

CREUS Engineering

Civil Engineers & Project Managers
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Appendix B

PROJECT:

2077 GARIBALDI WAY WHISTLER, BC

CLIENT:

ROBERTO VELENOSI



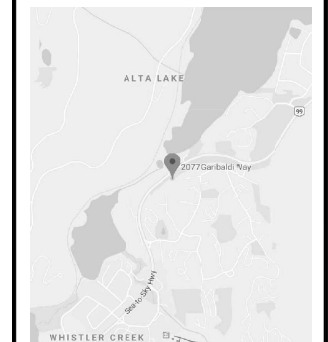
DRAWING LIST

DWG #		
KEY-1	KEYPLAN	2077 GARIBALDI WAY
SERV-1	SERVICING PLAN	2077 GARIBALDI WAY
SAN-PUMP	SANITARY PUMP DESIGN	2077 GARIBALDI WAY
SMP-1	STORMWATER MANAGEMENT	2077 GARIBALDI WAY
R-1	ROADWORKS	DRIVEWAY ACCESS
DET-1	STANDARD DETAILS	STANDARD DETAILS
DET-2	STANDARD DETAILS	STANDARD DETAILS

2022-07-21

UPDATED PER RMOW COMMENTS

PERMIT TO PRACTICE # 1001543

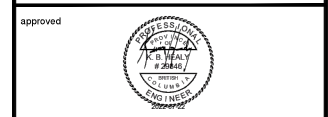


SITE MAP

DRAWING LEGEND

	EXISTING	PROP.	TO BE REMOVED
LEGAL LINE	---	---	---
EASEMENT	---	---	---
WATERMAIN	---	---	---
SANITARY	---	---	---
STORM	---	---	---
HYDRO	---	---	---
TEL	---	---	---
STREETLIGHT	---	---	---
GAS	---	---	---

	EXISTING	PROP.	TO BE REMOVED
FIRE HYDRANT	○	○	○
GATE VALVE	○	○	○
AIR VALVE	○	○	○
REDUCER	○	○	○
INSPECTION CHAMBER	○	○	○
CATCHER (SD/S)	○	○	○
CAP	○	○	○
MANHOLE	○	○	○
POWER POLE	○	○	○
STREETLIGHT	○	○	○



client
ROBERTO VELENOSI

project
**2077 GARIBALDI WAY
 WHISTLER, BC**

title
KEYPLAN

no.	(y/m/d)	revision	author	check
5	22-07-21	UPDATED PER RMOW COMMENTS	BEM	
4	22-07-22	UPDATED PER RMOW COMMENTS	BEM	
3	22-07-13	UPDATED PER RMOW COMMENTS	BEM	
2	22-05-31	ISSUED FOR DP	BEM	
1	22-02-17	ISSUED FOR REVIEW	BEM	

engineer of record	KBH	scales	hor: 1:500	vert: -
designed by	KBH	file no.	13137	
drawn by	BEM	drawing no.	KEY-1	
date	2022-01-28			

SEE DRAWING KEY-1 FOR GENERAL NOTES
 SEE DRAWING R-1 FOR ROADWORKS NOTES
 SEE DRAWING SERV-1 FOR WATERWORKS NOTES
 SEE DRAWING SERV-1 FOR STORM & SANITARY NOTES

