

April 25, 2018

Page 1 of 2  
Our File: 649-015

**SQUAMISH LILLOOET REGIONAL DISTRICT  
BRALORNE SANITARY SEWER RECONSTRUCTION**

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**CONTRACT DOCUMENTS AND SPECIFICATIONS  
ADDENDUM #1**

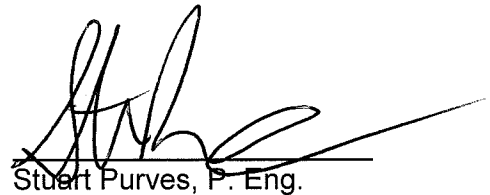
This Addendum is being issued prior to the closing of Tenders and is intended as clarification and/or revision of the Contract Documents. This Addendum shall become an integral part of the Contract Documents and Tenderers shall acknowledge receipt on the appropriate page of the Form of Tender.

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1. The closing date has been changed to Tuesday May 8, 2018. The closing time is at 2pm.
2. The SLRD fax number for tender amendments is 604 894 6526. Faxed revisions must be received prior to the closing time.
3. Enclosed is a revised Tender Form and a Re – Issued for Tender Drawing set.
4. UES has addressed the electrical questions as follows:
  - a. Transformers, items #3-4, to be 7.5kVA and rated for outdoor use
  - b. Lightning arrestor to be removed from scope, surge protection device, item #13 on material list, is still required.
  - c. Item #8 on material list (enclosure ventilation fan) to be removed from scope
  - d. Item #20 on material list (fiberglass cabling compartment junction box) to be removed from scope.
  - e. No antenna required
  - f. Phoenix Contact and Weidmuller are accepted as equal for UPS
  - g. UPS to be powered by circuit A3 and provide power to control wiring.
5. The treatment specifications have been provided on drawing 649-015-16 R6.
6. The septic tank specification and detail has been updated on drawing 649-015-16 R6.
7. There has been three (3) proposed utility pole holds identified and a line item added in the SOQ. Each will be paid as a lump sum under item 2.11.
8. Two (2) areas where tree removal is required have been identified and corresponding line item 1.6 added to the SOQ.
9. All pipe for the service connections will be paid for under item 2.4.4. Item 2.8 is an additional allowance to perform the connection provide the coupler(s) as needed.

.../2

10. The gravel surface restoration depths have been adjusted in item 4.3 and on the standard gravels restoration detail and notes.
11. Section 6 – General – has been added and includes payment for mobilization, demobilization and Bonding/Insurance.
12. Manhole #43 was removed during the design phase. There is no Manhole # 43.
13. Work on weekends, including Sundays and holidays is permitted.
14. Regarding the culverts in Item 4.7. All culverts will be bedded and backfilled in 19mm crushed gravel. Item 4.6 has been changed and refers to the existing culvert on Lorne Avenue adjacent to the ball diamond. This is to be reestablished during construction. If it cannot be salvaged a new culvert will be paid for under item 4.7
15. Refer to Special Provision 27.0 for BC Hydro coordination requirements.
16. The only District owned property available to be utilized for a lay down area is the proposed septic site. The majority of the property is privately owned, and contact information may be provided to the successful bidder, if the land owner grants permission. The owner and owner's rep will not act as a party to any agreements between the contractor and a private land owner.
17. Refer to Special Provision 17.0 and 26.0 regarding road closures and detours. The Hurley River road may be able to be closed for short periods of time during work hours with appropriate coordination by the contractor.



Stuart Purves, P. Eng.

SP/mm

Enclosures

## SQUAMISH-LILLOOET REGIONAL DISTRICT BRALORNE SEWER SYSTEM RECONSTRUCTION

### SCHEDULES OF QUANTITIES:

Supply and install the following works in accordance with these Contract Documents and Specifications complete with labour, equipment, materials, layout, de-watering, testing, restoration, permits, and incidentals.

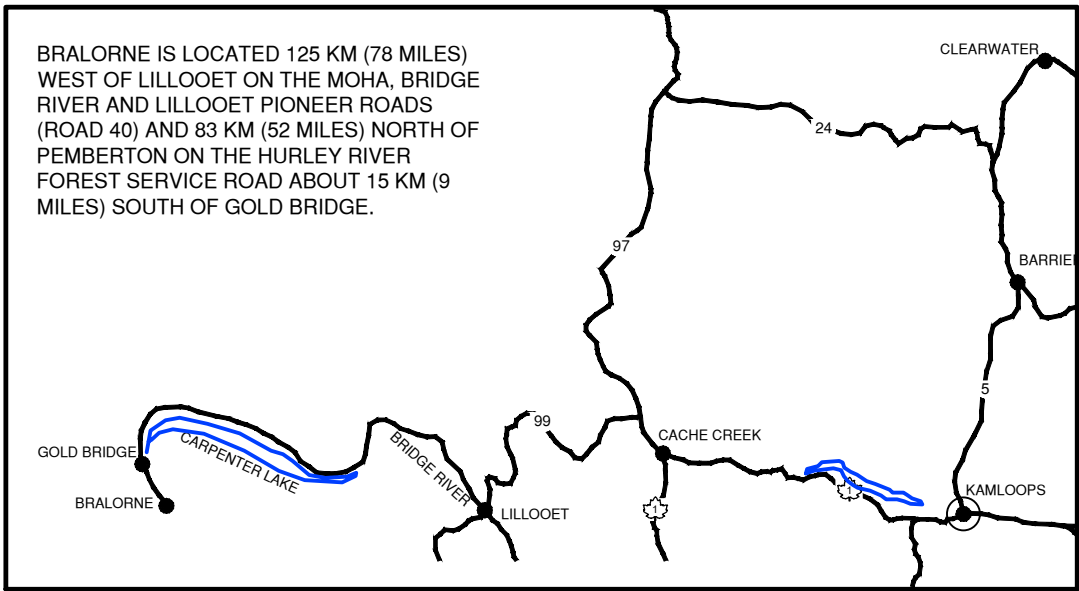
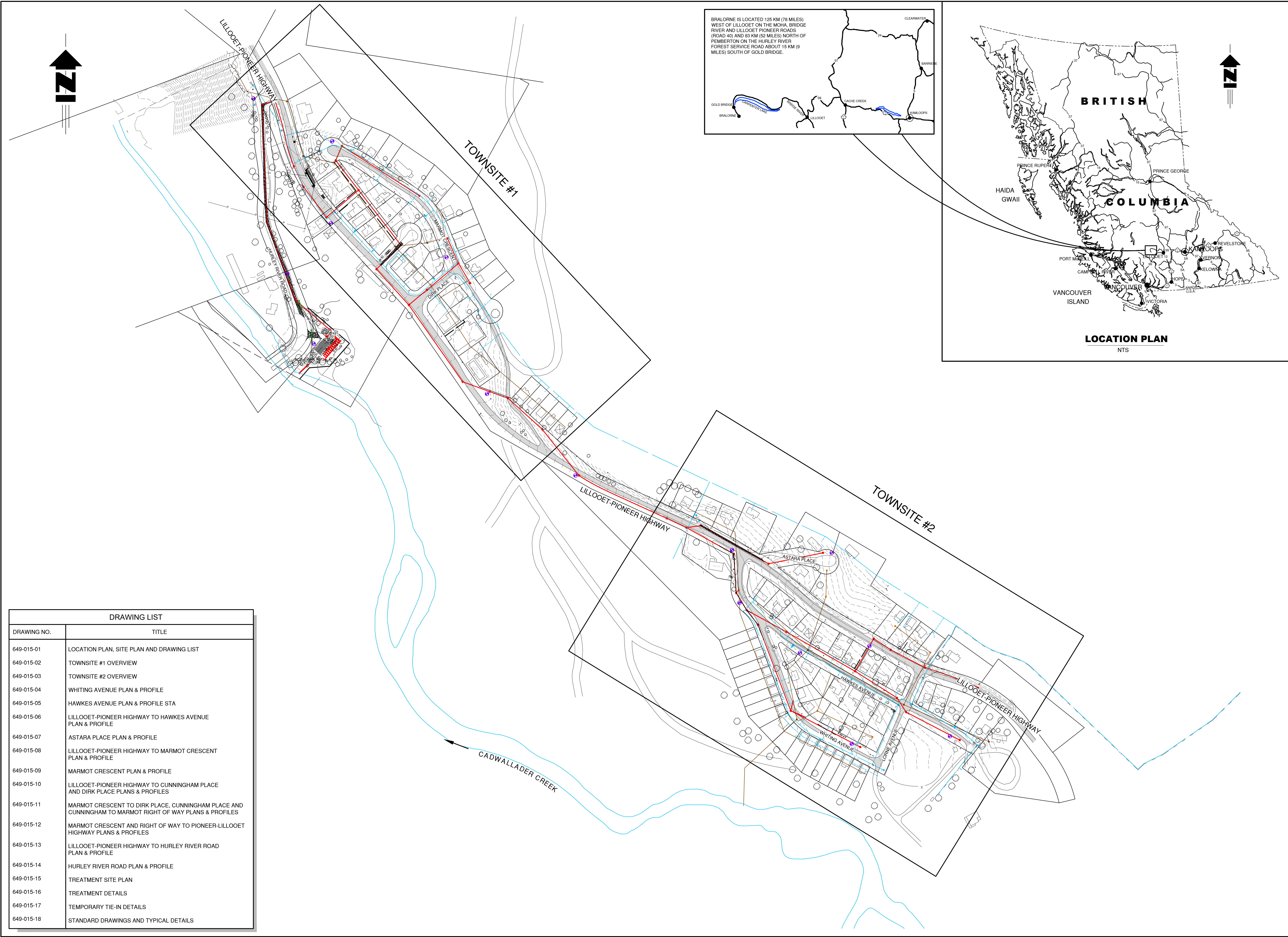
ITEM NO.	DESCRIPTION	UNIT OF MEASURE.	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
<b>1.0</b>	<b>Removals</b>				
1.1	Remove and dispose of existing surface aggregate including concrete and asphalt regardless of thickness, including sawcutting	m <sup>2</sup>	1330		
1.2	Remove and dispose of existing sanitary manhole during bypass connection (drawing 649-015-12)	ea	1		
1.3	Remove and stockpile 300mm of the existing surface aggregates on Hurley River Rd	m <sup>2</sup>	810		
1.4	Clear, strip, and grub treatment site including removal and disposal of existing trees (approx. 2000m <sup>2</sup> )	LS			
1.5	Import, place, and compact local material to 95% SPD to raise effluent bed site to proposed elevations	m <sup>3</sup>	1000		
1.6	Tree removal including all labour and equipment and disposal of wood.				
1.6.1	Tree removal, Whiting Avenue	LS			
1.6.2	Tree removal, Marmot Crescent	LS			
<b>Subtotal: 1.0 - Removals</b>					
<b>2.0</b>	<b>Sanitary Sewer Collection System</b>				
2.1	Supply and install Sanitary Sewer Mains at 1-3m depth c/w excavation, class 'B' sand bedding, backfill, and compaction.				
2.1.1	200Ø PVC	I.m.	2050		
2.1.2	150Ø PVC	I.m.	185		
2.2	Supply and install Sanitary Sewer Mains over 3m depth c/w class 'B' sand bedding, backfill, and compaction.				
2.2.1	200Ø PVC	I.m.	140		
2.3	Supply and install sanitary manholes				
2.3.1	Precast 1050Ø base c/w lid, frame, and cover	ea	41		
2.3.2	Precast 1050Ø base c/w lid, markers and steel plate	ea	3		
2.3.3	Precast 1050Ø barrels	v.m.	57		
2.3.4	Precast 1200Ø base c/w lid, frame, and cover	ea	1		
2.3.5	Precast 1200Ø barrels	v.m.	3		
2.4	Supply and install sanitary sewer services				
2.4.1	200x100Ø Sanitary service wye	ea	74		
2.4.2	Sanitary service connection into manhole c/w rubber seal gasket	ea	33		
2.4.3	100Ø Sanitary service inspection chamber at property	ea	107		
2.4.4	100Ø PVC DR28 sewer service including bends, sweeps, and appurtenances, regardless of depth	I.m.	1150		
2.5	Supply and install anchor blocks (joint restraints) between manholes S21 and S20 on dwg 649-015-09	ea	3		

ITEM NO.	DESCRIPTION	UNIT OF MEASURE.	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
<b>2.0</b>	<b>Sanitary Sewer Collection System - Continued</b>				
2.6	Construct temporary manhole tie-ins to existing sanitary system c/w bypass pumping, necessary fittings, pipe, excavation and backfill - complete (See details on drawing 649-015-16)				
2.6.1	Whiting Avenue temporary tie-in	LS			
2.6.2	Hawkes Avenue temporary tie-in	LS			
2.6.3	Lillooet-Pioneer Highway temporary tie-in #1	LS			
2.6.4	Marmot Crescent temporary tie-in	LS			
2.6.5	Lillooet-Pioneer Highway temporary tie-in #2	LS			
2.7	Adjust watermain per detail on dwg 649-015-15	ea	6		
2.8	Locate and tie to existing services c/w necessary couplers and fittings	ea	81		
2.9	Cap proposed service at property line c/w plug and marker post	ea	26		
2.10	CCTV Video inspection of 200mm and 150mm sanitary sewer mains	l.m.	2375		
2.11	Hold utility pole while installing adjacent sewer mains				
2.11.1	Whiting Avenue, #1	LS			
2.11.2	Whiting Avenue, #2	LS			
2.11.3	Hawkes Avenue, # 3	LS			
<b>Subtotal: 2.0 - Sanitary Sewer Collection System</b>					
<b>3.0</b>	<b>Sanitary Sewer Treatment and Outfall</b>				
3.1	Supply and install 2-30 cubic meter septic tanks c/w inlet piping and outlet piping to flow meter manhole	LS			
3.2	Supply and install 10 biofilters c/w flow dividers, inlet piping and outlet piping to outflow manhole c/w valves and fittings	LS			
3.3	Supply and install outfall piping to Cadwallader creek from outflow manhole including 150mm C900, 38mm forcemain, service saddle, corp stop, curb stop, check valves and fittings	LS			
3.4	Supply and install flow meter and fittings in manhole per detail	LS			
3.5	Supply and install effluent pump including rails, lifting apparatus, float switches and fittings per detail	LS			
<b>Subtotal: 3.0 - Sanitary Sewer Treatment and Outfall</b>					
<b>4.0</b>	<b>Restoration</b>				
4.1	Asphalt roadway restoration c/w 50mm cold mix asphalt, 100mm of 19mm minus crushed gravel base, and 150mm of 75mm minus pit run sub-base including compaction to 100% SPD	m <sup>2</sup>	500		
4.2	Asphalt roadway restoration c/w 50mm hot mix asphalt, 150mm of 19mm minus crushed gravel base, and 300mm of 75mm minus pit run sub-base including compaction to 100% SPD	m <sup>2</sup>	350		
4.3	Gravel roadway restoration c/w 100mm of 19mm minus crushed gravel base, and 150mm of 75mm minus pit run sub-base including compaction to 100% SPD	m <sup>2</sup>	1825		



ITEM NO.	DESCRIPTION	UNIT OF MEASURE.	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
<b>4.0</b>	<b>Restoration - Continued</b>				
4.4	Boulevard and trench limit restoration including topsoil and seeding where required	m²	1200	_____	_____
4.5	Reinstate stacked rock wall following construction	LS		_____	_____
4.6	Re-establish storm culvert on Lorne Avenue	LS		_____	_____
4.7	Supply and Install 600mm CSP culverts at entrance to treatment site	l.m.	30	_____	_____
<b>Subtotal: 4.0 - Restoration</b>					=====
<b>5.0</b>	<b>Electrical</b>				
5.1	Supply and install Kiosk and 600v step up transformer c/w concrete base	LS		_____	_____
5.2	Supply and install 600V direct bury cable c/w sand bedding and marking tape in common trench with sanitary main	l.m.	320	_____	_____
5.3	Supply and install kiosk on site per detail c/w step down transformer, concrete pad, flow meter display, electrical and wiring	LS		_____	_____
5.4	Supply and install pump level switches c/w wiring	LS		_____	_____
5.5	Supply and install pump motor starter and controls c/w wiring	LS		_____	_____
5.6	Supply and install Pole per detail including base, pole, alarm beacon and solar panels c/w wiring	LS		_____	_____
<b>Subtotal: 5.0 - Electrical</b>					=====
<b>6.0</b>	<b>General</b>				
6.1	Mobilization	LS		_____	_____
6.2	Demobilization	LS		_____	_____
6.3	Insurance and Bonding	LS		_____	_____
<b>Subtotal: 6.0 - General</b>					=====
<b><u>Tender Summary</u></b>					
<b>Subtotal 1.0 - Removals</b>					_____
<b>Subtotal 2.0 - Sanitary Sewer Collection System</b>					_____
<b>Subtotal 3.0 - Sanitary Sewer Treatment and Outfall</b>					_____
<b>Subtotal 4.0 - Restoration</b>					_____
<b>Subtotal 5.0 - Electrical</b>					_____
<b>Subtotal 6.0 - General</b>					_____
<b>Subtotal Parts 1.0 - 6.0</b>					_____
<b>Contingency Allowance</b>					_____
<b>GST (5% of Tender Subtotal)</b>					<b>\$100,000.00</b>
<b>Total Contract Sum</b>					=====





DRAWING LIST	
DRAWING NO.	TITLE
649-015-01	LOCATION PLAN, SITE PLAN AND DRAWING LIST
649-015-02	TOWNSITE #1 OVERVIEW
649-015-03	TOWNSITE #2 OVERVIEW
649-015-04	WHITING AVENUE PLAN & PROFILE
649-015-05	HAWKES AVENUE PLAN & PROFILE STA
649-015-06	LILLOOET-PIONEER HIGHWAY TO HAWKES AVENUE PLAN & PROFILE
649-015-07	ASTARA PLACE PLAN & PROFILE
649-015-08	LILLOOET-PIONEER HIGHWAY TO MARMOT CRESCENT PLAN & PROFILE
649-015-09	MARMOT CRESCENT PLAN & PROFILE
649-015-10	LILLOOET-PIONEER HIGHWAY TO CUNNINGHAM PLACE AND DIRK PLACE PLANS & PROFILES
649-015-11	MARMOT CRESCENT TO DIRK PLACE, CUNNINGHAM PLACE AND CUNNINGHAM TO MARMOT RIGHT OF WAY PLANS & PROFILES
649-015-12	MARMOT CRESCENT AND RIGHT OF WAY TO PIONEER-LILLOOET HIGHWAY PLANS & PROFILES
649-015-13	LILLOOET-PIONEER HIGHWAY TO HURLEY RIVER ROAD PLAN & PROFILE
649-015-14	HURLEY RIVER ROAD PLAN & PROFILE
649-015-15	TREATMENT SITE PLAN
649-015-16	TREATMENT DETAILS
649-015-17	TEMPORARY TIE-IN DETAILS
649-015-18	STANDARD DRAWINGS AND TYPICAL DETAILS

No.	DATE	DESCRIPTION	BY	APPROVED
8	APR 30/16	RE-ISSUED FOR TENDER	SPC	SU
7	APR 24/16	RE-ISSUED FOR TENDER	SPC	SU
6	MAR 23/16	ISSUED FOR TENDER	SPC	SU
5	MAR 14/16	ISSUED FOR APPROVAL	SPC	SU
4	JAN 24/16	ISSUED FOR CLIENT REVIEW	SPC	SU
3	AUG 18/17	ISSUED FOR M&T REVIEW	SPC	SU
2	NOV 21/16	ISSUED FOR PERMIT	SPC	SU
1	OCT 4/16	ISSUED FOR APPROVAL	SPC	SU

ISSUES / REVISIONS				
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CONSULTANT SEAL

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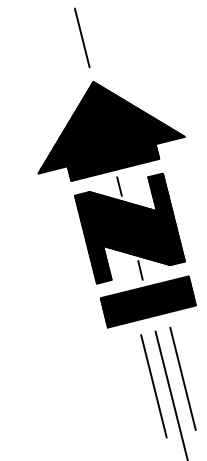
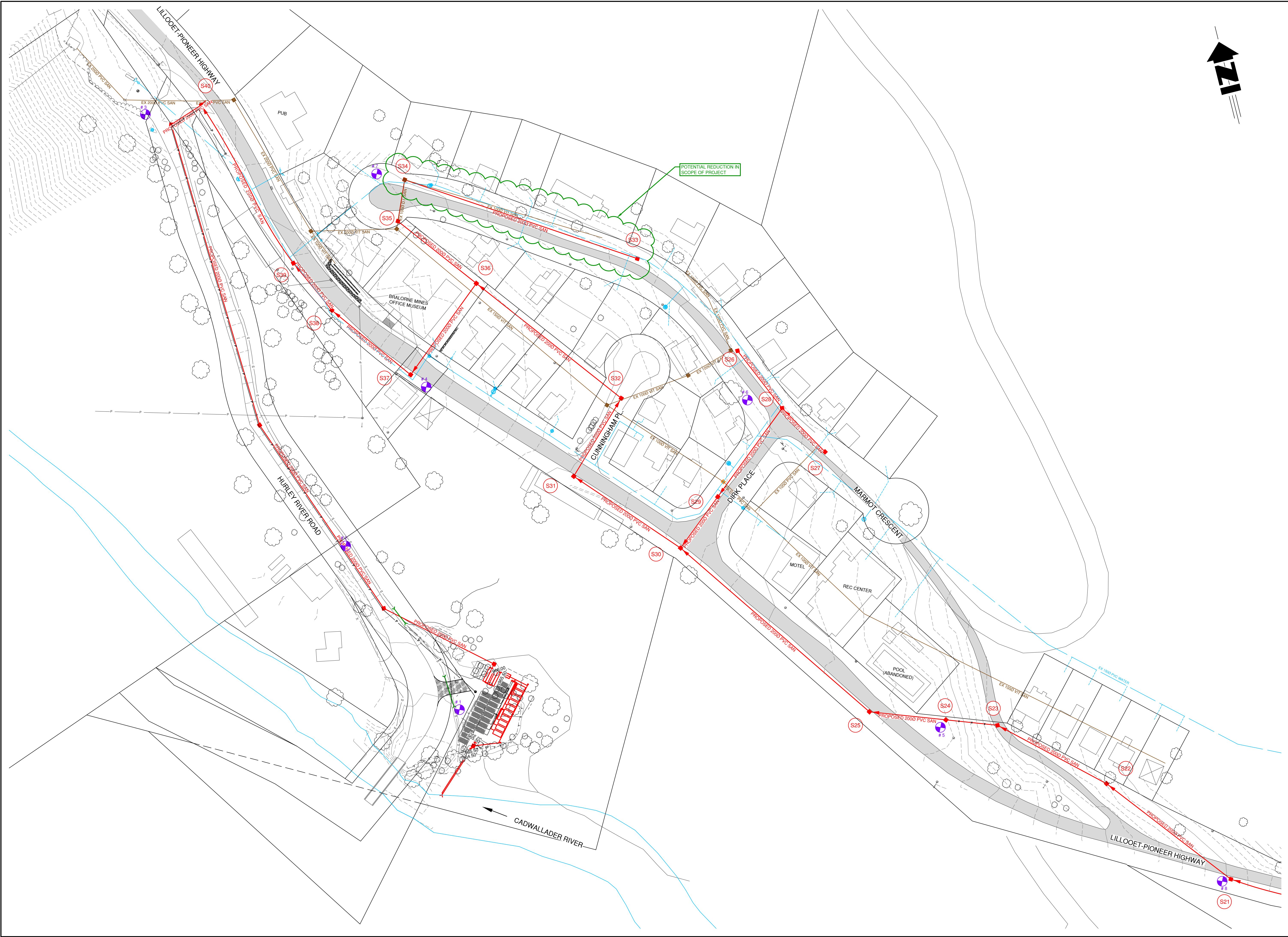


## BRALORNE SANITARY SYSTEM UPGRADES

## LOCATION PLAN SITE PLAN AND DRAWING LIST

SCALE	1:2000
DESIGN BY	SU
DRAWN BY	SPC
DATE	July 2016
PROJECT REFERENCE No.	649-011
DRAWING No.	649-015
SHEET	1 OF 18
REVISION	8





LEGEND

EXISTING	PROPOSED	DESCRIPTION
		SANITARY MAIN
		SANITARY MANHOLE
		SAN MANHOLE (ASSUMED)
		CLEANOUT
		LIFT STATION
		SEPTIC TANK
		STORM MAIN
		STORM DITCH
		STORM MANHOLE
		CATCHBASIN
		STORM DRYWELL
		WATER MAIN
		WATER SERVICE
		CURB STOP
		VALVE
		STANDPIPE
		HYDRANT
		AIR RELEASE VALVE
		REDUCER
		SPRINKLER
		IRRIGATION BOX
		END CAP
		POWER
		TEL
		CABLE
		STREET LIGHT
		GAS
		POWER POLE
		LAMP STANDARD
		LIGHT POST
		POLE ANCHOR
		TEST PIT
		IRON PIN
		SURVEY CONTROL

8	APR 30/16	RE-ISSUED FOR TENDER	SPC	SU
7	APR 24/16	RE-ISSUED FOR TENDER	SPC	SU
6	MAR 23/16	ISSUED FOR TENDER	SPC	SU
5	MAR 14/16	ISSUED FOR APPROVAL	SPC	SU
4	JAN 24/16	ISSUED FOR CLIENT REVIEW	SPC	SU
3	AUG 10/17	ISSUED FOR M&T REVIEW	SPC	SU
2	NOV 21/16	ISSUED FOR PERMIT	SPC	SU
1	OCT 4/16	ISSUED FOR APPROVAL	SPC	SU
No.	DATE	DESCRIPTION	BY	APPROV

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SQUAMISH - LILLOOET  
REGIONAL DISTRICT

BRALORNE  
SANITARY SYSTEM  
UPGRADES

TOWNSITE #1  
OVERVIEW

SCALE 1:750

DESIGN BY SU

DRAWN BY SPC

DATE July 2016

PROJECT REFERENCE No. 649-011

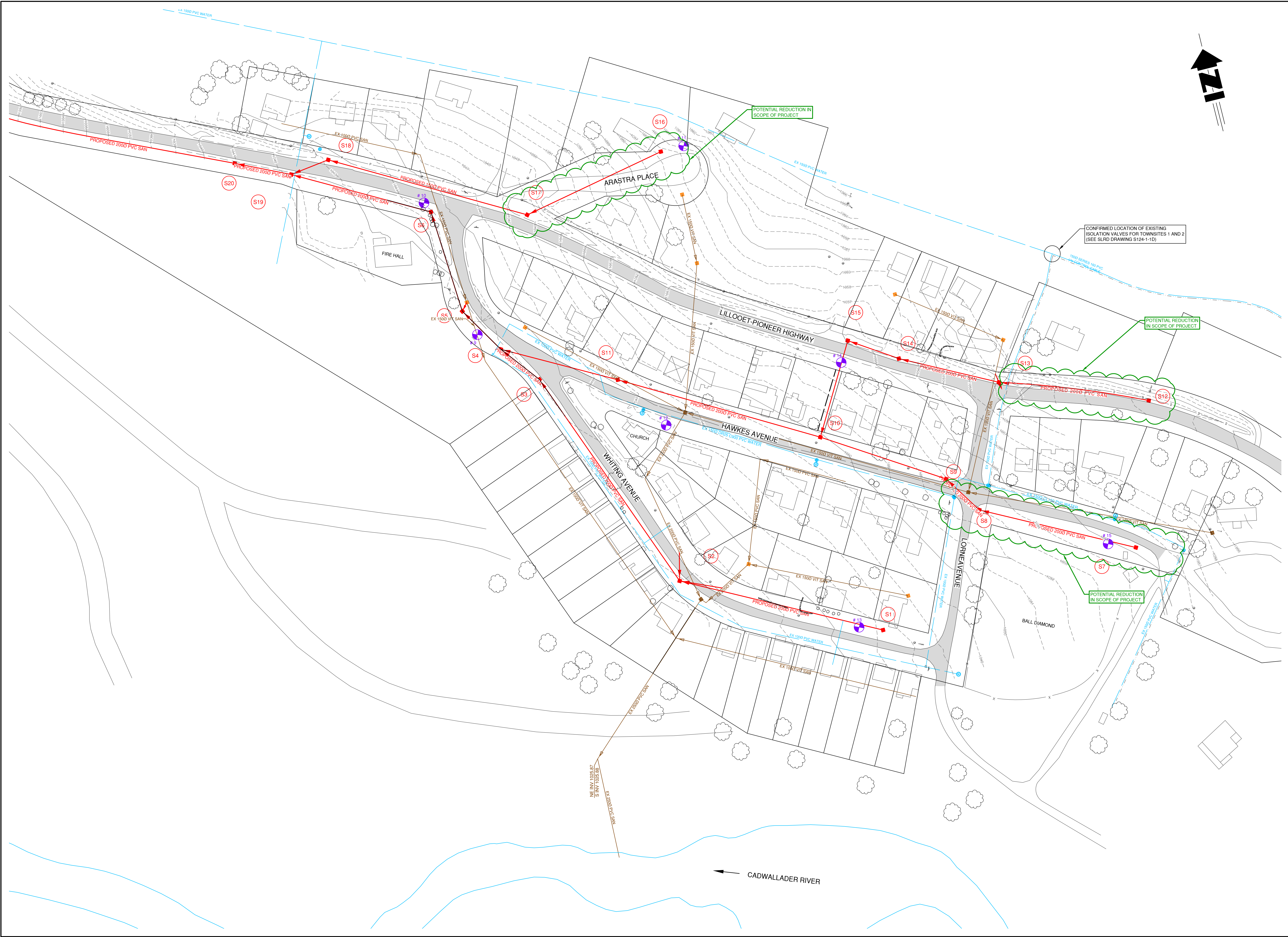
DRAWING No. 649-015

SHEET 2 OF 18

REVISION 8

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LEGEND

EXISTING	PROPOSED	DESCRIPTION
		SANITARY MAIN
		SANITARY MANHOLE
		SAN MANHOLE (ASSUMED)
		CLEANOUT
		LIFT STATION
		SEPTIC TANK
		STORM MAIN
		STORM DITCH
		STORM MANHOLE
		CATCHBASIN
		STORM DRYWELL
		WATER MAIN
		WATER SERVICE
		CURB STOP
		VALVE
		STANDPIPE
		HYDRANT
		AIR RELEASE VALVE
		REDUCER
		SPRINKLER
		IRRIGATION BOX
		END CAP
		POWER
		TEL
		CABLE
		STREET LIGHT
		GAS
		POWER POLE
		LAMP STANDARD
		LIGHT POST
		POLE ANCHOR
		TEST PIT
		IRON PIN
		SURVEY CONTROL

