal.

Consider cost risks that may impact the project (e.g., permitting, weather, etc.) and explain how they will be incorporated and/or mitigated.

Optional items and pricing must be clearly identified.

The SLRD is looking to secure pricing until project completion. We do understand that prices can be subject to fluctuations, but all prices in the pricing schedule shall remain firm for the period of the contract.

## **Project Schedule**

This Pilot is a priority project for the SLRD and the Ministry and as such there is a preference to initiate works as soon as feasible; all meters must be installed and transmitting data by March 31, 2027.

Provide a project timeline outlining the major tasks, phases, timeframes, and milestones. Consider what components of the project could be undertaken without being adversely impacted by winter weather conditions.

## **Queries**

Queries and requests for clarification related to this RFP are to be submitted, in writing (via email only), to the Contact Person:

Ali Chapple, Project Manager,  
Squamish-Lillooet Regional District  
E-mail: [AChapple@slrd.bc.ca](mailto:AChapple@slrd.bc.ca)

The Regional District will determine, at its sole discretion, whether queries require responses and such responses will be made available to all by issue of addenda posted on the Regional District's website ([www.slrd.bc.ca](http://www.slrd.bc.ca)) and BC Bid. No verbal conversation will affect or modify the terms of this RFP.

## **Terms of Payment**

The successful Proponent will be required to invoice on a monthly basis unless otherwise agreed. The successful proponent can invoice for work completed on a units installed basis or as agreed with the SLRD.

## **Evaluation**

### **MANDATORY CRITERIA**

Proposals not clearly demonstrating that they meet the following mandatory criteria will be excluded from further consideration during the evaluation process.

- Proposals must be received within the submission deadline.
- The proposal must include a cover page that is signed by an authorized representative of the Proponent.
- Meters must be new and comply with the latest edition of the AWWA C700 standard and NSF/ANSI Standard 61.
- Proposals must be submitted to the Regional District in electronic form via email to [ACHapple@slrd.bc.ca](mailto:ACHapple@slrd.bc.ca). Paper documentation will not be accepted. Submissions must be less than 15 MB. Any submission greater than 15 MB must be separated into 2 emails.
- Schedule must conform to completion date identified herein.

### **WEIGHTED CRITERIA**

Proposals meeting all mandatory criteria will be further assessed against the following weighted criteria.

Weighted Criteria	Weight (%)
Project Understanding	5
Proposed Solution	30
Firm Qualifications and Experience	30
Proposed Project Team	10
Pricing	25

### **PRICE EVALUATION**

The lowest priced Proposal will receive full points for pricing. All other prices will be scored using the following formula: lowest priced proposal/price of this proposal = total points available for price.

## **Schedule**

Activity	Date
RFP Issued	Jun 26, 2025
Deadline for Questions	Jul 16, 2025

RFP Closing Date	Jul 23, 2025 @4pm PST
Evaluations	Jul 30, 2025
Anticipated Award and Notice to Proceed	Aug 6, 2025

## **General Conditions**

### ***INSURANCE***

The Proponent must have the following insurance coverage:

- Commercial general liability insurance providing coverage for death, bodily injury, property loss and damage and all other losses arising out of or in connection with the provision of the Services in an amount not less than three million dollars (\$3,000,000) per occurrence and five million dollars (\$5,000,000) in the aggregate, naming the SLRD as additional insured;
- Automobile liability insurance providing coverage on all vehicles owned, operated or licensed in the name of the Proponent in an amount not less than two million dollars (\$2,000,000) per occurrence for bodily injury, death and damage to property;
- Proponent's equipment insurance in an all-risks form covering machinery and equipment used for the performance of the Services.

### ***WORKSAFEBC***

The Proponent must provide proof of WorkSafeBC coverage (or if applicable proof that WorkSafeBC coverage is not required).

### ***COMPLIANCE***

The work to be carried out must comply with and be in accordance with all provincial and local government laws, permits, regulations and policies.

### ***INDEMNITY***

Except to the extent arising out of the negligent acts or omissions of the SLRD and its directors, officers, employees, volunteers, contractors, agents, successors and assigns, as determined by a court of competent jurisdiction, the Proponent/Contractor shall release, indemnify and save harmless the SLRD and its directors, officers, employees, volunteers, contractors, agents, successors and assigns from and against any and all liabilities, actions, damages, claims, losses, costs and expenses whatsoever (including, without limitation, the full amount of all legal fees and disbursements) in any way directly or indirectly arising out of or caused, in whole or in part, by the Proponent/Contractor, its employees, agents, or assigns in the performance of the Services herein, as determined by a court of competent jurisdiction. This release and indemnity shall survive notwithstanding the completion of the Services under this Agreement and/or the expiry or termination of this Agreement.

The indemnity provided by the Proponent/Contractor to the SLRD will not in any way be limited or restricted by the insurance requirements or by limitations on the amount or type

of damages, compensation or benefits payable under the Workers' Compensation Act or any other similar statute.

***PROVISIONS***

The Proponent shall provide, maintain, and utilize sanitation facilities for the work force at the site. Solid waste shall be removed and disposed of so as not to attract wildlife.

## **SCHEDULES**

SCHEDULE "A":	Draft Services Agreement
SCHEDULE "B":	Pemberton North Water System Drawing Set
SCHEDULE "C":	Technical Specifications
SCHEDULE "D":	Cost Tables

## SCHEDULE "A" - DRAFT SERVICES AGREEMENT

THIS AGREEMENT dated \_\_\_\_\_ is

BETWEEN:

**SQUAMISH-LILLOOET REGIONAL DISTRICT**

(the "Regional District")

AND:

**NAME** doing business as **NAME**

(the "Contractor")

GIVEN THAT the Regional District wishes to engage the Contractor for design and construction of the Pemberton North Water System Metering Project, the scope of such services and each of the service locations are specified in the Terms of Reference (as defined below); and

The Contractor wishes to provide such services to the Regional District in accordance with the terms and conditions of the agreement;

This Agreement is evidence that in consideration of the promises exchanged below, the Regional District and the Contractor agree with each other as follows:

### Definitions

1. In this Agreement, in addition to the words defined above,
  - a. **"Terms of Reference"** means the terms of reference for performance of the Services attached here as Schedule "A" which forms part of this Agreement; and
  - b. **"Services"** means the acts, services and work described in the Terms of Reference and all acts, services and work necessary to achieve the objectives set out in the Terms of Reference.

### Services to be Performed by the Contractor

2. The Contractor agrees to perform the Services during the Term, in accordance with the Terms of Reference, on the terms and conditions of this Agreement.

### Term and Renewal

3. The term of this Agreement commences on or about DATE and ends on the earlier of the completion of the Services or DATE (the **"Term"**), unless terminated earlier in accordance with this Agreement.

### **Warranty as to Quality of Services**

4. The Contractor represents and warrants to the Regional District that:
  - a. it will perform the Services with that degree of care, skill, and diligence normally applied in the performance of services of a similar nature and magnitude to those contemplated by this agreement at the time and place the Services are rendered;
  - b. it will perform the Services in accordance with sound current professional practices;
  - c. the Contractor and any of its employees which undertake the Services have the education, training, skill, experience and resources necessary to perform the Services;
  - d. the Services will be performed in accordance with all applicable enactments and laws and in compliance with all relevant codes, rules, regulations and standards of any relevant professional or industry organization or association; and

and the Contractor acknowledges and agrees that the Regional District has entered into this Agreement relying on the representations and warranties in this section.

### **Remuneration and Reimbursement**

5. The Regional District must pay the Contractor for the Services in the amount provided in the Terms of Reference in accordance with this Agreement.

### **Invoice**

6. Not more than once each month, the Contractor may deliver an invoice to the Regional District, in respect of the immediately preceding month, setting out the aggregate amount of fees claimed for Services performed in that preceding month for each of the service locations specified in the Terms of Reference. For greater clarity, the invoice must clearly break out the fees claimed for Services delivered in respect of each of the service locations set out in the Terms of Reference.

### **Payment by the Regional District**

7. The Regional District must, to the extent it is satisfied the fees are for Services reasonably and necessarily performed by the Contractor and subject to section 8 and subject to any right of set-off that the Regional District may have, pay the Contractor the fees claimed in the invoice delivered in accordance with section 6, within 30 days after delivery of the invoice to the Regional District.

### **Termination or Suspension at the Discretion of the Regional District**

8. Despite any other section of this Agreement, the Regional District may, in its sole discretion, terminate or suspend all or any part of the Services by giving the Contractor notice of termination or suspension, as the case may be, with such effective date of termination or suspension so noted thereon. If the Regional District terminates or suspends all or part of the Services under this section, then the Contractor is entitled to deliver an invoice to the Regional District for the period between the end of the time period for which the last invoice was delivered by the Contractor under section 6 and the effective date of termination or suspension. The Regional District must, to the extent that it is satisfied the fees and disbursements are for Services reasonably and necessarily performed by the Contractor, pay the Contractor the fees and disbursements claimed in such invoice, within 30 days after delivery of such invoice to the Regional District. The Contractor is not entitled to, and irrevocably waives and releases, damages or compensation for costs incurred, loss of profit, or loss of opportunity, directly or indirectly arising out of termination or suspension of all or any part of the Services.

### **Termination for Breach**

9. The Regional District may, by giving the Contractor notice of termination, immediately terminate all or any part of the Services, if the Contractor:
  - a. is in breach of this Agreement and within 5 days of receiving notice of such breach from the Regional District, the Contractor has not cured the breach or is not, to the satisfaction of the Regional District in its sole discretion, diligently pursuing a cure for the breach; or
  - b. becomes bankrupt or insolvent, a receiving order is made against the Contractor, an assignment is made for the benefit of the Contractor's creditors, or the Contractor takes the benefit of any enactment relating to bankrupt or insolvent debtors.

Without limiting any other right or remedy available to the Regional District, if the Regional District terminates all or any part of the Services under this section, the Regional District may arrange, upon such terms and conditions and in such manner as it considers appropriate, for performance of any part of the Services remaining to be completed, and the Contractor is liable to the Regional District for any expenses reasonably and necessarily incurred by the Regional District in engaging the services of another person to perform those Services. The Regional District may set off against, and withhold from amounts due to the Contractor such amounts as the Regional District determines, acting reasonably, are necessary to compensate and reimburse the Regional District for the expenses described in this section.

### **Confidential Information**

10. Except as required by law, the Contractor must not, during or after the Term, divulge or disclose any secret or confidential information, or divulge or disclose any information that the Contractor receives or observes in connection with this Agreement and the performance of the Services which in good faith or good conscience ought not to be disclosed.

## **Records**

11. The Contractor must:

- a. keep proper accounts and records of its performance of the Services, including invoices, receipts and vouchers, which must at all reasonable times be open to audit and inspection by the Regional District, which may make copies and take extracts from the accounts and records;
- b. keep reasonably detailed records of performance of the Services by the Contractor, which must at all reasonable times be open to inspection by the Regional District, which may make copies and take extracts from the records;
- c. afford facilities and access to accounts and records for audit and inspection by the Regional District and must furnish the Regional District with such information as the Regional District may from time to time require regarding those documents; and
- d. preserve and keep available for audit and inspection, all records described in section 11(a) through (c) for at least two years after completion of the Services or termination of this Agreement, whichever applies.

## **Delivery of Records**

12. If the Regional District terminates all or part of the Services under this Agreement, the Contractor must immediately deliver to the Regional District, without request, all Services-related documents in the Contractor's possession or under its control as well as all keys issued to the Contractor by the Regional District.

## **Agreement for Services**

13. This is an Agreement for the performance of services and the Contractor is engaged under the Agreement as an independent contractor for the sole purpose of providing the Services. Except as is otherwise expressly prescribed in this Agreement, neither the Contractor nor any of its employees, contractors and representatives is engaged by the Regional District as an employee or agent of the Regional District. The Contractor is solely responsible for any and all remuneration and benefits payable to its employees, contractors and representatives, and all payments or deductions required to be made by any enactment, including those required for Canada Pension Plan, employment insurance, workers' compensation and income tax. This Agreement does not create a joint venture or partnership, and the Contractor has no authority to represent or bind the Regional District in any way.

## **Assignment of Agreement/Subcontracting of Services**

14. The Contractor must not assign this Agreement (or any part thereof) or subcontract any or all of the Services to be performed under this Agreement without the prior written consent of the Regional District, such consent may be unreasonably withheld. The Regional District may refuse its consent if, among other reasons, it is not satisfied that

the proposed assignee or proposed subcontractor, as the case may be, has the education, training, skill, experience or resources necessary to perform the Services. Any assignment or subcontract duly consented to by the Regional District does not relieve the Contractor from any obligation already incurred or accrued under this Agreement or impose any liability upon the Regional District.

### **Time of the Essence**

15. Time is of the essence of this Agreement.

### **Release and Indemnification**

16. Except to the extent arising out of the negligent acts or omissions of the Regional District and its directors, officers, employees, agents, successors and assigns, as determined by a court of competent jurisdiction, the Contractor must release, indemnify and save harmless the Regional District and its directors, officers, employees, agents, successors and assigns from and against any and all liabilities, actions, damages, claims, losses, costs and expenses whatsoever (including, without limitation, the full amount of all legal fees and disbursements) in any way directly or indirectly arising out of or caused, in whole or in part, by the Contractor, its employees, agents, or assigns in the performance of the Services herein, as determined by a court of competent jurisdiction.

17. The indemnity provided in section 16 by the Contractor to the Regional District will not in any way be limited or restricted by the insurance set out in section 19 or by limitations on the amount or type of damages, compensation or benefits payable under the *Workers' Compensation Act* or any other similar statute.

18. The indemnity provided in section 16 by the Contractor to the Regional District will survive notwithstanding the completion of all Services and the obligations and duties under this Agreement; for clarity, the release and indemnity shall survive the expiry or the termination of this Agreement for any reason.

### **Insurance Requirements**

19. The Contractor must obtain and maintain throughout the Term automobile liability insurance on all vehicles, owned, operated or licensed in the name of the Contractor in an amount not less than \$5,000,000 per occurrence for bodily injury, death and damage to property (or such higher amount as is customary for a provider of landscaping services) as well as appropriate contractor's equipment insurance in all-risks form covering equipment used for the performance of the Services.

20. The Contractor must obtain and maintain throughout the Term commercial general liability insurance providing coverage for death, bodily injury, property loss and damage and all other losses arising out of or in connection with the provision of the Services in an amount not less than \$2,000,000 per occurrence and shall meet the following requirements:

- a. name the Regional District as additional insured;
- b. include blanket contractual liability coverage, cross liability, and severability of interest;
- c. be issued by an insurance company entitled to carry on the business of insurance under the laws of British Columbia;
- d. be primary without right of contribution from any insurance carried by the Regional District;
- e. stipulate that it shall not be cancelled or materially changed without first providing 30 days written notice to the Regional District;
- f. include a deductible not greater than \$5,000 per occurrence; and
- g. be on other reasonable terms acceptable to the Regional District.

The Contractor must provide the Regional District with certificates of insurance confirming the placement and maintenance of such insurance at the signing of the Agreement and thereafter as requested to do so from time to time by the Regional District. If the Contractor's insurance shall expire or terminate before the end of the Term, the Contractor shall deliver a new certificate of insurance evidencing the new policies of insurance not less than ten (10) days before the new policies go into effect.

The above insurance requirements do not in any way reduce the Contractor's obligations to release and indemnify the Regional District as set out in section 16 of this Agreement.

## **WorkSafeBC**

21. The Contractor must:

- a. provide proof of WorkSafeBC coverage (or if applicable, proof that WorkSafeBC coverage is not required) within 5 days of signing this Agreement and as may be required by the Regional District from time to time throughout the Term;
- b. remain current with all assessment reporting and payments due thereunder and shall comply in every respect with the requirements of the Workers Compensation Act and Regulations; and

- c. be responsible for all fines, levies, penalties and assessments made or imposed under the Workers Compensation Act and regulations relating in any way to the Services.
22. The Contractor must take all precautions reasonably necessary to ensure the safety of the Contractor's personnel and all persons employed, contracted or subcontracted by the Contractor to perform the Services.
23. The Contractor is designated as the prime contractor on site.

### Compliance

24. The Contractor must comply with all laws, rules and regulations applicable to the performance of the Services under this Agreement.

### Severability

25. If any term or provision of this Agreement is illegal or invalid for any reason whatsoever as determined by a competent court of law, such term or provision shall be severable and the same shall not affect the validity of the remainder of this Agreement.

### Notice

26. Any notice, direction, demand, approval, certificate or waiver which may be or is required to be given under this Agreement must be in writing and delivered personally or by courier or sent by e-mail, addressed as follows:

- a. To the Regional District:

Squamish-Lillooet Regional District  
1350 Aster Street, Box 219  
Pemberton, B.C. V0N 2L0  
E-mail Address: [achapple@slrd.bc.ca](mailto:achapple@slrd.bc.ca)  
Attention: Ali Chapple, Project Manager

- b. To the Contractor:

NAME  
ADDRESS  
Phone Number:  
E-mail Address:  
Attention:

or to such other address, or e-mail address of which notice has been given as provided in this section.

Any notice, direction, demand, approval or waiver delivered is to be considered given on the next business day after it is dispatched for delivery. Any notice, direction, demand, approval or waiver sent by e-mail is to be considered given on the day it is sent, if that day is a business day and if

that day is not a business day, it is to be considered given on the next business day after the date it is sent.

### **Interpretation and Governing Law**

27. In this Agreement:

- a. reference to the singular includes a reference to the plural, and vice versa, unless the context requires otherwise;
- b. reference to a particular numbered section or Schedule is a reference to the correspondingly numbered section or Schedule of this Agreement;
- c. the word "enactment" has the meaning given to it in the *Interpretation Act* (British Columbia) on the reference date of this Agreement;
- d. reference to any enactment is a reference to that enactment as amended, unless otherwise expressly provided;
- e. reference to a month is a reference to a calendar month; and
- f. section headings have been inserted for ease of reference only and are not to be used in interpreting this Agreement.