LEGAL DESCRIPTION

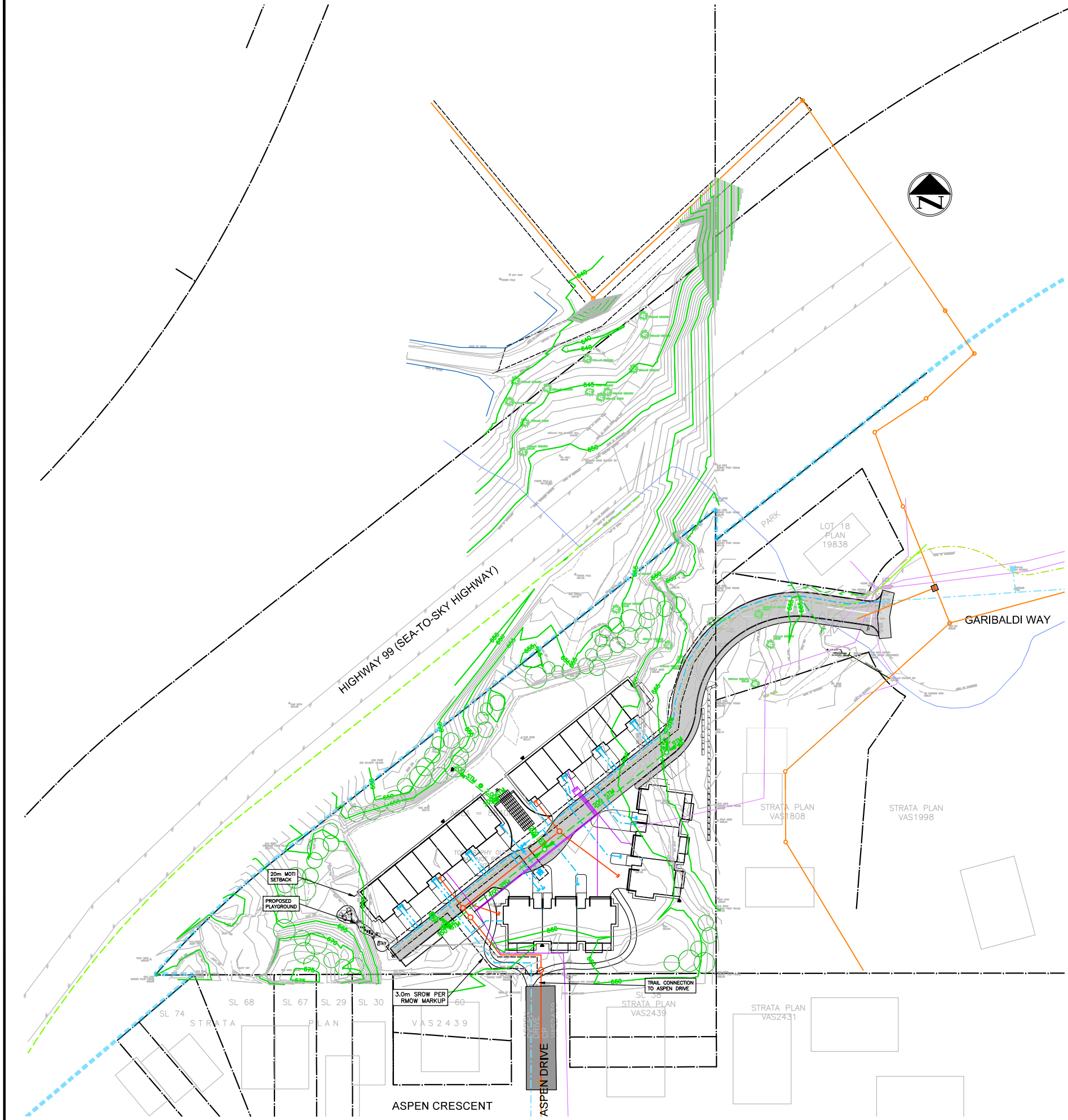
PLAN 16634 LOT 3 DISTRICT LOT 5412 GROUP 1, NEW WESTMINSTER DISTRICT