No.	DATE	DESCRIPTION	BY	APPR
8	APR 30/16	RE-ISSUED FOR TENDER	SPC	SU
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2	NOV 21/16	ISSUED FOR PERMIT	SPC	SU
1	OCT 4/16	ISSUED FOR APPROVAL	SPC	SU

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SQUAMISH - LILLOOET  
REGIONAL DISTRICT

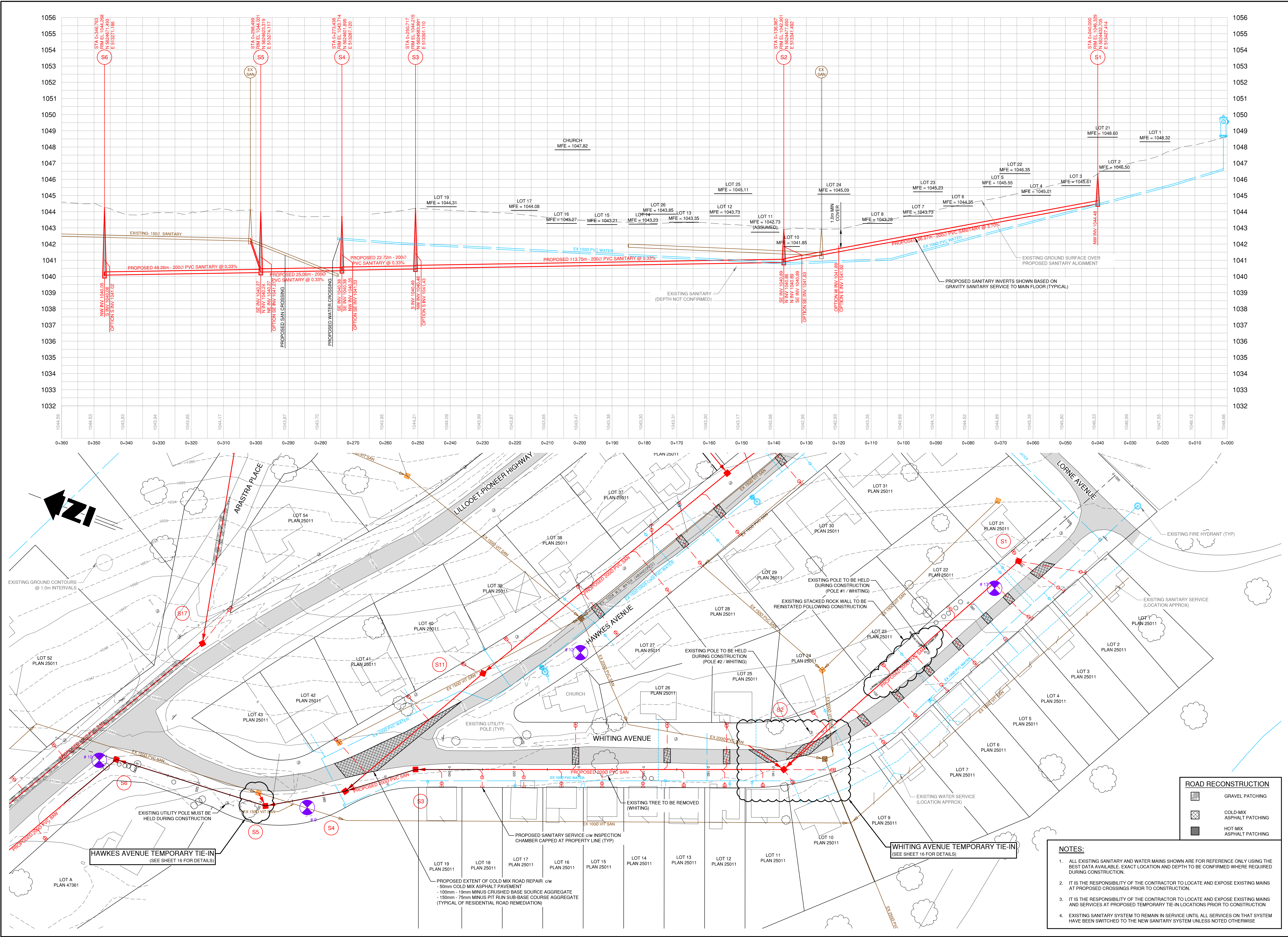
**BRALORNE  
SANITARY SYSTEM  
UPGRADES**

**TOWNSITE #2  
OVERVIEW**

SCALE	1:750
DESIGN BY	SU
DRAWN BY	SPC
DATE	July 2016
PROJECT REFERENCE No.	649-011
DRAWING No.	SHEET
649-015	3 OF 18
03	REVISION
	8

FILE: C:\Users\60606\Documents\649-011\2016\Drawings\649-015.dwg





LEGEND

EXISTING	PROPOSED	DESCRIPTION
		SANITARY MAIN
		SANITARY MANHOLE
		SAN MANHOLE (ASSUMED)
		CLEANOUT
		LIFT STATION
		SEPTIC TANK
		STORM MAIN
		STORM DITCH
		CULVERT
		STORM MANHOLE
		CATCHBASIN
		STORM DRYWELL
		WATER MAIN
		CURB STOP
		VALVE
		STANDPIPE
		HYDRANT
		AIR RELEASE VALVE
		REDUCER
		SPRINKLER
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		STREET LIGHT
		GAS
		POWER POLE
		LAMP STANDARD
		LIGHT POST
		POLE ANCHOR
		TEST PIT
		IRON PIN
		SURVEY CONTROL

No.	DATE	DESCRIPTION	BY	APPD
10	APR 2016	RE-ISSUED FOR TENDER	SPC	SU
9	APR 2418	RE-ISSUED FOR TENDER	SPC	SU
8	MAR 2318	ISSUED FOR TENDER	SPC	SU
7	MAR 2018	ISSUED FOR CLIENT REVIEW	SPC	SU
6	MAR 1418	ISSUED FOR APPROVAL	SPC	SU
5	JAN 2418	ISSUED FOR CLIENT REVIEW	SPC	SU
4	OCT 1917	ISSUED FOR M&T APPROVAL	SPC	SU
3	AUG 1817	ISSUED FOR M&T REVIEW	SPC	SU
2	NOV 2116	ISSUED FOR PERMIT	SPC	SU
1	OCT 416	ISSUED FOR APPROVAL	SPC	SU

ISSUES / REVISIONS

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SQUAMISH - LILLOOET  
REGIONAL DISTRICT

**BRALORNE  
SANITARY SYSTEM  
UPGRADES**

**TOWNSITE #2**

**WHITING AVENUE  
PLAN & PROFILE**

SCALE	H - 1:500 V - 1:100
DESIGN BY	SU
DRAWN BY	SPC
DATE	July 2016
PROJECT REFERENCE No.	649-011
DRAWING No.	

NOTES:  
1. ALL EXISTING SANITARY AND WATER MAINS SHOWN ARE FOR REFERENCE ONLY USING THE BEST DATA AVAILABLE. EXACT LOCATION AND DEPTH TO BE CONFIRMED WHERE REQUIRED DURING CONSTRUCTION.  
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND EXPOSE EXISTING MAINS AT PROPOSED CROSSINGS PRIOR TO CONSTRUCTION.  
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND EXPOSE EXISTING MAINS AND SERVICES AT PROPOSED TEMPORARY TIE-IN LOCATIONS PRIOR TO CONSTRUCTION  
4. EXISTING SANITARY SYSTEM TO REMAIN IN SERVICE UNTIL ALL SERVICES ON THAT SYSTEM HAVE BEEN SWITCHED TO THE NEW SANITARY SYSTEM UNLESS NOTED OTHERWISE

ROAD RECONSTRUCTION

	GRAVEL PATCHING
	COLD-MIX ASPHALT PATCHING
	HOT-MIX ASPHALT PATCHING

PROPOSED EXTENT OF COLD MIX ROAD REPAIR c/w

- 50mm COLD MIX ASPHALT PAVEMENT
- 100mm - 15mm MINUS CRUSHED BASE SOURCE AGGREGATE
- 150mm - 75mm MINUS PIT RUN SUB-BASE COURSE AGGREGATE (TYPICAL OF RESIDENTIAL ROAD REMEDIATION)

HAWKES AVENUE TEMPORARY TIE-IN  
(SEE SHEET 16 FOR DETAILS)

WHITING AVENUE TEMPORARY TIE-IN  
(SEE SHEET 16 FOR DETAILS)

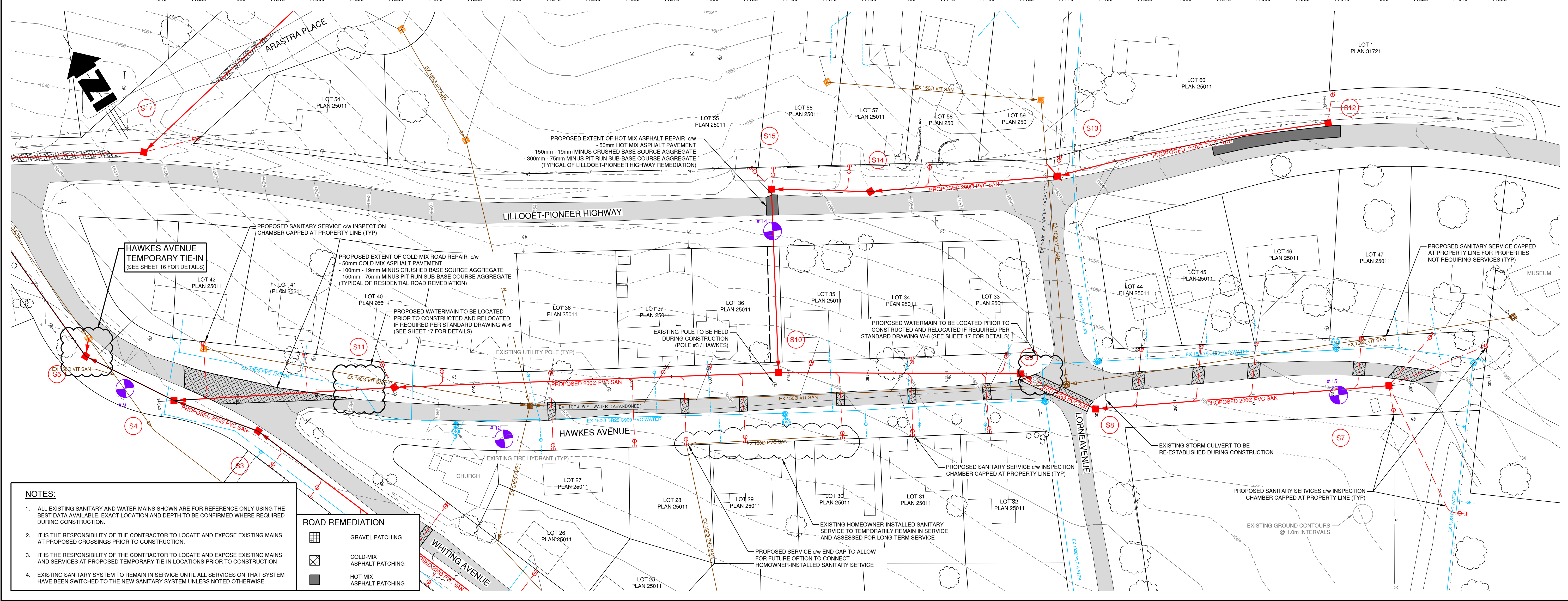
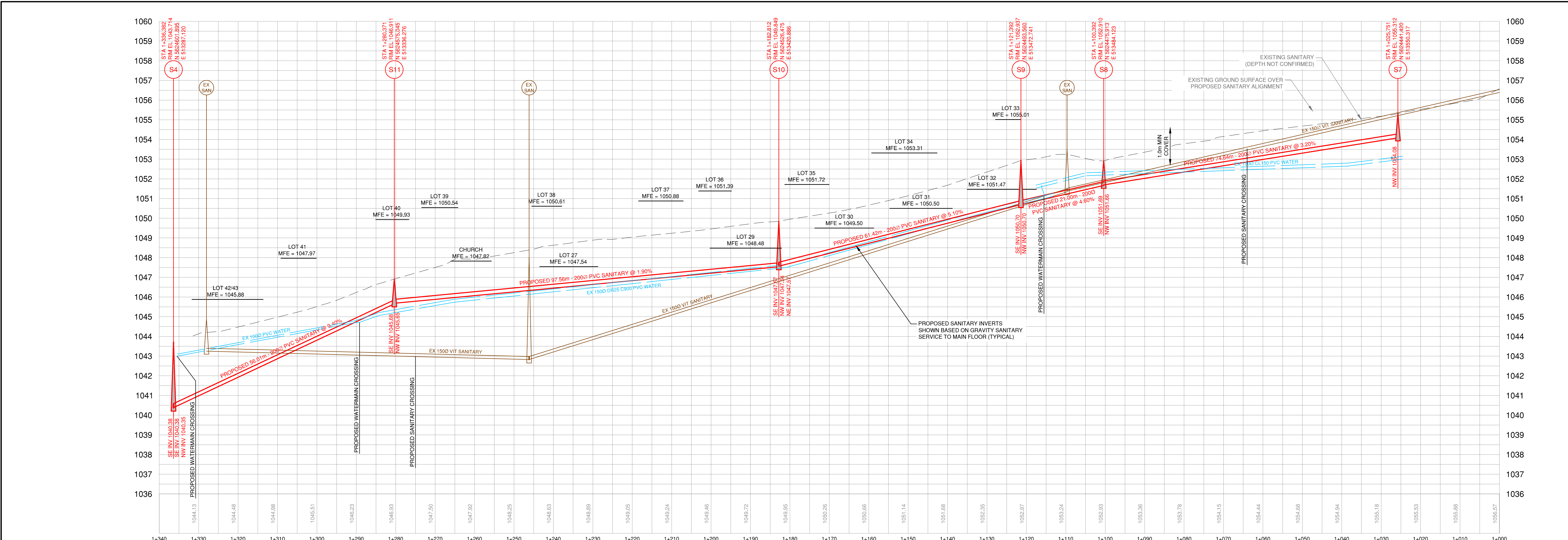
649-01504

4 OF 18

REVISION

10





LEGEND

EXISTING	PROPOSED	DESCRIPTION
		SANITARY MAIN
		SANITARY FOR MAIN
		SAN MANHOLE (ASSUMED)
		CLEANOUT
		SEPTIC TANK
		STORM MAIN
		STORM DITCH
		CULVERT
		STORM MANHOLE
		CATCHBASIN
		STORM DRYWELL
		WATER MAIN
		CURB STOP
		VALVE
		STANDPIPE
		HYDRANT
		AIR RELEASE VALVE
		REDUCER
		SPRINKLER
		IRRIGATION BOX
		END CAP
		POWER
		TEL
		CABLE
		STREET LIGHT
		GAS
		POWER POLE
		LAMP STANDARD
		LIGHT POST
		POLE ANCHOR
		TEST PIT
		IRON PIN
		SURVEY CONTROL

No.	DATE	DESCRIPTION	BY	APPD
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ISSUES / REVISIONS

No.	DATE	DESCRIPTION	BY	APPD
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5	JAN 24/18	ISSUED FOR CLIENT REVIEW	SPC	SU
4	OCT 19/17	ISSUED FOR M&T APPROVAL	SPC	SU
3	AUG 16/17	ISSUED FOR M&T REVIEW	SPC	SU
2	NOV 21/16	ISSUED FOR PERMIT	SPC	SU
1	OCT 4/16	ISSUED FOR APPROVAL	SPC	SU

CONSULTANT SEAL

201 - 279 Falcon Road ■ Kamloops BC ■ V2C 4J2  
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BRALORNE  
SANITARY SYSTEM  
UPGRADES

TOWNSITE #2

HAWKES AVENUE  
PLAN & PROFILE

SCALE  
H - 1:500  
V - 1:100

DESIGN BY  
SU

DRAWN BY  
SPC

DATE  
July 2016

PROJECT REFERENCE No.  
649-011

DRAWING No.

ROAD REMEDIATION

	GRAVEL PATCHING
	COLD-MIX ASPHALT PATCHING
	HOT-MIX ASPHALT PATCHING

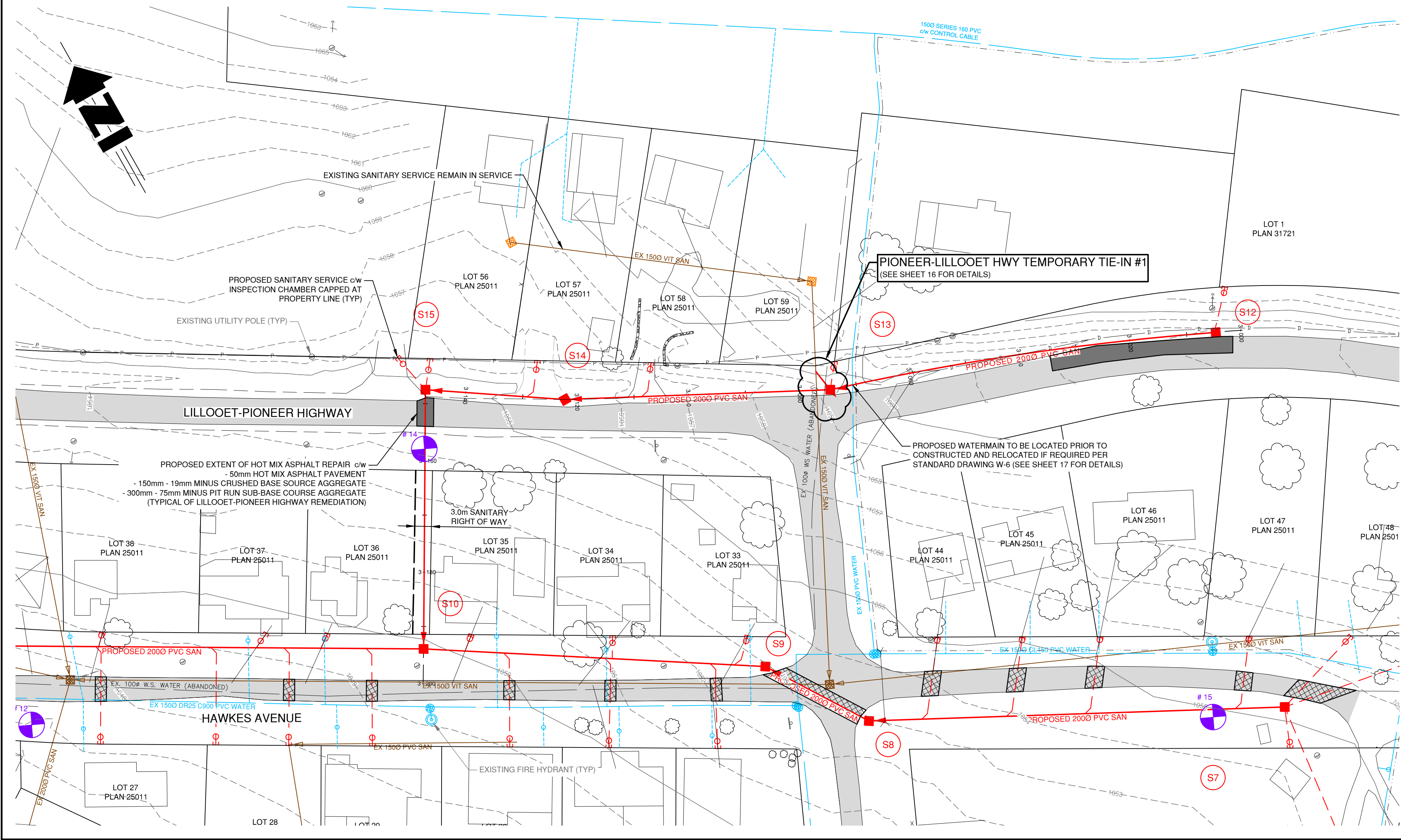
NOTES:

- ALL EXISTING SANITARY AND WATER MAINS SHOWN ARE FOR REFERENCE ONLY USING THE BEST DATA AVAILABLE. EXACT LOCATION AND DEPTH TO BE CONFIRMED WHERE REQUIRED DURING CONSTRUCTION.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND EXPOSE EXISTING MAINS AT PROPOSED CROSSINGS PRIOR TO CONSTRUCTION.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND EXPOSE EXISTING MAINS AND SERVICES AT PROPOSED TEMPORARY TIE-IN LOCATIONS PRIOR TO CONSTRUCTION
- EXISTING SANITARY SYSTEM TO REMAIN IN SERVICE UNTIL ALL SERVICES ON THAT SYSTEM HAVE BEEN SWITCHED TO THE NEW SANITARY SYSTEM UNLESS NOTED OTHERWISE

5 OF 18

REVISION  
9





LEGEND				
EXISTING	PROPOSED	DESCRIPTION		
		SANITARY MAIN		
		SANITARY FOREMAIN		
		SANITARY MANHOLE		
		SAN MANHOLE (ASSUMED)		
		CLEANOUT		
		LIFT STATION		
		SEPTIC TANK		
		STORM MAIN		
		STORM DITCH		
		CULVERT		
		STORM MANHOLE		
		CATCHBASIN		
		STORM DRYWELL		
		WATER MAIN		
		WATER SERVICE		
		CURB STOP		
		VALVE		
		STANDPIPE		
		HYDRANT		
		AIR RELEASE VALVE		
		REDUCER		
		SPRINKLER		
		IRRIGATION BOX		
		END CAP		
		POWER		
		TEL		
		CABLE		
		STREET LIGHT		
		GAS		
		POWER POLE		
		LAMP STANDARD		
		LIGHT POST		
		POLE ANCHOR		
		TEST PIT		
		IRON PIN		
		SURVEY CONTROL		
9	APR 26/18	RE-ISSUED FOR TENDER	SPC	SU
8	APR 24/18	RE-ISSUED FOR TENDER	SPC	SU
7	MAR 23/18	ISSUED FOR TENDER	SPC	SU
6	MAR 14/18	ISSUED FOR APPROVAL	SPC	SU
5	JAN 24/18	ISSUED FOR CLIENT REVIEW	SPC	SU
4	OCT 19/17	ISSUED FOR M&I APPROVAL	SPC	SU
3	AUG 16/17	ISSUED FOR M&I REVIEW	SPC	SU
2	NOV 21/16	ISSUED FOR PERMIT	SPC	SU
1	OCT 4/16	ISSUED FOR APPROVAL	SPC	SU
No.	DATE	DESCRIPTION	BY	APPROVED
ISSUES / REVISIONS				

DOI: 10.1002/for

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# BRALORNE SANITARY SYSTEM UPGRADES

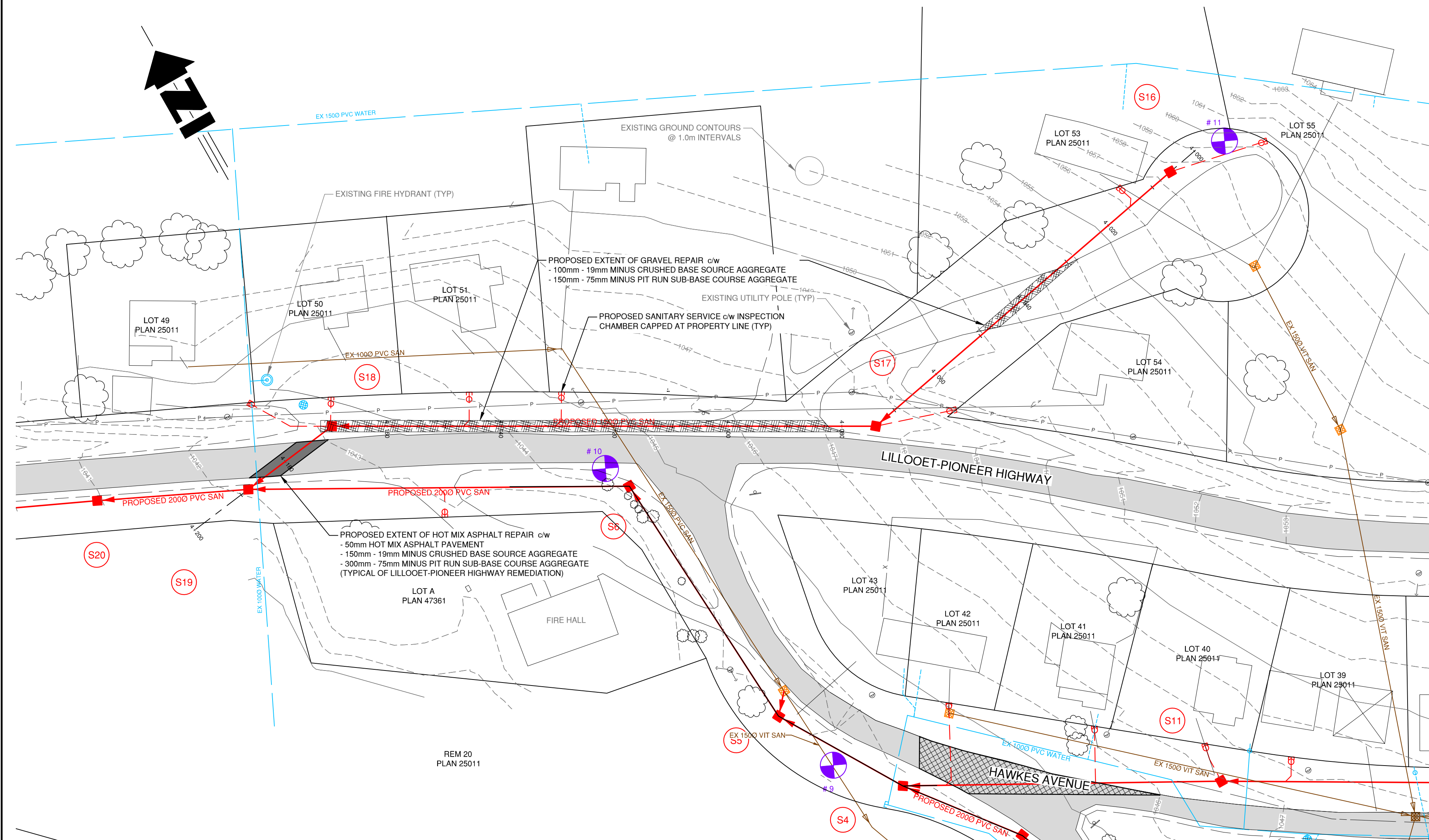
**TOWNSITE #2**

# LILLOOET-PIONEER HIGHWAY TO HAWKES AVENUE PLAN & PROFILE

SCALE	H - 1:500 V - 1:100
DESIGN BY	SU
DRAWN BY	SPC
DATE	July 2016
PROJECT REFERENCE No.	649-011
DRAWING No.	<div> <div> SHEET 6 OF 18 </div> <div> REVISION 9 </div> </div>