28. This Agreement is governed by, and is to be interpreted according to, the laws of British Columbia.

### **Binding on Successors**

29. This Agreement enures to the benefit of and is binding upon the parties and their respective executors, successors, trustees, administrators and receivers, despite any rule of law or equity to the contrary.

### **Entire Agreement**

30. This Agreement is the entire agreement between the parties and it terminates and supersedes all previous communications, representations, warranties, covenants and agreements, whether verbal or written, between the parties with respect to the subject matter of this Agreement.

### **Waiver**

31. Waiver of any breach by a party must be express and in writing to be binding on that party, and a waiver of a particular breach does not operate as a waiver any future breach, whether of a like or different character.

**Freedom of Information and Protection of Privacy Act**

- 32. The Contractor understands that the Regional District is subject to the Freedom of Information and Protection of Privacy Act, RSBC 1996, c. 165 and agrees that this Agreement and the information it contains, and any information supplied by the Contractor to the Regional District in connection with this Agreement, is not implicitly confidential for the purposes of that enactment.
- 33. The Contractor understands that this Agreement, and the information it contains, may be the subject of an access to information request made to the Regional District under the Freedom of Information and Protection of Privacy Act and the Regional District may be obliged by that enactment to disclose all or part of this Agreement and the information it contains and all or part of any information the Contractor supplied to the Regional District in connection with this Agreement, whether or not the Contractor has expressly stipulated that the information in question is confidential for the purposes of that enactment.

**Counterparts**

- 34. This Agreement may be signed in as many counterparts as may be necessary, each of which so signed will be deemed to be an original and each copy sent by email or electronic facsimile transmissions will be deemed to be an original, and such counterparts together will constitute one and the same instrument and notwithstanding the date or dates of execution will be deemed to bear the date as set forth below.

As evidence of their agreement to be bound by the above terms and conditions of this Agreement, the parties have executed this Agreement below, on the respective dates written below.

**SQUAMISH-LILLOOET REGIONAL DISTRICT** by its authorized signatory:

\_\_\_\_\_  
Heather Paul  
Chief Administrative Officer

\_\_\_\_\_  
Date

**NAME:**  
by its authorized signatory:

\_\_\_\_\_  
Name:

\_\_\_\_\_  
Date

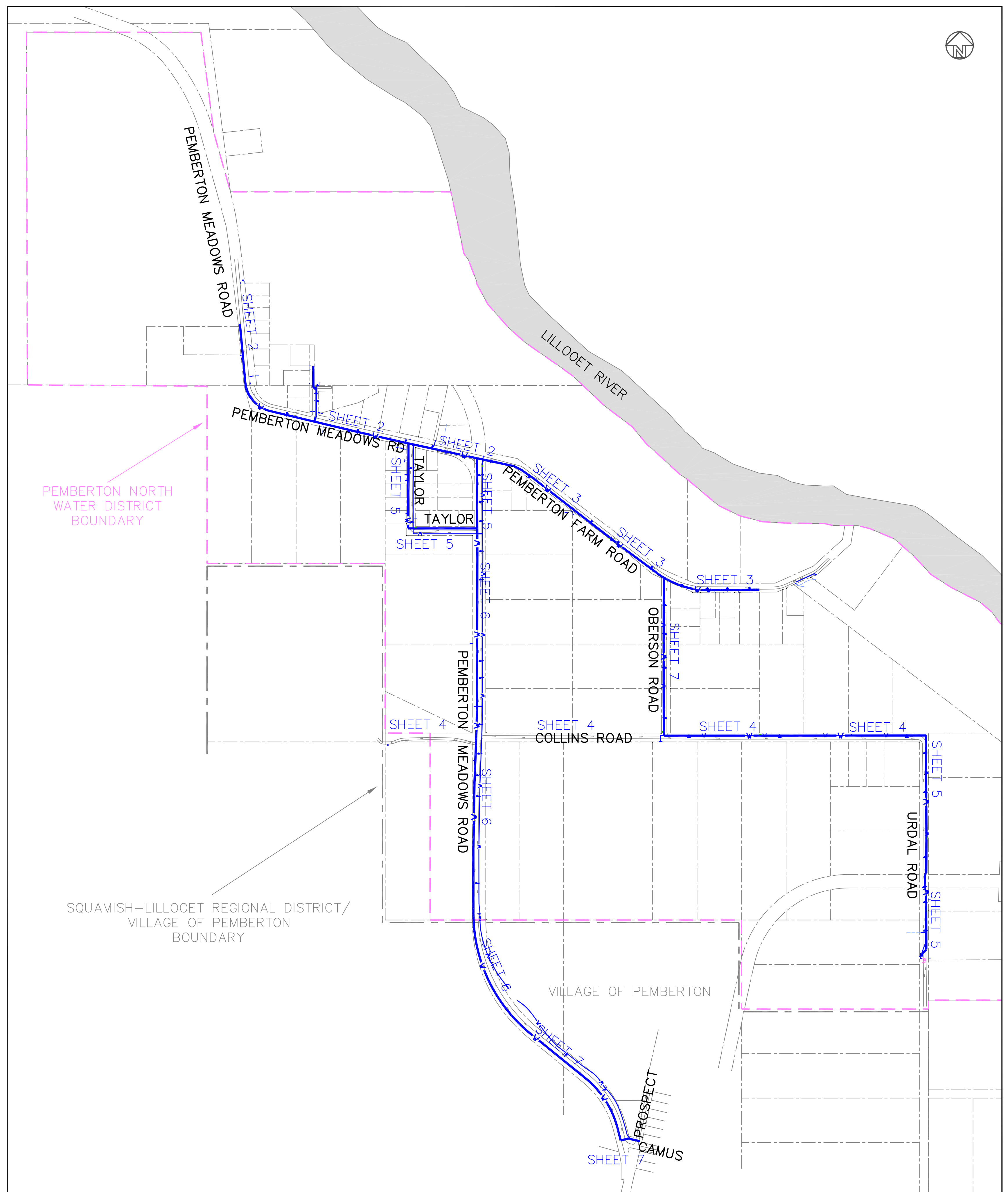


**SCHEDULE "B":** Pemberton North Water System

# PEMBERTON NORTH WATER SYSTEM IMPROVEMENTS

SHEET	TITLE
1	COVER SHEET AND OVERALL PLAN
2	PEMBERTON MEADOWS ROAD NORTH
3	PEMBERTON FARM ROAD
4	COLLINS ROAD
5	URDAL, TAYLOR AND PEMBERTON MEADOWS ROADS
6	PEMBERTON MEADOWS ROAD CENTRAL
7	PEMBERTON MEADOWS ROAD SOUTH AND OBERSON ROAD
8	DETAILS

- GENERAL NOTES**
- ALL WORKS CONFORM TO MMCD SPECIFICATIONS, AND REQUIREMENTS OF SQUAMISH-LILLOOET REGIONAL DISTRICT, VILLAGE OF PEMBERTON, MINISTRY OF TRANSPORTATION, AND MINISTRY OF HEALTH.
  - ALL EXISTING UTILITY INFORMATION ON THESE DRAWINGS IS REPRESENTED APPROXIMATELY, BASED ON BEST INFORMATION AVAILABLE. ACCURATE AS-CONSTRUCTED RECORDS ARE NOT AVAILABLE FOR UTILITIES.
  - MINIMUM COVER ON WATERMAINS AND WATER SERVICES IS 1.8-m IN TRAVELED AREAS AND 1.5-m IN UNTRAVELED AREAS. WATERMAINS ARE GRADED SUCH THAT HIGH POINTS ARE LOCATED AT HYDRANTS OR BLOW-OFFS.
  - THE CONTRACTOR PROVIDED NEW INDIVIDUAL WATER SERVICES TO UNSERVED PROPERTIES, AND UPGRADED EXISTING INDIVIDUAL WATER SERVICES AS DIRECTED BY ENGINEER. INSTALLATION AND UPGRADING OF SERVICES TYPICALLY EXTENDED FROM THE WATERMAIN TO THE PROPERTY BOUNDARY, INCLUDING THE CURB STOP. INDIVIDUAL SERVICES ARE 25-mm DIAMETER SERIES 160 CTS POLYETHYLENE UNLESS OTHERWISE NOTED. LARGER SERVICES INCLUDE 38-mm DIAMETER CTS SERIES 160 POLYETHYLENE AND 50-mm SERIES 160 CTS POLYETHYLENE.
  - FIRE HYDRANTS ARE TYPICALLY LOCATED 1.0-m OFF PROPERTY BOUNDARIES. WATERMAIN IS GRADED SUCH THAT HYDRANTS ARE LOCATED AT HIGH POINTS IN THE WATERMAIN.
  - REFER TO MMCD DOCUMENTS FOR STANDARD DETAIL DRAWINGS, IN PARTICULAR THE FOLLOWING DRAWINGS:
    - G1 - GENERAL LEGEND FOR CONTRACT DRAWINGS
    - G4 - UTILITY TRENCH
    - G5 - PAVEMENT RESTORATION
    - G6 - CONCRETE ENCASUREMENT FOR WATERMAIN/SEWER SEPARATION
    - S15 - DRIVEWAY CULVERT WITH CONCRETE BLOCK ENDWALLS
    - W1 - TYPICAL THRUST BLOCK ARRANGEMENTS
    - W2a - WATER SERVICE CONNECTION - SERVICE BOX
    - W3 - GATE VALVE INSTALLATION
    - W4 - FIRE HYDRANT INSTALLATION
    - W5 - TEST POINT INSTALLATION
    - W8 - BLOW-OFF FOR WATERMAIN

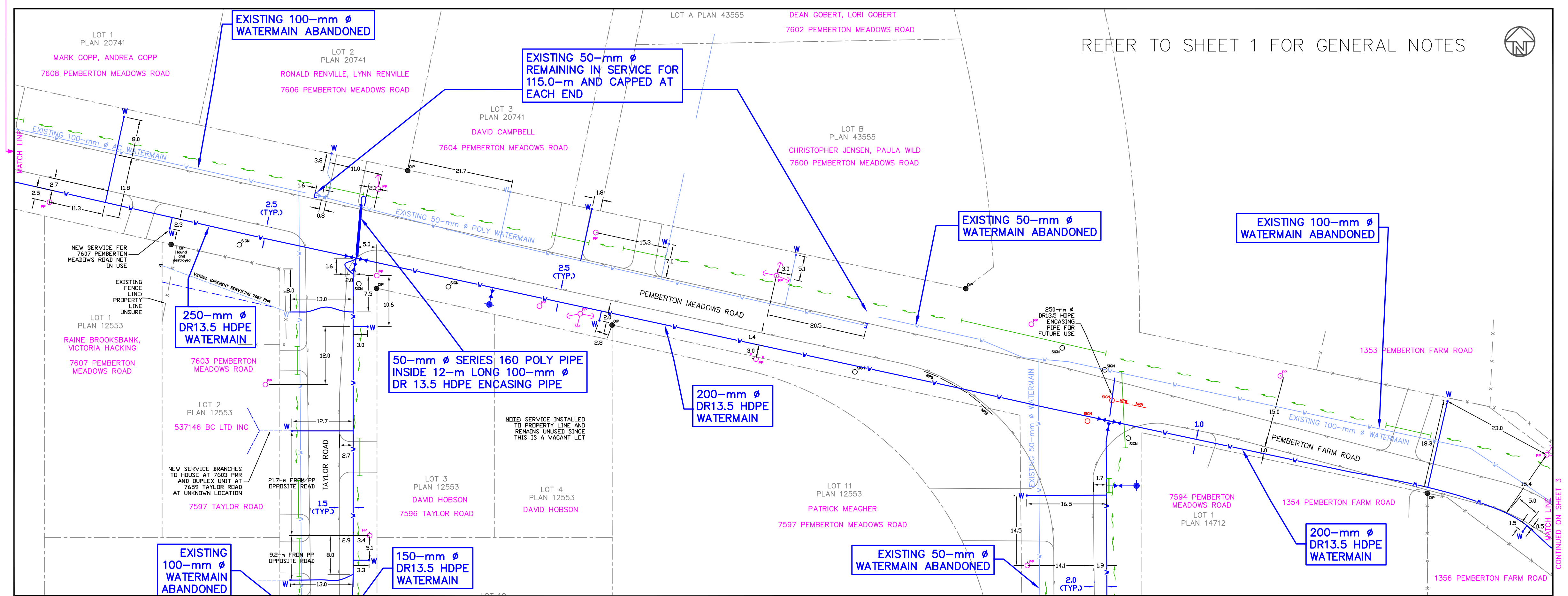
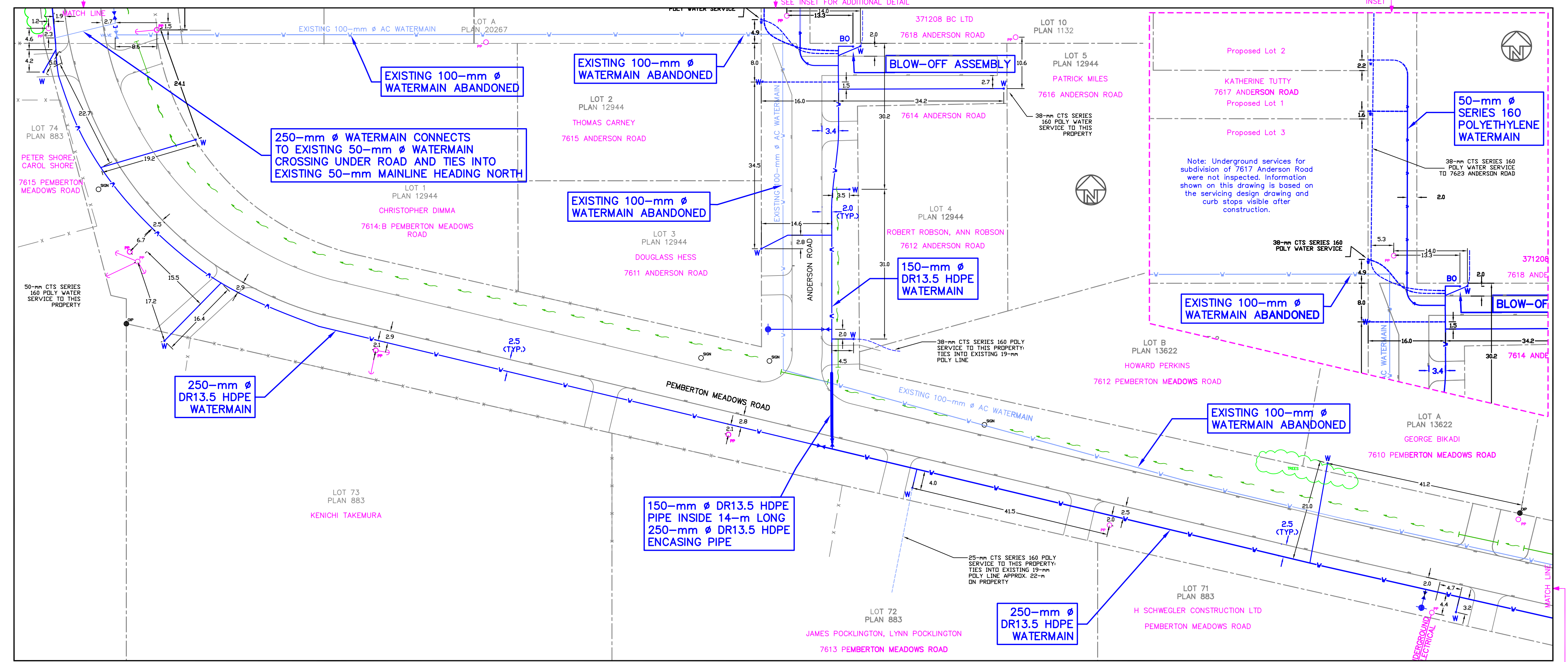
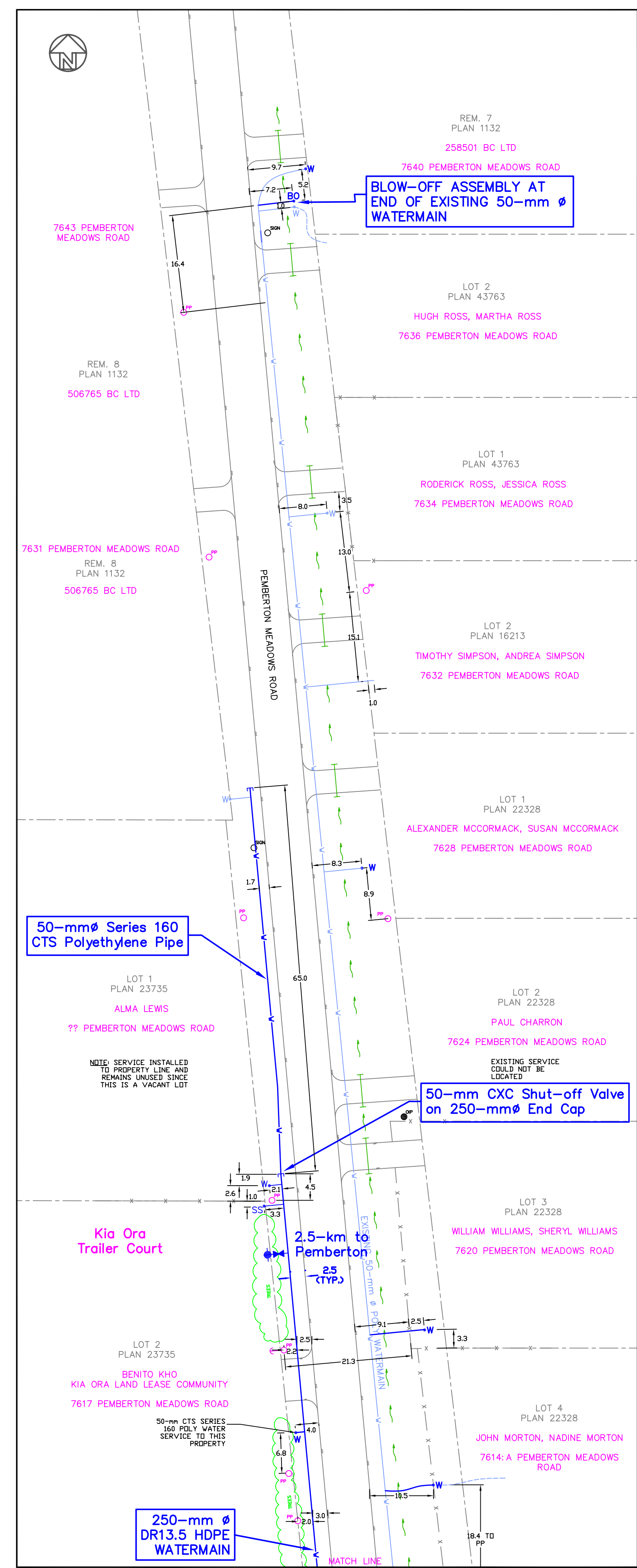