BENCHMARK INFORMATION

ELEVATIONS ARE METRIC, GEODETIC DATUM, AND DERIVED FROM L.T.O. RECORDS

GENERAL NOTES

- ALL CONSTRUCTION MUST CONFORM TO THE RESORT MUNICIPALITY OF WHISTLER & MMCD SPECIFICATIONS AND MUST PASS THE ENGINEER'S INSPECTION UPON COMPLETION OF EACH STAGE OF CONSTRUCTION.
- ALL CONSTRUCTION WITHIN THE PROPERTY MUST CONFORM TO THE MUNICIPAL STANDARDS, MASTER MUNICIPAL SPECIFICATIONS, CURRENT B.C. BUILDING CODE, & B.C. PLUMBING CODE.
- THE CONTRACTOR MUST NOTIFY ENGINEER THEN THE R.M.O.W. 48 HOURS PRIOR TO STARTING CONSTRUCTION TO ESTABLISH AN INSPECTION SCHEDULE.
- THE CONTRACTOR SHALL ENSURE THAT ALL APPROVALS REQUIRED FOR THE PROPOSED WORK HAVE BEEN OBTAINED PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION.
- A PRE-CONSTRUCTION MEETING BETWEEN ENGINEER, THE CONTRACTOR, AND R.M.O.W. IS REQUIRED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- CONTRACTOR TO PROVIDE EMERGENCY CONTACT LIST, INSURANCE AND SURETY DOCUMENTATION AND PROPOSED SCHEDULE OF WORK PRIOR TO PROCEEDING WITH WORKS.
- A PORTION OF THE CONTRACT DOCUMENTS IS INCLUDED BY REFERENCE. COPIES OF THESE DOCUMENTS HAVE BEEN REFERENCED IN THE TENDER PACKAGE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT CURRENT RELEVANT COPIES OF ALL DRAWINGS AND CONTRACT DOCUMENTS ARE FORWARDED TO SURVEYORS, TESTING AGENCIES, SUBCONTRACTORS, SUPERINTENDENTS, ESTIMATORS, PROJECT MANAGERS, SITE STAFF AND ANY OTHER RELEVANT PARTIES. CONTRACTOR CONFIRMS THEY HAVE REVIEWED SAME PRIOR TO SUBMITTING TENDER.
- THE CONTRACTOR WILL CONSTRUCT ALL WORKS TO THE SATISFACTION OF THE INSPECTORS FROM THE ENGINEER AND THE REGULATORY AUTHORITY. IF APPLICABLE ADDITIONALLY, THE TELUS WORKS UNDER THE DIRECTION AND TO THE SATISFACTION OF THE TELUS INSPECTOR, HYDRO WORKS TO SATISFACTION OF THE BC HYDRO INSPECTOR, TERASEN WORKS TO SATISFACTION OF THE TERASEN INSPECTOR, SHAW WORKS TO SATISFACTION OF THE SHAW INSPECTOR. THE CONTRACTOR WILL FORWARD TO THE ENGINEER CERTIFICATION OF ACCEPTANCE OR APPROVAL FROM THE ABOVE NOTED INSPECTORS ON COMPLETION OF THE WORK. ELECTRICAL WORKS, IF APPLICABLE TO ALSO BE UNDER PERMIT WITH BC ELECTRICAL SAFETY BRANCH WITH A COPY OF PERMIT AND SIGN OFF TO BE FORWARDED TO THE ENGINEER. CONTRACTOR TO GIVE TIMELY NOTICE TO RELEVANT INSPECTOR TO ALLOW FOR INSPECTION ON WORKS AND UPDATE ENGINEER ON SAME.