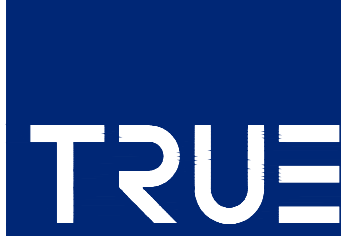
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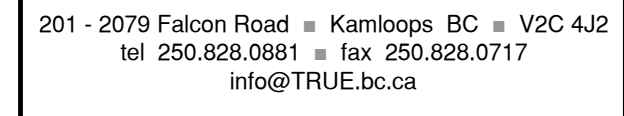


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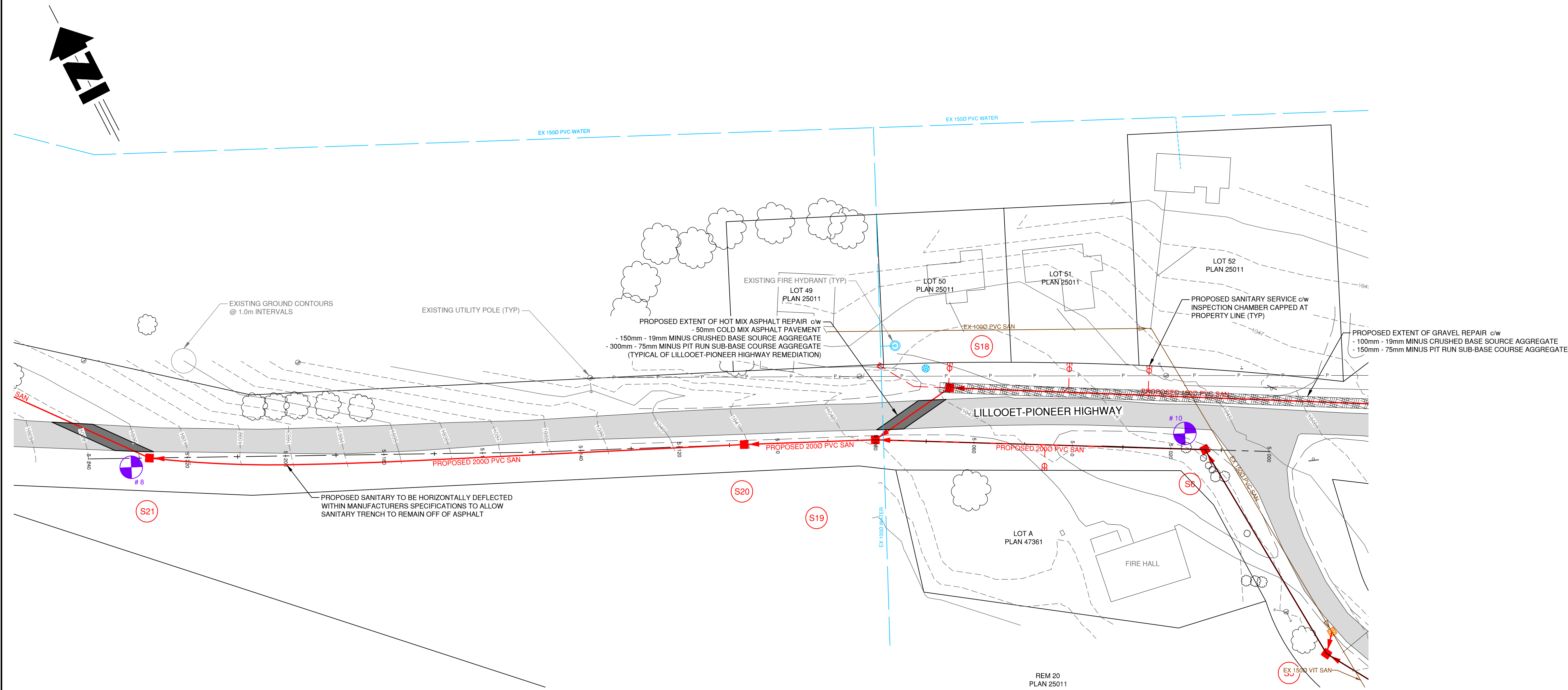
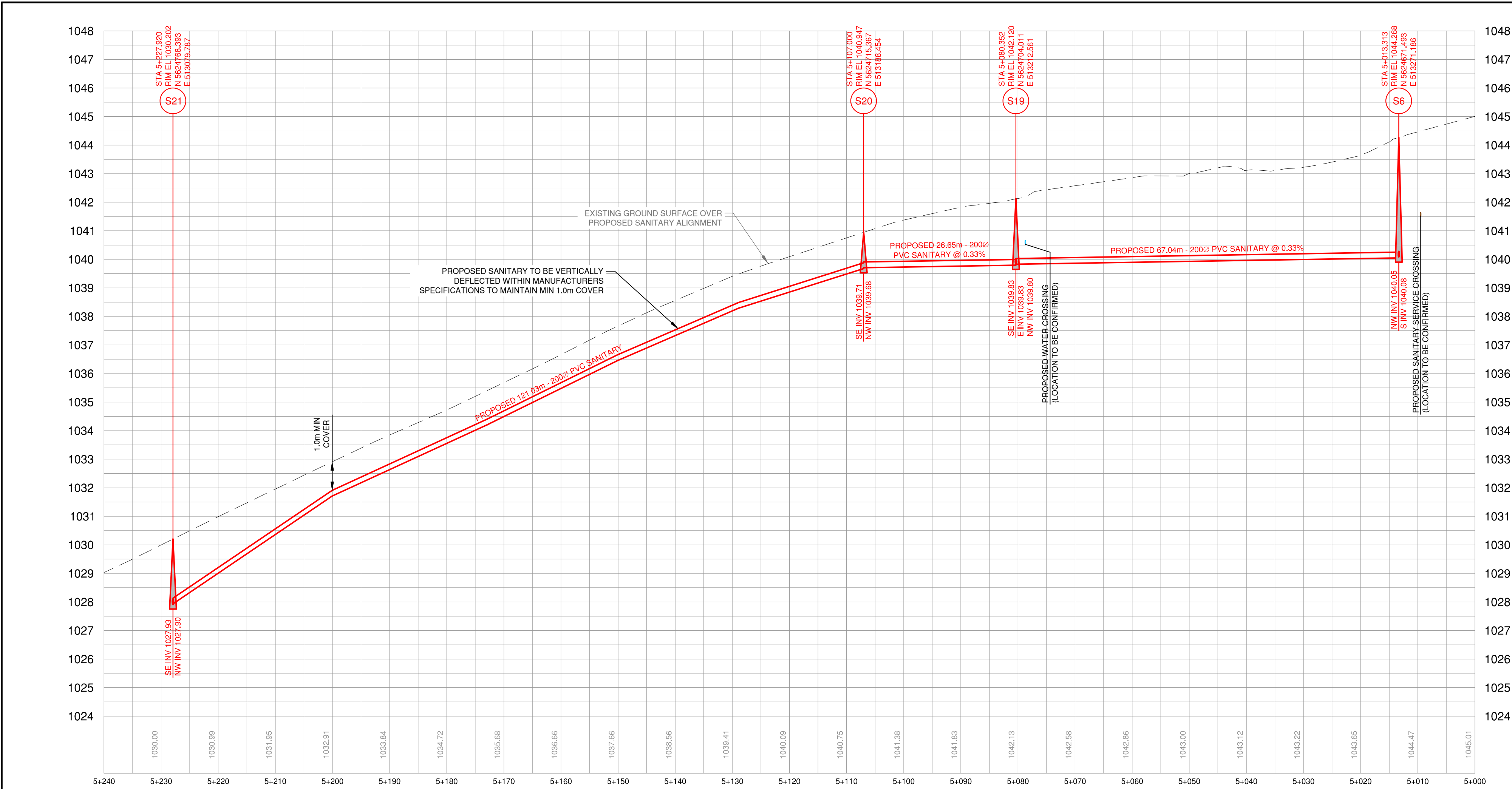


**TOWNSITE #2**

SCALE	H - 1:500 V - 1:100
DESIGN BY	SU
DRAWN BY	SPC
DATE	July 2016
PROJECT REFERENCE No.	640-044

1. ALL EXISTING SANITARY AND WATER MAINS SHOWN ARE FOR REFERENCE ONLY USING THE BEST DATA AVAILABLE. EXACT LOCATION AND DEPTH TO BE CONFIRMED WHERE REQUIRED DURING CONSTRUCTION.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND EXPOSE EXISTING MAINS AT PROPOSED CROSSINGS PRIOR TO CONSTRUCTION.
3. EXISTING SANITARY SYSTEM TO REMAIN IN SERVICE UNTIL ALL SERVICES ON THIS SYSTEM HAVE BEEN SWITCHED TO THE NEW SANITARY SYSTEM UNLESS NOTED OTHERWISE





ROAD RECONSTRUCTION	
	GRAVEL PATCHING
	COLD-MIX ASPHALT PATCHING
	HOT-MIX ASPHALT PATCHING

- NOTES:**
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  - IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND EXPOSE EXISTING MAINS AT PROPOSED CROSSINGS PRIOR TO CONSTRUCTION.
  - IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND EXPOSE EXISTING MAINS AND SERVICES AT PROPOSED TEMPORARY TIE-IN LOCATIONS PRIOR TO CONSTRUCTION.
  - EXISTING SANITARY SYSTEM TO REMAIN IN SERVICE UNTIL ALL SERVICES ON THAT SYSTEM HAVE BEEN SWITCHED TO THE NEW SANITARY SYSTEM UNLESS NOTED OTHERWISE.

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		SANITARY MAIN
		SANITARY MANHOLE
		SAN MANHOLE (ASSUMED)
		CLEANOUT
		LIFT STATION
		SEPTIC TANK
		STORM MAIN
		STORM DITCH
		CULVERT
		STORM MANHOLE
		CATCHBASIN
		STORM DRYWELL
		WATER MAIN
		WATER SERVICE
		CURB STOP
		VALVE
		STANDPIPE
		HYDRANT
		AIR RELEASE VALVE
		REDUCER
		SPRINKLER
		IRRIGATION BOX
		END CAP
		POWER
		TEL
		CABLE
		STREET LIGHT
		GAS
		POWER POLE
		LAMP STANDARD
		LIGHT POST
		POLE ANCHOR
		TEST PIT
		IRON PIN
		SURVEY CONTROL

No.	DATE	DESCRIPTION	BY	APPD
8	APR 30/18	RE-ISSUED FOR TENDER	SPC	SU
7	APR 24/18	RE-ISSUED FOR TENDER	SPC	SU
6	MAR 23/18	ISSUED FOR TENDER	SPC	SU
5	MAR 14/18	ISSUED FOR APPROVAL	SPC	SU
4	JAN 24/18	ISSUED FOR CLIENT REVIEW	SPC	SU
3	AUG 16/17	ISSUED FOR M&T REVIEW	SPC	SU
2	NOV 21/16	ISSUED FOR PERMIT	SPC	SU
1	OCT 4/16	ISSUED FOR APPROVAL	SPC	SU

ISSUES / REVISIONS

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**BRALORNE  
SANITARY SYSTEM  
UPGRADES**

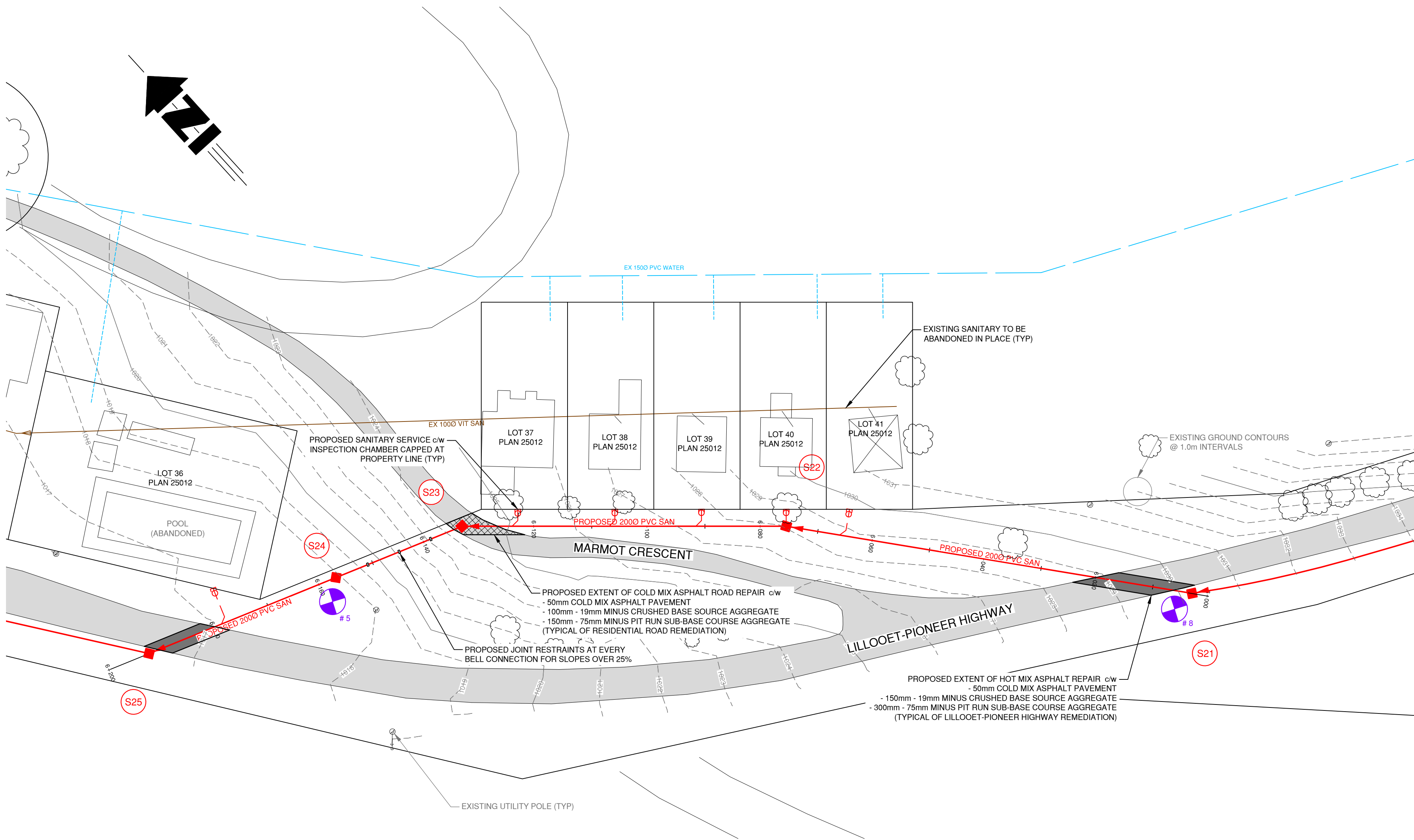
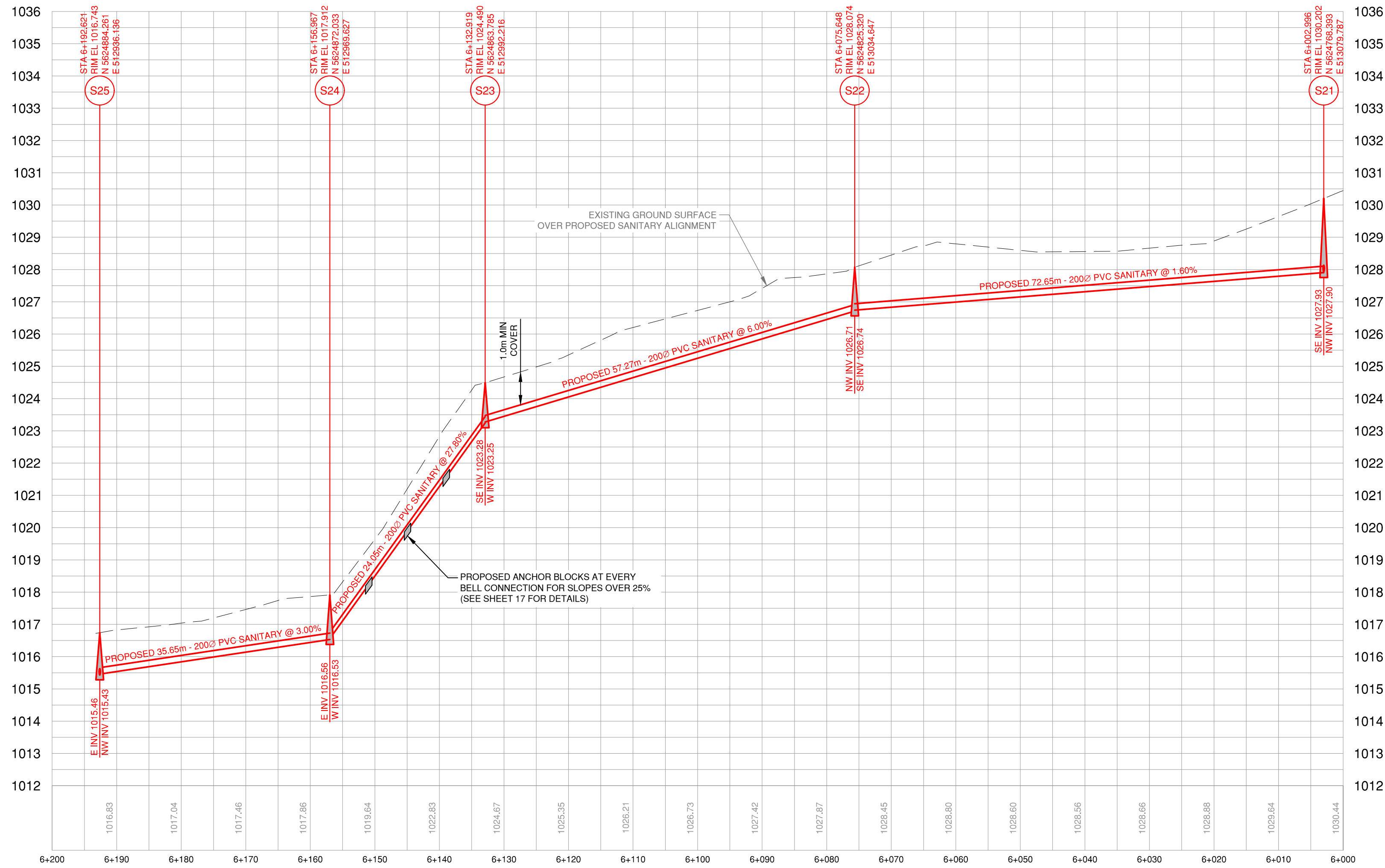
**TOWNSITE #2**

**LILLOOET-PIONEER  
HIGHWAY TO  
MARMOT  
CRESCENT  
PLAN & PROFILE**

SCALE	H - 1:500 V - 1:100
DESIGN BY	SU
DRAWN BY	SPC
DATE	July 2016
PROJECT REFERENCE No.	649-011
DRAWING No.	8 OF 18
REVISION	8

649-01508





ROAD RECONSTRUCTION	
	GRAVEL PATCHING
	COLD-MIX ASPHALT PATCHING
	HOT-MIX ASPHALT PATCHING

#### NOTES:

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LEGEND

EXISTING	PROPOSED	DESCRIPTION
		SANITARY MAIN
		SANITARY FORCEMAIN
		SAN MANHOLE (ASSUMED)
		CLEANOUT
		LIFT STATION
		SEPTIC TANK
		STORM MAIN
		STORM DITCH
		CULVERT
		STORM MANHOLE
		CATCHBASIN
		STORM DRYWELL
		WATER MAIN
		WATER SERVICE
		CURB STOP
		VALVE
		STANDPIPE
		HYDRANT
		AIR RELEASE VALVE
		REDUCER
		SPRINKLER
		IRRIGATION BOX
		END CAP
		POWER
		TEL
		CABLE
		STREET LIGHT
		GAS
		POWER POLE
		LAMP STANDARD
		LIGHT POST
		POLE ANCHOR
		TEST PIT
		IRON PIN
		SURVEY CONTROL

No.	DATE	DESCRIPTION	BY	APPD
9	APR 26/18	RE-ISSUED FOR TENDER	SPC	SU
8	APR 24/18	RE-ISSUED FOR TENDER	SPC	SU
7	MAR 23/18	ISSUED FOR TENDER	SPC	SU
6	MAR 14/18	ISSUED FOR APPROVAL	SPC	SU
5	JAN 24/18	ISSUED FOR CLIENT REVIEW	SPC	SU
4	OCT 19/17	ISSUED FOR M&T APPROVAL	SPC	SU
3	AUG 16/17	ISSUED FOR M&T REVIEW	SPC	SU
2	NOV 21/16	ISSUED FOR PERMIT	SPC	SU
1	OCT 4/16	ISSUED FOR APPROVAL	SPC	SU

ISSUES / REVISIONS

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SQUAMISH - LILLOOET  
REGIONAL DISTRICT

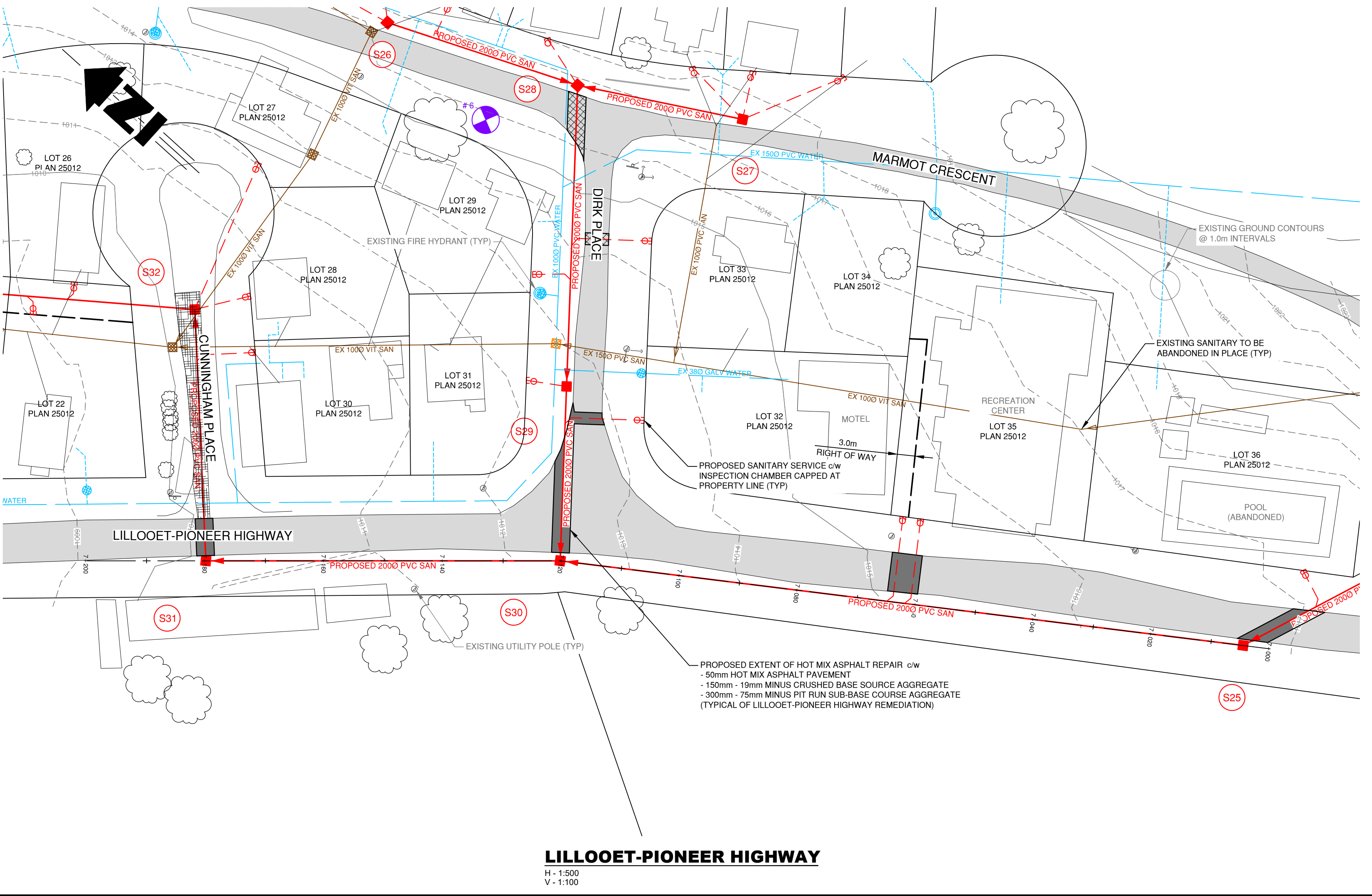
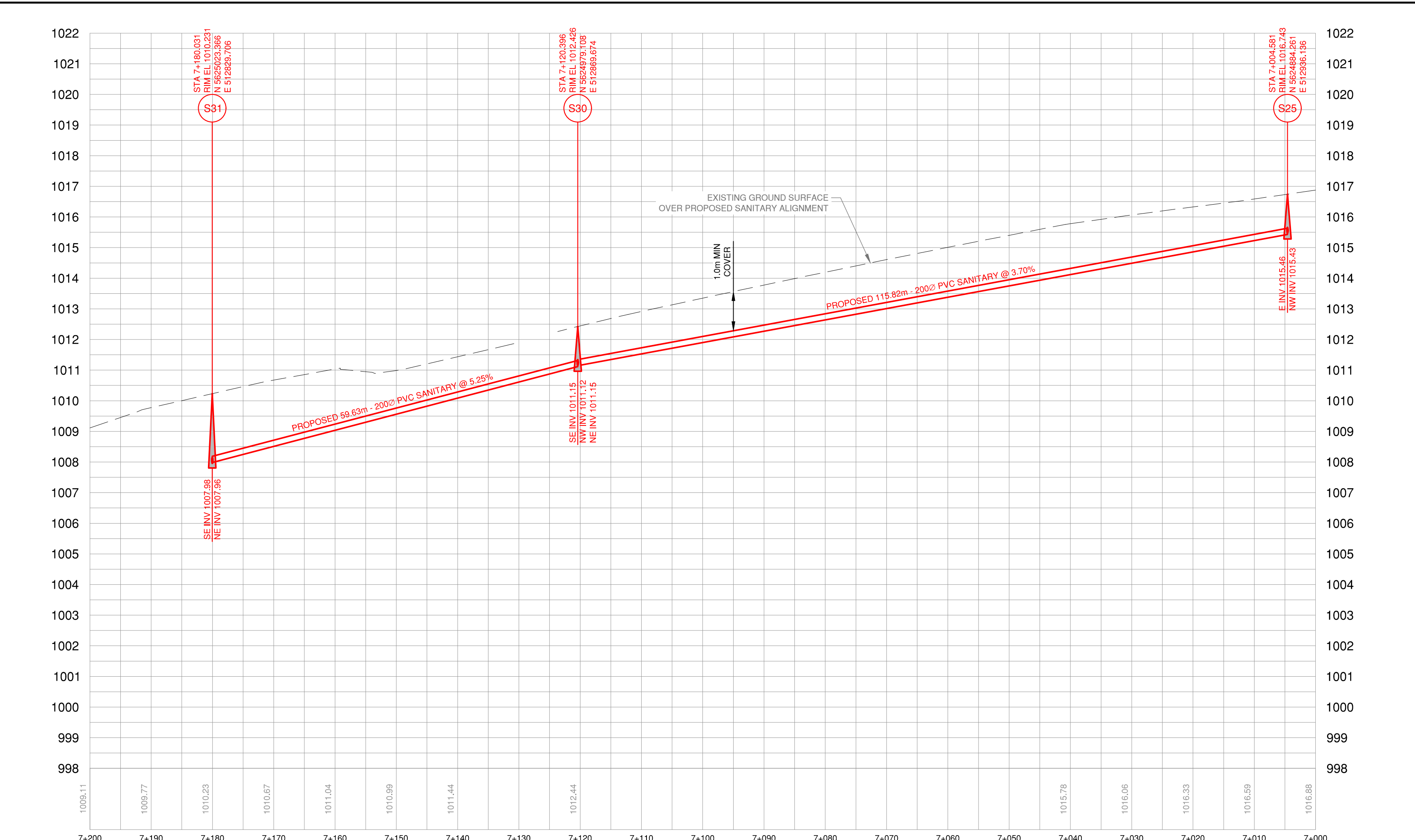
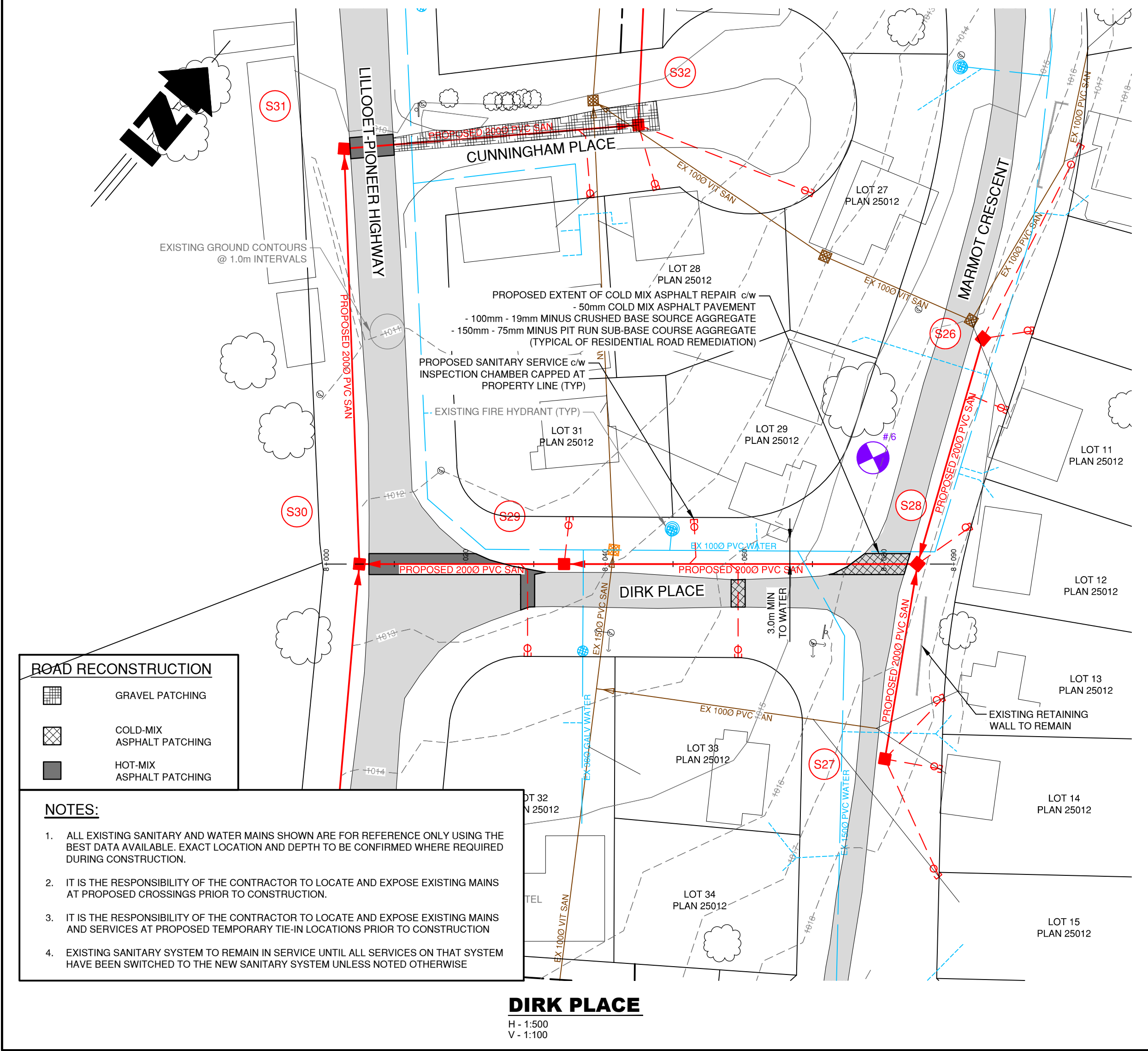
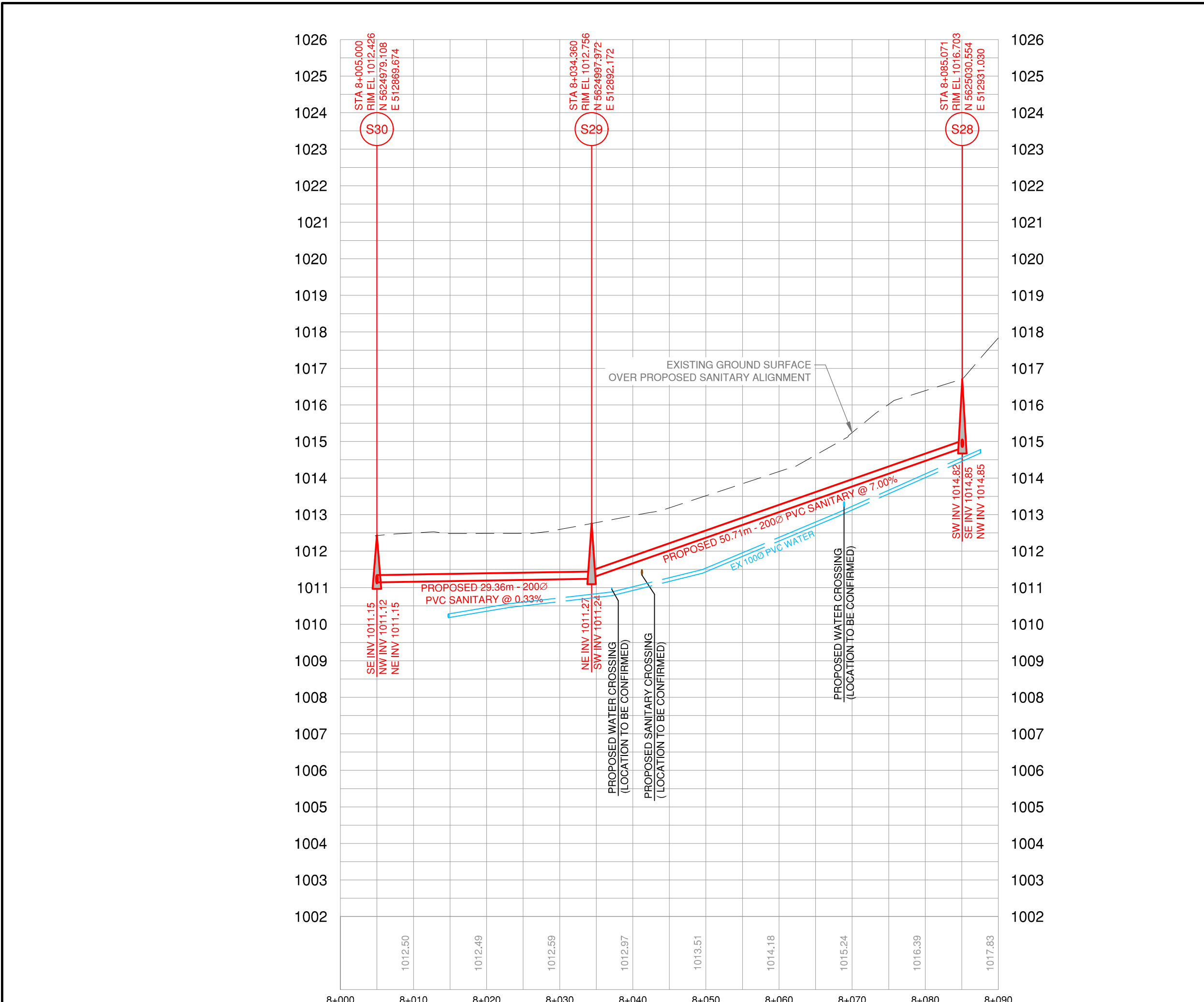
**BRALORNE  
SANITARY SYSTEM  
UPGRADES**