REVISIONS					DRAWING STATUS		
NO.	DATE	DESCRIPTION	BY	APP.	DESCRIPTION	DATE	APP.
4	26/05/03	REVISIONS FOR CONSTRUCTION	GRC	GRC	ISSUED FOR CONSTRUCTION	26/05/03	GRC
5	09/12/03	RECORD DRAWING REVISIONS	MD	GRC	RECORD DRAWINGS	09/12/03	GRC
6	06/06/06	RECORD DRAWING REVISIONS	GRC	GRC	RECORD DRAWINGS	06/06/06	GRC

**GILBEY ENGINEERING SERVICES**  
 P.O. Box 1735, D'Arcy, B.C. V0N 1L0  
 Telephone 604-452-3610

DESIGN:	GRC	DATE:	27/01/03
DRAWN BY:	GRC	DRAWING NO.:	02111-1
CHECKED:	FP	SCALE:	1:5000
APPROVED:	GRC	SHEET:	1 OF 8

CLIENT:	<b>SQUAMISH-LILLOOET REGIONAL DISTRICT</b>
PROJECT:	<b>PEMBERTON NORTH WATER SYSTEM IMPROVEMENTS</b>
DRAWING TITLE:	<b>COVER SHEET AND OVERALL PLAN</b>

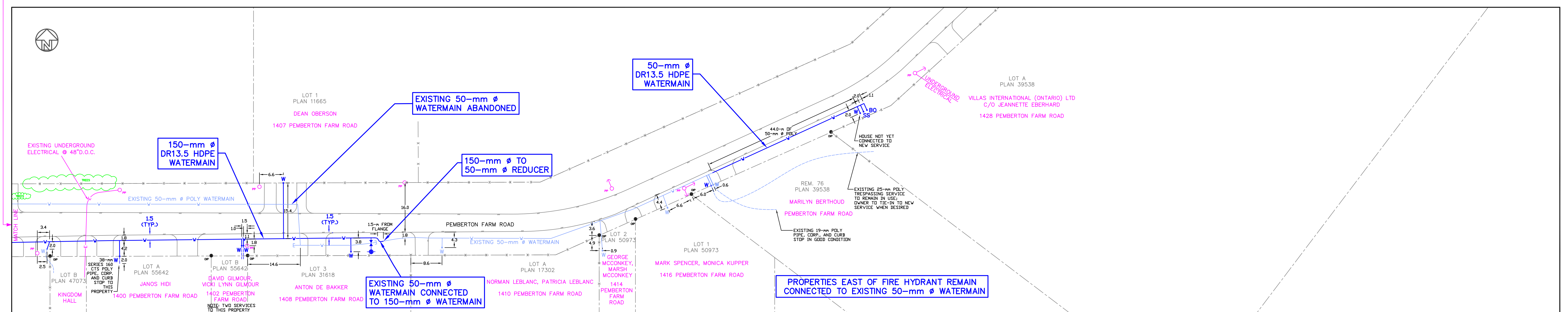
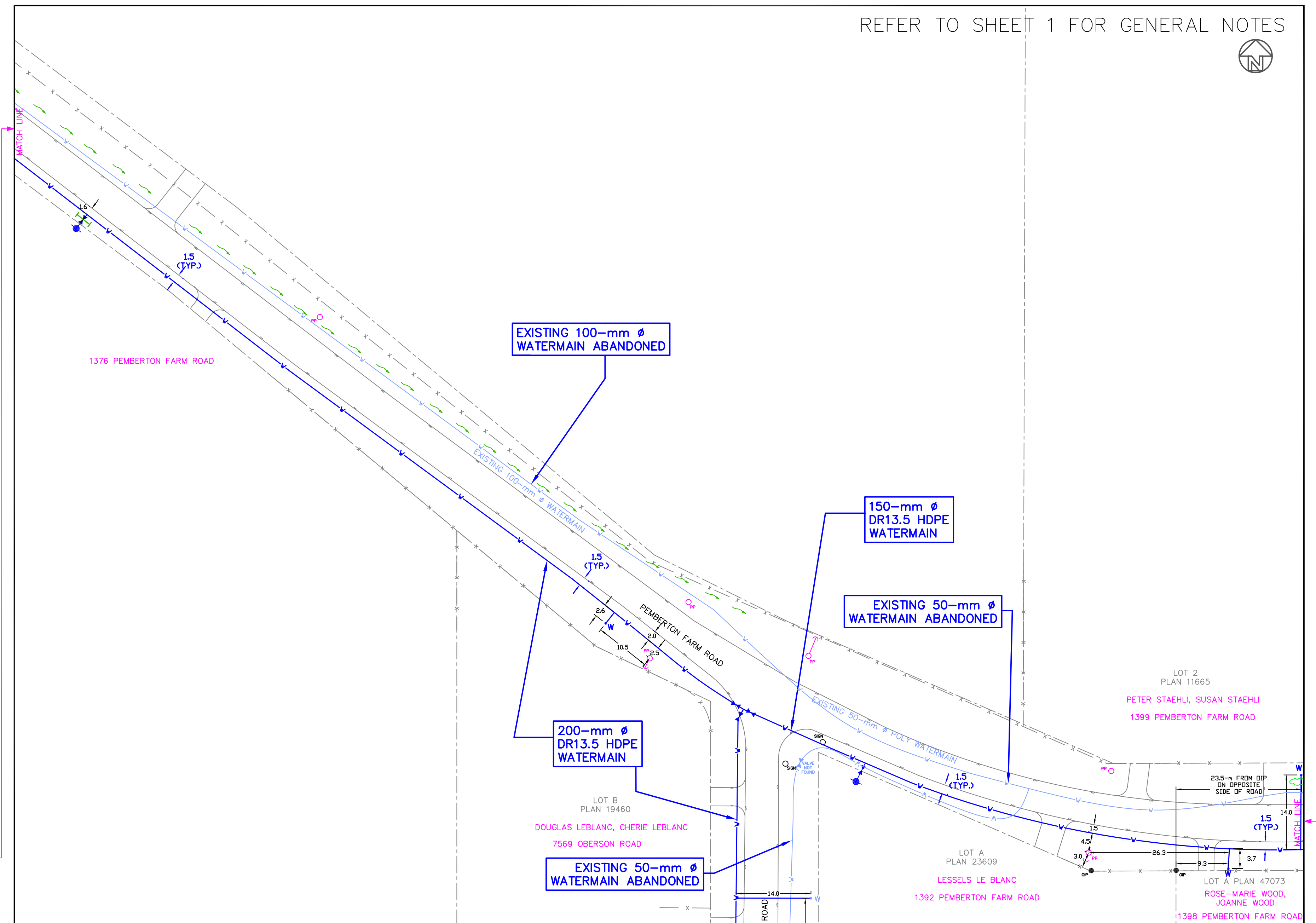
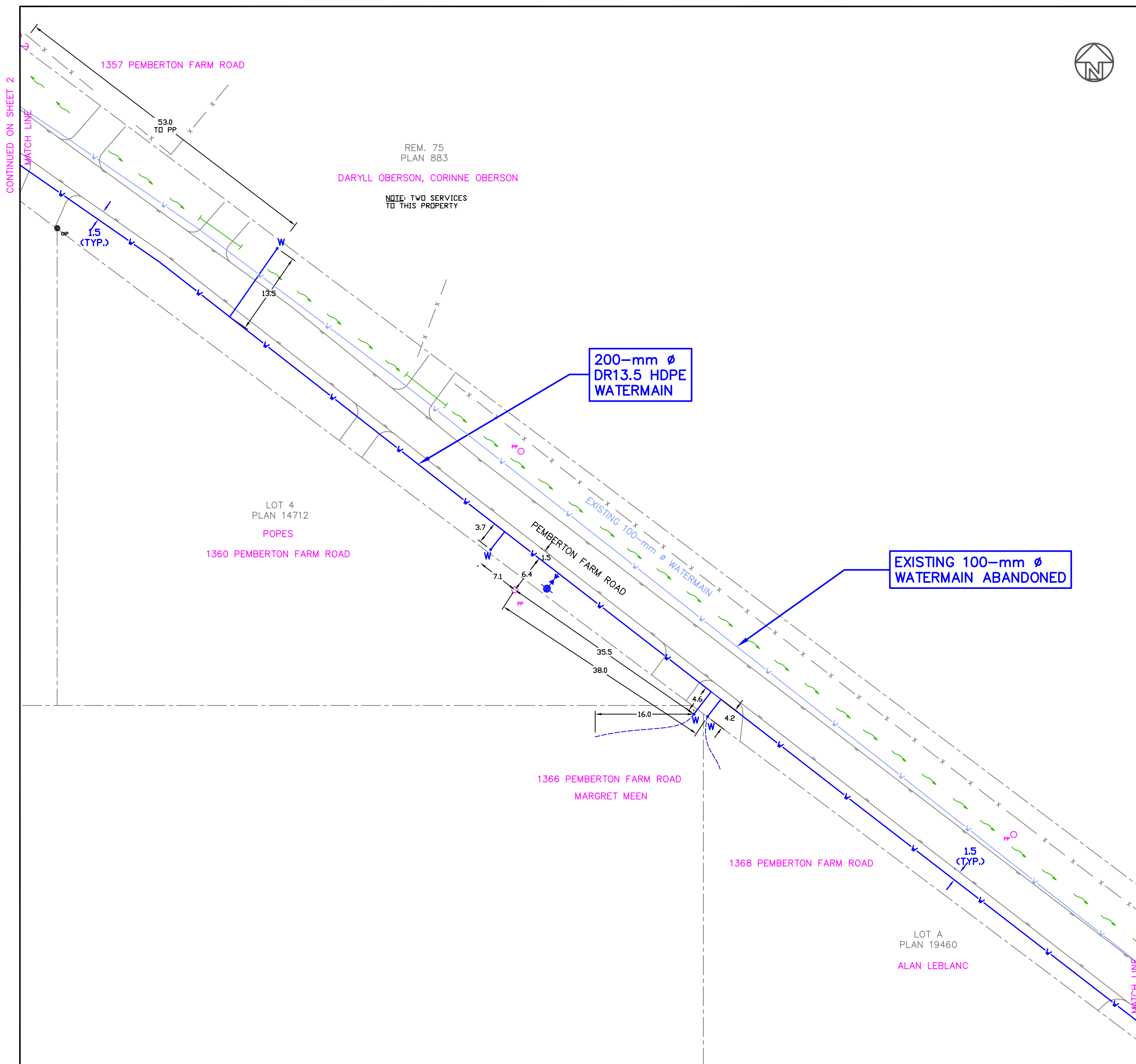


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7	21/09/05	7617 ANDERSON ROAD	GRC	GRC	RECORD DRAWINGS - REVISED	21/09/05	GRC
8	04/06/06	7631 PEMBERTON MEADOWS RD	GRC	GRC	RECORD DRAWINGS - REVISED	04/06/06	GRC

**GILBEY ENGINEERING SERVICES**  
 P.O. Box 1735, D'Arcy, B.C. V0N 1L0 Telephone 604-452-3610

DESIGN:	GRC	DATE:	27/01/03
DRAWN BY:	GRC	DRAWING NO.:	02111-2
CHECKED:	FP	SCALE:	1:500
APPROVED:	GRC	SHEET:	2 OF 8

CLIENT:	<b>SQUAMISH-LILLOET REGIONAL DISTRICT</b>
PROJECT:	<b>PEMBERTON NORTH WATER SYSTEM IMPROVEMENTS</b>
DRAWING TITLE:	<b>PEMBERTON MEADOWS ROAD NORTH</b>



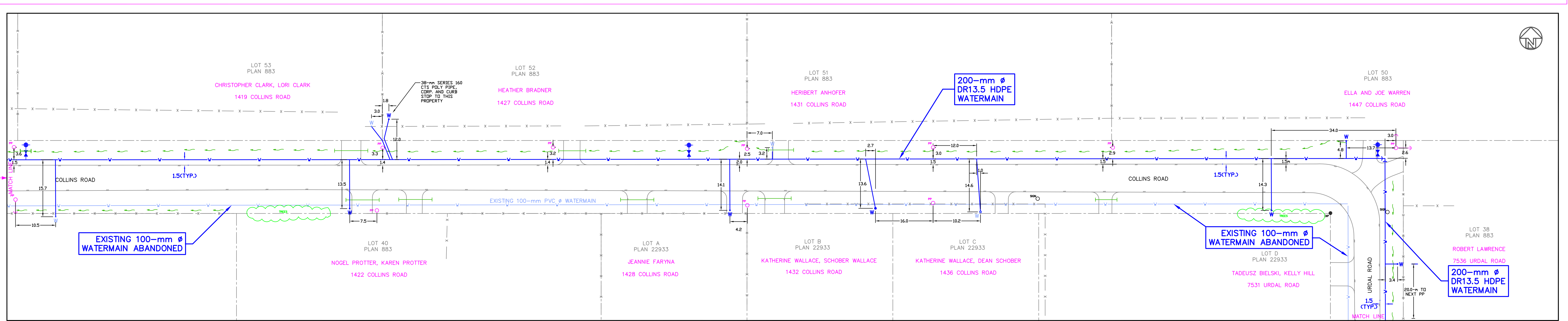
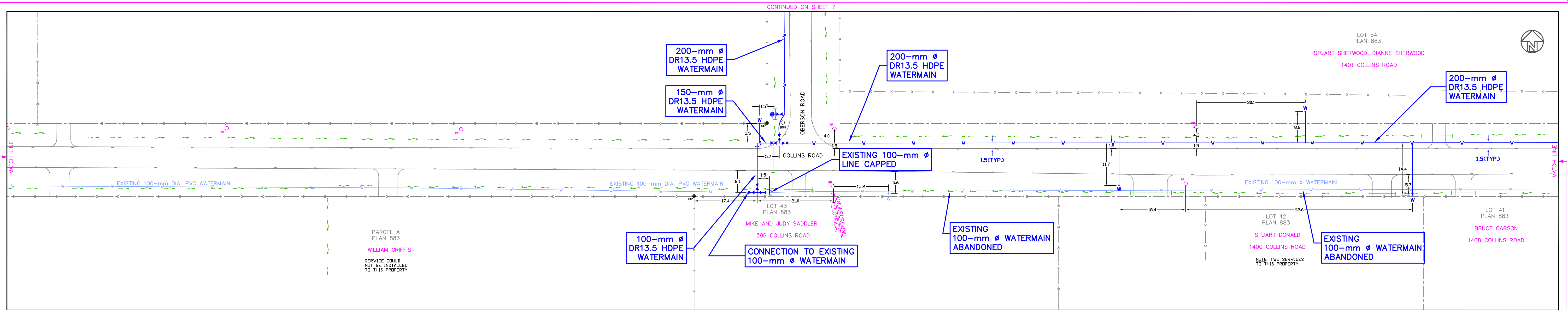
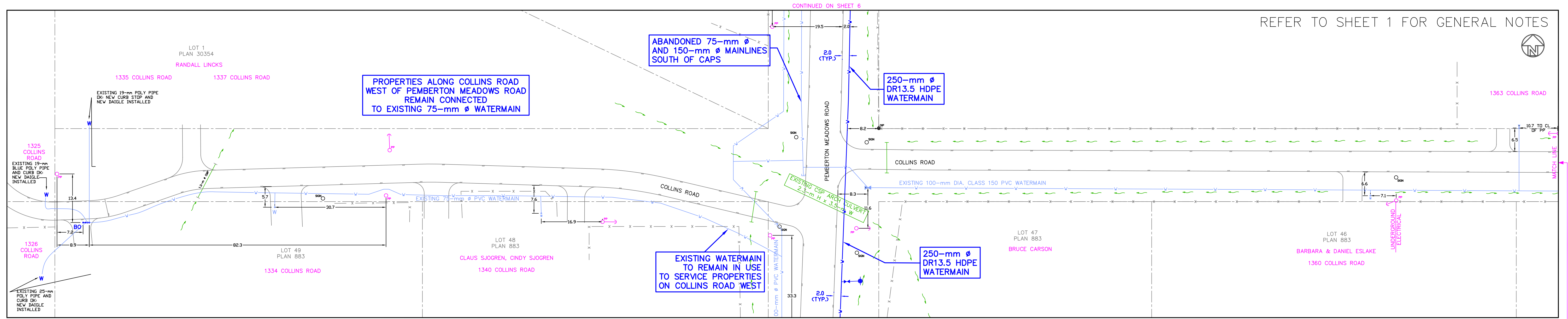
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4	26/05/03	REVISIONS FOR CONSTRUCTION	GRC	GRC	ISSUED FOR CONSTRUCTION	26/05/03	GRC
5	09/12/03	RECORD DRAWING REVISIONS	MD	GRC	RECORD DRAWINGS	09/12/03	GRC