- THE CONTRACTOR WILL PERFORM AT HIS OWN COST ALL TESTING REQUIRED BY THE REGULATORY AUTHORITY, MMCD AND THE ENGINEER. TESTING SHALL BE DONE BY AN INDEPENDENT SPECIALTY TESTING FIRM. CONTRACTOR TO GIVE ENGINEER NOTICE ON ALL TESTING. COPIES OF TESTS TO BE FORWARDED DIRECTLY BY THE TESTING FIRM TO ENGINEER AND GEOTECHNICAL ENGINEER BY EMAIL.
- SUB-CONTRACTORS SHALL NOT COMMUNICATE WITH THE ENGINEERS OR OWNER DIRECTLY ON ANY CONTRACTUAL OR TECHNICAL ISSUE. THEY SHALL DIRECT THEIR ISSUES TO THE CONTRACTOR DIRECTLY WHOSE RESPONSIBILITY IT TO DEAL WITH THESE ISSUES ON THEIR BEHALF WITH THE ENGINEER. REVIEW AND APPROVAL OF ANY CONTRACTUAL MATTER INCLUDING PROGRESS PAYMENT, CHANGE ORDER, PAYMENT OF HOLDBACK, FINAL PAYMENT, INSURANCE AND WARRANTY, ETC. SHALL DIRECTED TO THE ENGINEER. CONTRACTOR MUST ONLY TAKE DIRECTION FROM THE ENGINEER IN REGARDS TO CHANGES TO DESIGN OR EXTRA WORKS.
- UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS OR NOTIFIED TO THE CONTRARY BY THE ENGINEER, THE CONTRACTOR IS THE "PRIME CONTRACTOR" FOR THE PURPOSE OF ALL APPLICABLE LAWS RELATIVE TO OCCUPATIONAL HEALTH AND SAFETY, INCLUDING THE DISCHARGE OF ALL DUTIES OF THE "PRIME CONTRACTOR" UNDER THE WORKERS COMPENSATION ACT (BRITISH COLUMBIA), NOTWITHSTANDING THAT THE ENGINEER, THE OWNER OR AN OTHER CONTRACTOR MAY PROVIDE FROM TIME TO TIME SOME OF THE SERVICES NORMALLY PROVIDED BY SUCH "PRIME CONTRACTOR". IN THIS SECTION "PRIME CONTRACTOR" MEANS THE CONTRACTOR SO DEFINED UNDER THE WORKERS COMPENSATION ACT (BRITISH COLUMBIA).
- LOCATIONS OF EXISTING UNDERGROUND SERVICES HAVE BEEN DETERMINED FROM UTILITY AS-CONSTRUCTED DRAWINGS. CONTRACTOR TO CONTACT BC ONE CALL AND PROVIDE COPIES TO ENGINEER AND VERIFY THE LOCATION OF ALL EXISTING SERVICES AND TO NOTIFY ENGINEER OF ANY DISCREPANCIES, CONFLICTS OR OMISSIONS PRIOR TO BEGINNING OF CONSTRUCTION.
- THE CONTRACTOR SHALL USE EXTREME CARE WHEN WORKING NEAR EXISTING SERVICES AND ANY SERVICES DISTURBED ARE TO BE REPLACED TO THE SATISFACTION OF M.O.T. & S.L.R.D., THE ENGINEER AND/OR APPROPRIATE UTILITY CORPORATION.