**TOWNSITE #1**

**MARMOT  
CRESCENT  
PLAN & PROFILE**

SCALE	H - 1:500 V - 1:100
DESIGN BY	SU
DRAWN BY	SPC
DATE	July 2016
PROJECT REFERENCE No.	649-011
DRAWING No.	9 OF 18
<b>649-01509</b>	REVISION <b>9</b>





LEGEND			
EXISTING	PROPOSED	DESCRIPTION	
		SANITARY MAIN	
		SANITARY MANHOLE	
		SEPTIC TANK	
		LIFT STATION	
		STORM MAIN	
		STORM DITCH	
		STORM MANHOLE	
		CATCHBASIN	
		STORM DRYWELL	
		WATER MAIN	
		CURB STOP	
		VALVE	
		STANDPIPE	
		HYDRANT	
		AIR RELEASE VALVE	
		REDUCER	
		SPRINKLER	
		IRRIGATION BOX	
		END CAP	
		POWER	
		TEL	
		CABLE	
		STREET LIGHT	
		GAS	
		POWER POLE	
		LAMP STANDARD	
		LIGHT POST	
		POLE ANCHOR	
		TEST PIT	
		IRON PIN	
		SURVEY CONTROL	

ISSUES / REVISIONS				
No.	DATE	DESCRIPTION	BY	APPD
10	APR 2016	RE-ISSUED FOR TENDER	SPC	SU
9	APR 24/16	RE-ISSUED FOR TENDER	SPC	SU
8	MAR 23/16	ISSUED FOR TENDER	SPC	SU
7	MAR 14/16	ISSUED FOR APPROVAL	SPC	SU
6	JAN 20/16	ISSUED FOR CLIENT REVIEW	SPC	SU
5	OCT 19/17	ISSUED FOR MOTI APPROVAL	SPC	SU
4	AUG 16/17	ISSUED FOR MOTI REVIEW	SPC	SU
3	MAR 09/17	REVISED RIGHT OF WAY TO LOT 34	SPC	SU
2	NOV 21/16	ISSUED FOR PERMIT	SPC	SU
1	OCT 4/16	ISSUED FOR APPROVAL	SPC	SU

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**TRUE CONSULTING**

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**SQUAMISH - LILLOOET REGIONAL DISTRICT**

**BRALORNE SANITARY SYSTEM UPGRADES**

**TOWNSITE #1**

**LILLOOET-PIONEER HIGHWAY TO CUNNINGHAM PLACE AND DIRK PLACE PLANS & PROFILES**

SCALE: AS NOTED

DESIGN BY: SU

DRAWN BY: SPC

DATE: July 2016

PROJECT REFERENCE No.: 649-011

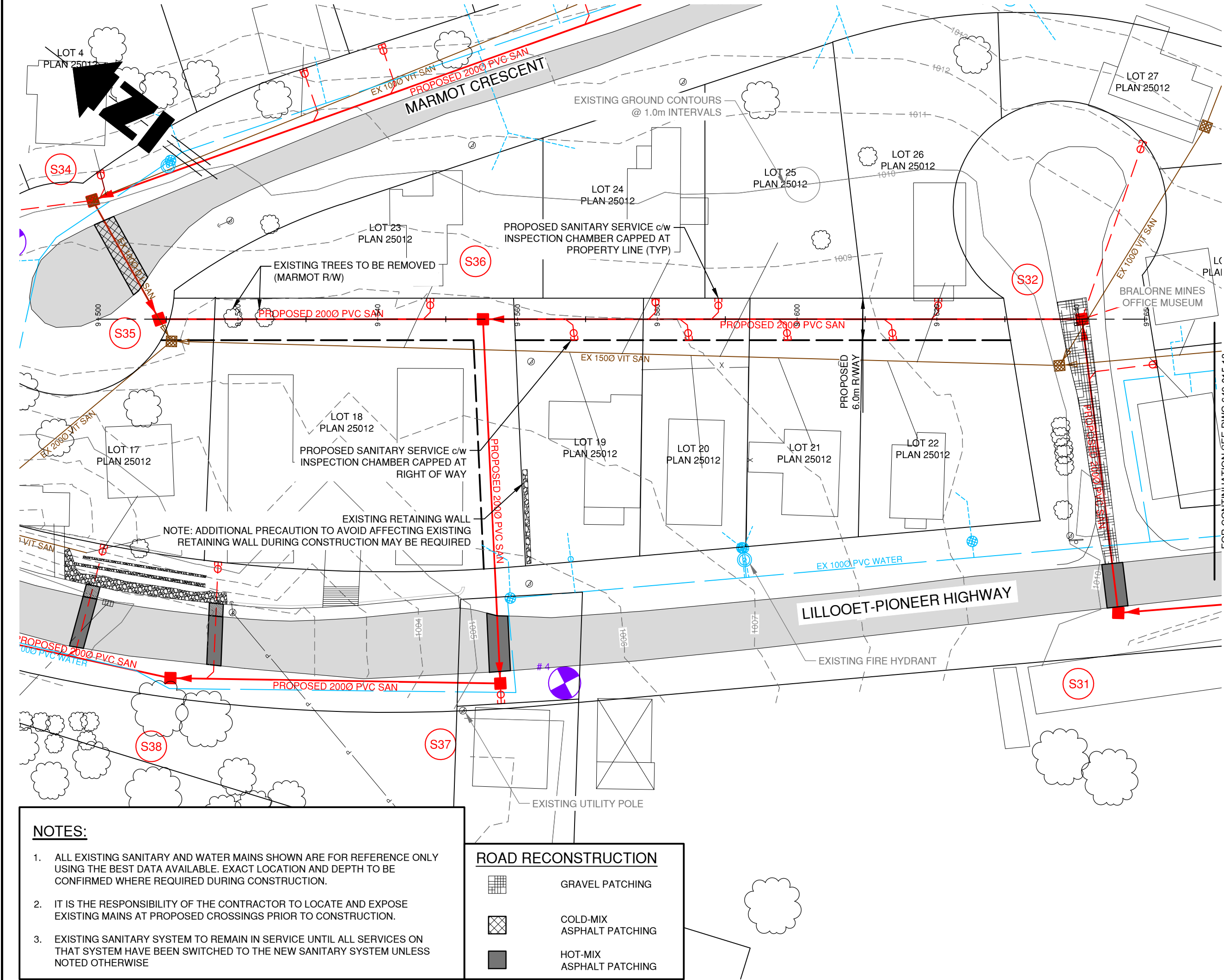
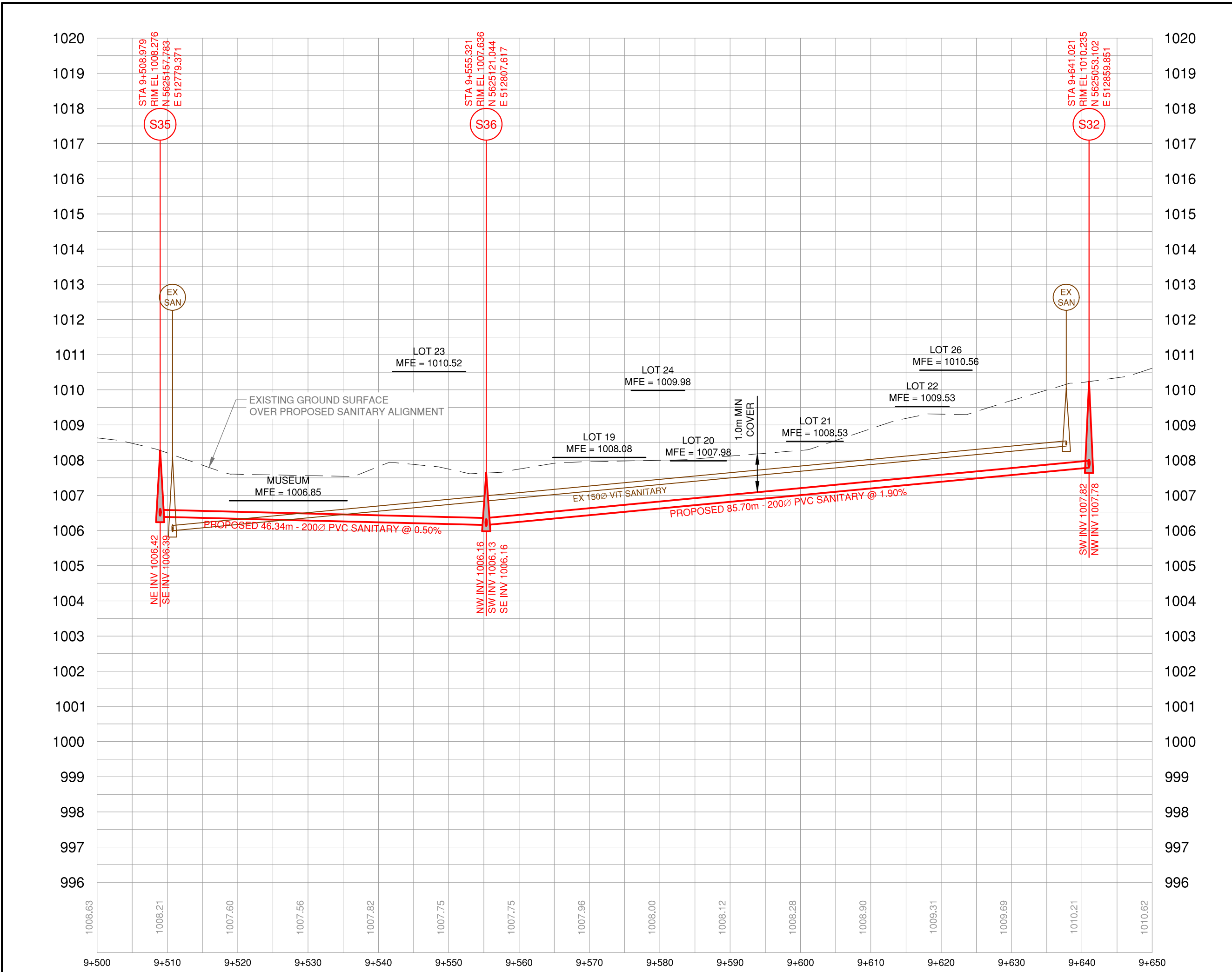
DRAWING No.: 649-011

SHEET: 10 OF 18

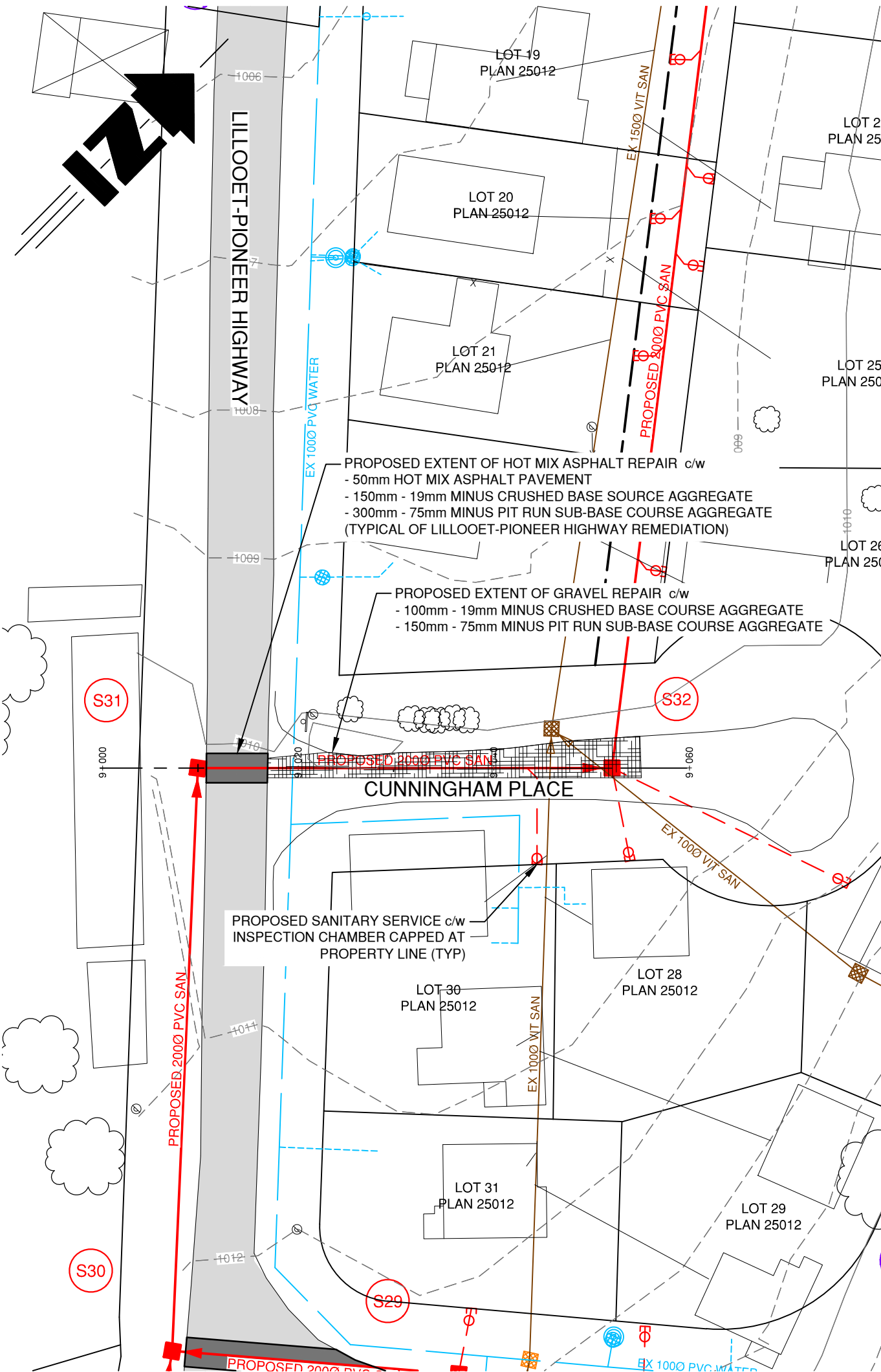
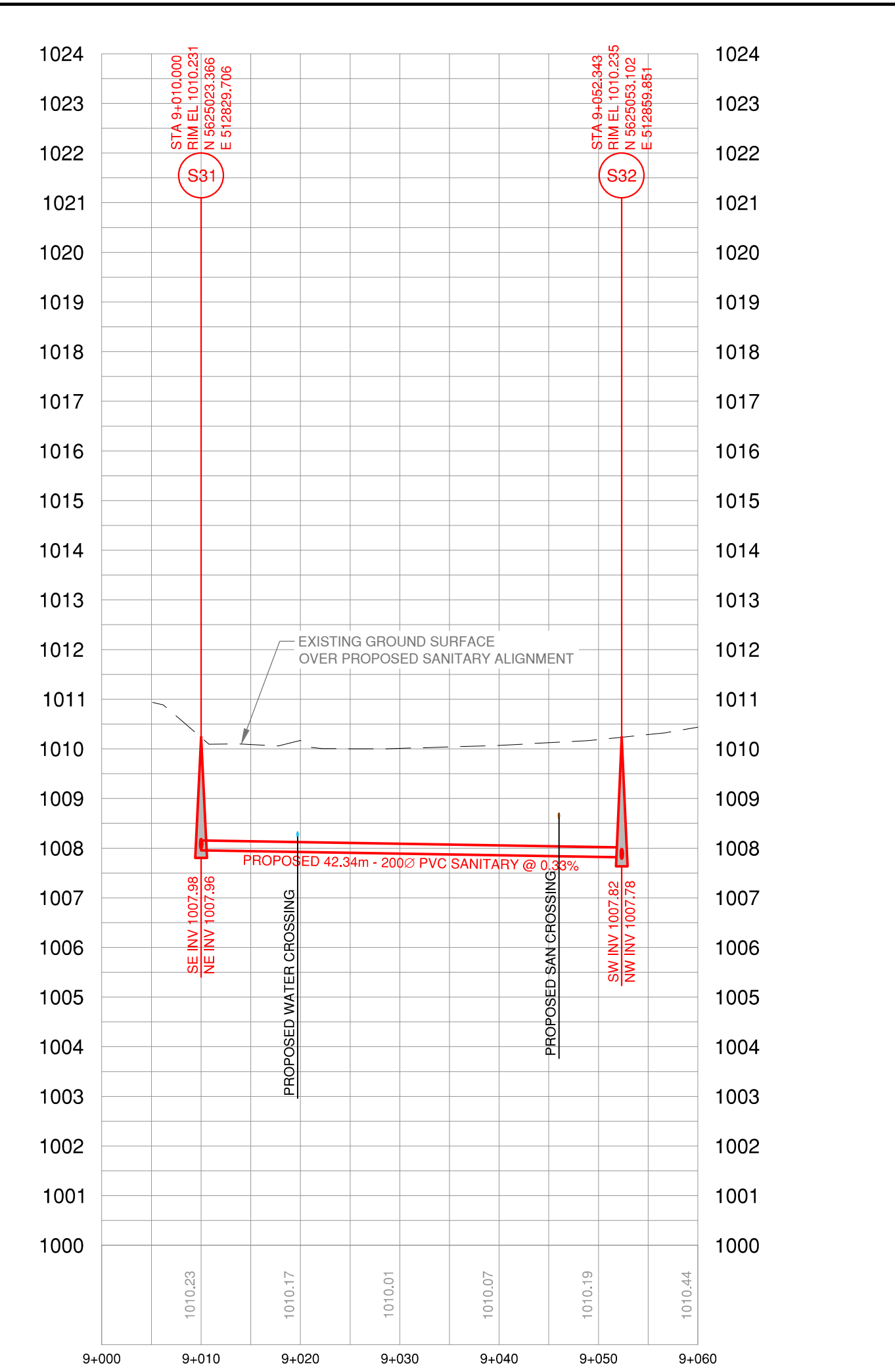
REVISION: 10

649-01510

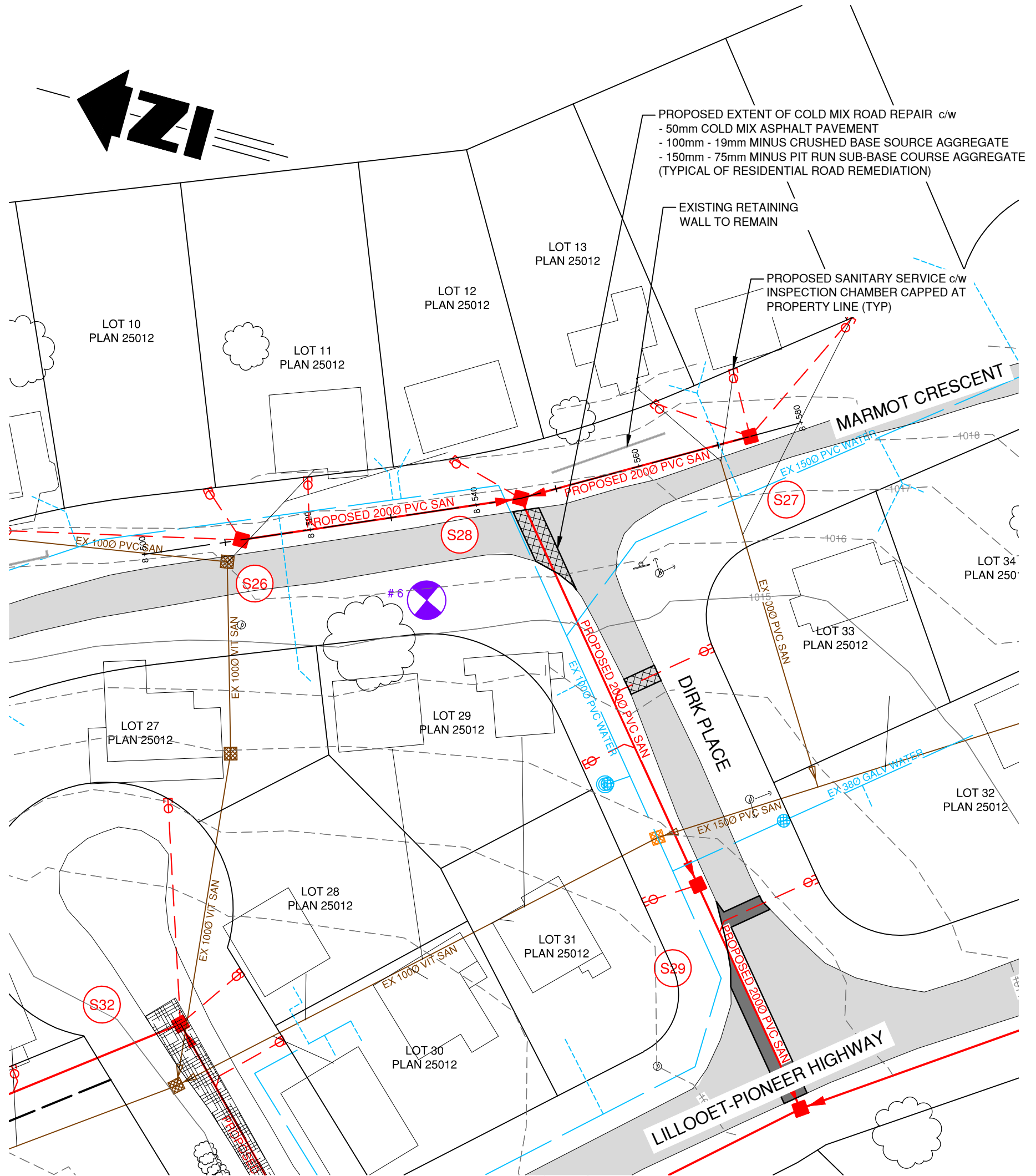
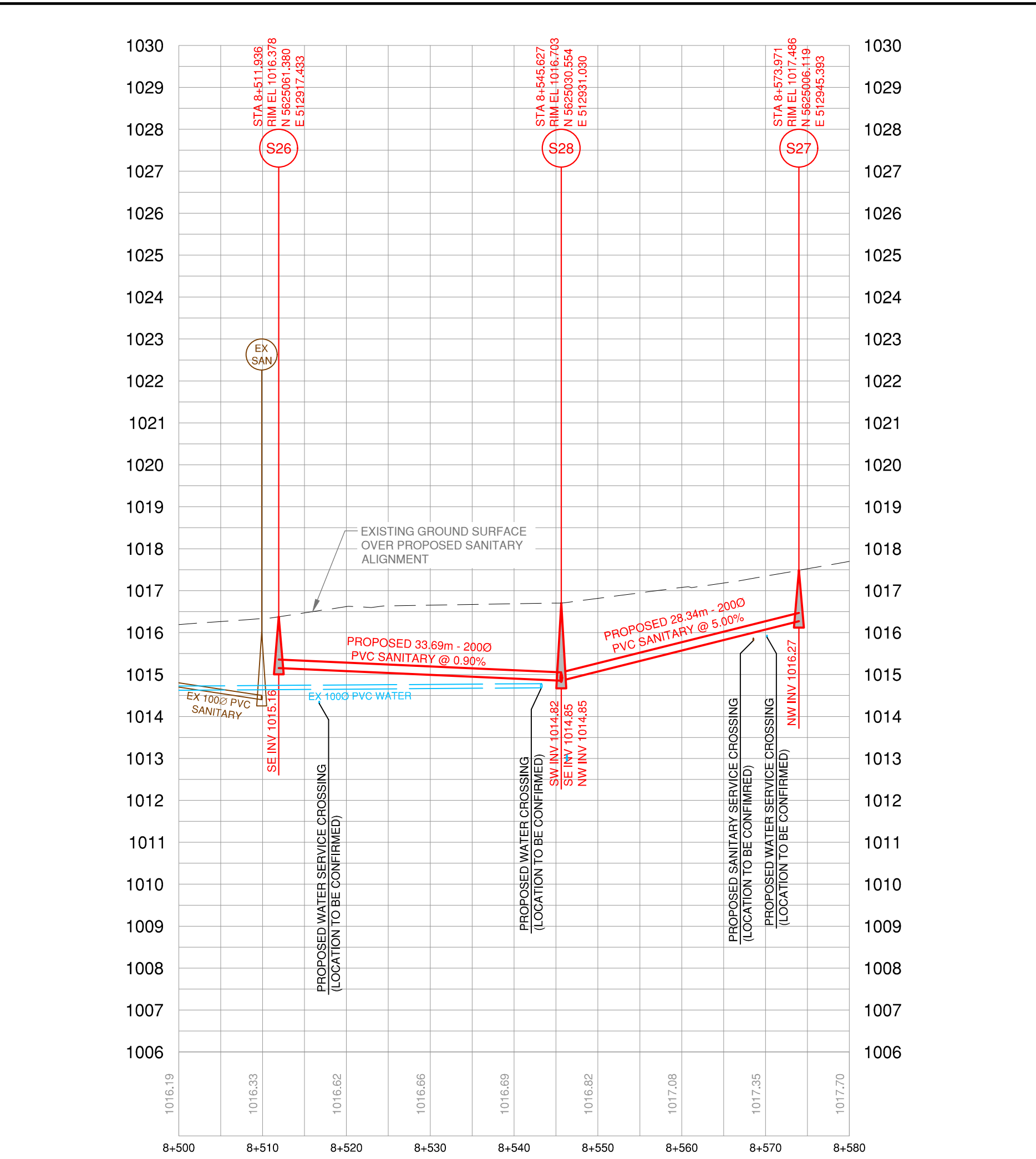