**GILBEY ENGINEERING SERVICES**  
 P.O. Box 1735, D'Arcy, B.C. V0N 1L0  
 Telephone 604-452-3610

DESIGN:	GRC	DATE:	27/01/03
DRAWN BY:	GRC	DRAWING NO.:	02111-3
CHECKED:	FP	SCALE:	1:500
APPROVED:	GRC	SHEET:	3 OF 8

CLIENT:	<b>SQUAMISH-LILLOET REGIONAL DISTRICT</b>
PROJECT:	<b>PEMBERTON NORTH WATER SYSTEM IMPROVEMENTS</b>
DRAWING TITLE:	<b>PEMBERTON FARM ROAD</b>

REFER TO SHEET 1 FOR GENERAL NOTES

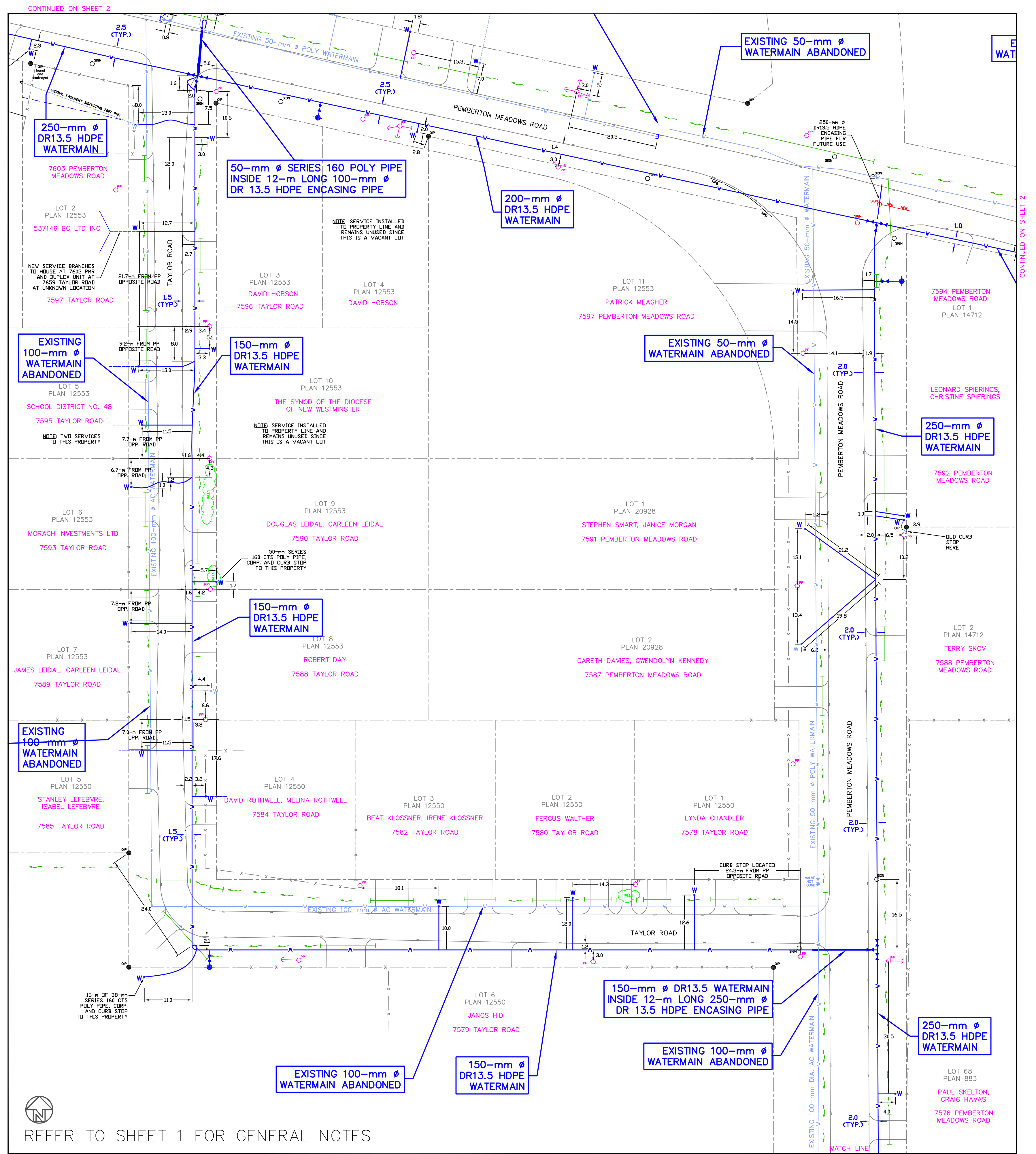
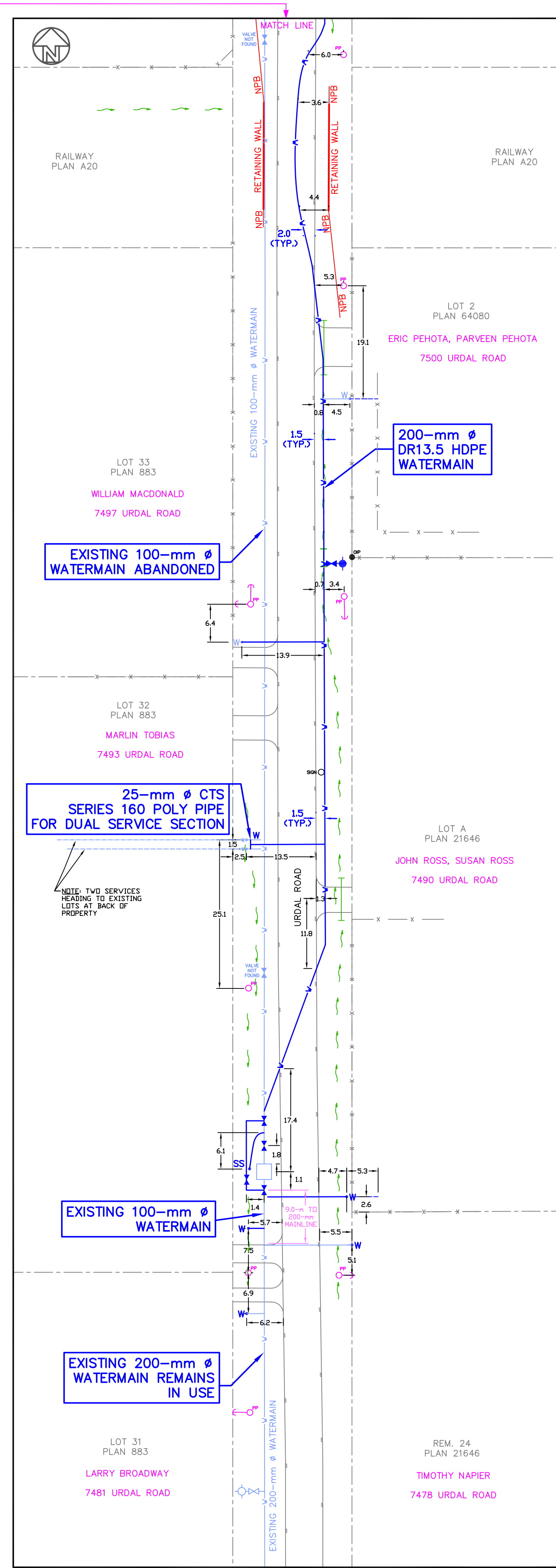
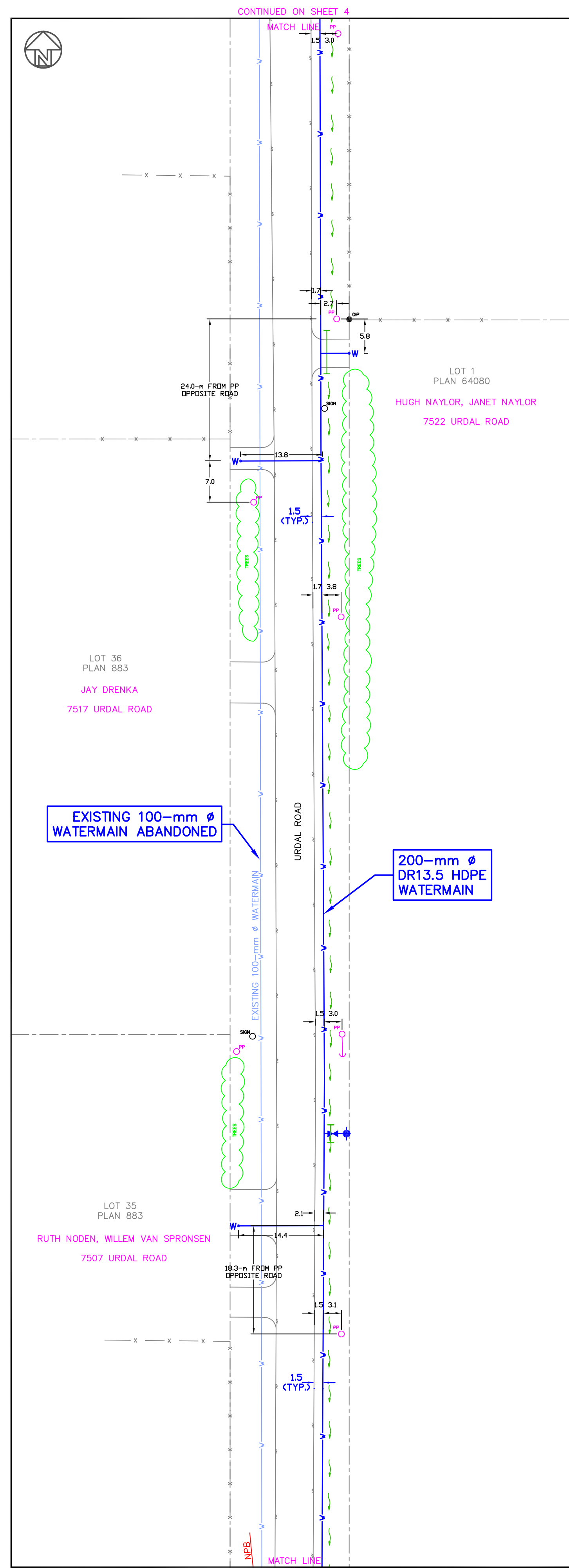


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4	26/05/03	REVISIONS FOR CONSTRUCTION	GRC	GRC	ISSUED FOR CONSTRUCTION	26/05/03	GRC
5	09/12/03	RECORD DRAWING REVISIONS	MD	GRC	RECORD DRAWINGS	09/12/03	GRC

**GILBEY ENGINEERING SERVICES**  
 P.O. Box 1735, D'Arcy, B.C. V0N 1L0 Telephone 604-452-3610

DESIGN:	GRC	DATE:	27/01/03
DRAWN BY:	GRC	DRAWING NO.:	02111-4
CHECKED:	FP	SCALE:	1:500
APPROVED:	GRC	SHEET:	4 OF 8

CLIENT:	<b>SQUAMISH-LILLOET REGIONAL DISTRICT</b>
PROJECT:	<b>PEMBERTON NORTH WATER SYSTEM IMPROVEMENTS</b>
DRAWING TITLE:	<b>COLLINS ROAD</b>



REFER TO SHEET 1 FOR GENERAL NOTES

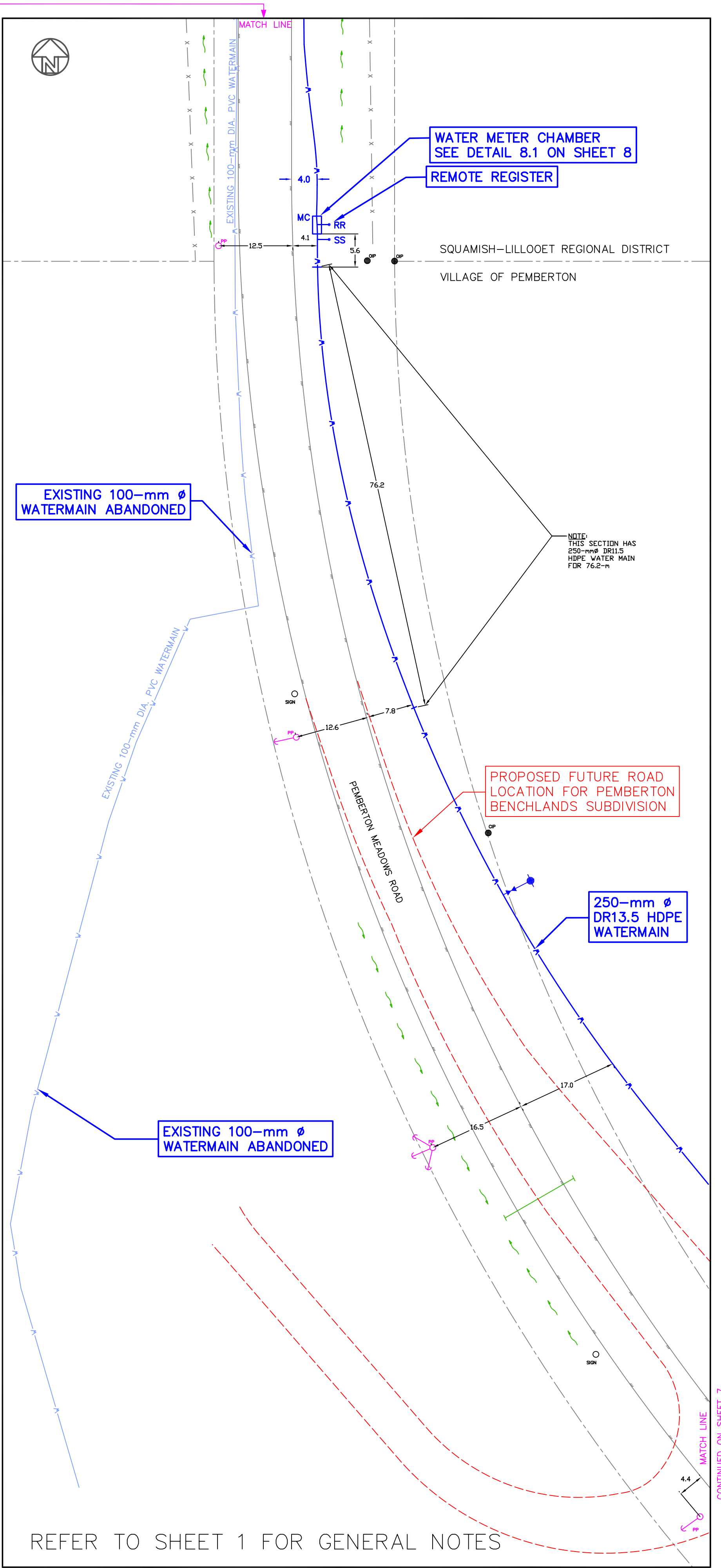
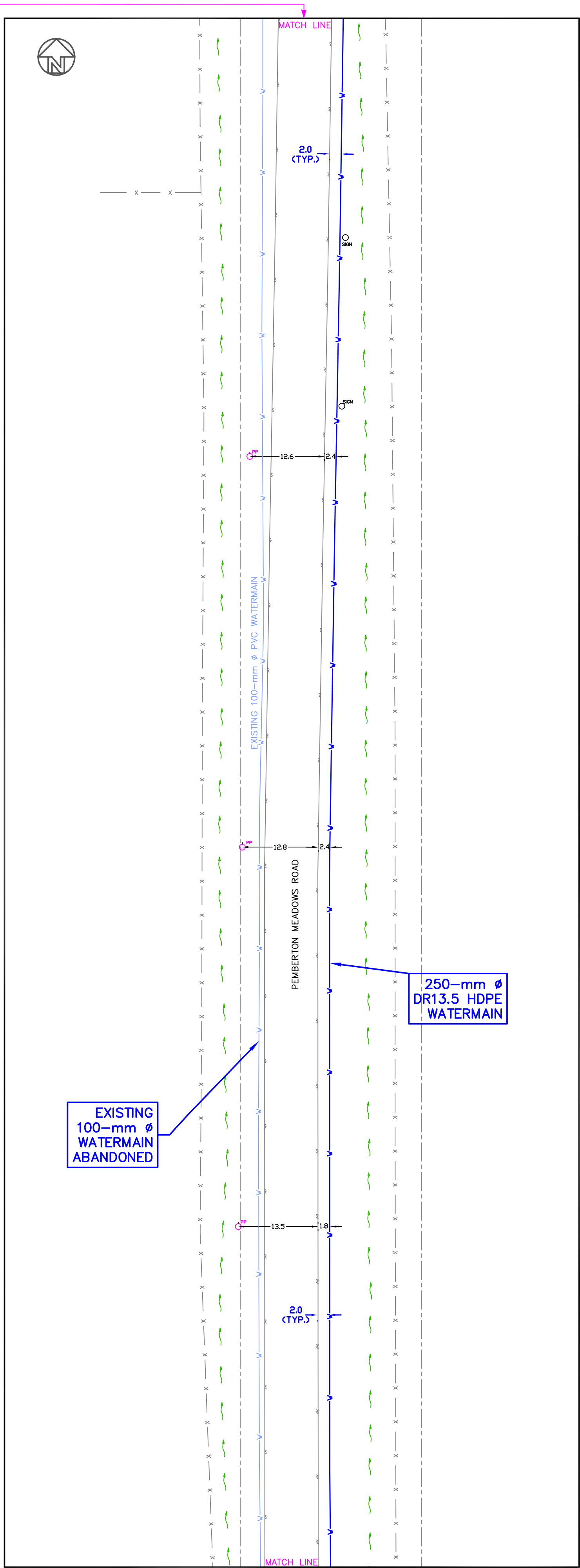
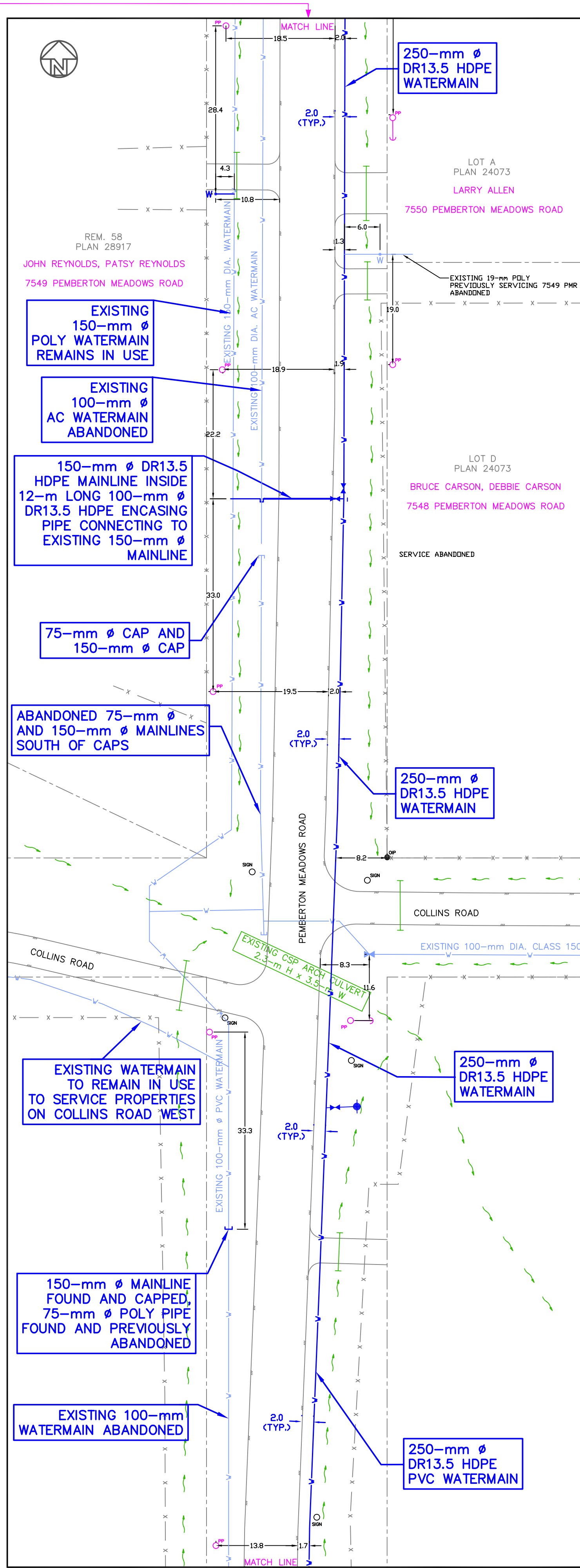
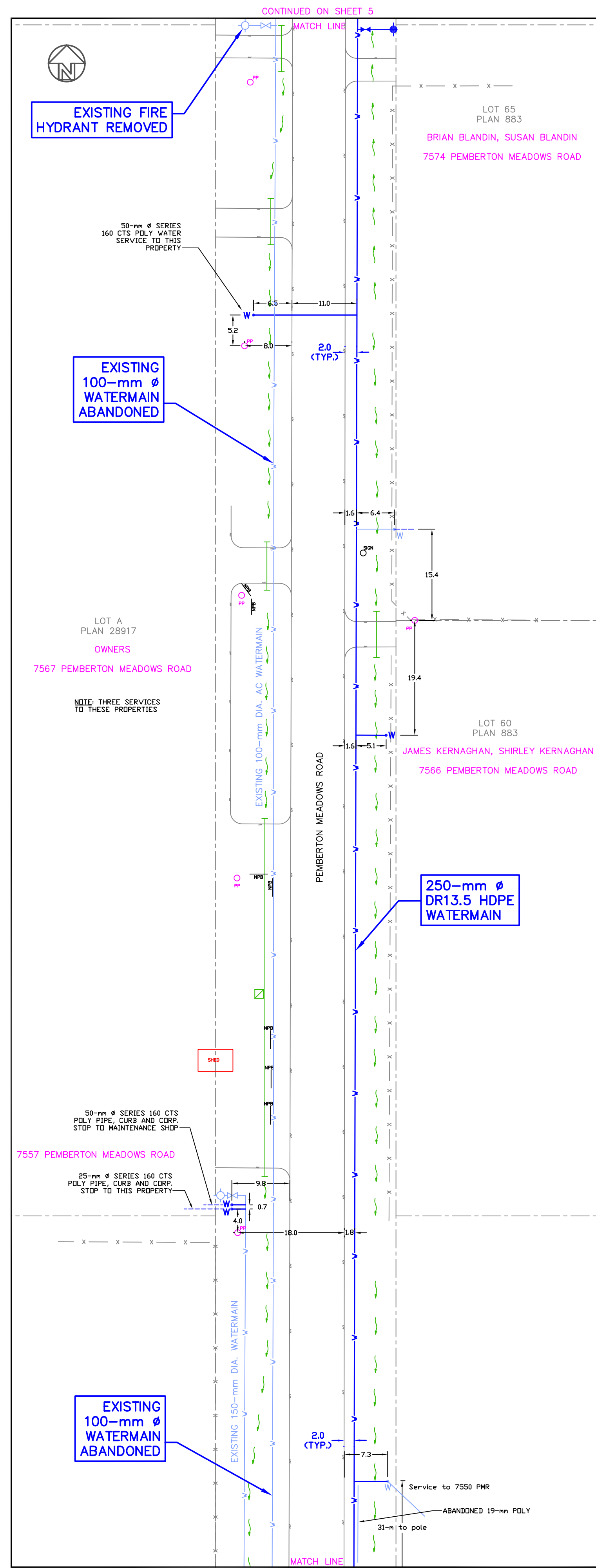
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5	09/12/03	RECORD DRAWING REVISIONS	MD	GRC	RECORD DRAWINGS	09/12/03	GRC
6	30/08/05	7604 PEMBERTON MEADOWS RD	GRC	GRC	RECORD DRAWINGS - REVISED	30/08/05	GRC