- THE CONTRACTOR'S SURVEYOR WILL RECORD AND CERTIFY ALL INFORMATION REQUIRED FOR THE ENGINEER TO PROVIDE A COMPLETE SET OF AS-CONSTRUCTED DRAWINGS INCLUDING CENTERLINE, FOG LINE, EDGE OF ASPHALT, SIGNS, AND ALL APPURTENANCES. SEE SUPPLEMENTAL SPECIFICATION FOR DETAILS.
- WHEN NO IMPROVEMENTS ARE PROPOSED UNDER THIS CONTRACT, THE EXISTING SECTION(S) OF ROADWAY SHALL BE KEPT CLEAN AND CLEAR FOR THE DURATION OF CONSTRUCTION AND LEFT IN SAME CONDITION AS PRIOR TO CONSTRUCTION.
- TRAFFIC CONTROL PER THE MINISTRY OF TRANSPORTATION 'TRAFFIC MANUAL FOR WORK ON ROADWAYS' AND AS PER THE TRANSPORTATION ASSOCIATION OF CANADA 'MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES'. CONTRACTOR TO SUBMIT PLAN FOR TRAFFIC MANAGEMENT FOR APPROVAL AND RECEIVE SAME PRIOR TO PROCEEDING WITH WORKS.
- VEHICULAR ACCESS TO EXISTING DWELLINGS TO BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF THE CONTRACT.
- PEDESTRIANS SHALL BE PROTECTED AT ALL TIMES. ANY CLOSURES OF THE SIDEWALK OR LANES TO BE COORDINATED WITH AND APPROVED BY THE ENGINEER AND A PERMIT FROM REGULATORY AUTHORITY OBTAINED AND FORWARDED TO ENGINEER. CONTRACTOR TO PROVIDE REQUIRED NOTICES.
- RESIDENTS DIRECTLY AFFECTED BY CONSTRUCTION OF THIS PROJECT SHALL BE GIVEN 48 HOURS WRITTEN NOTICE OF THE PROPOSED START OF CONSTRUCTION. IF CONSTRUCTION ENTERS ONTO PRIVATE PROPERTY, THE CONTRACTOR OR DEVELOPER'S AGENT WILL REQUIRED WRITTEN AUTHORIZATION FROM THE PRIVATE PROPERTY OWNER.
- RETAINING DESIGNATED TREES IS OF PRIME IMPORTANCE. WHEN WORKING IN PROXIMITY TO A DESIGNATED TREE OR WHEN ROOTS ARE ENCOUNTERED, THE CONTRACTOR SHALL CONSULT A CERTIFIED ARBORIST BEFORE PROCEEDING TO PREVENT DAMAGE TO TREES.
- THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO ENSURE THAT NO SILT IS DISCHARGED TO THE STORM DRAINAGE SYSTEM, ROADWAYS OR ADJACENT PROPERTIES DURING THE COURSE OF CONSTRUCTION IN ACCORDANCE WITH DFO/MOELP'S "LAND DEVELOPMENT GUIDELINES FOR THE PROTECTION OF AQUATIC HABITAT".
- FOR BC HYDRO, TELUS, AND TERASEN INSTALLATION, SEE APPROPRIATE UTILITY COMPANY DRAWINGS AND SPECIFICATIONS.
- UPON COMPLETION OF WORKS, OWNER MUST CONDUCT CCTV TEST TO ENSURE NO CROSS CONNECTIONS & CONDITION OF PIPES. A COPY OF THE REPORT IS TO BE FORWARDED TO THE R.M.O.W.