**RIGHT OF WAY - MARMOT TO CUNNINGHAM**  
H - 1:500  
V - 1:100



**CUNNINGHAM PLACE**  
H - 1:500  
V - 1:100



**MARMOT CRESCENT**  
H - 1:500  
V - 1:100

**LEGEND**

EXISTING	PROPOSED	DESCRIPTION
		SANITARY MAIN
		SANITARY FORCEMAIN
		SAN MANHOLE (ASSUMED)
		CLEANOUT
		LIFT STATION
		SEPTIC TANK
		STORM MAIN
		STORM DITCH
		CULVERT
		STORM MANHOLE
		CATCHBASIN
		STORM DRYWELL
		WATER MAIN
		WATER SERVICE
		CURB STOP
		VALVE
		STANDPIPE
		HYDRANT
		AIR RELEASE VALVE
		REDUCER
		SPRINKLER
		IRRIGATION BOX
		END CAP
		POWER
		TEL
		CABLE
		STREET LIGHT
		GAS
		POWER POLE
		LAMP STANDARD
		LIGHT POST
		POLE ANCHOR
		TEST PIT
		IRON PIN
		SURVEY CONTROL

No.	DATE	DESCRIPTION	BY	APPD
9	APR 2018	RE-ISSUED FOR TENDER	SPC	SU
8	MAR 2018	RE-ISSUED FOR TENDER	SPC	SU
7	MAR 2018	ISSUED FOR TENDER	SPC	SU
6	MAR 2018	ISSUED FOR APPROVAL	SPC	SU
5	JAN 2018	ISSUED FOR CLIENT REVIEW	SPC	SU
4	OCT 2017	ISSUED FOR M&T APPROVAL	SPC	SU
3	AUG 2017	ISSUED FOR M&T REVIEW	SPC	SU
2	NOV 2016	ISSUED FOR PERMIT	SPC	SU
1	OCT 2016	ISSUED FOR APPROVAL	SPC	SU

**ISSUES / REVISIONS**

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**SQUAMISH - LILLOOET REGIONAL DISTRICT**

**BRALORNE SANITARY SYSTEM UPGRADES**

**TOWNSITE #1**

**MARMOT CRESCENT TO DIRK PLACE, CUNNINGHAM PLACE AND CUNNINGHAM TO MARMOT RIGHT OF WAY**

**PLANS & PROFILES**

SCALE: AS NOTED

DESIGN BY: SU

DRAWN BY: SPC

DATE: July 2016

PROJECT REFERENCE No.: 649-011

DRAWING No.: 11 OF 18

REVISION: 9

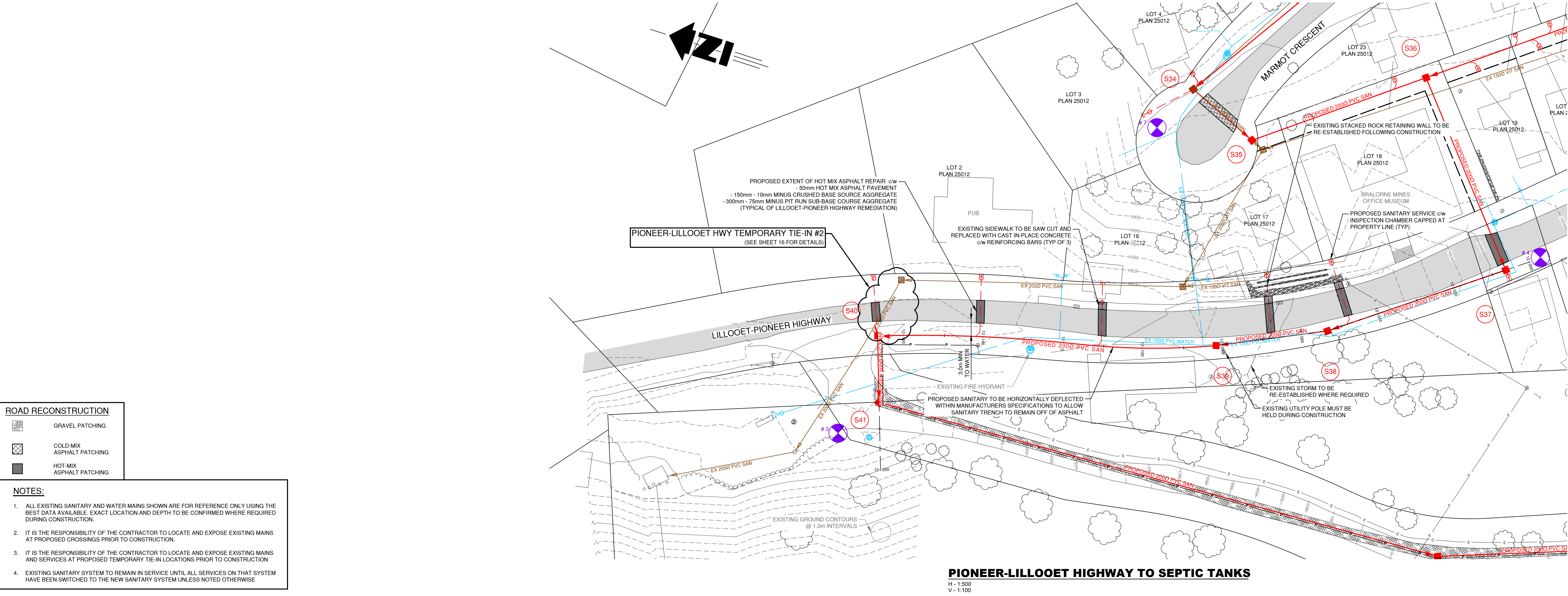






ROAD RECONSTRUCTION	
	GRAVEL PATCHING
	COLD-MIX ASPHALT PATCHING
	HOT-MIX ASPHALT PATCHING

- NOTES:**
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LEGEND			
EXISTING	PROPOSED	DESCRIPTION	
		SANITARY MAIN	
		SANITARY MANHOLE	
		SAN MANHOLE (ASSUMED)	
		CLEANOUT	
		LIFT STATION	
		SEPTIC TANK	
		STORM MAIN	
		STORM DITCH	
		CULVERT	
		STORM MANHOLE	
		CATCHBASIN	
		STORM DRYWELL	
		WATER MAIN	
		WATER SERVICE	
		CURB STOP	
		VALVE	
		STANDPIPE	
		HYDRANT	
		AIR RELEASE VALVE	
		REDUCER	
		SPRINKLER	
		IRRIGATION BOX	
		END CAP	
		POWER	
		TEL	
		CABLE	
		STREET LIGHT	
		GAS	
		POWER POLE	
		LAMP STANDARD	
		LIGHT POST	
		POLE ANCHOR	
		TEST PIT	
		IRON PIN	
		SURVEY CONTROL	

No.	DATE	DESCRIPTION	BY	APPD
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ISSUES / REVISIONS				
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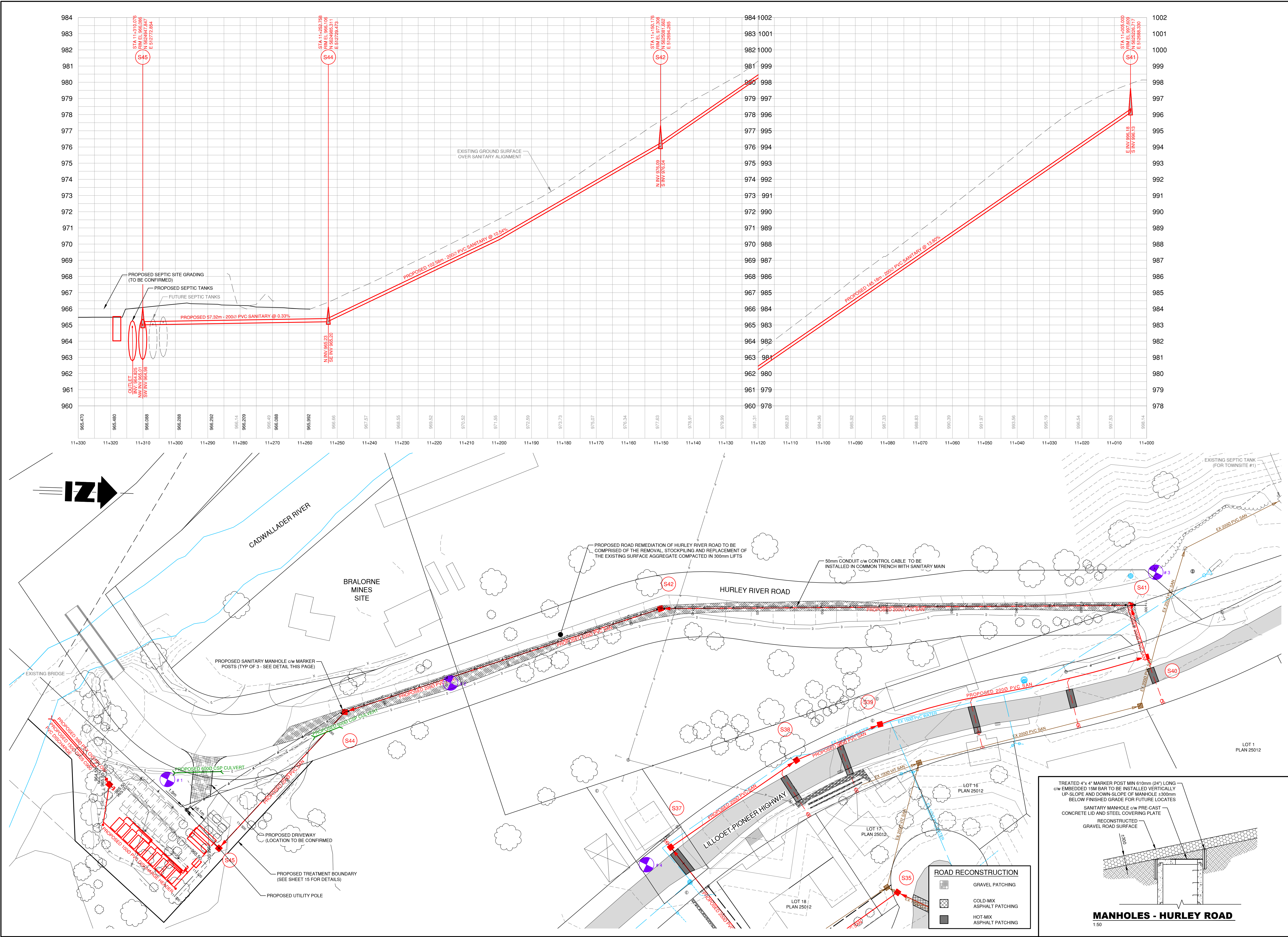
## BRALORNE SANITARY SYSTEM UPGRADES

### TOWNSITE #1

## LILLOOET-PIONEER HIGHWAY TO HURLEY RIVER ROAD PLAN & PROFILE

SCALE	AS NOTED
DESIGN BY	SU
DRAWN BY	SPC
DATE	July 2016
PROJECT REFERENCE No.	649-011
DRAWING No.	SHEET
649-015	13 OF 18
	REVISION
	9





No.	DATE	DESCRIPTION	BY	APPD
10	APR 2016	RE-ISSUED FOR TENDER	SPC	SU
9	APR 24/16	RE-ISSUED FOR TENDER	SPC	SU
8	MAR 23/16	ISSUED FOR TENDER	SPC	SU
7	MAR 14/16	ISSUED FOR APPROVAL	SPC	SU
6	MAR 2/16	ISSUED FOR CLIENT REVIEW	SPC	SU
5	JAN 24/16	ISSUED FOR CLIENT REVIEW	SPC	SU
4	OCT 19/17	ISSUED FOR M&T APPROVAL	SPC	SU
3	AUG 16/17	ISSUED FOR M&T REVIEW	SPC	SU
2	NOV 21/16	ISSUED FOR PERMIT	SPC	SU
1	OCT 4/16	ISSUED FOR APPROVAL	SPC	SU

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**SQUAMISH - LILLOOET REGIONAL DISTRICT**

**BRALORNE SANITARY SYSTEM UPGRADES**

**TOWNSITE #1**

**HURLEY RIVER ROAD PLAN & PROFILE**

SCALE: H - 1:500  
V - 1:100

DESIGN BY: SU

DRAWN BY: SPC

DATE: July 2016

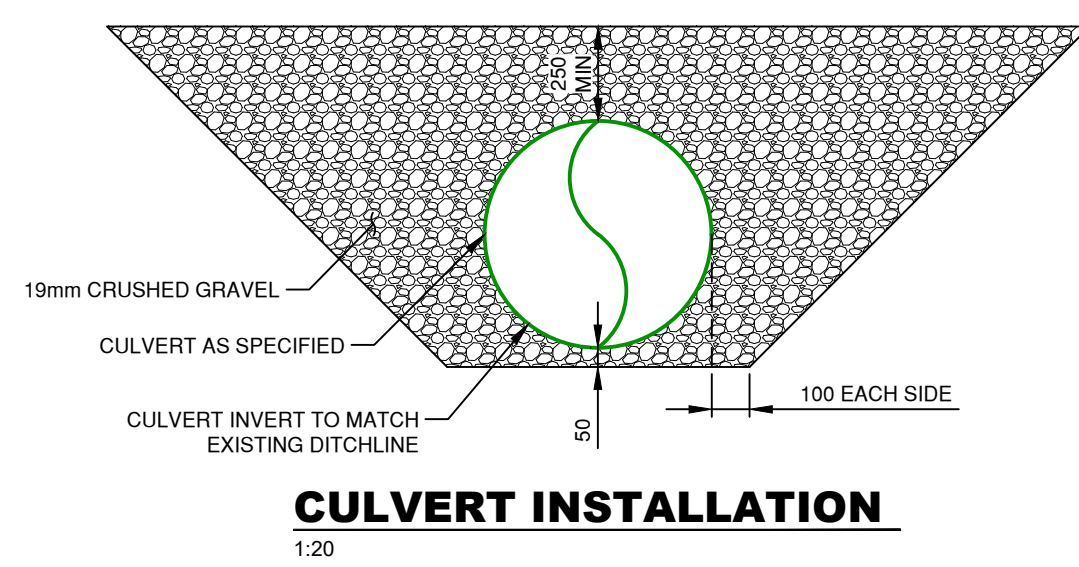
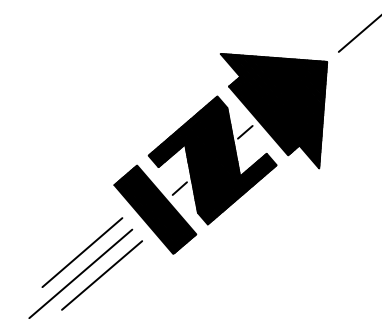
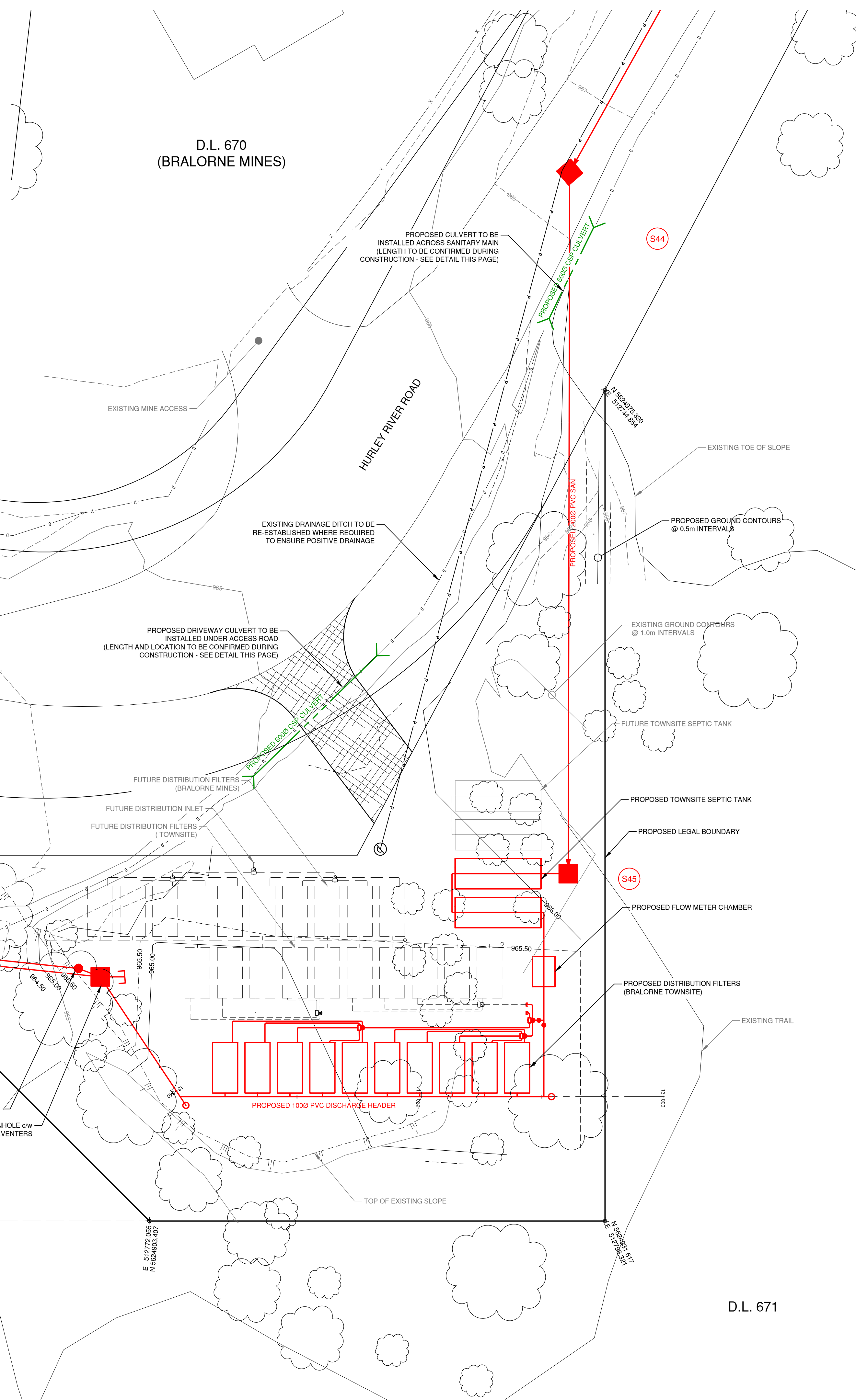
PROJECT REFERENCE No.: 649-011

DRAWING No.: 649-015

SHEET 14 OF 18

REVISION 10





- NOTES:**
1. PROPOSED LEGAL AREA =  $0.52Ac / 0.211Ha$   
OPTIONAL LEGAL AREA =  $0.63Ac / 0.255Ha$
  2. PROPOSED TREATMENT AREA CUT TO FILL HAS  
BEEN CALCULATED TO BE APPROX.  $350m^3$

7	APR 26/18	RE-ISSUED FOR TENDER	SPC	SU	
6	APR 24/18	RE-ISSUED FOR TENDER	SPC	SU	
5	MAR 23/18	ISSUED FOR TENDER	SPC	SU	
4	MAR 14/18	ISSUED FOR APPROVAL	SPC	SU	
3	MAR 2/18	ISSUED FOR CLIENT REVIEW	SPC	SU	
2	FEB 24/18	ISSUED FOR PERMIT APPLICATION	SPC	SU	
1	JAN 24/18	PAGE ADDED - ISSUED FOR CLIENT REVIEW	SPC	SU	
No.	DATE	DESCRIPTION	BY	APPROVED	