# GILBEY ENGINEERING SERVICES

P.O. Box 1735, D'Arcy, B.C. V0N 1L0 Telephone 604-452-3610

DESIGN:	GRC	DATE:	27/01/03
DRAWN BY:	GRC	DRAWING NO.:	02111-5
CHECKED:	FP	SCALE:	1:500
APPROVED:	GRC	SHEET:	5 OF 8

CLIENT:	SQUAMISH-LILLOET REGIONAL DISTRICT
PROJECT:	PEMBERTON NORTH WATER SYSTEM IMPROVEMENTS
DRAWING TITLE:	URDAL, TAYLOR AND PEMBERTON MEADOWS RDS



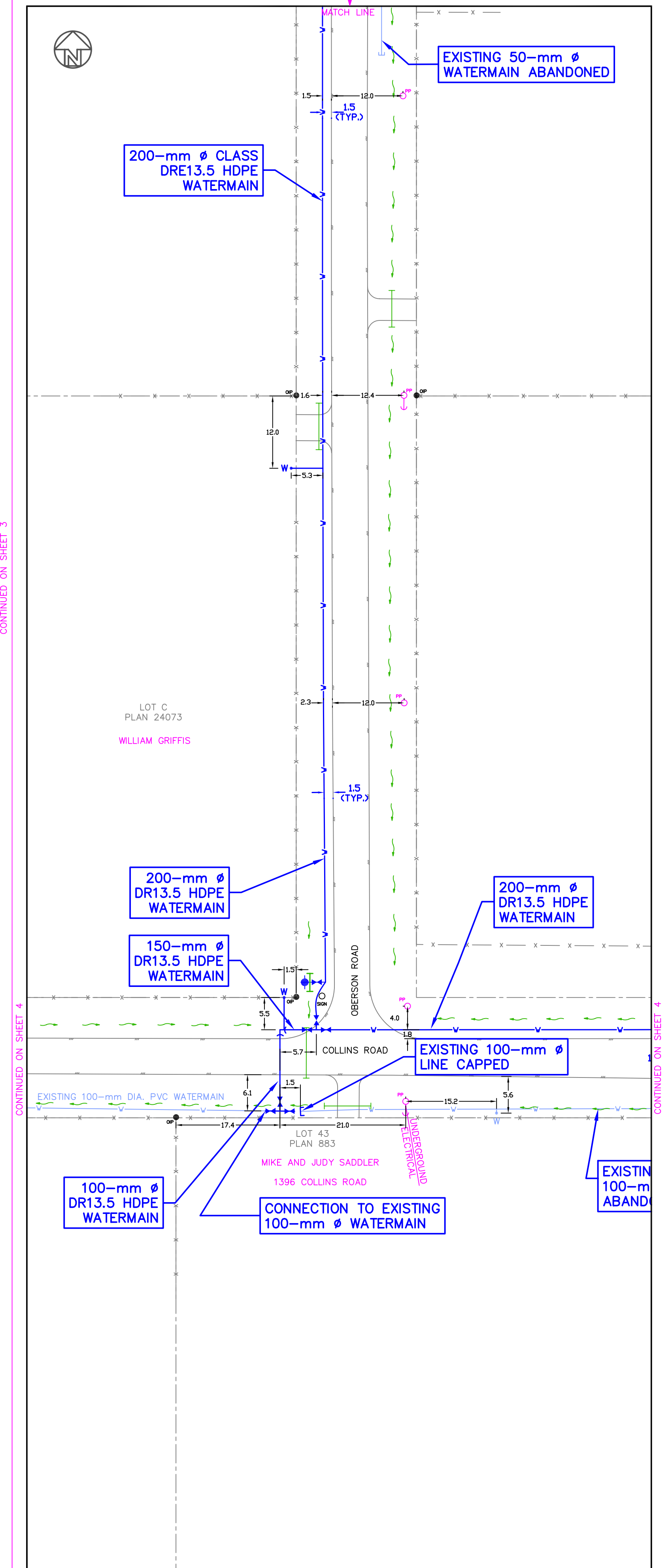
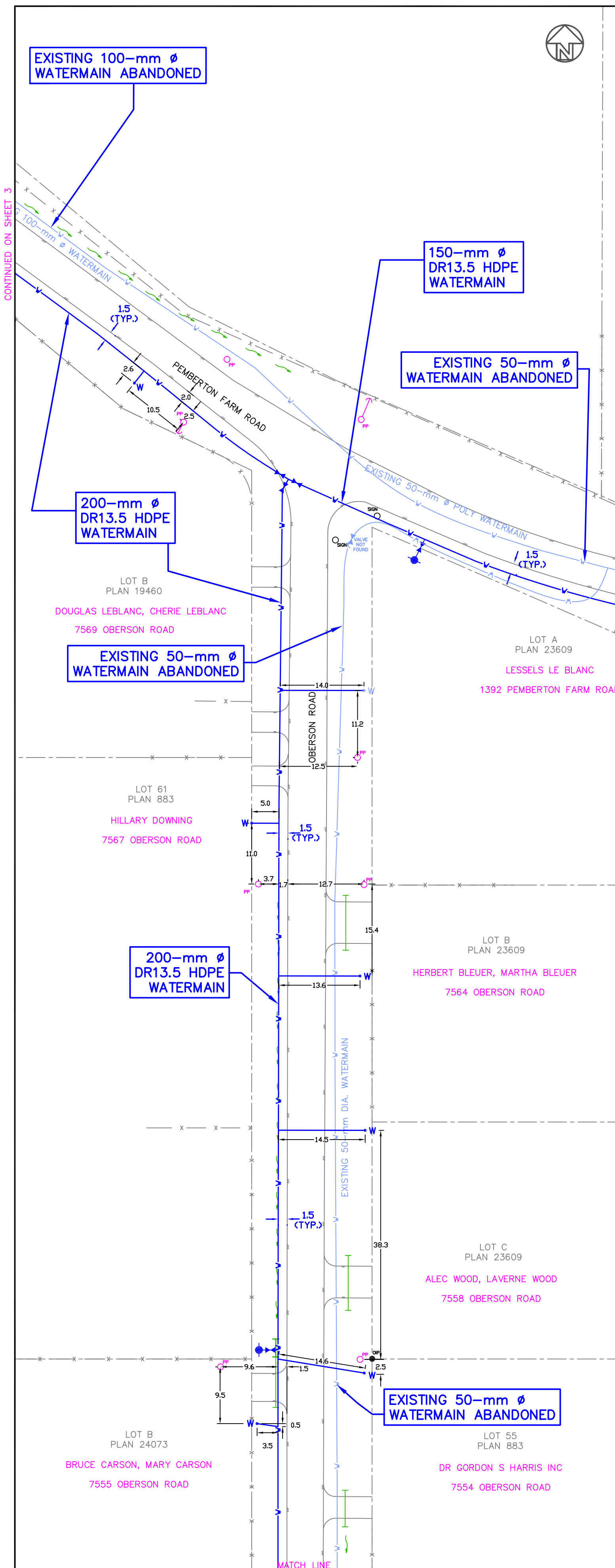
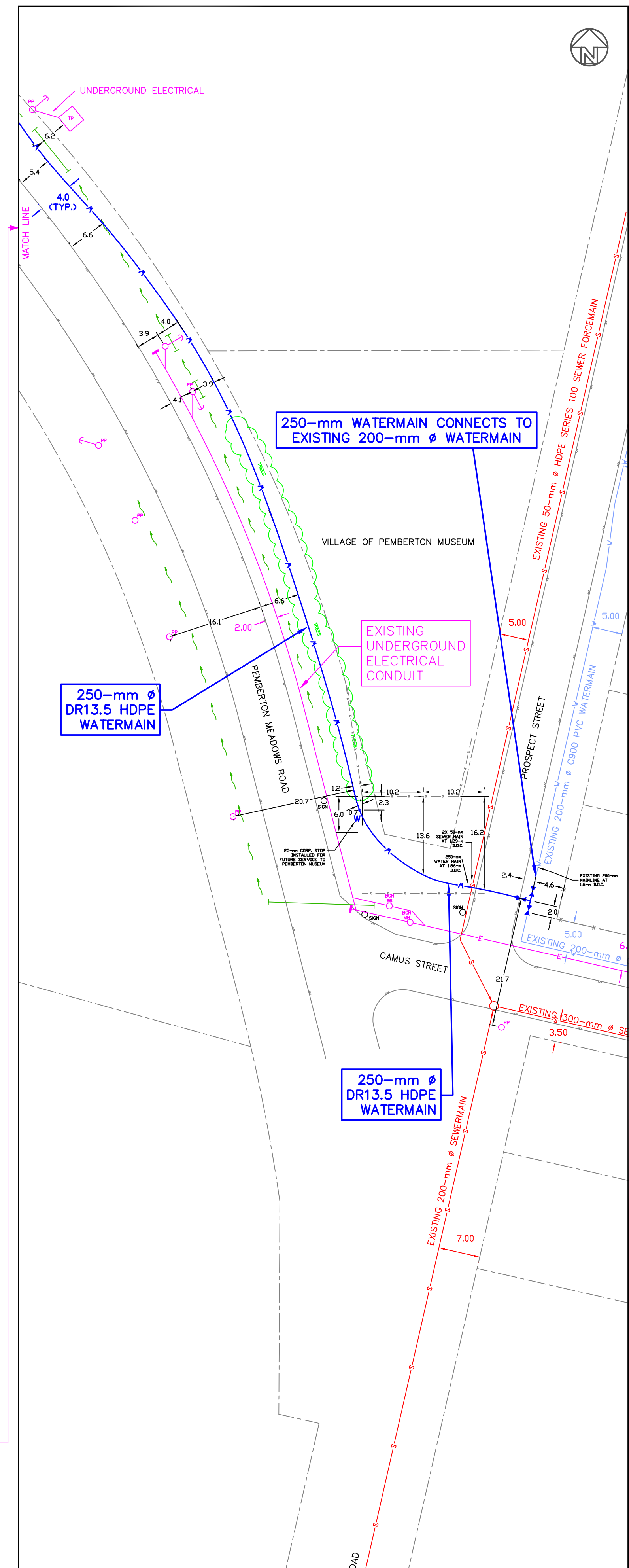
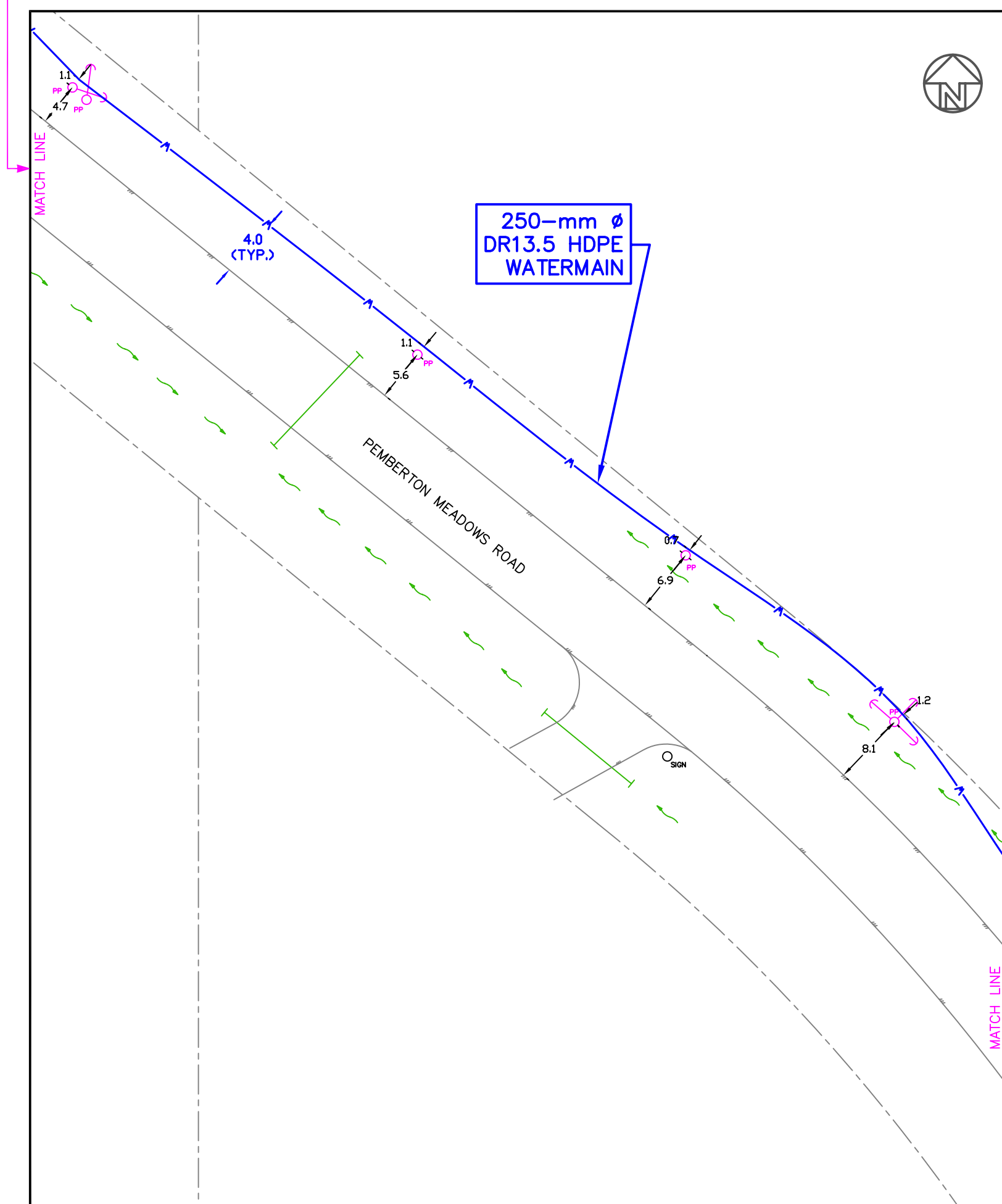
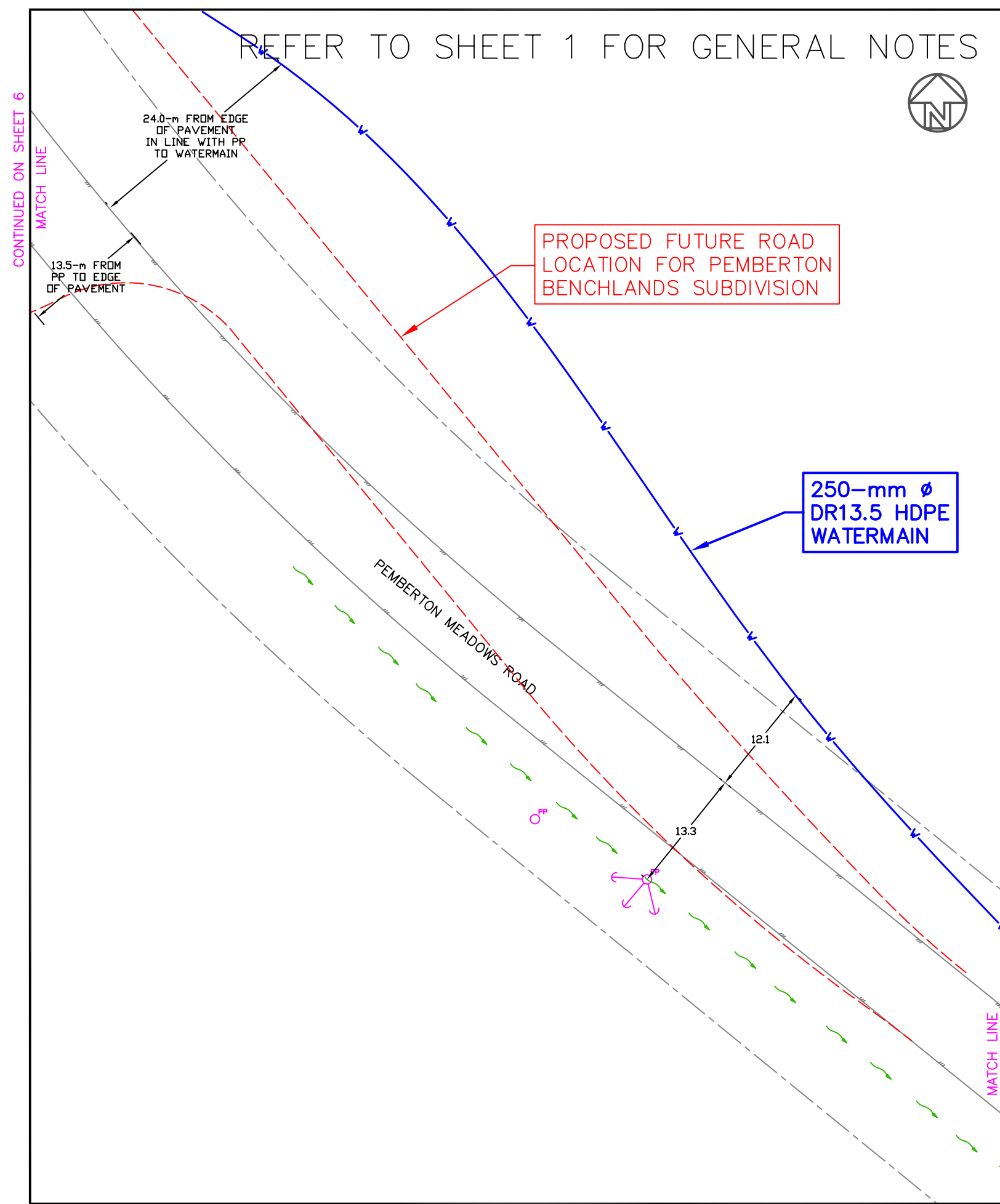
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4	26/05/03	REVISIONS FOR CONSTRUCTION	GRC	GRC	ISSUED FOR CONSTRUCTION	26/05/03	GRC
5	09/12/03	RECORD DRAWING REVISIONS	MD	GRC	RECORD DRAWINGS	09/12/03	GRC