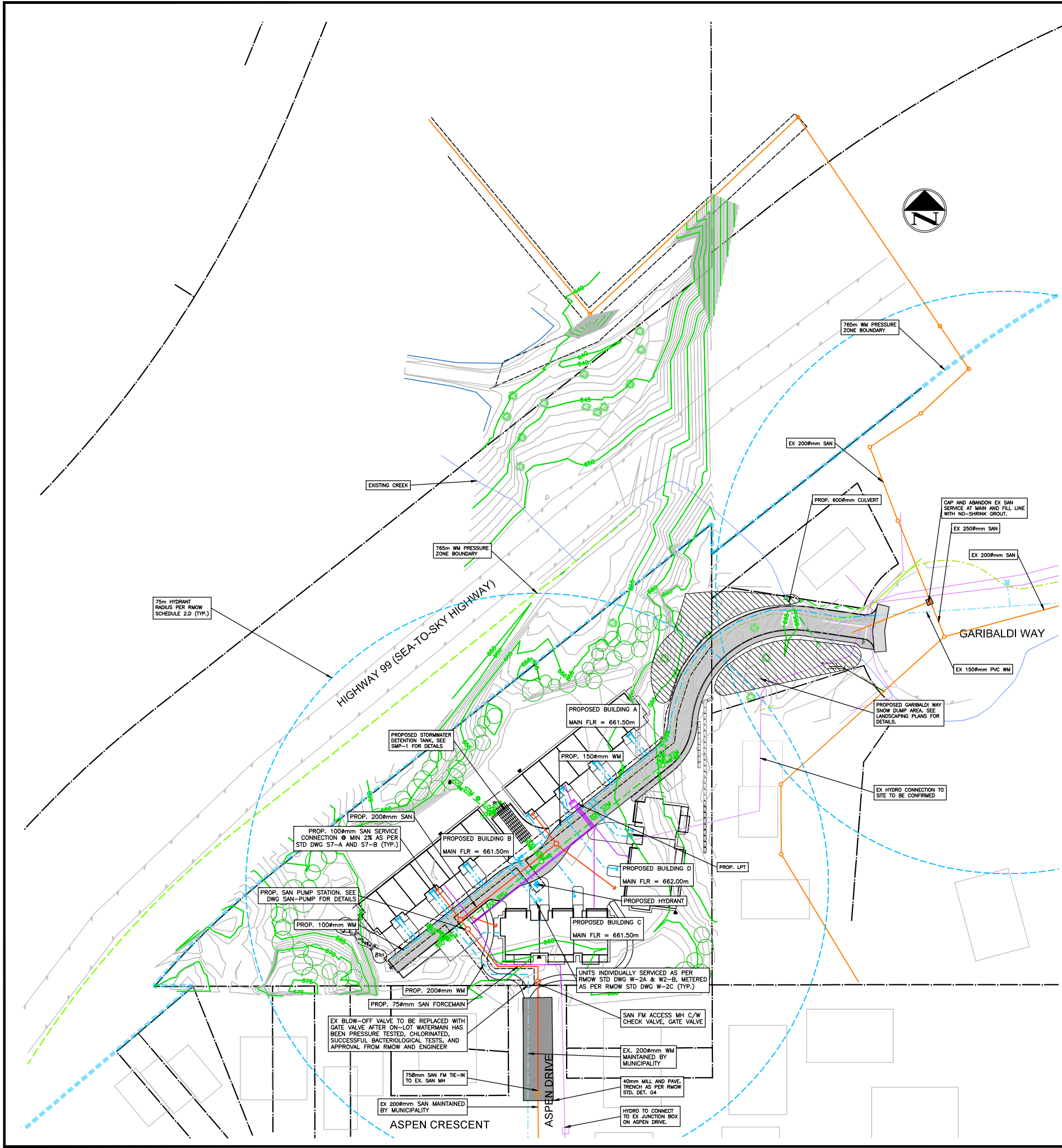


CONTRACTOR TO VERIFY & LOCATE EXISTING MAINS & SERVICE CONNECTIONS & NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO BEGINNING CONSTRUCTION

NOT FOR CONSTRUCTION

386
W BLACK
2 PIECE
SEE
JLS

P
SEE
S



SEE DRAWING KEY-1 FOR GENERAL NOTES
SEE DRAWING R-1 FOR ROADWORKS NOTES
SEE DRAWING SERV-1 FOR WATERWORKS NOTES
SEE DRAWING SERV-1 FOR STORM & SANITARY NOTES

LEGAL DESCRIPTION
PLAN 16634 LOT 3 DISTRICT LOT 5412 GROUP 1, NEW WESTMINSTER DISTRICT

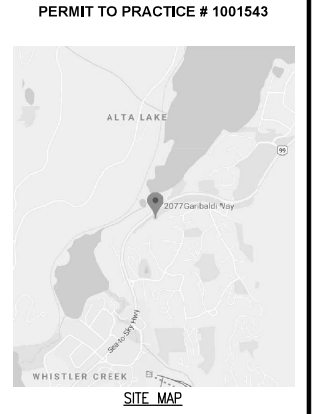
BENCHMARK INFORMATION
ELEVATIONS ARE METRIC, GEODETIC DATUM, AND DERIVED FROM L.T.O. RECORDS