ISSUES / REVISIONS	
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## BRALORNE SANITARY SYSTEM UPGRADES

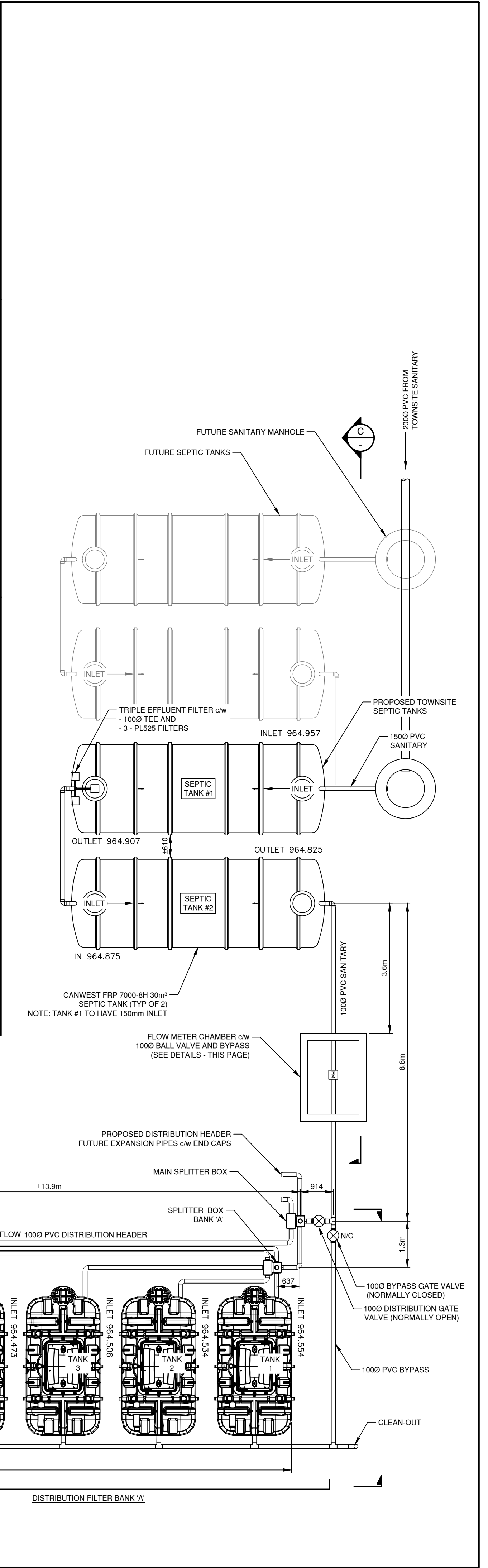
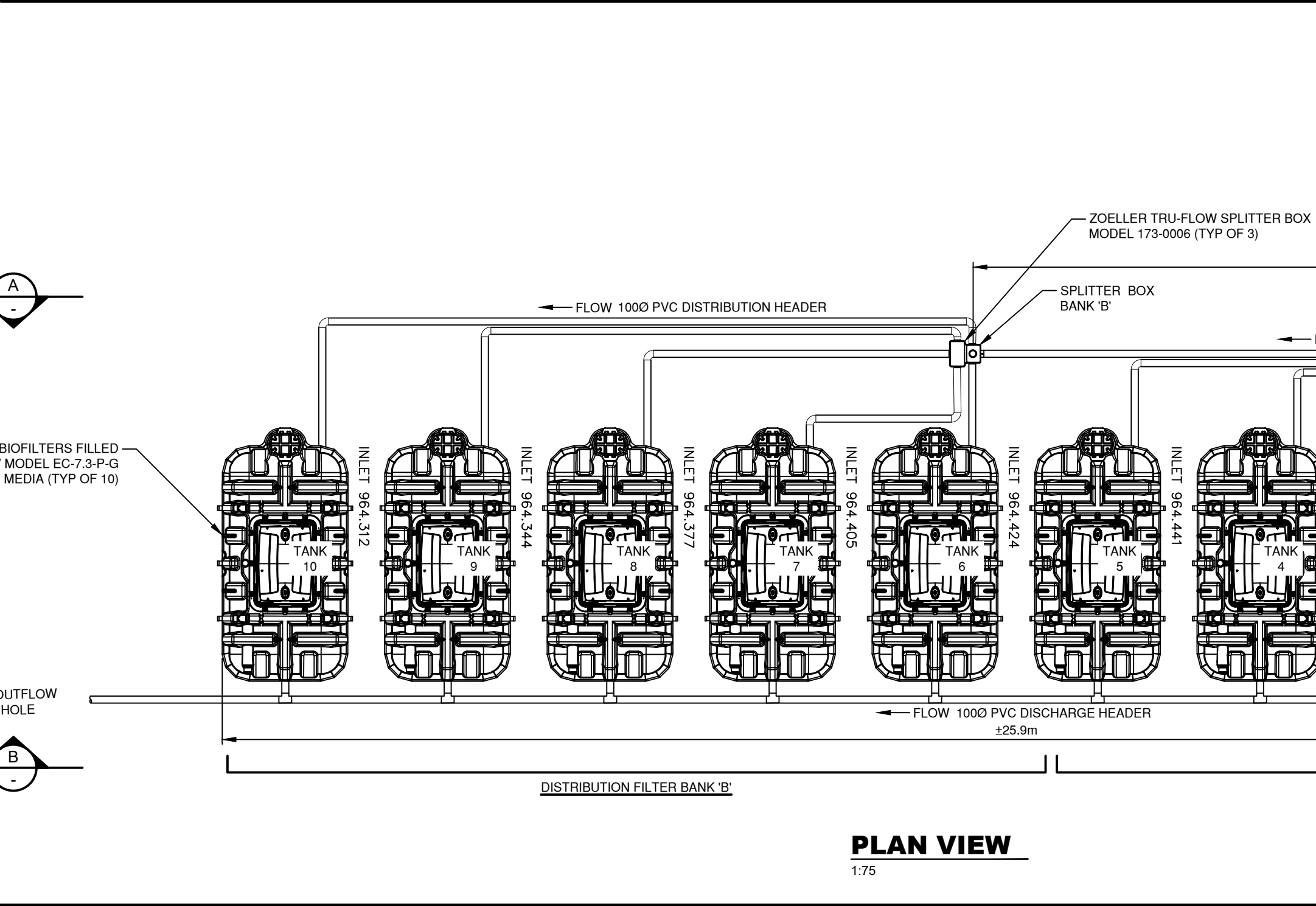
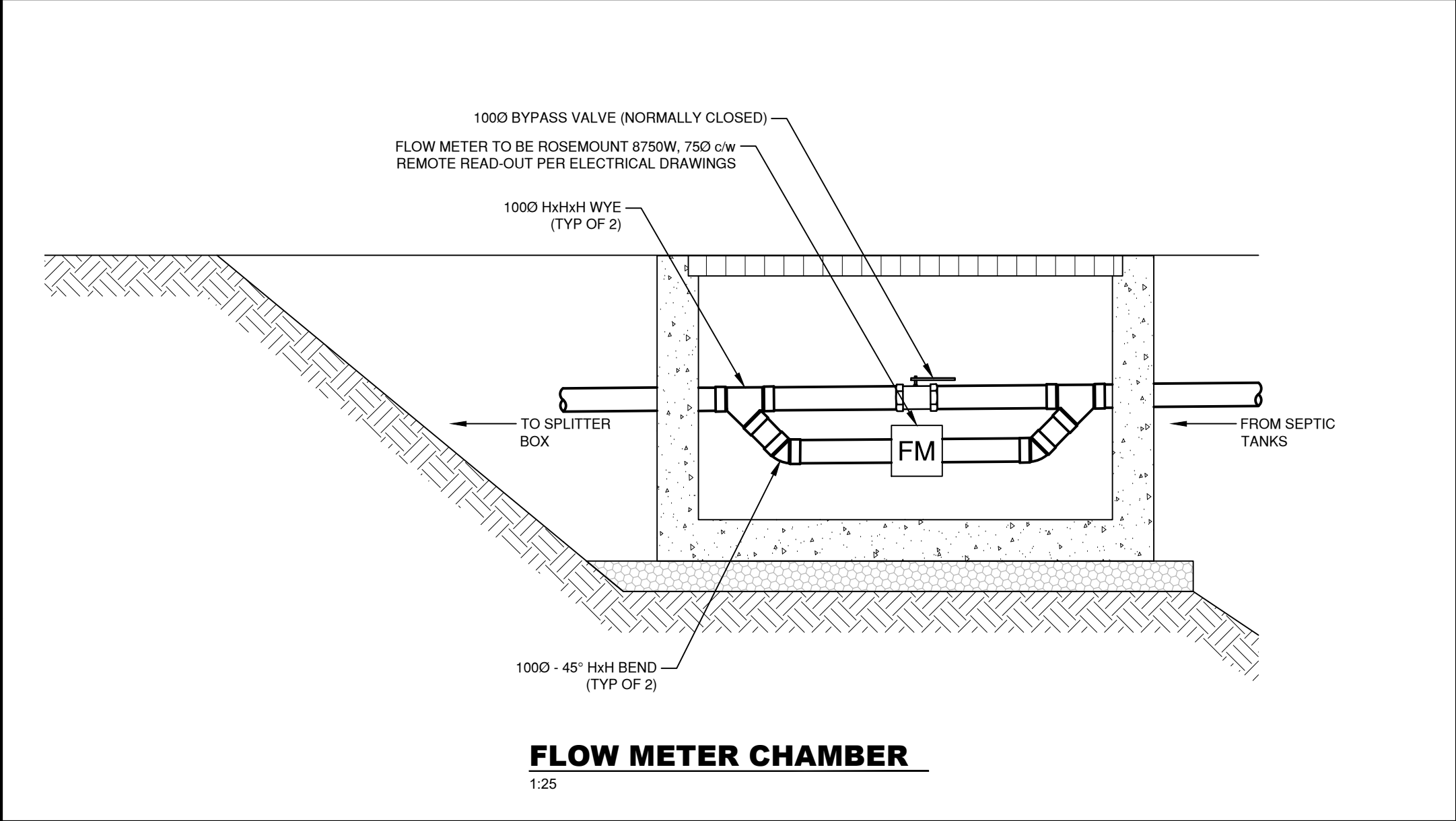
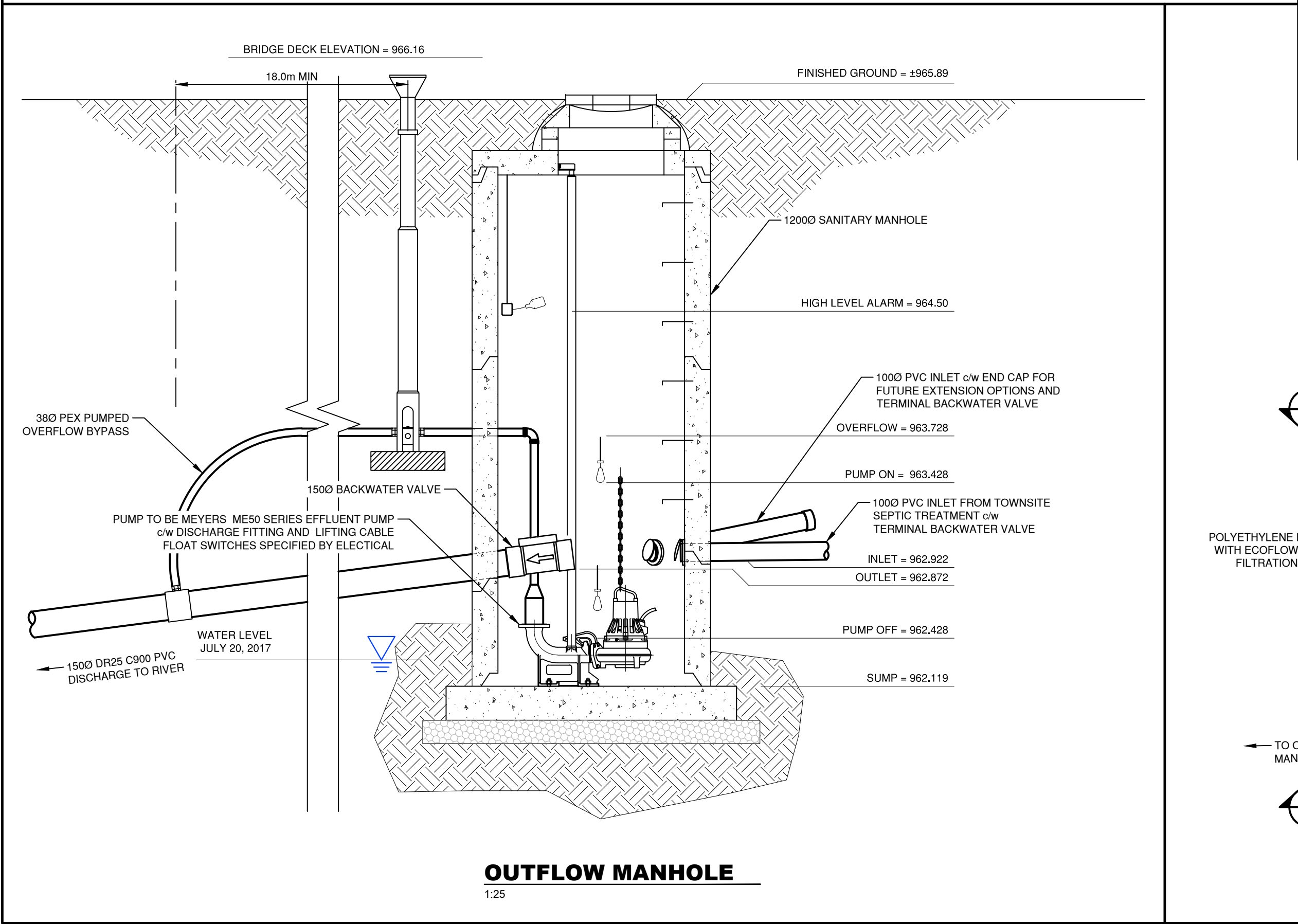
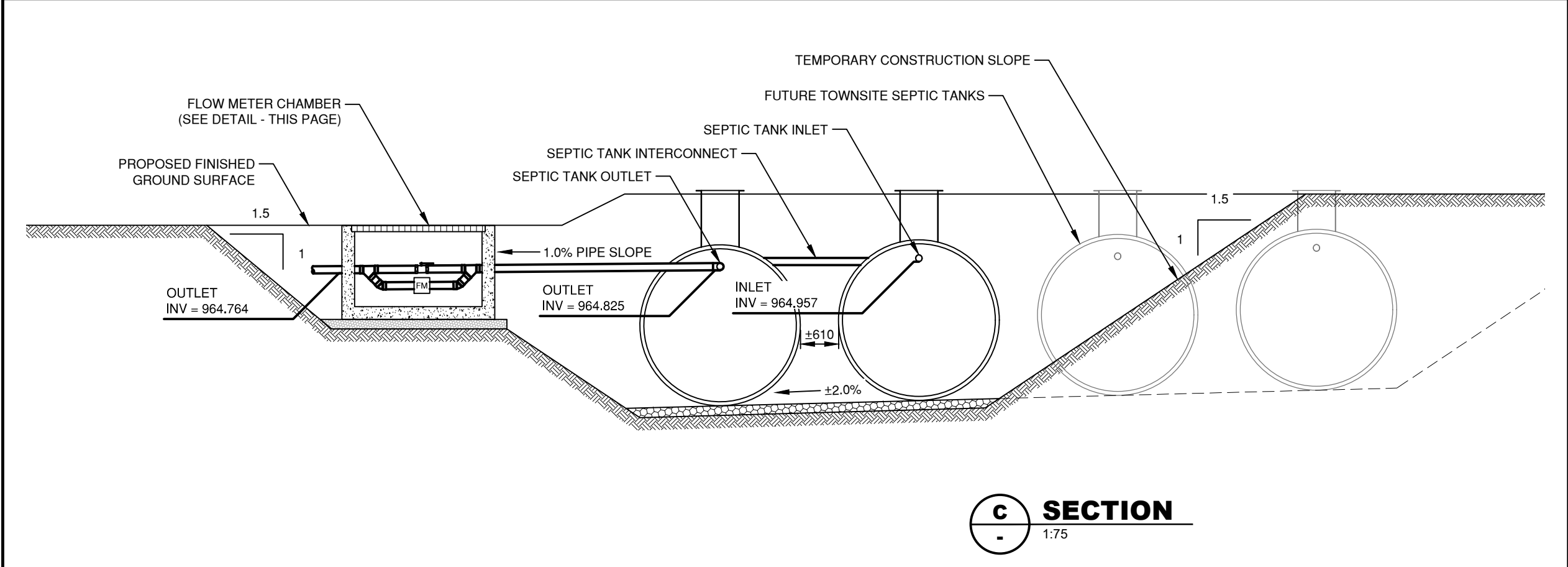
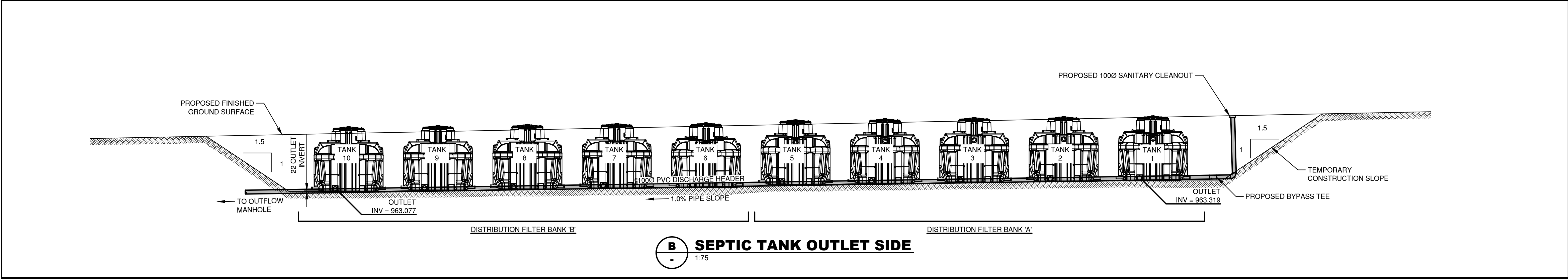
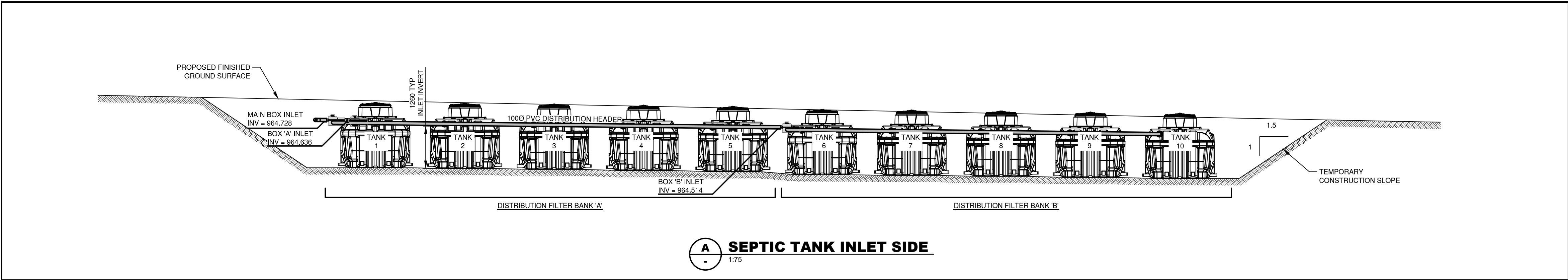
## TOWNSITE #1

## TREATMENT SITE PLAN

SCALE	H - 1:200 V - 1:200
DESIGN BY	SU
DRAWN BY	SPC
DATE	July 2016
PROJECT REFERENCE No.	649-011

DRAWING No.	SHEET 15 of 18
<b>649-015 15</b>	REVISION <b>7</b>



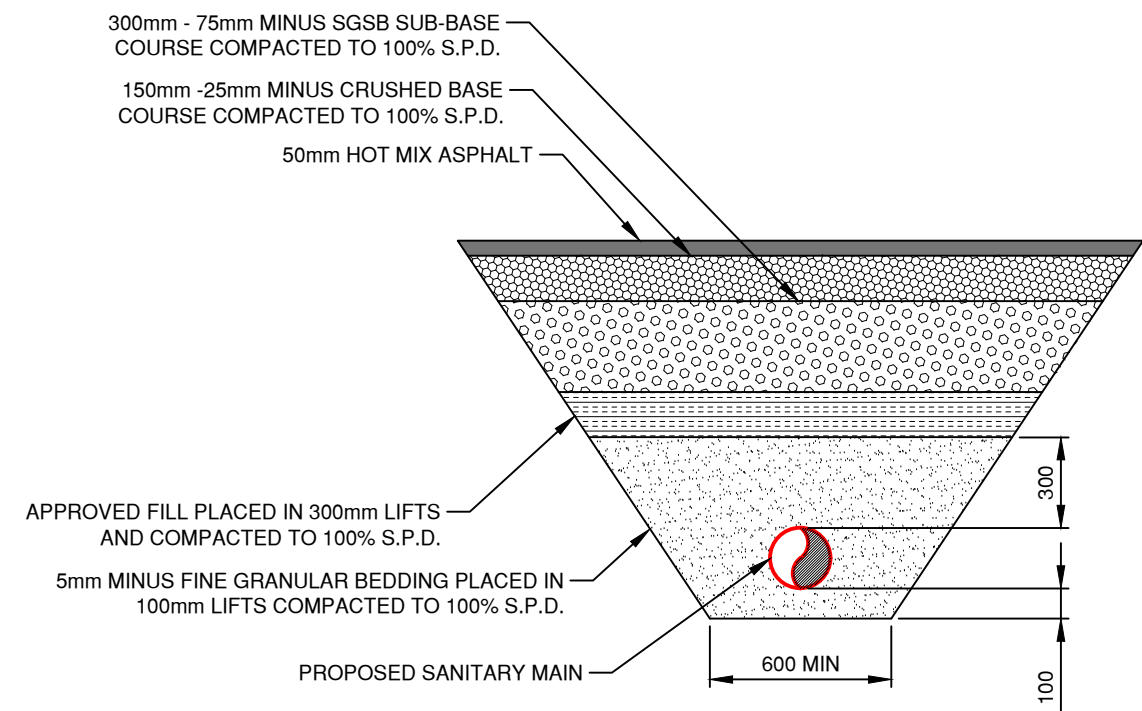


7	APR 2016	RE-ISSUED FOR TENDER	SPC	SU
6	APR 2016	RE-ISSUED FOR TENDER	SPC	SU
5	APR 2016	ISSUED FOR ADDENDUM	SPC	SU
4	MAR 23/16	ISSUED FOR TENDER	SPC	SU
3	MAR 2016	ISSUED FOR CLIENT REVIEW	SPC	SU
2	MAR 14/16	PAGE RE-NUMBERED - ISSUED FOR APPROVAL	SPC	SU
1	MAR 2/16	PAGE ADDED - ISSUED FOR CLIENT REVIEW	SPC	SU
No.	DATE	DESCRIPTION	BY	APPD
ISSUES / REVISIONS				
CONSULTANT SEAL				
201 - 2079 Falcon Road ■ Kamloops BC ■ V2C 4J2 tel 250.828.0881 ■ fax 250.828.0717 info@TRUE.bc.ca				
<b>BRALORNE</b> <b>SANITARY SYSTEM</b> <b>UPGRADES</b>				
<b>TOWNSITE #1</b>				
<b>TREATMENT</b> <b>DETAILS</b>				
SCALE AS NOTED DESIGN BY SU DRAWN BY SPC DATE July 2016 PROJECT REFERENCE No. 649-011 DRAWING No.				
<b>649-015</b>				SHEET <b>16</b> OF 18 REVISION <b>7</b>



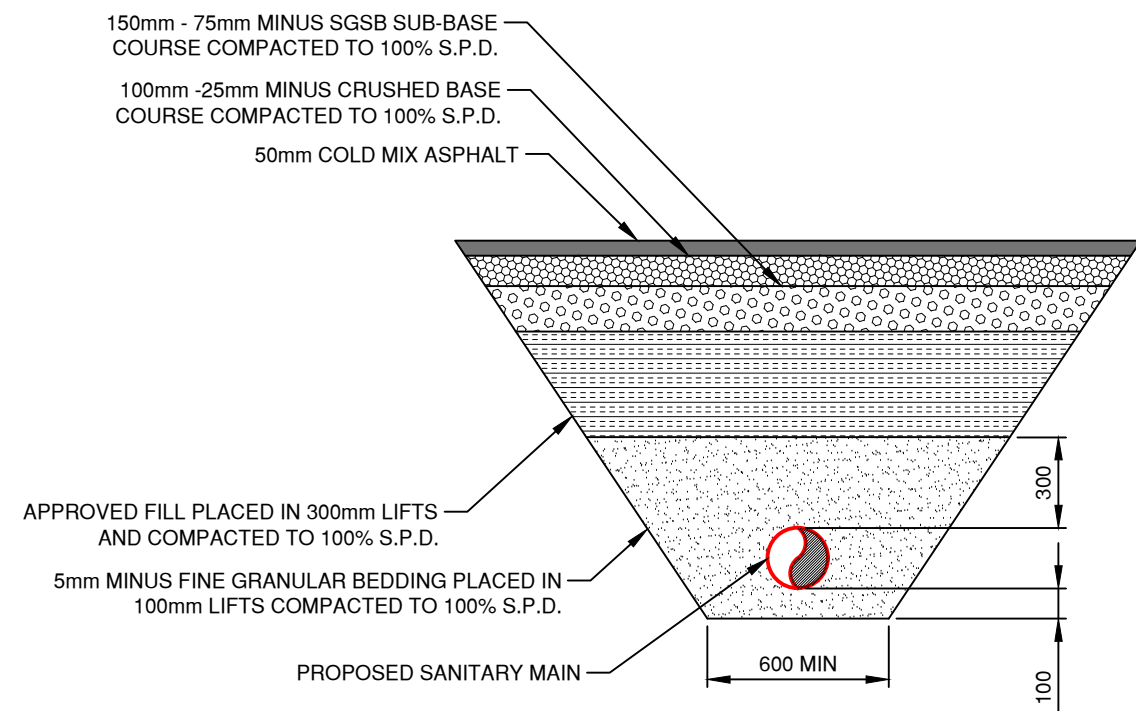






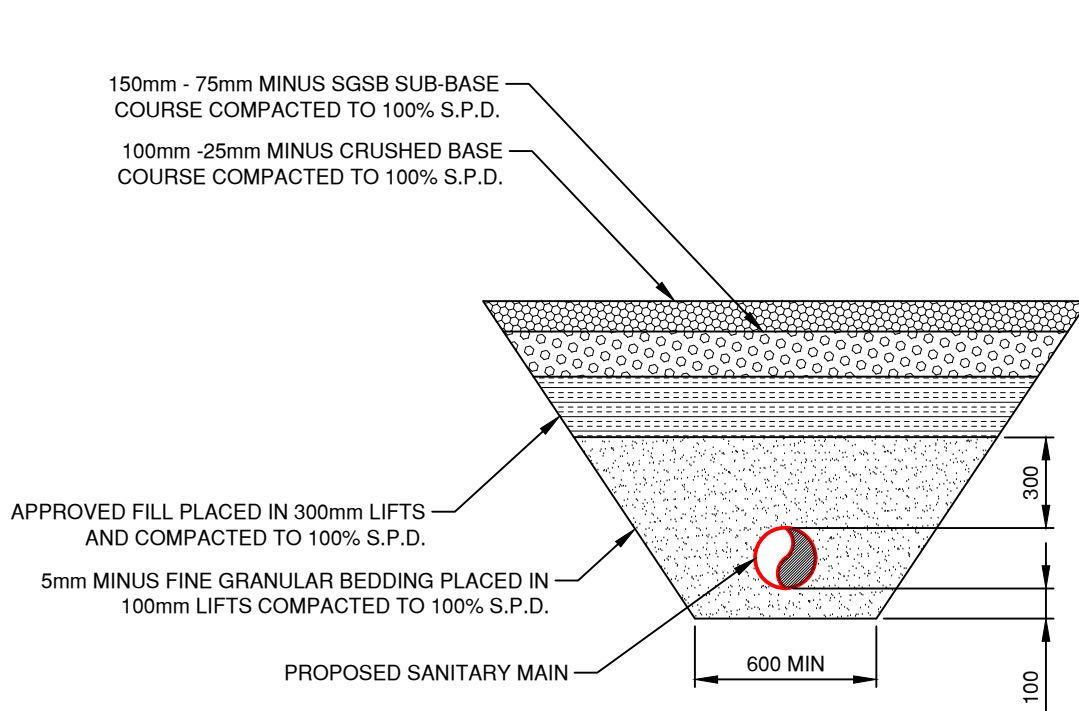
**TYPICAL HOT MIX ROAD REPAIR**

1:25



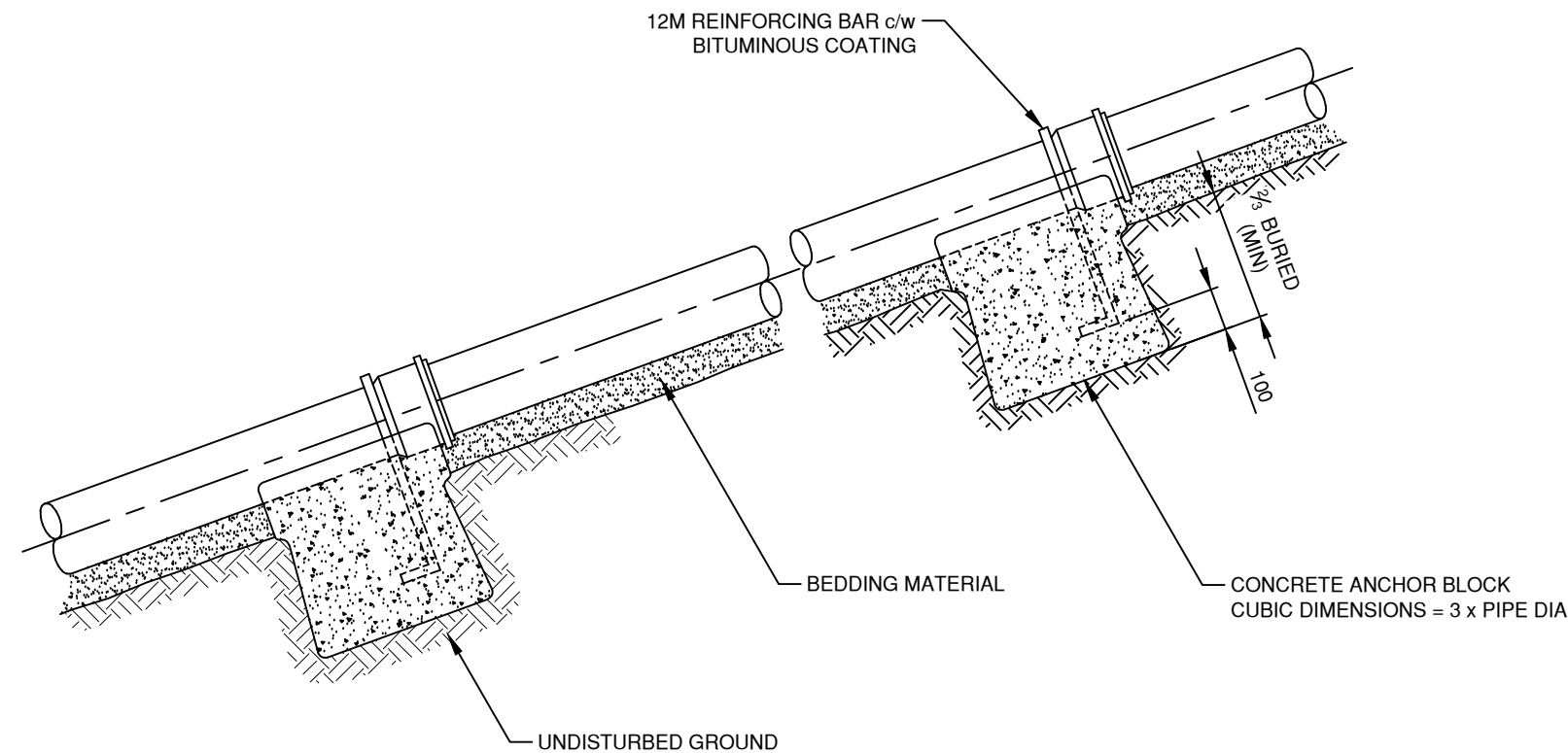
**TYPICAL COLD MIX ROAD REPAIR**

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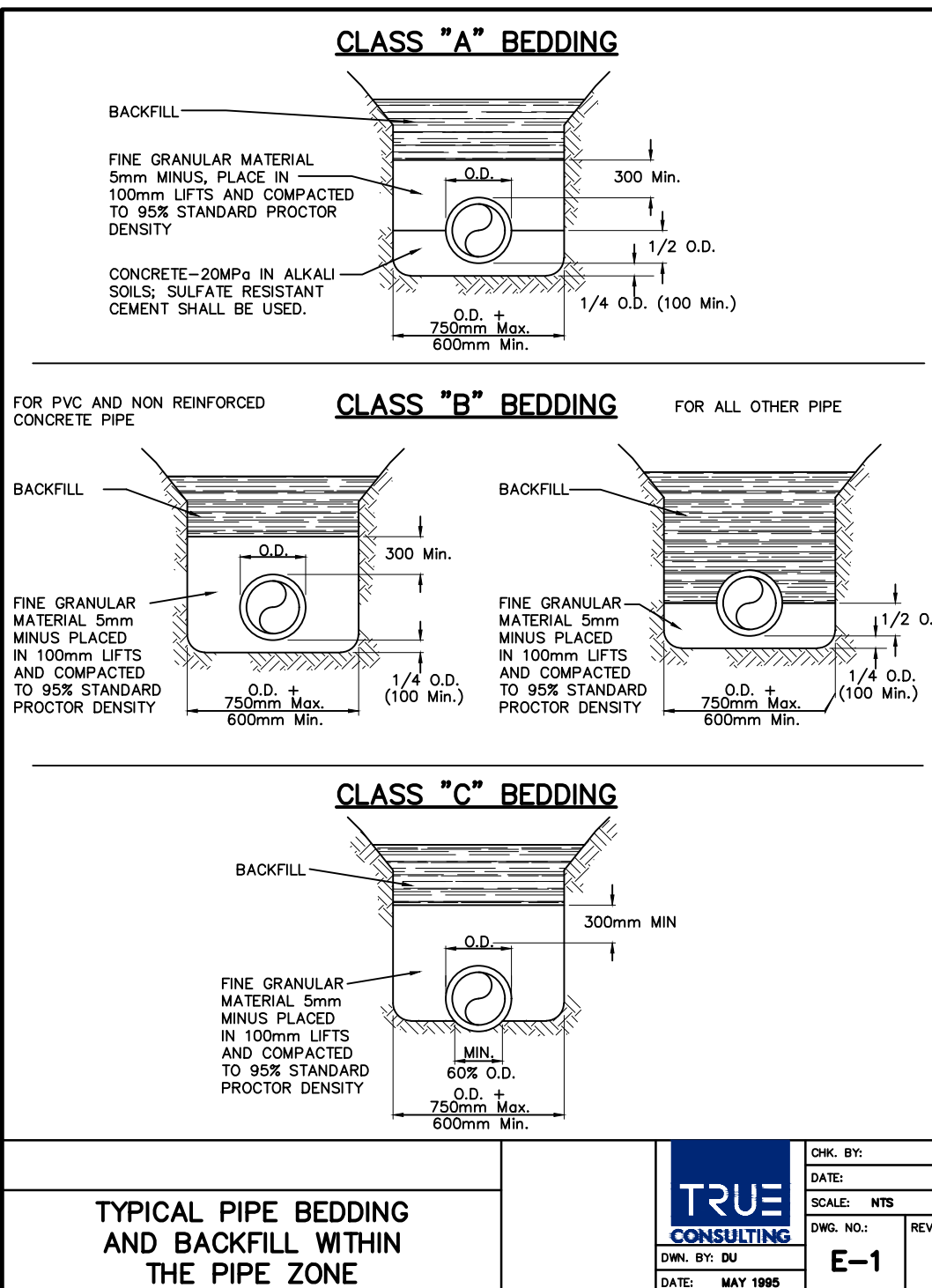
**TYPICAL GRAVEL REPAIR**