# GILBEY ENGINEERING SERVICES

P.O. Box 1735, D'Arcy, B.C. V0N 1L0 Telephone 604-452-3610

DESIGN:	GRC	DATE:	27/01/03
DRAWN BY:	GRC	DRAWING NO.:	02111-6
CHECKED:	FP	SCALE:	1:500
APPROVED:	GRC	SHEET:	6 OF 8

CLIENT:	SQUAMISH-LILLOET REGIONAL DISTRICT
PROJECT:	PEMBERTON NORTH WATER SYSTEM IMPROVEMENTS
DRAWING TITLE:	PEMBERTON MEADOWS ROAD CENTRAL



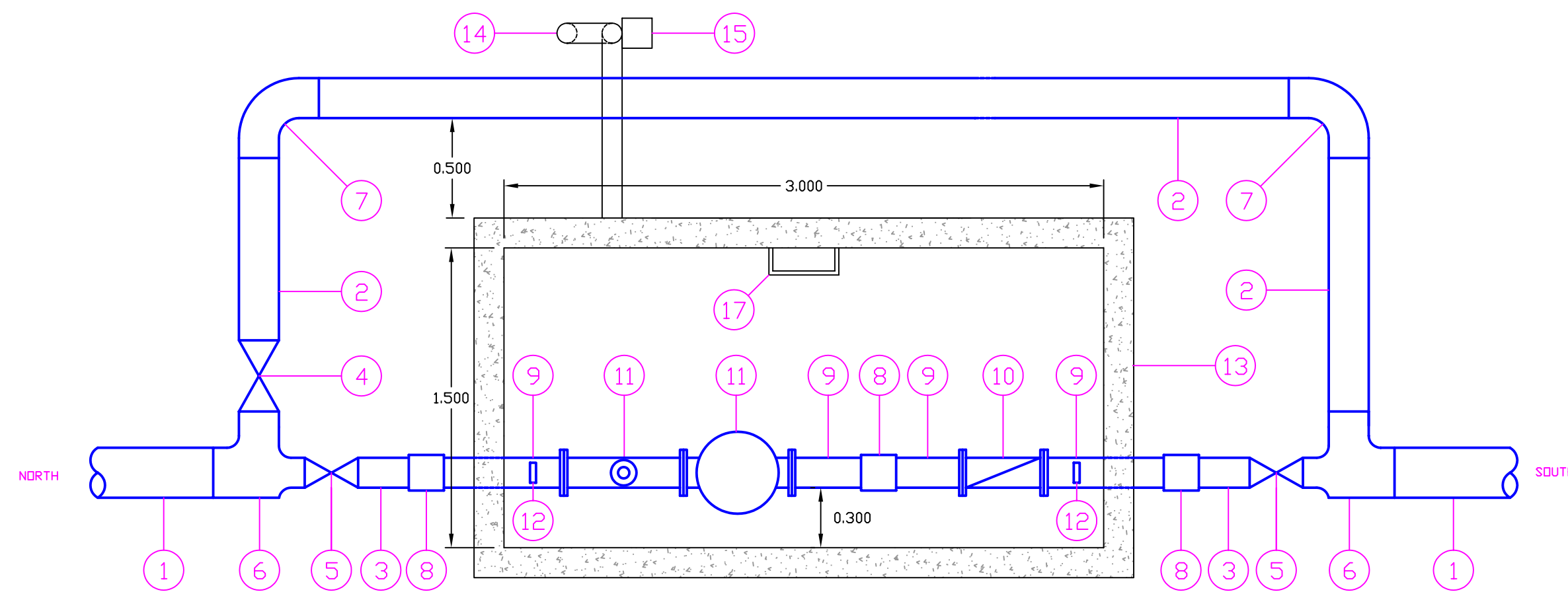
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4	26/05/03	REVISIONS FOR CONSTRUCTION	GRC	GRC	ISSUED FOR CONSTRUCTION	26/05/03	GRC
5	09/12/03	RECORD DRAWING REVISIONS	MD	GRC	RECORD DRAWINGS	09/12/03	GRC

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 Telephone 604-452-3610

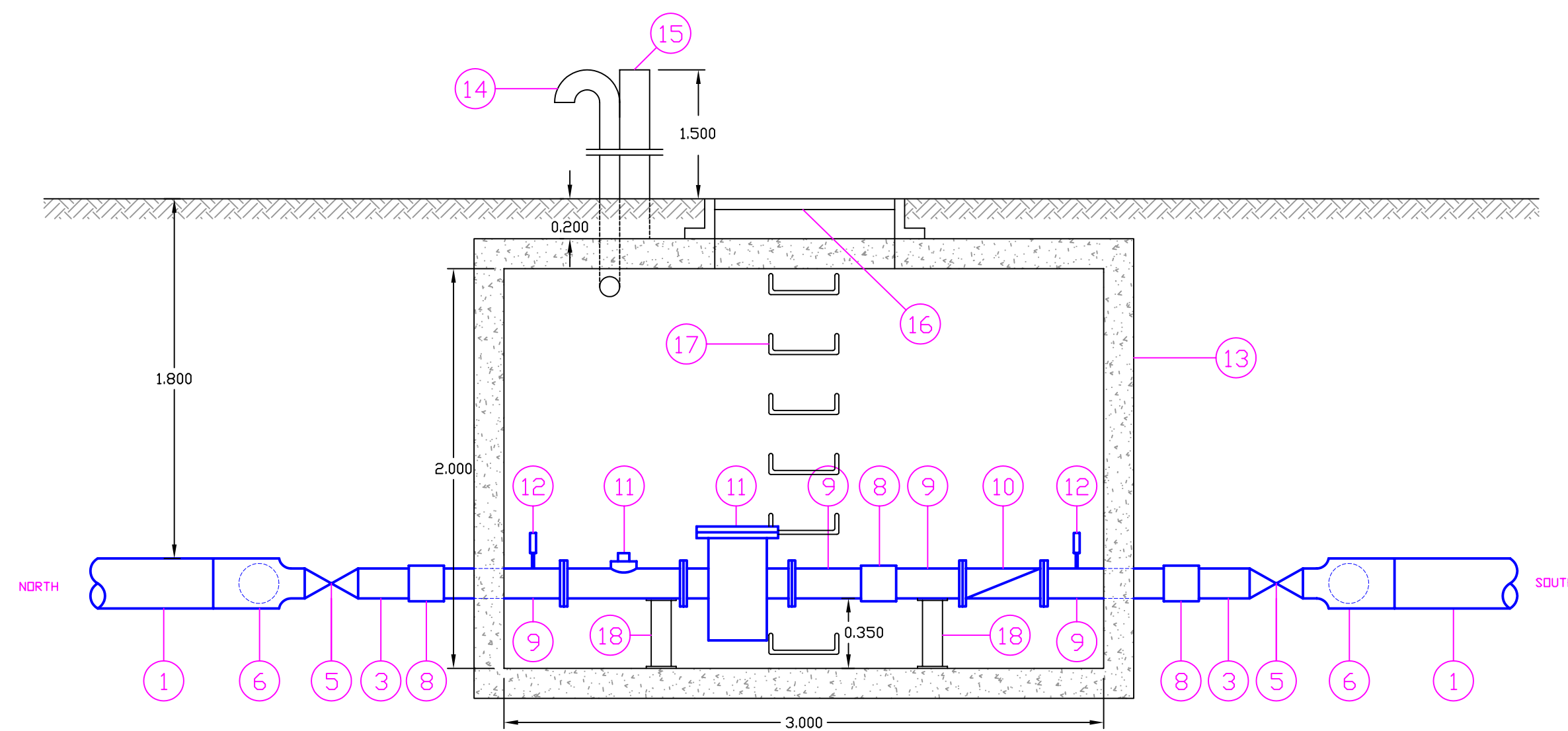
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CHECKED:	FP	SCALE:	1:500
APPROVED:	GRC	SHEET:	7 OF 8

CLIENT:	SQUAMISH-LILLOOET REGIONAL DISTRICT
PROJECT:	PEMBERTON NORTH WATER SYSTEM IMPROVEMENTS
DRAWING TITLE:	PEMBERTON MEADOWS RD SOUTH & OBERSON RD

# DETAIL 8.1 - WATER METER CHAMBER (SCALE 1:25)



PLAN VIEW

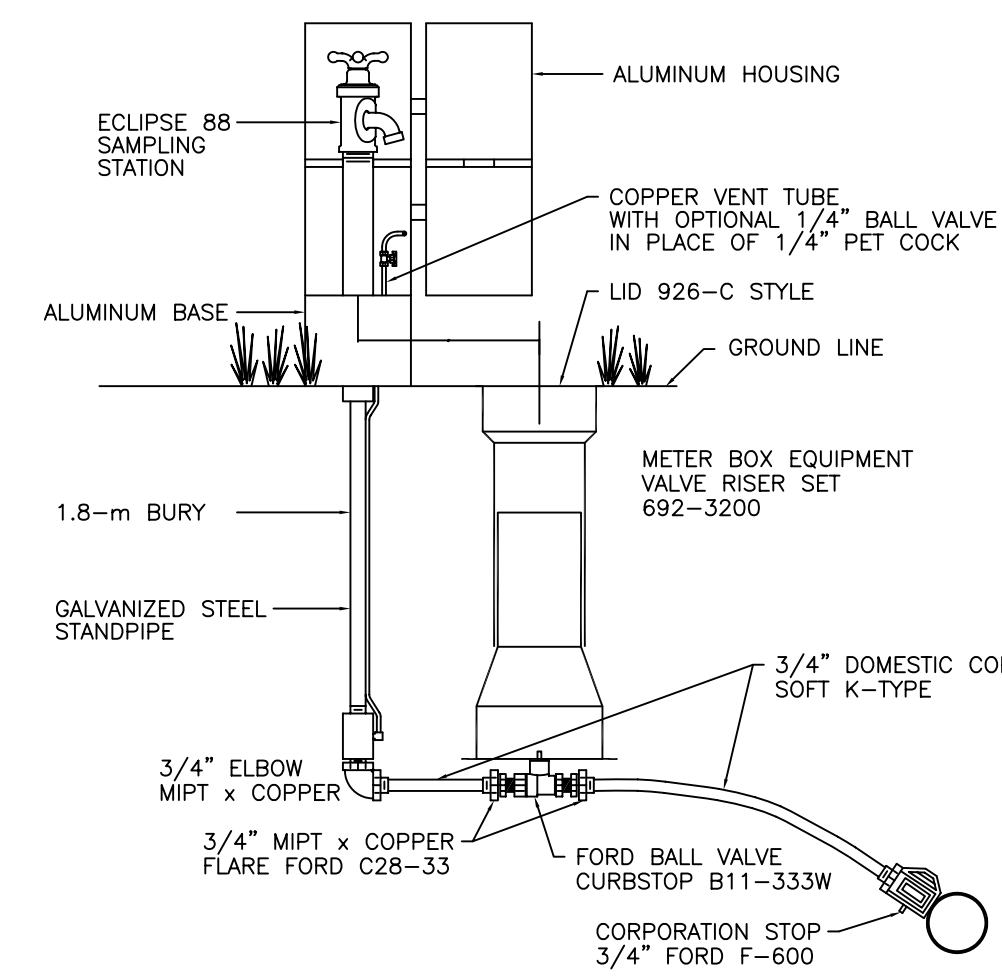


SECTION VIEW

ITEM	QUANTITY	SIZE	DESCRIPTION
1		250-mm $\phi$	PVC WATERMAIN
2		200-mm $\phi$	PVC WATERMAIN
3		150-mm $\phi$	PVC WATERMAIN
4	1	200-mm $\phi$	GATE VALVE
5	2	150-mm $\phi$	GATE VALVE
6	2	250 x 150 x 200	TEE
7	2	200-mm $\phi$	90° BEND
8	3	150-mm $\phi$	COUPLING
9	TO SUIT	150-mm $\phi$	STEEL WATERMAIN, GRADE B, COATED
10	1	150-mm $\phi$	CHECK VALVE
11	1	150-mm $\phi$	NEPTUNE HIGH PERFORMANCE FIRE SERVICE TURBINE METER INCLUDING STRAINER AND PRO-READ REMOTE REGISTER
12	1	150-mm $\phi$ DIAL	PRESSURE GAUGE, OIL FILLED, 0-150 psi
13	1	3.0L x 1.5W x 2.0D	AE CONCRETE PRODUCTS LTD 3152 CONCRETE CHAMBER OR APPROVED EQUIVALENT
14	TO SUIT	100-mm $\phi$	GALVANIZED VENT PIPE WITH GOOSE NECK AND WIRE MESH COVER
15	1	150-mm SQUARE	PRESERVED WOOD POST SET IN CONCRETE FOR REMOTE REGISTER
16	1	965-mm $\phi$	DOBNEY C-42 MANHOLE FRAME AND COVER
17	7	20-mm $\phi$	GALVANIZED LADDER RUNG
18	2		PIPE SUPPORTS

- NOTES**
- THIS DETAIL DEPICTS THE GENERAL NATURE OF THE WORK. CONTRACTOR MUST SUBMIT DETAILED SHOP DRAWING FOR APPROVAL.
  - RATED WORKING PRESSURE FOR ALL COMPONENTS TO BE MINIMUM 1035-kpa.
  - OUTSIDE METER CHAMBER, HUB OR FLANGE CONNECTIONS WILL BE PERMITTED, AND REDUCERS WILL BE PERMITTED INSTEAD OF NON-STANDARD TEES.
  - PROVIDE DRAINAGE FROM CHAMBER SUMP TO PIT CONTAINING 2-cu.m DRAIN ROCK.

# DETAIL 8.2 ECLIPSE NO. 88 SAMPLING STATION



Note that MMCD 25-mm Poly. service pipe and telescoping service box can be substituted for the Pemberton North Water System Improvements Project.

Sampling Stations shall be 1.8-m bury, with a 3/4" FIP inlet, and a (3/4" hose or unthreaded) nozzle.

All stations shall be enclosed in a lockable, nonremovable, aluminum-cast housing.

When opened, the station shall require no key for operation, and the water will flow in an all brass waterway, bacteria growth.

All working parts will also be of brass and be removable from above ground with no digging. Exterior piping shall be galvanized steel (brass pipe also available).

A copper vent tube will enable each station to be pumped free of standing water to prevent freezing and to minimize

Eclipse No. 88 Sampling Station shall be manufactured by Kuperle Foundry, St. Louis, MO 63102.

**REVISIONS**

NO.	DATE	DESCRIPTION	BY	APP.	DESCRIPTION	DATE	APP.
2	16/03/03	REVISIONS FOR TENDER	GRC	GRC	ISSUED FOR TENDER	16/03/03	GRC
3	26/05/03	REVISIONS FOR CONSTRUCTION	GRC	GRC	ISSUED FOR CONSTRUCTION	26/05/03	GRC
4	09/12/03	RECORD DRAWING REVISIONS	MD	GRC	RECORD DRAWINGS	09/12/03	GRC

**DRAWING STATUS**

## GILBEY ENGINEERING SERVICES

P.O. Box 1735, D'Arcy, B.C. V0N 1L0

Telephone 604-452-3610

DESIGN:	GRC	DATE:	27/02/03
DRAWN BY:	GRC	DRAWING NO.:	02111-8
CHECKED:	FP	SCALE:	
APPROVED:	GRC	SHEET:	8 OF 8

CLIENT:	<b>SQUAMISH-LILLOOET REGIONAL DISTRICT</b>
PROJECT:	<b>PEMBERTON NORTH WATER SYSTEM IMPROVEMENTS</b>
DRAWING TITLE:	<b>DETAILS</b>



**SCHEDULE "C":**      Technical Specifications

# Technical Specifications and Other Contract Requirements

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# 1. Terms and Abbreviations

The following terms and definitions are used herein:

AMI	Advanced Metering Infrastructure
ANSI	American National Standards Institute
AWWA	American Water Works Association
CCDC	Canadian Construction Documents Committee
CIS	Customer Information System
SLRD	Squamish Lillooet Regional District
CRTC	Canadian Radio Television and Communications Canadian
CSA	Standards Association
DCU	Data Collection Unit
DUC	Dual Check Valve
GIS ITT	Geographical Information System
MDMS	Invitation To Tender
Ministry	Meter Data Management System
MIU	Ministry of Housing and Municipal Affairs of British Columbia
MMCD	Meter Interface Unit (Endpoint)
Pilot RF	Master Municipal Construction Documents
RFP	Water Meter Pilot Project
SaaS	Radio Frequency Request for Proposal Software as a Service

## 2. Meter Equipment Supply

For new installations where no existing SLRD water meters or water metering systems are in place, vendors shall supply and install water meters, infrastructure, appurtenances, and software providing Advanced Metering Infrastructure (AMI) capability.

The following are the minimum specifications for water meters and related appurtenances.

### 2.1 Water Meters

- a. Water meters make and model shall be as approved by the SLRD.
- b. Water meters shall be new and comply with the latest edition of the AWWA/ANSI C700 standard and NSF/ANSI Standard 61.
- c. The water meter main case markings should include the serial number, model number, and size, date of manufacture and direction of flow.
- d. Meters servicing buildings with fire suppression shall be Factory Mutual (FM) Approved and Underwriters Laboratory (UL) Listed.

## 2.2 Encoder Registers

The Encoder Registers shall comply with the latest edition of AWWA C707. All meters shall have electronic registers and be AMI capable.

## 2.3 Meter Interface Unit (MIU)

The MIU shall be provided in a waterproof casing rated IP8 or better (submersion up to 1 meter of depth) in accordance with the IP code, IEC standard 60529. The MIU enclosure should be composed of ultraviolet (UV)-inhibiting ABS or similar material. All materials used in the MIU must be non-hazardous under normal conditions.

MIUs shall have a tamper-resistant, weatherproof connection to the meter that is immune to submergence in water as well as to oils and salts.

If in-line waterproof connectors are to be installed with between the MIU and meter, the preference is that each end of the connector be factory potted to the wire leads from the meter and MIU, respectively.

The MIUs should be designed for a 20-year operating life including battery, transmission strength and all other system performance. The MUI shall be capable of two-way communication.

The encoder register reading interval shall be every 15 minutes. The interval for transmitting readings from the MIU shall be hourly.

## 2.4 Meter Setters

Vendor shall supply and install meter setters to facilitate the installation and maintenance of water meters. Meter setters are factory-assembled configurations of tubing, valves, and fittings designed to hold a water meter and connect it to the service line. The following are the minimum specifications for meter setters:

- Meter setters shall be compatible with the water meters specified in Section 1.1 and comply with the latest edition of the AWWA C800 standard.
- Meter setters shall be constructed from durable materials such as copper or stainless steel to ensure longevity and resistance to corrosion.
- Meter setters shall be available in both vertical and horizontal configurations to accommodate various installation environments.
- Meter setters shall include integral valves to allow for easy isolation of the meter during maintenance or replacement.
- Meter setters shall provide a stable and secure connection to prevent leaks and ensure accurate meter readings.
- Meter setters shall be designed to enhance the overall serviceability of the water delivery system, making maintenance easier and reducing long-term costs.

Incorporating meter setters into the installation process allows for efficient and reliable water meter installations that are easier to maintain and service. This approach aligns with the Community's goals of improving the accuracy and reliability of water metering systems while reducing labor and maintenance costs.

## 2.5 Meter Data Management System

A Meter Data Management System (MDM or MDMS) shall be provided to manage the meter endpoints and the data collectors. The MDMS shall also contain a customer database.

The MDMS shall include a user interface that allows users to view data, create reports, and edit settings. The customer database shall have an interface that is optimized for customer service.

The MDMS should be user-friendly, intuitive, and allow for a combination of standard and customized reporting.

The MDMS shall interface and compliment the Community's Customer Information System (CIS) system to provide monthly [*or other billing interval*] or on demand meter readings both individually and in batch

upon request by the system; synchronize data related to meters, service locations and customers; and provide status reports of alerts for accounts.

Customer information shared and synchronized with the CIS should include billing cycle, rate class, customer account-premise-meter relationship, meter type, etc. Meters readings for billing are to be provided automatically in response to an automated request from the CIS following a billing calendar. Database synchronization should also be automated.

## **2.6 Radio Frequency (RF) Transmitter**

For a radio transmitter system, the RF Transmitter shall meet the following specifications:

- Have an ID Number.
- Transmit the encoded meter reading and its unique ID number.
- Provide an error code when tampered.
- Be mounted according to manufacturer's installation instructions.

As required, vendors shall supply and install all gateways, appurtenances, and ancillary components (power, antenna, etc.) required to deploy the network. Vendors are responsible for conducting any propagation studies or other due diligence to ensure the reliability of the AMI network. Permission/approval to install gateways at SLRD owned (or other facilities) shall be confirmed by the Vendor.

The Vendor shall supply to the SLRD the radio frequency under which the data collection device will operate. If this is a licensed frequency, the Vendor will be responsible for obtaining licenses and/or permits required by the CRTC.

## **2.7 Cellular Network System**

For a cellular network, the cellular network system shall include the following:

- Supply of a cellular network data collection system capable of collecting meter identification number, meter readings, evidence of tampering, backflow, and leak detection information from the meter modules and capable of passing this data to a computer information system.
- Installation of the system, including the configuration of all hardware, appurtenances, software, and system testing.

Vendors are responsible for conducting any propagation studies, confirming cellular coverage, or other due diligence to ensure the reliability of the AMI network.

## **2.8 Read Success Rate**

The data collection network shall be sufficient to obtain:

- A minimum 95% success rate of all readings taken hourly.

It is understood that some communities may not achieve a 95% hourly reading expectation due to local site conditions, infrastructure, and other conditions. A vendor may propose another success rate with clear rationale provided.

## **2.9 Redundancy**

The data collection network shall be sufficient to:

- Ensure the MIU transmissions are received by two or more different data collectors, repeaters or, alternatively, via two or more distinct pathways back to the control computer.

It is understood that some communities may not achieve the redundancy level described due to local site conditions, infrastructure, and other conditions. A vendor may propose another or perhaps reduced redundancy level with clear rationale provided.

## 2.10 Software

The latest software versions and/or updates shall be installed upon Substantial Performance of the works, as well as any available upgrades or patches to MIU, DCU, AMI, MDMS, repeater and other collection network component firmware.

The AMI system head-end software should automatically transfer appropriate data to the Meter Data Management System (MDMS) in a standard, non-proprietary format (e.g., fixed field ASCII). Each record provided to the MDMS shall contain at a minimum: account number, MIU ID number, port number (if the MIU is multi-port), meter ID number and/or meter register number, meter readings, units (size of smallest digit), date and time for each meter reading, and tamper indications.

The vendor shall, at no additional cost, for a period of 10 years after Substantial Performance, provide the latest software updates or patches which shall be confirmed by testing and commissioning after each update or patch.

## 2.11 Reports

Standard reports shall include:

- Received signal strength from MIUs.
- Number/percentage of reads received from MIUs.
- MIUs from which no transmissions have been received, and the ability to sort them by the number of missing days.
- MIUs from which there are cut-wire alarms, and the ability to sort them by the number of days the condition has persisted.
- Any other flags created by meters and MIUs, such as empty pipe, low battery, reverse flow, or magnetic tamper.
- Redundancy in coverage of MIUs by collectors.
- MIU density per collector.
- Duplicate MIU or meter serial numbers; meters/registers associated with more than one MIU; MIUs registered to more than one meter/register.
- Mismatch between a meter register ID number and MIU (indicating possible meter change).
- "Orphan" MIUs; that is, MIUs transmitting but not associated with an account.
- Data retrieval times/data latency.
- Remaining battery life in MIUs, meters and/or meter registers and other network components, or low battery life alarms, including the ability to sort by the number of days the unit has been in alarm status.
- Network component status, including communication retries, memory errors, connection errors, and whether the network components pass or fail operating specifications.

The software should support ad hoc queries and custom reports, using a built-in report writer or a third-party commercially available report writer that is included with the control computer software. Permissible report customization shall not void any software product warranties, nor prevent any overlay of future software releases.

If the vendor proposes any deviation from these specifications, a clear description of the deviation and supporting rationale shall be provided.

## 2.12 Staff Interface

Staff shall be able to access an account by the following fields: account number, name, address, premises ID number, meter body ID number, register ID number, MIU or ID number.

Staff shall be able to view latest or current reading (with time of read), consumption history over a selectable date range, meter information, usage statistics (e.g., max flow rate, usage by day of week,

etc.), historical events (tamper, alerts, etc.) Staff shall be able to view consumption with selectable granularity (e.g., hourly, daily), compare usage to same period last year, or to comparable meters, and display data both in bar graph and table form.

Interface shall be secure and provided with unique password protected log-in method for each operator.

## **2.13 Analytic Capabilities**

The analytic reports generated shall include:

- Identification of possible low flow rate leaks (e.g., extended periods when interval reads are always above zero or above user defined thresholds; “interpolated” leaks when several but not all interval reads are non-zero) by account.
- Identification of possible continuous high consumption events at individual customers’ premises.
- Monitoring “usage on inactive” (registered reads above configurable thresholds without an active customer account).
- Water theft analysis, use after shut-off, and reverse flow.
- Identification of intermittent backflow situations.
- Identification of any meter with little or no change in registration (zero or low consumption) for a configurable number of days.
- Identification of accounts where usage violates temporary restrictions (e.g., apparent outdoor irrigation usage during non-allowed times or days).
- Consumption profiles by season and day type (weekday, weekend, month, holiday, etc.) and by rate class, customer type, and/or any user-specified collection of meters.

The software shall be capable of generating consumption profiles for groups of meters (virtual meter”), such as all meters in a consumption class.

The system shall enable the comparison of consumption from all of the meters within a demand management area and the master meter(s).

## **3. Installation Requirements**

### **3.1 Maintenance Period**

All work and materials shall be guaranteed against defects and deficiencies for a period of:

- One (1) year from the date of Substantial Performance (also known as Substantial Completion or Ready to Take Over) for all hard goods not including software.
- Software updates and maintenance shall be identified under a SaaS maintenance agreement.

### **3.2 General**

- Work shall be executed by workers experienced and skilled in the respective duties for the assigned task.
- Materials provided shall be new unless otherwise specified by the SLRD.
- Prior to excavation the vendor shall locate all shallow utilities. In the performance of the Work the vendor shall protect the Communities property including all other persons, companies, and utilities property from damage. The vendor shall, at the vendors expense, make good any such damage which arises because of the vendors Work and operations.
- The Vendor will be responsible for taking high quality photos of the site as follows:
  - before and after photos of the plumbing work;
  - before and after photos of the landscape around the installation; and
  - these photos shall include date/time stamped and be labelled to match the address and/or unique identifier that is provided for each installation.
- The Vendor shall be responsible for ensuring that the hours of work are compliant with SLRD Noise Bylaw.
- If required, the SLRD will provide an archeological monitor to be present during excavation work at no cost to the vendor. Chance Find protocols will be in place. If artifacts are found during excavation, work will be stopped immediately, and the SLRD contacted. The SLRD will notify the Vendor when work in that area can be recommenced. The Vendor shall cooperate with the archeological monitor. The vendor shall be entitled to an extension of the Contract Time but shall not be entitled for reimbursement any costs due to Chance Finds and resultant delays. If the archaeological monitor requests additional works and excavations, this work shall be undertaken under Force Account.
- If required, the SLRD will provide details on invasive species and the required management protocol.
- Where relevant, Vendor shall obtain a sign-off form from homeowner accepting completion of any restoration work.

### **3.3 Standard and Non-Standard on Property Installation**

#### **3.3.1 General**

Standard installation shall generally be for residential applications and services up to 50 mm diameter and consist of:

- Curb stop, as necessary.
- For outdoor installations: Meter setter c/w integral dual check valve (DUC) backflow device , metre box/pit, insulation disc, meter, and necessary isolation valving. Meter boxes/pits shall generally be located in accessible landscaped areas or if required by the SLRD in the boulevard 0.3 m from

property line. Where meter boxes are located within sidewalks and driveways, they shall meet water loading requirements.

- For indoor installations: Meter, DUC device, supports and necessary isolation valving.
- Meter, DUC device and valving shall be in an accessible location.
- Electronic water meter register complete with all necessary equipment, devices, appurtenances for two-way communication and (AMI) capability.
- Meter placement is before any branch or tee on the property.

For industrial services, commercial services, and services greater than 50 mm diameter: These types of services are site specific and will be detailed in the drawings.

All meter installations shall be standard installations as mentioned above. The following connection types are considered non-standard.

**a. For indoor installation**

- Access cannot be gained to the water service entrance to the building, or a there is no location reasonably suitable for indoor installation.
- There is a known or likely branch off the water service line between the property line and the building, for example to serve an irrigation system or accessory building.
- Meter is to be located in an unheated crawl space at risk of freezing.

**b. For outdoor installation**

- The service line cannot be located with a reasonable effort.
- The service line is not reasonably accessible within 1 m of the property line due to structures or mature trees.

Every effort shall be undertaken to install a standard system. When not achievable a non-standard installation shall not proceed without prior written approval by the SLRD. The SLRD may specify a non-standard installation method for any individual connection and may issue a change order for that purpose if required.

### **3.3.2 Site Safety and Control**

The vendor shall be considered the Prime Contractor under the WorkSafe BC Act and Regulations. The vendor is solely responsible for safety at the work site and shall comply with WorkSafe BC Act and Regulations.

The vendor shall have complete control of the Work and shall control, direct, and supervise all work to ensure complete conformance of the Contract.

### **3.3.3 Excavation**

The Vendor shall legally dispose offsite all excess materials from the jobsite. The Vendor must provide the disposal location. These materials include but are not limited to:

- spoil materials from the pit excavations;
- excess concrete or asphalt;
- vegetation; and
- packaging or garbage.

If upon excavation and before installation the Vendor uncovers a pre-existing leak, they should contact the SLRD immediately to determine repair action.