1:25



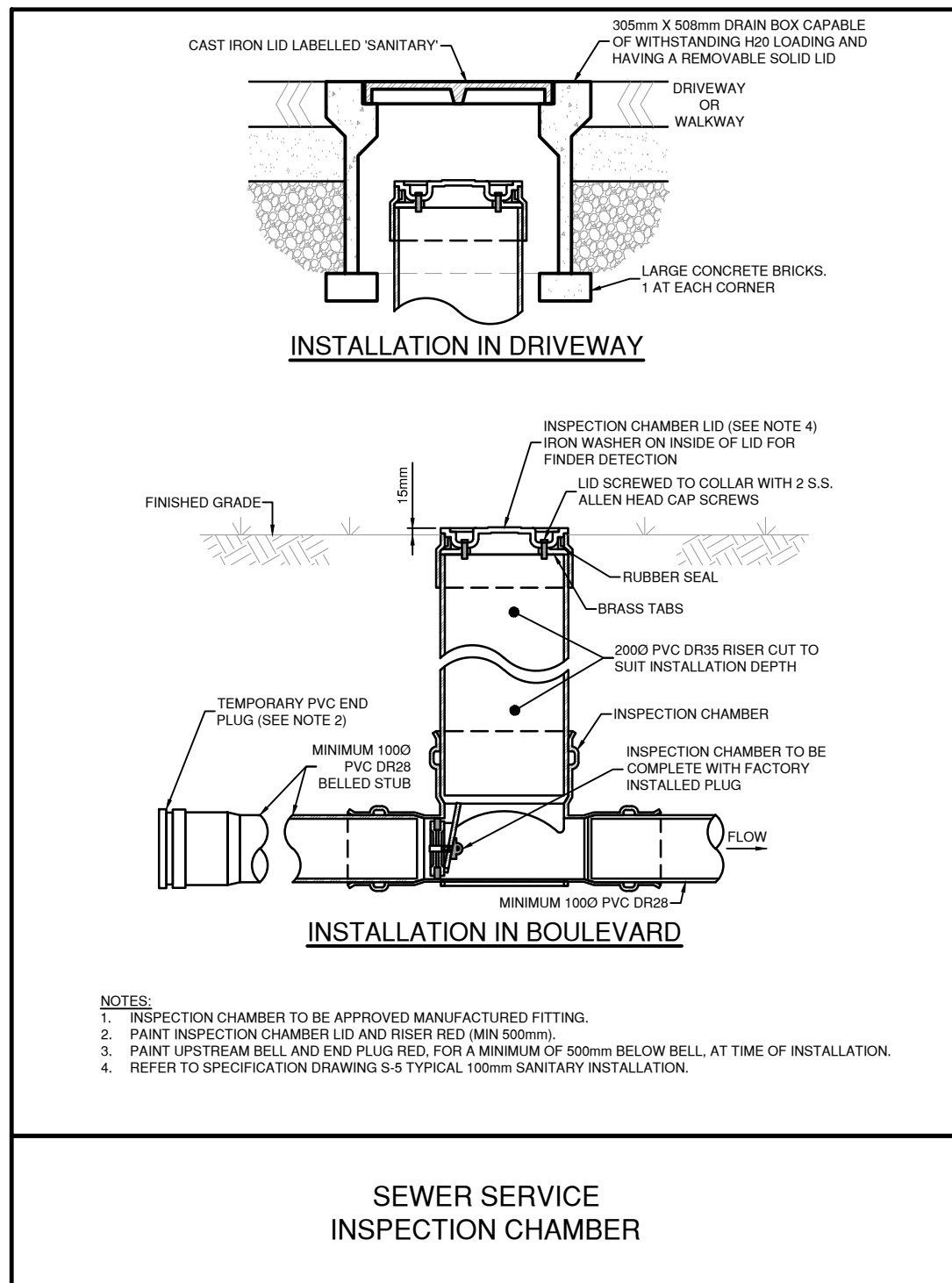
**TYPICAL ANCHOR BLOCK**

SCALE - NTS



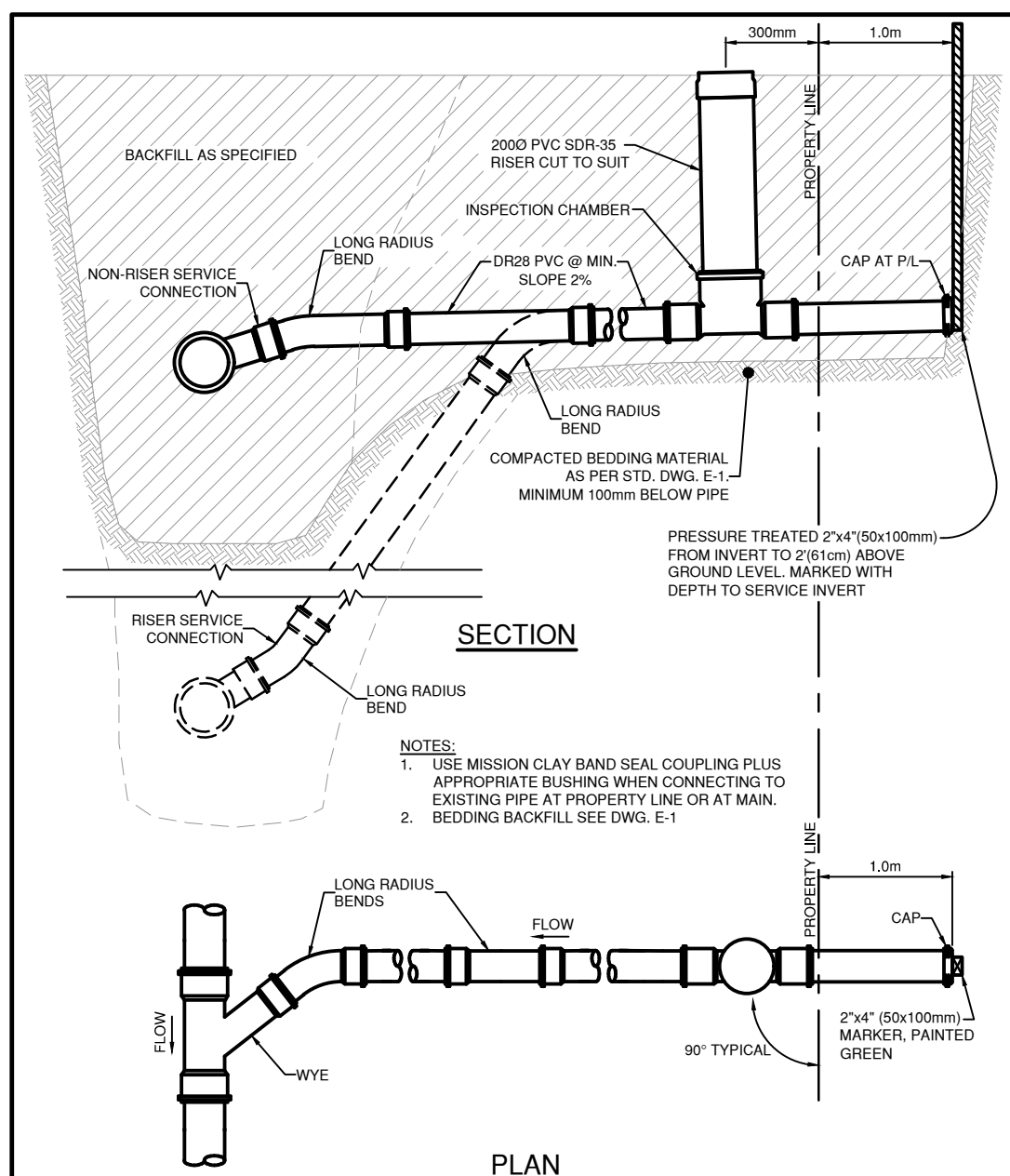
**TYPICAL PIPE BEDDING AND BACKFILL WITHIN THE PIPE ZONE**

TRUE CONSULTING  
DWG. NO.: E-1  
DATE: MAY 1995

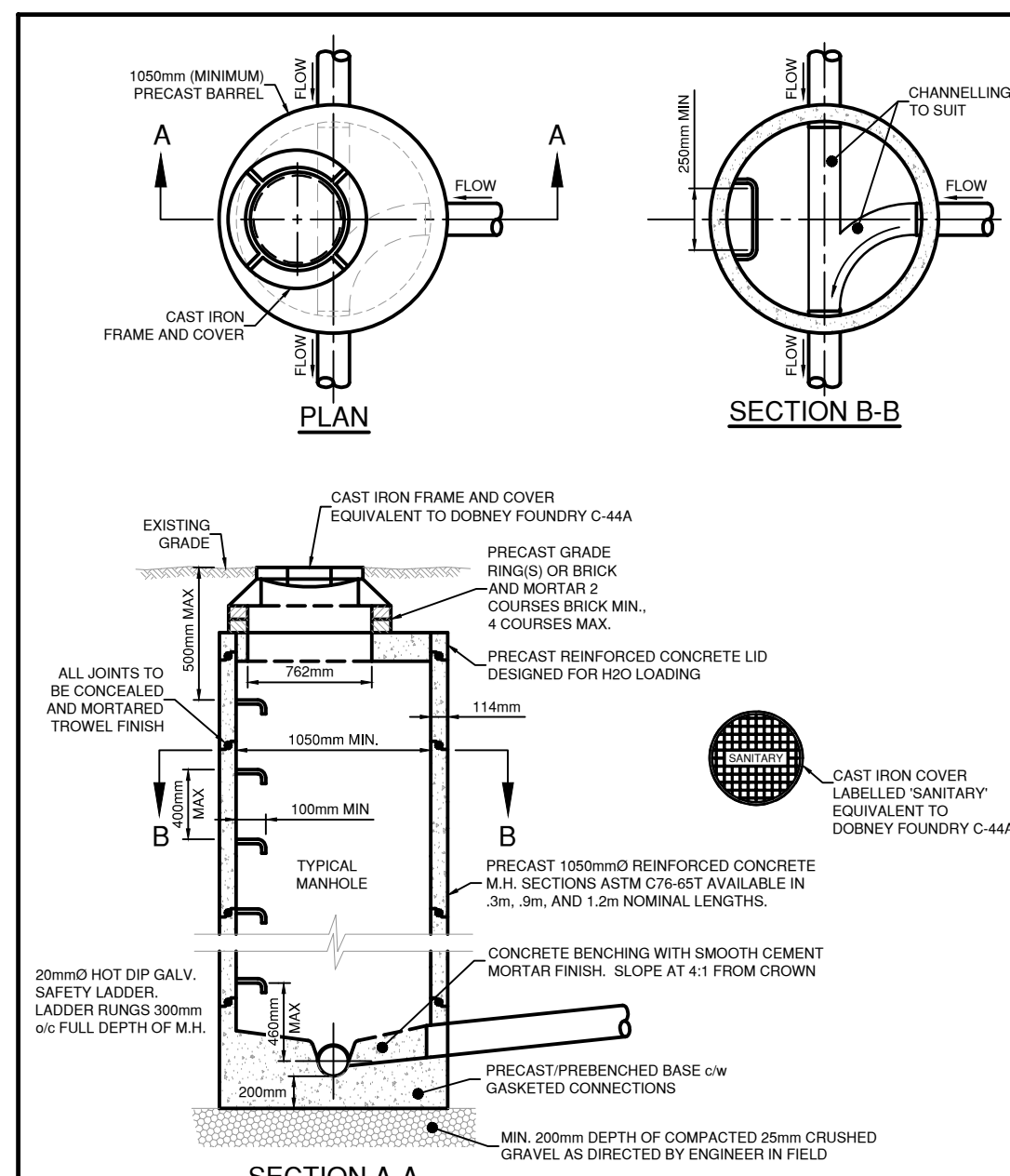


**SEWER SERVICE INSPECTION CHAMBER**

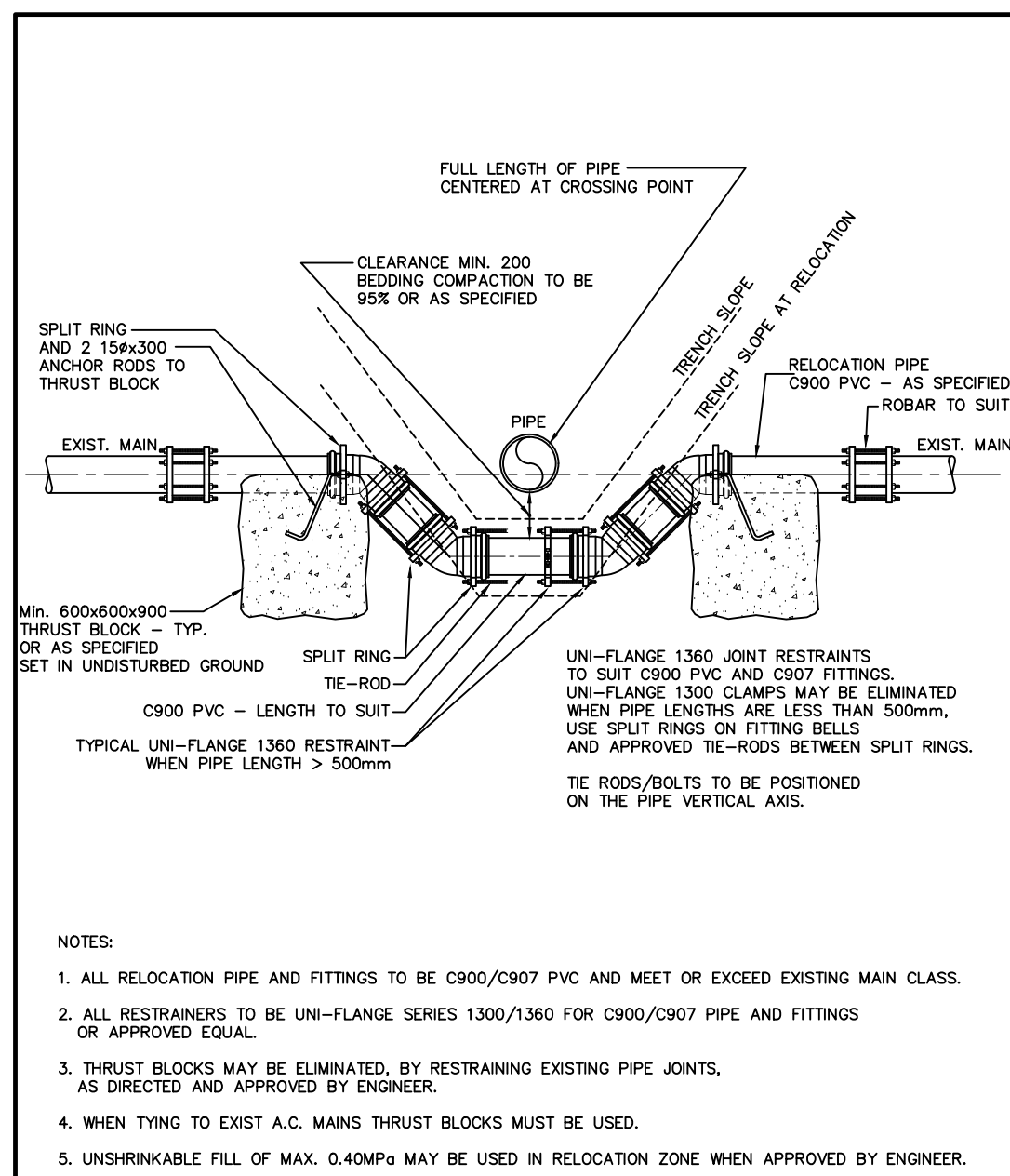
- NOTES:
- INSPECTION CHAMBER TO BE APPROVED MANUFACTURED FITTING.
  - PAIN INSPECTION CHAMBER LID AND RISER RED MIN 500mm.
  - PAIN UPSTREAM BELL AND END PLUG RED FOR A MINIMUM OF 500mm BELOW BELL AT TIME OF INSTALLATION.
  - REFER TO SPECIFICATION DRAWING S-5 TYPICAL 100mm SANITARY INSTALLATION.



**TYPICAL SANITARY SERVICE**



**TYPICAL SANITARY MANHOLE**



**WATERMAIN RELOCATION**

- NOTES:
- ALL RELOCATION PIPE AND FITTINGS TO BE C900/C907 PVC AND MEET OR EXCEED EXISTING MAIN CLASS.
  - ALL RESTRAINTS TO BE UN-FLANGE SERIES 1300/1360 FOR C900/C907 PIPE AND FITTINGS OR APPROVED EQUAL.
  - THRUST BLOCKS MAY BE ELIMINATED, BY RESTRAINING EXISTING PIPE JOINTS, AS DIRECTED AND APPROVED BY ENGINEER.
  - WHEN TYING TO EXIST A.C. MAINS THRUST BLOCKS MUST BE USED.
  - UNSHRINKABLE FILL OF MAX. 0.40MPa MAY BE USED IN RELOCATION ZONE WHEN APPROVED BY ENGINEER.

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DWG. NO.: W-6  
DATE: MARCH 1997

No.	DATE	DESCRIPTION	BY	APPD
5	APR 2018	RE-ISSUED FOR TENDER	SPC	SU
4	APR 2018	RE-ISSUED FOR TENDER	SPC	SU
3	MAR 23/18	ISSUED FOR TENDER	SPC	SU
2	MAR 14/18	PAGE RE-NUMBERED -ISSUED FOR APPROVAL	SPC	SU
1	JAN 24/18	PAGE ADDED - ISSUED FOR CLIENT REVIEW	SPC	SU

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## BRALORNE SANITARY SYSTEM UPGRADES

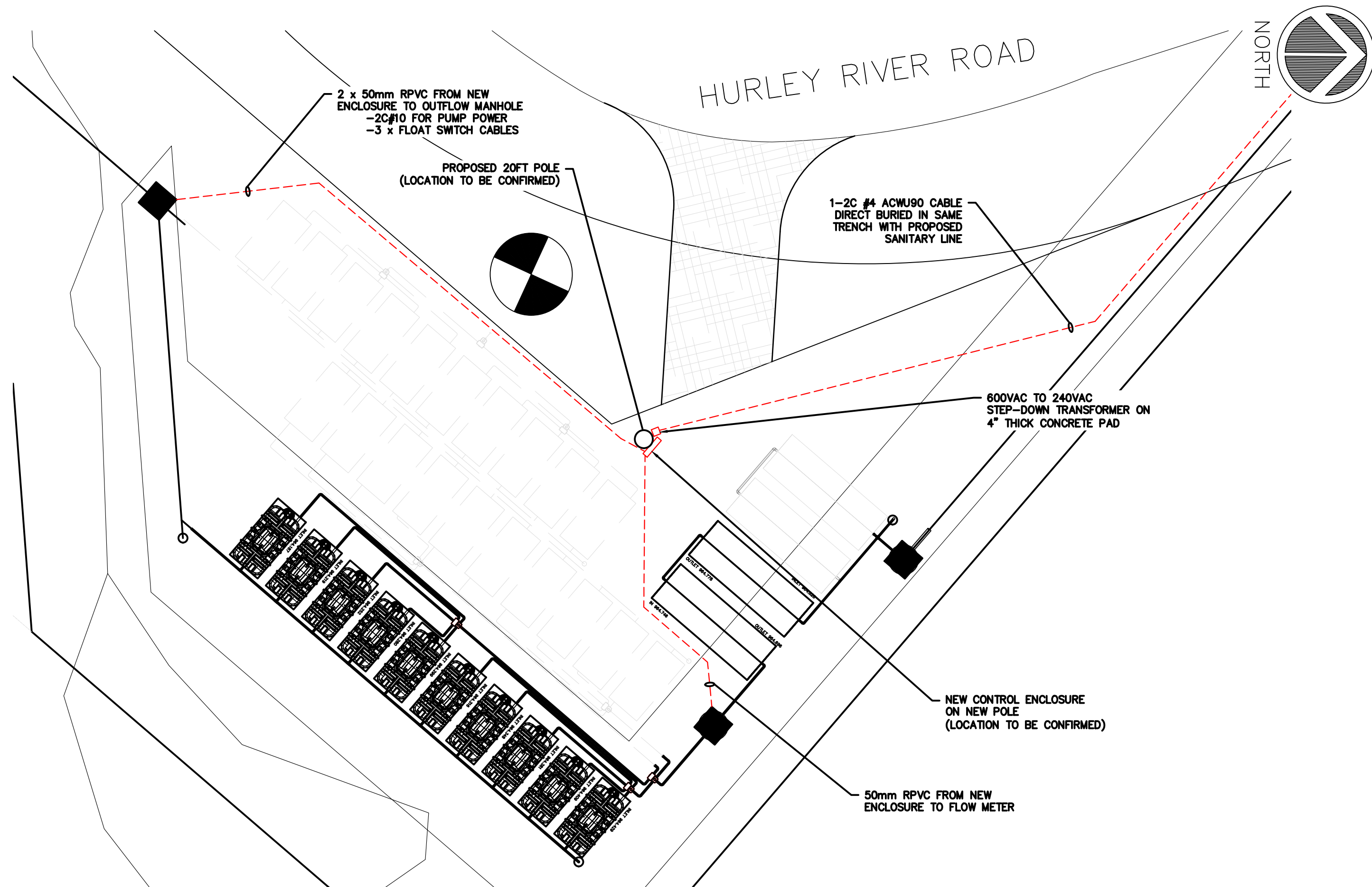
### TOWNSITE #1

## STANDARD DRAWINGS AND TYPICAL DETAILS

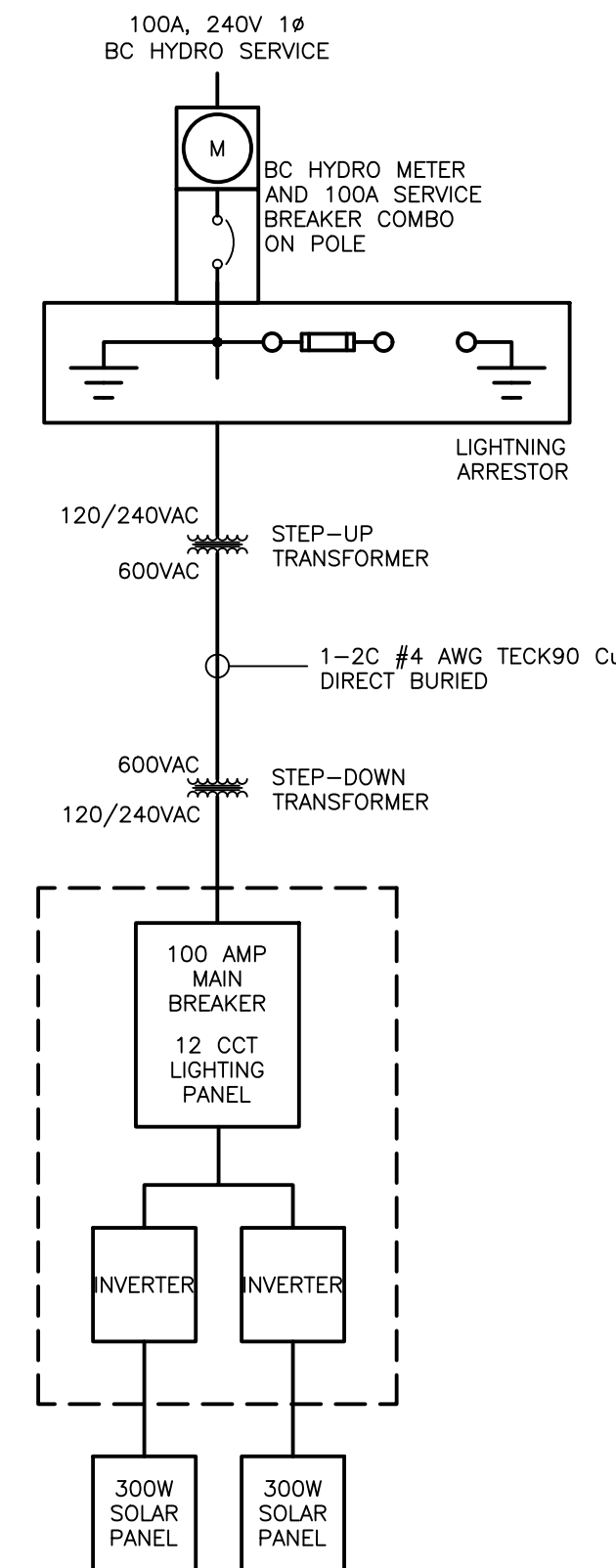
SCALE	AS NOTED
DESIGN BY	SU
DRAWN BY	SPC
DATE	July 2016
PROJECT REFERENCE No.	649-011
DRAWING No.	18
SHEET	18 OF 18
REVISION	5

649-015

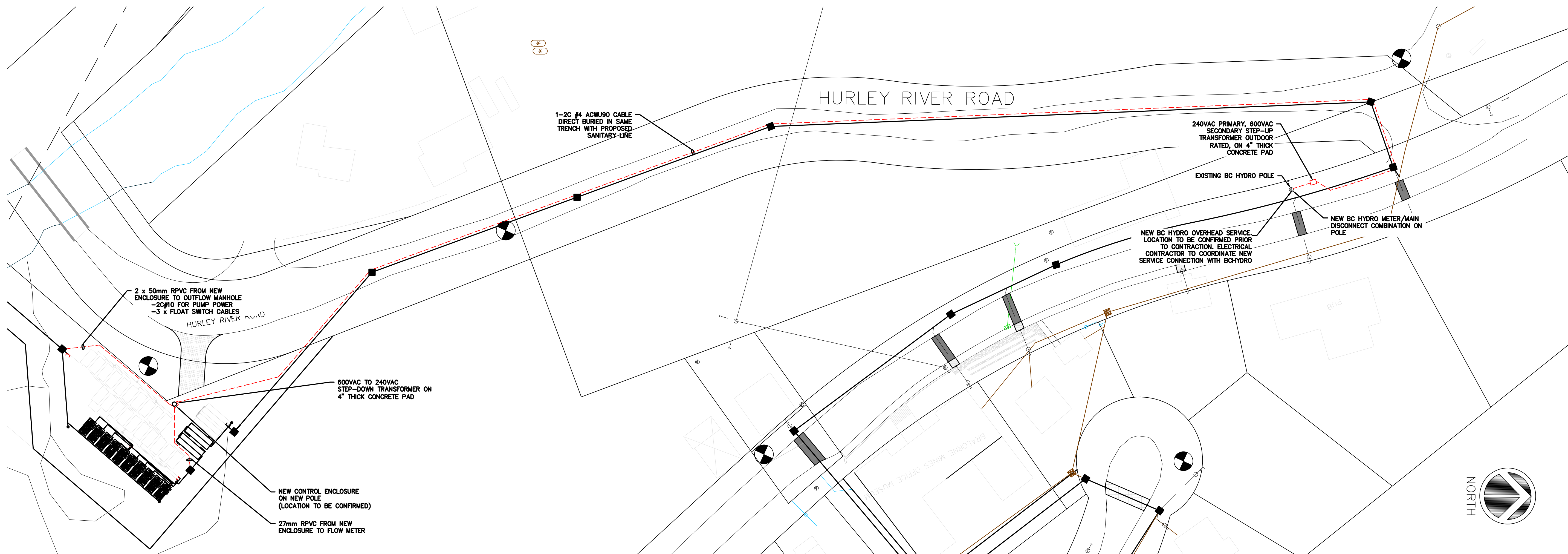




100A MAIN BREAKER 120/240V 1Ø		DISTRIBUTION PANEL "A"							
DESCRIPTION	# OF ITEMS	BKR SIZE	ITEM	ITEM	BKR SIZE	# OF ITEMS	DESCRIPTION		
PUMP STARTER #1	1	15A	1	2	20A	1	KIOSK LIGHT		
CONTROLS	1	15A	3	4	15A	1	RECEPTACLE		
KIOSK HEATER	1	15A	5	6	15A	1	SOLAR INVERTER		
FLOW METER	1	15A	7	8	15A	1			
SPD	-	15A	9	10	15A	1	SPARE		
SPARE	-	15A	11	12	15A	1	SPARE		



SINGLE LINE DIAGRAM  
SCALE: N.T.S.