Trench dewatering shall be undertaken by the vendor.

No compensation will be provided should the Vendor fail to locate the water service, or if the water meter cannot be installed for any other reason.

### **3.3.4 Indoor installation**

Meters should be installed:

- as close as reasonably practicable to where the water service connection enters the home/building;
- downstream of existing shut off/isolation valves; and
- in a location that is accessible for future maintenance and away from existing electrical, mechanical, or other water sensitive equipment.

Transmission cable must be fastened at 1.0 m intervals within a building or crawl space and at 300 mm intervals on external walls. Transmission cable must be installed in a neat and professional fashion. If the encoder unit must be installed outdoors, on buildings with outer walls of stucco, vinyl, aluminum or other hard finish, the cable must be fastened with drilled and screwed cable fasteners. All fasteners must be made of stainless steel or galvanized iron and all penetrations through the exterior building must be sealed to the elements. If necessary, and where possible, the signal transmission cable shall be hidden from view. A reasonable effort must be made to install the transmission cable in crawl spaces, overhead above ceilings, behind baseboards, under carpets within internal spaces or tacked under siding boards, along eaves, for example, on exterior walls.

If electrical wiring is necessary for meter installation, all connections must be performed by a qualified electrician who is licensed to carry out electrical works in the province of British Columbia. Installations must be checked following installation to ensure continuity of the connection to ensure there are no shorted or broken wires. Any short or open circuit must be traced and repaired immediately.

The Vendor shall provide methods to isolate properties from the water supply network. If necessary, the SLRD will operate the curb stops; the Vendor may not operate curb stops. Curb stops are not guaranteed to be operational.

### **3.3.5 Unusual Meter Installations Conditions and Recommended Corrective Action**

An unusual meter installation is one in which the installer finds one of the situations described below, along with corrective actions:

#### **No shutoff valve at service entrance inside the house**

- Freeze line inside building and install new shutoff valve, or
- The Vendor shall contact SLRD staff for curb stop operation, install the new shut off valve inside the house and re-activate the curb stop.

#### **Shutoff valve at service entrance to the house will not close**

- Freeze line inside building and replace/install new shutoff valve, or
- The Vendor shall contact SLRD for curb stop operation, replace/install the new shut off valve inside the house and re-activate the curb stop.

#### **Shutoff valve leaks when operated**

- Freeze line inside building and replace/install new shutoff valve, or

- The Vendor shall contact SLRD for curb stop operation, replace/install the new shut off valve inside the house and re-activate the curb stop.

#### **Service line in house is inaccessible because of finished basement**

- Another appointment shall be made to review the installation with a SLRD Representative. The Vendor will engage a local carpenter/drywaller to complete any carpentry or finishing restoration to ensure the work is restored to existing or better condition. Generally, this type of work shall be considered Extra and will be paid under Change Order.

#### **Service pipe in the house consists of pipe material other than copper**

- The Vendor must provide suitable adapters and transition piping to accommodate the meter installation. Approved plumbing practice must be followed.

#### **The Vendor recognizes that potential for freezing of the water meter exists**

- Another appointment shall be made to review the installation with a SLRD Representative. Generally, the water meter shall be installed in a location which is not exposed to freezing conditions. An insulated enclosure may be required, or the plumbing may have to be re-routed into a heated location. Generally, this type of work shall be considered Extra and will be paid under Change Order.

#### **No curb stop or defective curb stop at service entrance at property line**

Vendor to contact SLRD Representative, freeze line beside curb stop and install new curb stop.

### **3.3.6 Difficult Installations**

- If, the condition of the customers' plumbing or the extent of the finishing work, is such that significant damage or difficulty would result from attempting to install the meter, the Vendor must report the case to the SLRD Representative and a solution must be developed in consultation with the SLRD Representative.
- If the homeowner objects to the installation in the chosen location or objects to the installation of a meter, contact the SLRD Representative to assist with discussions with the Homeowner.
- Vendors shall move on to the next installation until a resolution is found.

### **3.3.7 Outdoor installation**

New meter pits should be positioned 300 mm from the property line, within the municipal road right-of-way. Property specific conditions may require variance of this 300 mm offset to avoid existing obstacles. Curb stops may need to be relocated to allow for installation of new meter pits.

Where the curb stop is at or close to property line, Vendors should note that the meter installation will require cutting into the water service connection pipe upstream of the curb stop. Accordingly, the curb stop would not serve as a means to shut off the water flow and another technique would be required to do so. Most existing water services are understood to be copper, so techniques such as crimping are not recommended while freezing may be effective. If required, a localized shut down of the watermain can be coordinated with the SLRD to facilitate the meter installation. Ultimately, Vendors shall identify an isolation procedure that does not jeopardize the existing water service connection pipe integrity, minimizes the duration of water service interruption, and facilitates the meter assembly installation.

The typical depth of existing water services varies throughout the Province. Vendors are expected to implement appropriate excavation depths and cover for the geographic location of the service installation.

The lid material shall be selected based on pit location. Cast iron lids are required within driveways while plastic lids may be suitable for landscaped areas.

Proper operation of the curb stop must be verified. If the curb stop is not operational do not proceed and contact the SLRD.

The water meter pit shall be installed immediately downstream from the curb stop.

- If the curb stop is in an area travelled by motor vehicles, the meter box shall be made out of concrete and have a metal or cast-iron lid to withstand a vehicle load, per MMCD Drawing Number W2d.

- If the curb stop is in an area not travelled on by motor vehicles, a plastic meter box and lid may be used.

### **3.4 Progress Reports**

The Vendor must provide the SLRD with Progress reports on a monthly basis. This report shall include:

- a. An ongoing list of all completed installations including:
  - location (address) of installation;
  - date of installation;
  - installer's code;
  - meter identification information;
  - meter type and manufacturer;
  - metre size;
  - initial meter reading; and
  - location of the meter in the premises (location, trap door, unusual location, etc.)
- b. Any item specific requirements or unusual circumstance noted at the specific installation location.
- c. Digital photographs of the installation. The digital photographs must be labelled to match the address and/or unique identifier that is provided for each installation.
- d. Summary of any complaints received from the public and the specific steps taken to resolve such complaints.
- e. List of incomplete installations, outlining reasons for and expected resolution.
- f. Sign off form from homeowner accepting completion of any restoration work when relevant.
- g. Updated schedule.

All records shall be the property of the SLRD and no information shall be disclosed to any person without the prior written approval of the SLRD.

## **4. Acceptance Criteria**

### **4.1 Software and Integration Testing and Acceptance**

AMI head-end software acceptance testing shall include testing functionality of features described in the proposal, testing of all interfaces to the Community's IT systems developed by the Vendor in conjunction with the SLRD, testing capacity of systems to perform when processing large quantities of data and transactions, and testing capacity of the system to detect and reject input data that would fail reasonableness checks (i.e., reading dates in the future, or non-numeric meter readings).

Acceptance testing should be conducted in stages as follows:

- Head-end system and network management hardware and software, which will capture meter readings and other data from endpoints installed at customers' meters as well as provide reports on the performance of the network components, redundancy, endpoint battery life, etc.
- Network communications (i.e., point-to-point from MIU through network to head-end system).
- MDMS and customer portal software.
- Software used to control and manage the Vendor's endpoint installations to ensure that all installation data is captured correctly. This includes integration to any handheld devices used in the installation.

Prior to any work being performed, the Vendor shall submit to the SLRD for approval a system testing plan covering functional requirements of each software component; integration between network components, AMI software and hardware, the MDMS and customer portal, the installation control system, and the Community's CIS; and end-to-end performance. The Vendor shall detail the testing approach,

testing schedule, test data, test cycles, test scripts, and failover/repair/restore process for functional tests, integration tests and end-to-end tests.

The Vendor's representatives together with the SLRD representatives shall perform the acceptance testing. Acceptance testing shall be performed at the Community's facilities unless the parties agree otherwise.

The SLRD will provide the Vendor written notice of acceptance upon successful completion of each test.

Software and integration acceptance testing shall take place prior to the acceptance by the SLRD of any network components.

For individual failed tests that require fixing, the SLRD may require retesting the entire component if it reasonably expects that the fix could compromise other functions. The SLRD may reasonably require repeating any tests for which it determines the test results are unclear.

The testing protocol shall be followed regardless of whether the SLRD opts to purchase and install the software and servers or have the software hosted and managed.

The testing protocol shall be followed regardless of whether the SLRD opts to operate and maintain the network itself or have the network managed by the Vendor.

## **4.2 Overall System Acceptance**

The SLRD and The Vendor will conduct a Final System Acceptance Test when all endpoint installation work orders are completed and endpoints accepted by the SLRD. Final System Acceptance criteria shall include:

- Uniform System Performance – The System must provide performance that is substantially uniform throughout Community's service territory, defined as: within 0.4 km of any MIU from which a standard consumption message was not received, there are not more than 20 other MIUs from which a standard consumption message was also not received.
- Billing Read Performance – The system shall on the day of system acceptance testing provide meter register readings not more than 3 days old from at least 99.5% of the endpoints determined to be available on that day.
- Daily Read Performance – The system shall on the day of system acceptance testing provide meter register readings not more than 1 day old from at least 97.5% of the endpoints determined to be available on that day.
- Interval Read Performance – The system shall on the day of system acceptance testing provide not less than 95% of all the hourly interval readings from all of the endpoints determined to be available on that day, and not less than 80% of the interval reads from any one endpoint.
- Network Device redundancy. Not less than 70% of the available endpoint devices shall be recognized by two or more network devices, as reported by the control computer.

An endpoint shall be deemed available if it has been: (1) accepted by The SLRD; (2) not damaged or vandalized by a third party; (3) mounted according to agreed-upon installation procedures; (4) not subject to a pending investigation or maintenance work order, and (5) its signal is not subject to unanticipated blocking (e.g., permanent or temporary structure installed after endpoint installation and acceptance, vehicle parked over endpoint, etc.)

This performance shall be sustained for 30 days. Performance measures shall be averaged over this 30-day period. Overall system performance measurement for System Acceptance shall commence upon notification from the Vendor and will be concluded the first time the average performance measures over any consecutive 30 days meets or exceeds the performance measures. Should the Final System Acceptance fail, the Vendor shall fix all defects and reinitiate Final System Acceptance Test.

### **4.3 System Documentation**

All system documentation and manuals shall be provided prior to the commencement of training of SLRD employees.

Vendor shall provide all standard manuals and written procedures sufficient for complete operation and maintenance – including:

- MIU Installation;
- data collection unit and repeater installation (if the network is dedicated);
- system administrative operation, performance monitoring, diagnostics and maintenance;
- backup and recovery procedures;
- MIU field diagnostics and repair; and
- network component diagnostics and repair.

The electronic versions shall be indexed, searchable, and printable. The Vendor shall make standard manuals available online to SLRD employees.

## **5. Training**

The Vendor shall provide thorough training of SLRD employees in all areas required to install, operate and maintain the system and obtain and use data from it. This shall include but not be limited to training in the following areas:

- Meter or Endpoint changeout procedures.
- Field installation of MIUs, as well as MIU field diagnostics and maintenance.
- AMI system maintenance, including the use of system management and diagnostic software, and server and control computer hardware management, as well as guidance on staff skills and resources needed for these maintenance functions.
- Network component installation and field maintenance.
- Software training including importing and exporting routes or otherwise interfacing with the CIS, generating usage and performance reports and downloading / exporting data, diagnosing potential problems with system components, utilizing mapping features, setting alarms or system goals /targets, querying accounts in response to customer inquiries / billing disputes, changing or adding customer accounts/MIUs/ meters to the system and all other relevant items pertaining to the proposed software.
- Use of the customer portal and using the MDMS and customer portal to provide customer support.

## **6. Community Engagement and Customer Support**

Customers' typical concerns about metering include the impact on rates and their bills, utility employee layoffs, electromagnetic radiation, customer security and privacy. Gaps in information are often filled with misinformation that creates needless fears. Anticipating and dealing honestly with these issues reduces customers' concerns and the efforts required to address them.

### **6.1 Community Outreach and Engagement**

Vendors should ensure that customers are well-informed and engaged throughout the water meter planning and installation process to foster understanding, acceptance, and cooperation. Vendor responsibilities include developing an outreach and support plan in collaboration with the SLRD. The plan should include the following:

## **Customer Education and Communication Plan**

- Develop and distribute educational materials that explain the AMI system, its benefits and functionalities to the customer, and how it will impact customers' water usage and billing.
- Ensure that materials are available in multiple languages and formats to accommodate all customers, including those with disabilities.
- Provide clear, accessible information through various channels, including brochures, websites, social media, and community meetings.
- Establish a proactive communication strategy to keep customers informed about the installation timeline, potential disruptions, and any preparatory steps they need to take.
- Utilize multiple communication methods such as emails, text messages, phone calls, and direct mail to reach diverse customer demographics
- Include the content and timing of messages to stakeholders (primarily but not exclusively employees and customers), the various media that will be used, the number of exposures and contacts, and branding.
- Specify who is responsible for each aspect of the communications.

## **Community Engagement**

- Organize and conduct a minimum of 1 community engagement events, such as town hall meetings, workshops, and informational sessions, to address customer questions and concerns.
- Collaborate with local community leaders and organizations to enhance outreach efforts, ensure broad community participation, and develop strategies for minimizing disruption during the installation process.
- Conduct workshops to demonstrate how the new water meters work and how residents can monitor their water usage.
- Maintain a project-specific website with up-to-date information and resources.
- Utilize social media platforms to share updates and engage with the community.

## **Customer Support Services**

- Provide dedicated customer support services, including a helpline and online chat, to assist customers with inquiries related to the meter installation.
- Ensure that customer support representatives are well-trained and equipped with the necessary information to address common questions and issues.

## **Feedback Mechanism**

- Implement a feedback mechanism to gather customer input and address any concerns promptly.
- Use surveys, feedback forms, and follow-up calls to assess customer satisfaction and make necessary adjustments to the education and engagement strategy.

## **Performance Metrics**

- Track and report on key performance indicators related to customer education and engagement, such as customer awareness levels, participation rates in community events, and customer satisfaction scores.
- Provide regular updates to the Community on the effectiveness of the education and engagement efforts and any improvements made based on customer feedback.

## **6.2 Scheduling and Support**

### **Call Center**

Vendor should provide a toll-free number that customers can call to schedule installation appointments, to ask questions concerning the project, or to report problems concerning installations. The call center should be staffed at least between the hours of 7:00 am and 8:00 pm Pacific Time, Monday through Saturday. The SLRD prefers a call center physically located within Canada.

## **Customer Notification**

Between 4 and 5 weeks prior to the commencement of installations for a particular group of customers, Vendor shall send SLRD-approved letters informing customers of the project. At least 2 weeks prior to the commencement of installations for a particular group of customers, Vendor shall send Community-approved notices to those customers indicating the time when installations will occur and requesting that customers call the Vendor for appointments if the meter is to be replaced and (1) the meter is inside, or (2) the customer has special needs regarding the momentary disruption of water service. The text of all Vendor letters, door hangers, and other communications with customers must be submitted to SLRD Project Manager for approval. Vendor shall also develop and submit to SLRD the scripts for any telephone conversations with customers for approval by the SLRD Project Manager.

## **Notification of Owners**

Vendor must notify the owner of a building of its intent to install meters at a particular customer's premises if inside access is required. The owner may authorize the Vendor to make an appointment with an adult tenant or the owner's adult representative. Vendor shall document such authorization. Customers who have multiple meters shall be given the opportunity to schedule the installation of MIUs on all of those meters in a short period of time, provided those meters are located near each other.

## **Post Installation Customer Access**

For 5 days after the installation has been accepted by the SLRD, the Vendor must respond on a 24 hour-per-day basis to calls from the customer associated with that installation or from SLRD, concerning leaks, loss of service, low pressure, and other problems associated with installation.

Should the Vendor receive a call or complaint from a customer or from the SLRD regarding installation, the Vendor shall immediately log the call including the nature of problem, the action taken and the resolution.

Vendor must respond within one (1) hour of receiving the call and arrive at customer's premises ready to correct any problems within three (3) hours of receiving the call, unless otherwise directed by SLRD.

## **Appointment Scheduling**

Appointments shall not be required if the meter is readily accessible, however, customer notification is still required. Vendor shall be responsible for scheduling and handling all installation appointments. SLRD desires that installation appointments be made with 2-hour precision. Whenever possible, Vendor shall notify customers of any changes in schedule at least 1 day in advance of the original appointment.

# **7. Security**

The AMI system software, including head-end system, MDMS and customer portal, shall authenticate and authorize users of the system through user login names and encrypted and masked passwords, configurable role and function-based controls to limit access to data, limit access to software functions and features of the system, and provide traceability and thorough user audit logging.



**SCHEDULE "D":** Cost Tables

# Cost Tables

## Phase 1: Investigation

Program Task	Estimated cost (lump sum)
Program management	
Review existing community data and identify gaps	
Resolve data gaps and confirm Phase 2 requirements	

## Phase 2: Supply and Installation

New Meter Installation						
Supply and installation of water meter in plastic meter box including meter box and lid, meter, encoder register, meter setter, antenna cable, seal wire, seal, dual check valve, other fittings as required, excavation, backfill and site restoration as necessary						
Description	Install location	Units	Estimated Quantity	Unit Price	Installation cost	Total
25 mm	In Home	Per Property	56			
38 mm	In Home	Per Property	58			
50 mm	Exterior Pit	Per Property	3			

Other Services	
The following services are required in addition to installation of end user meter assemblies, to enable The SLRD to fully implement an AMI metering system.	
Description	Total
Communication and engagement	
Documentation	
Testing	
Training	
Software integration	
Surface landscape restoration	
<b>TOTAL</b>	

## Phase 3: SaaS

### Costs Annual Cost

Program Task	Annual cost	Total cost (10 years)
SaaS platform annual subscription		
Any other AMI fees (specify if any)		