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ENGINEERING

VERNON, BC  
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FAX: (250) 275-4938

No.	DATE	DESCRIPTION	BY	APPROV.
2	MAR 23/18	ISSUED FOR TENDER	IS	TDU
1	MAR 14/18	ISSUED FOR REVIEW	IS	TDU

ISSUES / REVISIONS

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**BRALORNE  
SANITARY SYSTEM  
UPGRADES**

**SITE PLAN &  
SINGLE LINE**

SCALE AS NOTED

DESIGN BY IS  
DRAWN BY IS  
DATE FEB 2018  
PROJECT REFERENCE No.

DRAWING No.

649-015 **E1**

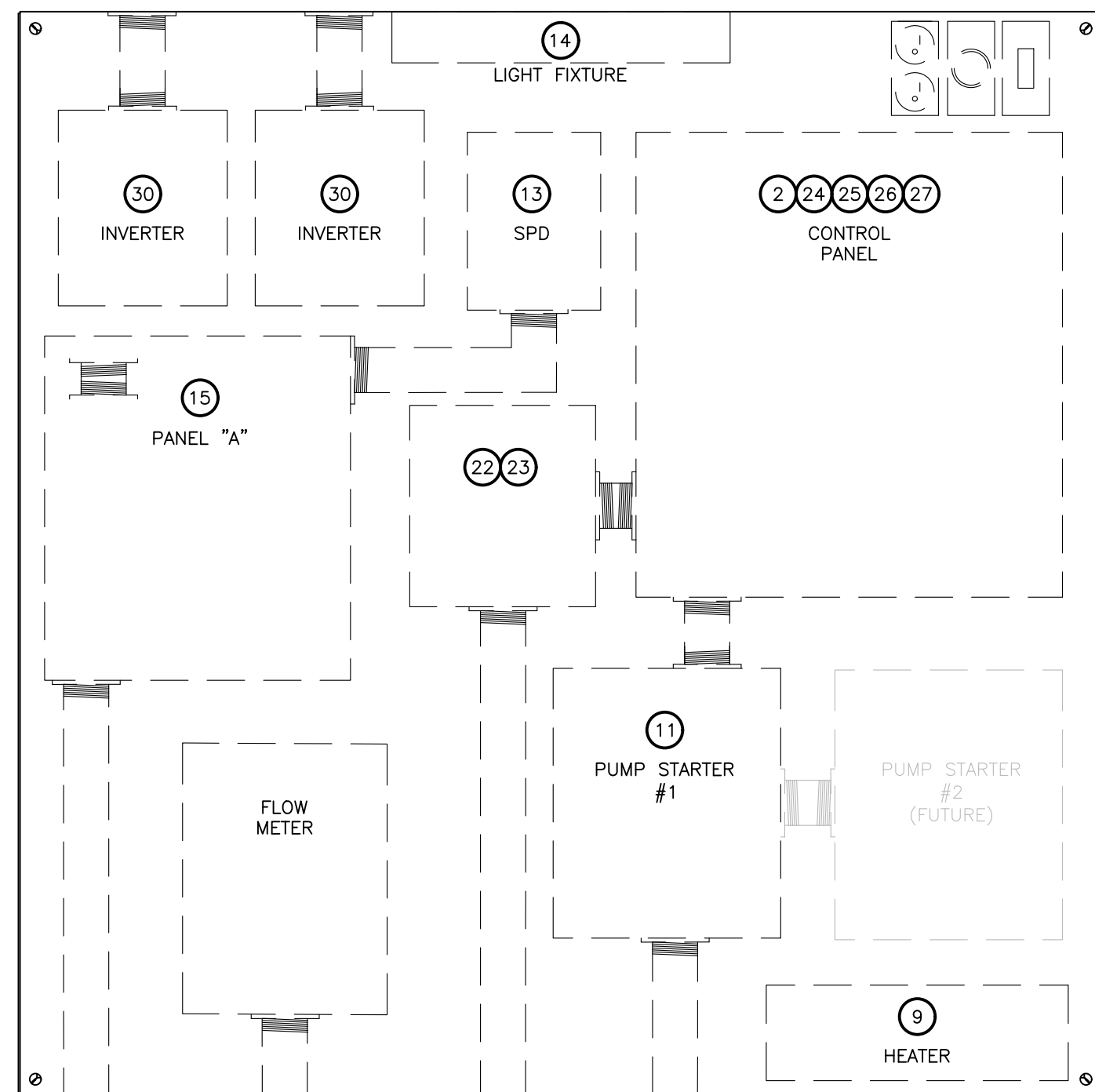
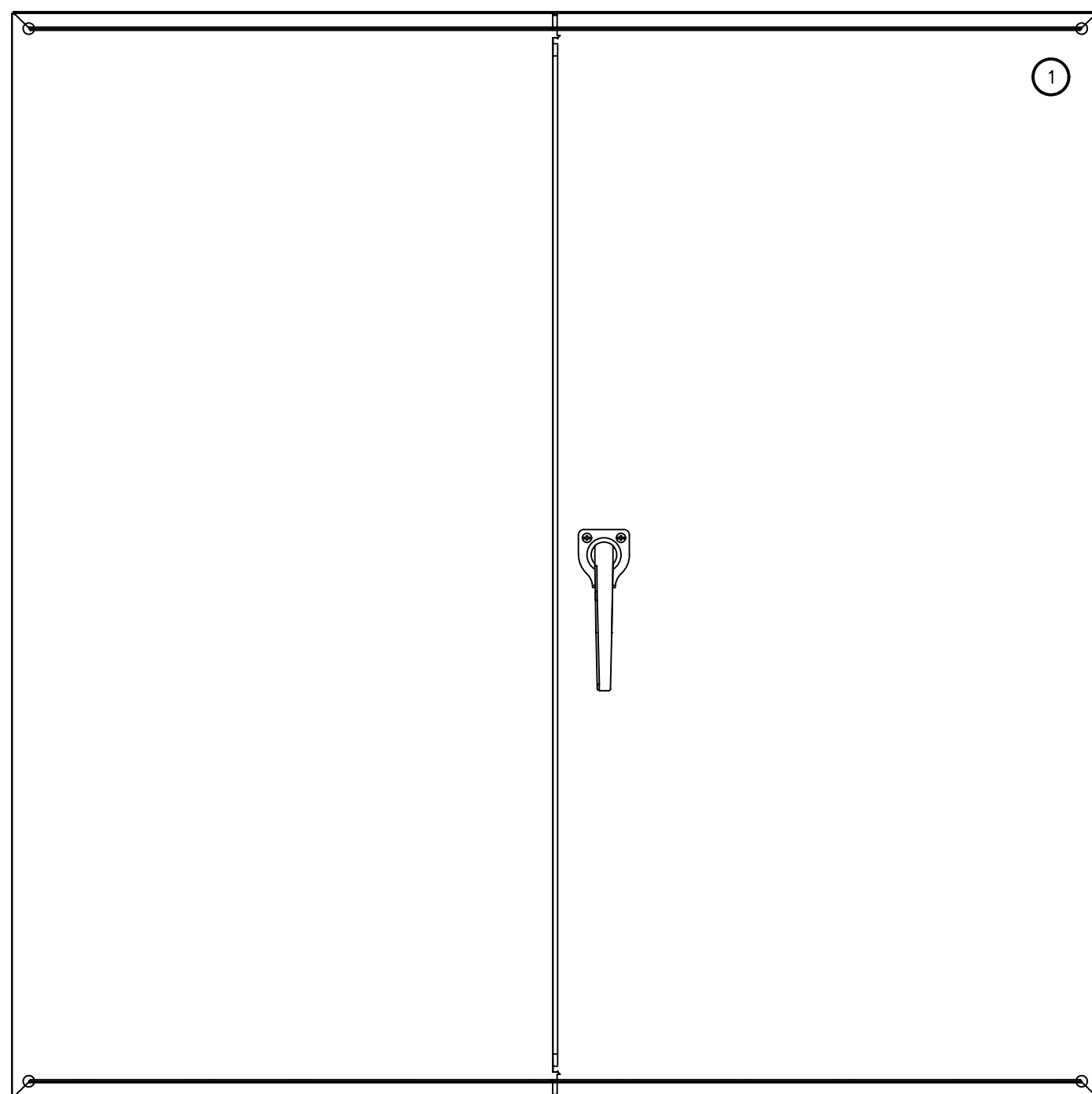
SHEET

1 OF 2

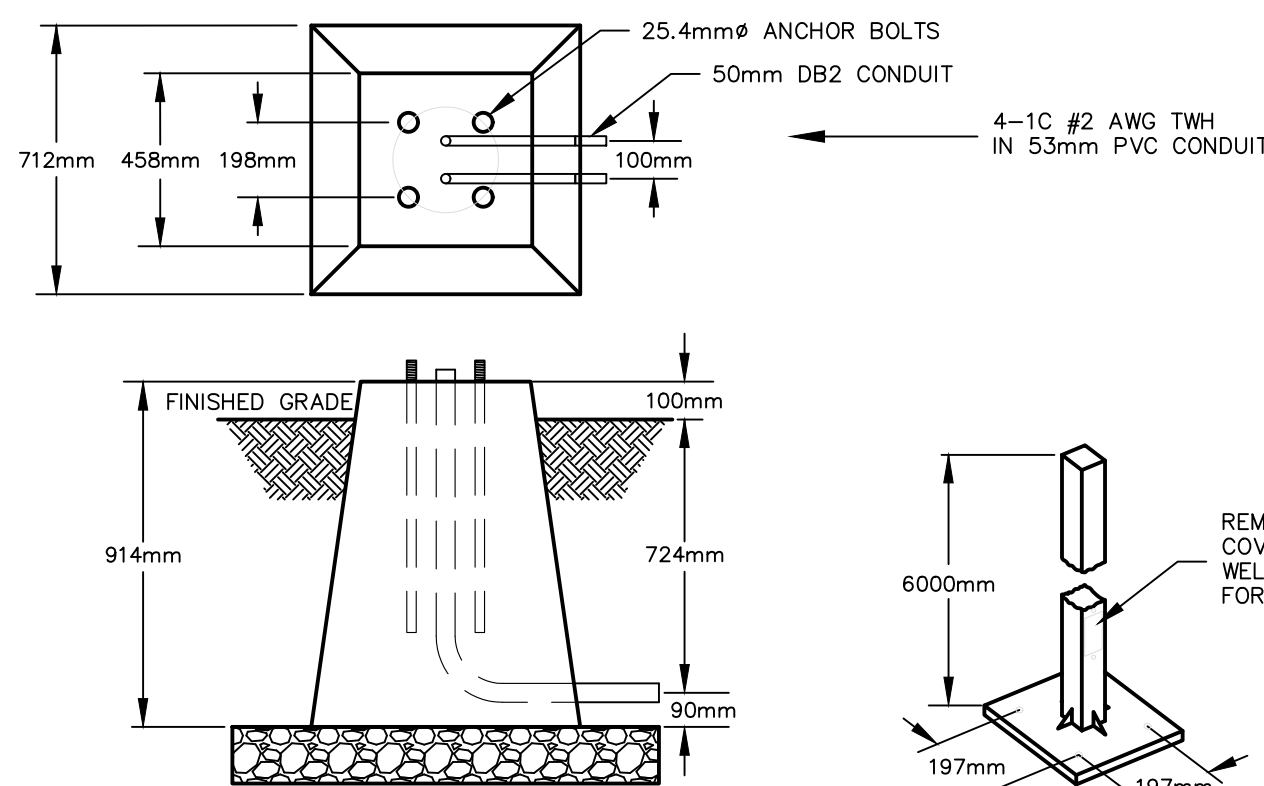
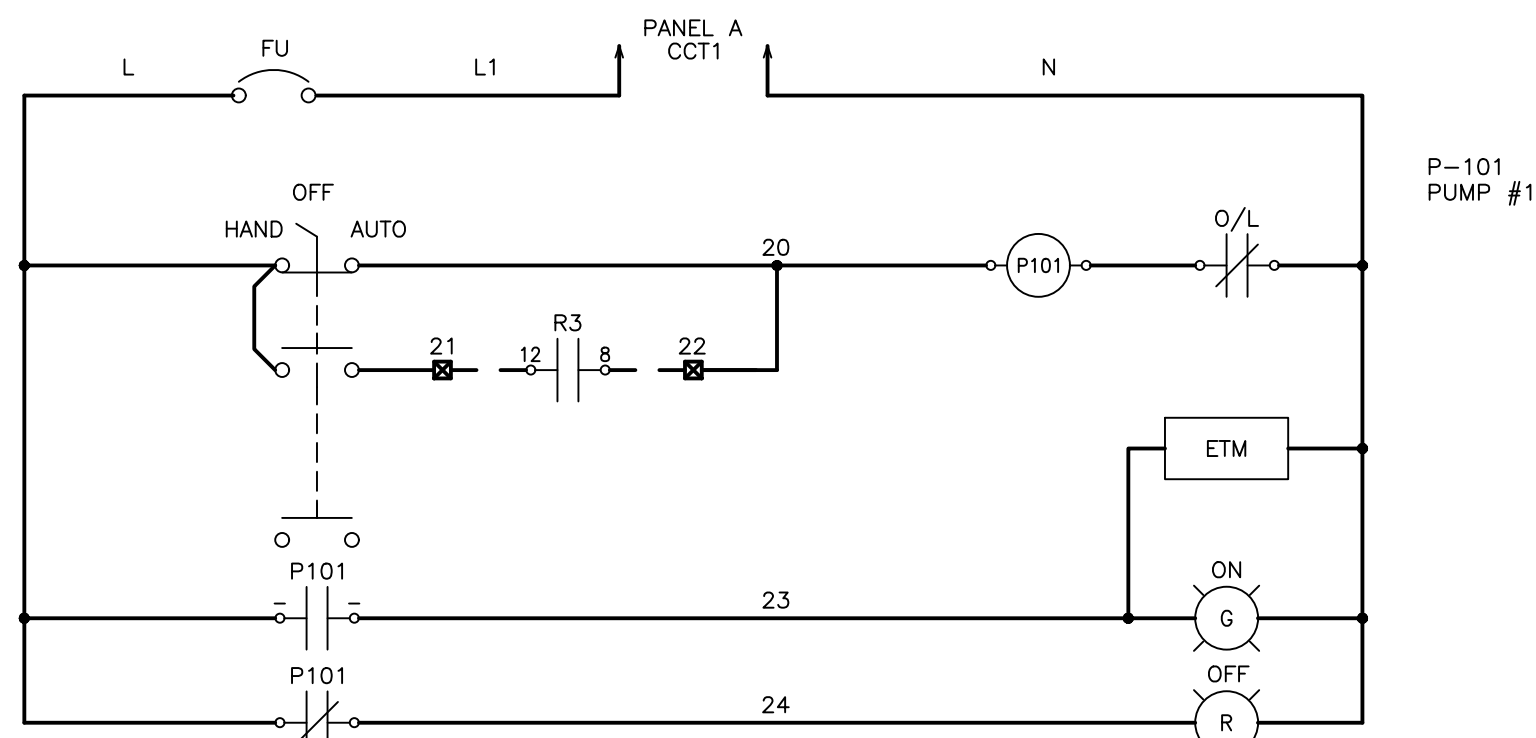
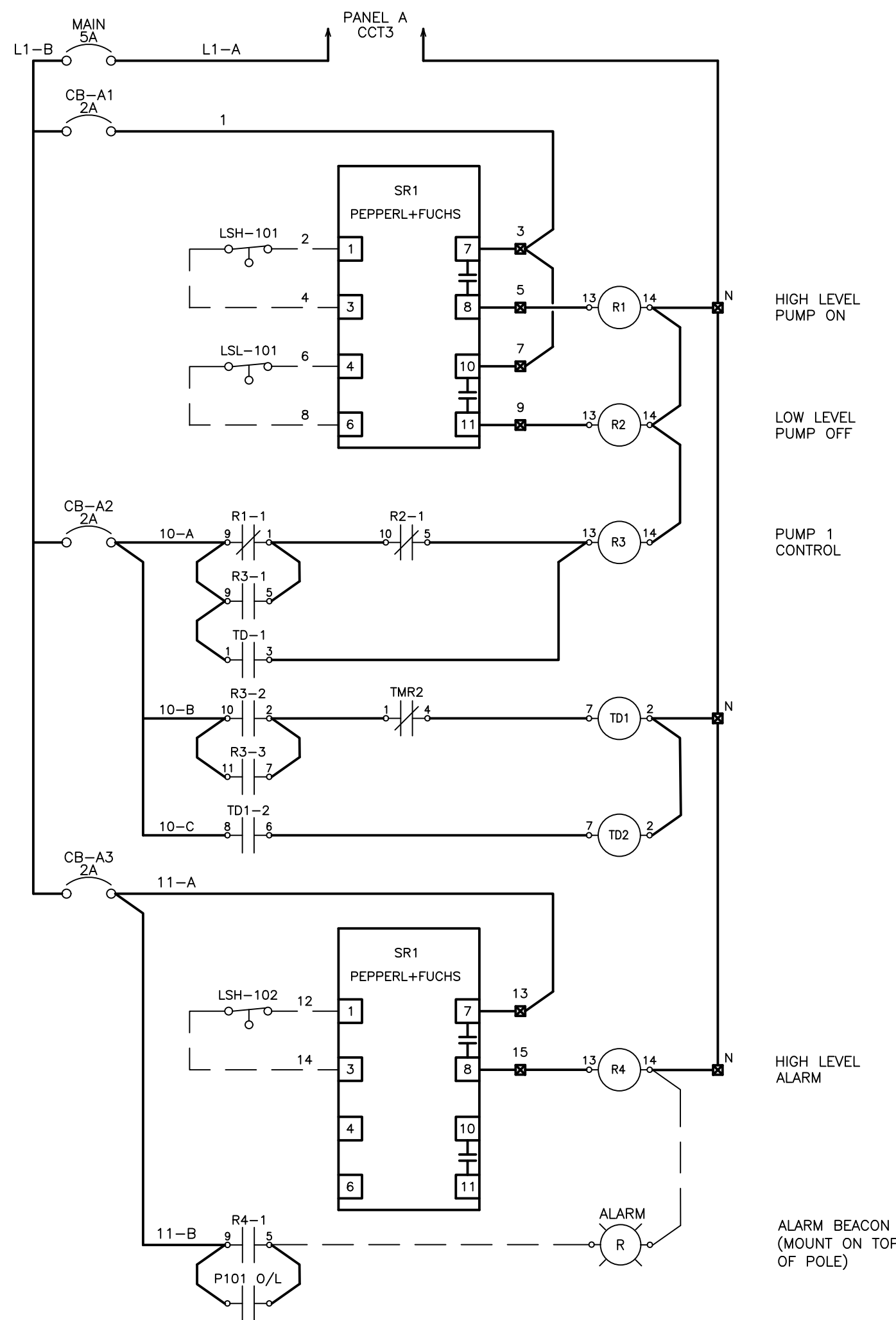
REVISION

2



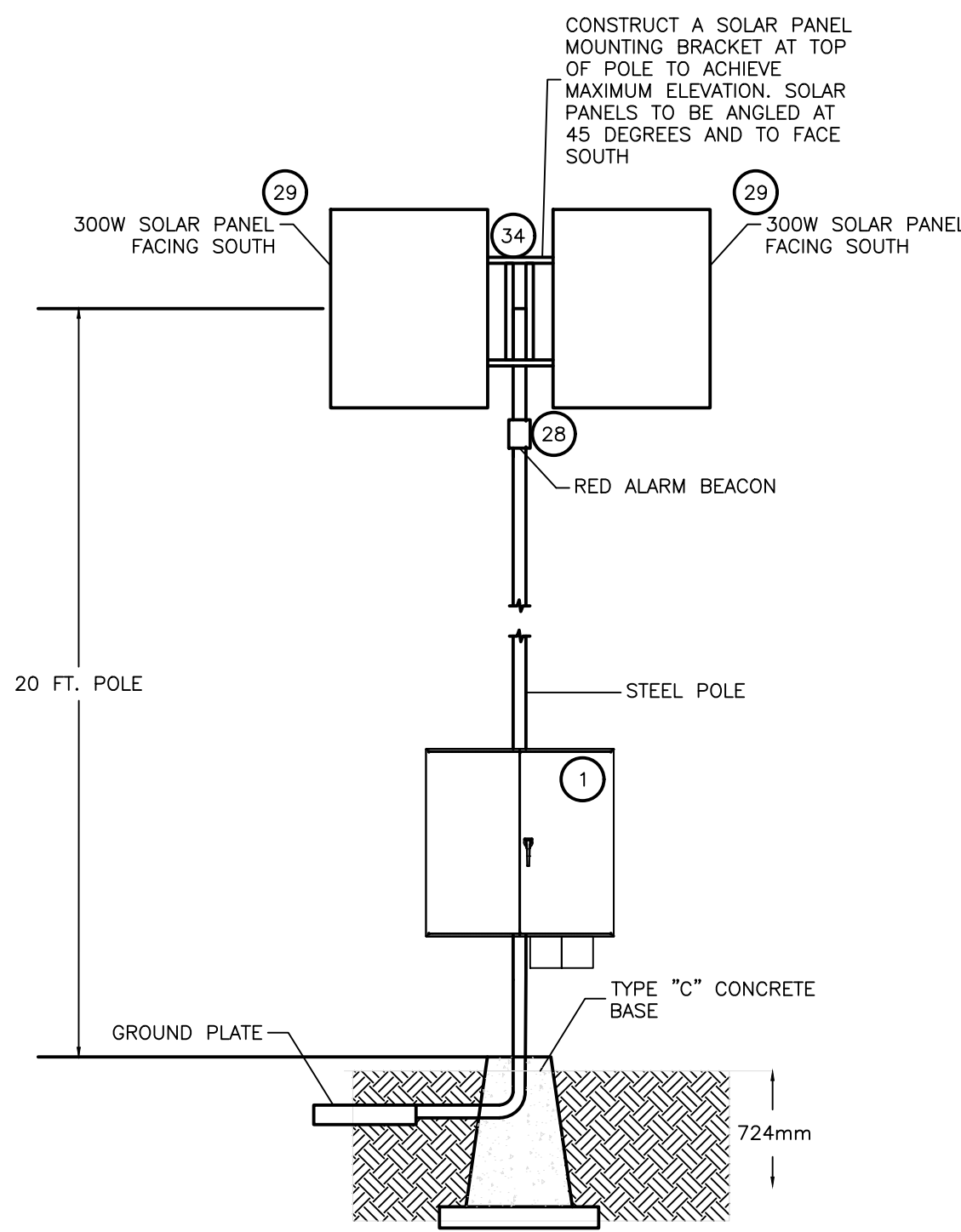


TO STEP-DOWN TRANSFORMER  
TO FLOW METER PIT  
TO OUTFLOW MANHOLE FOR FLOATS  
TO OUTFLOW MANHOLE FOR PUMP POWER  
RPVC STUBBED 1m AWAY FROM ENCLOSURE FOR FUTURE PUMP



POLE AND BASE DETAILS  
(DETAILS TO BE CONFIRMED)  
SCALE: N.T.S.

MATERIAL LIST			
ITEM	QTY	MANUFACTURER	PART # DESCRIPTION
1	1	HAMMOND OR EQUAL	C3RMC484812 NEMA 3R ENCLOSURE C/W BACK PANEL
2	1	HAMMOND OR EQUAL	OPEN NEMA 12 ENCLOSURE C/W BACK PANEL AND DIN RAIL (SIZE AS REQUIRED)
3	1	OPEN	OPEN 120/240V TO 600V STEP-UP TRANSFORMER
4	1	OPEN	OPEN 600V TO 120/240V STEP-DOWN TRANSFORMER
5	1	OPEN	OPEN 1 INCH SCRIM CRAFT INSULATION FOR ENCLOSURE
6	A.R.	OPEN	OPEN EXPLOSION PROOF CABLE CONNECTORS
7	A.R.	OPEN	OPEN EXPLOSION PROOF SEALS
8	2	OPEN	OPEN ENCLOSURE VENTILATION FAN C/W THERMOSTAT
9	1	OPEN	OPEN 750W HEATER C/W THERMOSTAT
10	1	UEBERT	GXT4-1000RT120 1000VA, 120V UPS C/W EXTERNAL BATTERY
11	1	OPEN	OPEN NEMA SIZE 1 STARTER
12	2	OPEN	OPEN NEMA-4X OUTDOOR RATED ALUMINUM JUNCTION BOX
13	1	TOTAL PROTECTION SOLUTIONS	TK-ST080-1P240 SURGE PROTECTION DEVICE
14	A.R.	OPEN	OPEN FLUOR. LIGHT FIXTURES, C/W LAMPS, DOOR SWITCHES
15	1	OPEN	OPEN 120/240V, 12CCT BREAKER PANEL C/W 100A MAIN BREAKER
16	1	LEVITON	OPEN 3-WAY LIGHT SWITCH C/W 1110 BOX & METAL COVER
17	1	LEVITON	OPEN GFCI RECEPTACLE C/W 1110 BOX & METAL COVER
18	A.R.	OPEN	OPEN EYS CONDUIT SEALS
19	3	FLYGT	ENM-10 FLOAT SWITCH
20	2	OPEN	OPEN FIBREGLASS CABLING COMPARTMENT JUNCTION BOXES
21	1	OPEN	OPEN 120VAC RECEPTACLE
22	2	PEPPERL & FUCHS	KFA5-SR2-EX2.W INTRINSICALLY SAFE BARRIER FOR FLOAT SWITCHES
23	1	OPEN	OPEN ENCLOSURE FOR INTRINSICALLY SAFE BARRIER
24	4	OMRON	MY4N-D2 4PDT, 120VAC RELAY
25	4	OMRON	PYF14A-E 4PDT, RELAY BASE
26	2	OMRON	H3CR-A8 TIME DELAY RELAY
27	AR	WEIDMULLER	4201 SERIES CIRCUIT BREAKERS
28	1	OPEN	OPEN 120VAC RED ALARM BEACON
29	2	OPEN	OPEN 300W SOLAR PANEL
30	2	ENPHASE	OPEN ENPHASE IQ 6 MICROINVERTERS C/W MOUNTING BRACKET
31	1	OPEN	OPEN NOVA STRAIGHT SQUARE 20FT STEEL POLE, GALVANIZED, POWDER COATED BLACK
32	1	OPEN	OPEN TYPE C CONCRETE BASE AS PER MMCD SPECIFICATIONS
33	1	OPEN	OPEN GROUNDING PLATE
34	1	OPEN	OPEN MOUNTING BRACKET FOR SOLAR PANELS



POLE DETAIL  
SCALE: N.T.S.

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No.	DATE	DESCRIPTION	BY	APP
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1	MAR 14/18	ISSUED FOR REVIEW	IS	TDU

ISSUES / REVISIONS

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**BRALORNE  
SANITARY SYSTEM  
UPGRADES**

**ENCLOSURE AND  
WIRING DETAILS**

SCALE: AS NOTED

DESIGN BY: IS  
DRAWN BY: IS  
DATE: FEB 2018

PROJECT REFERENCE No.:

DRAWING No.:

649-015 **E2**

SHEET  
2 OF 2  
REVISION  
2