- STORM AND SANITARY NOTES**
- BURIED SANITARY GRAVITY SEWERS TO BE PVC SDR 28 FOR SERVICE CONNECTIONS AND SDR 35 FOR MAIN LINES WHEN TESTED IN ACCORDANCE WITH ASTM D3034 & CSA B182.1. PIPE STIFFNESS (1/y) SHALL BE 314 kPa AT 2.5% DEFLECTION WHEN TESTED IN ACCORDANCE WITH ASTM D2412 UNLESS NOTED OTHERWISE.
 - BURIED STORM GRAVITY SEWERS TO BE CONCRETE AND SHALL MEET ASTM C-76 CLASS II OR SDR 35 FOR MAIN LINES WHEN TESTED IN ACCORDANCE WITH ASTM D3034 & CSA B182.1. PIPE STIFFNESS (1/y) SHALL BE 314 kPa AT 2.5% DEFLECTION WHEN TESTED IN ACCORDANCE WITH ASTM D2412 UNLESS NOTED OTHERWISE.
 - SANITARY FORCEMAINS ARE TO BE PVC TO AWWA C900 CLASS 150 OR HIGH DENSITY POLYETHYLENE SERIES 100 (DR17) OR BETTER, TO ASTM F714-85 & ASTM D-1248-84.
 - STORM SERVICE TO BE MINIMUM SDR28 PVC, 150mm, & 2% GRADE c/w INSPECTION CHAMBER PER RESORT MUNICIPALITY OF WHISTLER STANDARD DRAWING S7-A & S7-B. SANITARY SERVICE TO BE MINIMUM SDR28 PVC, 100mm, & 2% GRADE c/w INSPECTION CHAMBER PER RMOW STD DWG S7-A & S7-B. SANITARY AND STORM SERVICE CONNECTIONS TO BE CONNECTED TO THE MAIN WITH A MANUFACTURED WYE OR TO THE MANHOLE.
 - INSPECTION CHAMBERS AND CLEANOUTS WITHIN TRAVELED PORTIONS OF DRIVEWAYS AND ROADWAYS TO INCLUDE TERMINAL CITY MR-10 STEEL CASTING.
 - TESTING OF SEWERS TO BE PERFORMED IN THE PRESENCE OF ENGINEER INSPECTORS. 48 HOURS PRIOR NOTICE REQUIRED.
 - ALL SEWERS TO BE T.V. CAMERA INSPECTED. T.V. CAMERA INSPECTION TO BE ARRANGED AND PAID FOR BY THE CONTRACTOR.
 - ALL SEWER SERVICE CONNECTIONS ENTERING MANHOLES TO HAVE INVERT ELEVATION AT CROWN ELEVATION OF DOWNSTREAM SEWER OUTLET EXCEPT WHERE NOTED OTHERWISE.
 - WHERE SANITARY PIPE GRADE EXCEEDS 15%, PIPE TO BE ANCHORED AS PER RMOW STD DWG G8.
 - PIPE BEDDING TO CONFORM WITH RMOW STANDARDS. SEE RMOW STD DWG G4 & G9, AND BE COMPACTED TO 95% MODIFIED PROCTOR PRIOR TO BACKFILLING TRENCH.
 - ALL MANHOLES TO BE MINIMUM 1050 AS PER RMOW STD DWG S1, UNLESS OTHERWISE NOTED.
 - EXCAVATION AND PAVEMENT RESTORATION TO BE COMPLETED BY CONTRACTOR PER REGULATORY AUTHORITY REQUIREMENTS, MMCD STANDARDS AND CONTRACT DOCUMENTS. CONTRACTOR TO GIVE NOTICE PRIOR TO COMPLETING WORKS.
 - SERVICE CONNECTIONS TO BE MARKED WITH A 50mm x 100mm POST PAINTED RED FOR SANITARY AND GREEN FOR STORM AT TERMINATION. SERVICES TO BE TERMINATED 1m BEYOND THE PROPERTY LINE, UNLESS OTHERWISE NOTED.
 - MIN. COVER FOR SANITARY AND STORM = 1.5m UNDER TRAVELED AREAS AND 1.0m UNDER NON-TRAVELED AREAS. IF MINIMUM COVER IS NOT MAINTAINED PIPE TO BE CONCRETE ENCASED AS PER MMCD STD DWG G7.
 - SANITARY AND STORM SEWERS TO BE CONSTRUCTED A MINIMUM OF 0.5m BELOW WATER MAINS AND MAINTAIN 3.0m HORIZONTAL CLEARANCE. IN AREAS WHERE LESS THAN 0.5m VERTICAL OR 3.0m HORIZONTAL CLEARANCE CAN NOT BE MAINTAINED, ALL WATER MAIN JOINTS TO BE HEAT SHRINK WRAPPED OR TAPE WRAPPED AS PER MINISTRY OF HEALTH STANDARDS; AMERICAN NATIONAL STANDARDS INSTITUTE/AWWA C214 (FACTORY APPLIED), ANSI/AWWA C209 (FIELD APPLIED), ANSI/AWWA C217-90 (PETROLATUM TAPE) ALL TO MINISTRY OF HEALTH STANDARDS, AND CONCRETE ENCASED AS PER RMOW STD DWG G6. WATERMAIN CROSSINGS OF STORM OR SANITARY SEWER TO BE MADE AT MIDPOINT OF PIPE.
 - LOCATION/INVERTS OF SERVICE CONNECTIONS TO BE CONFIRMED BY ENGINEER ONCE ROUGH GRADING IS COMPLETE.

- WATERWORKS NOTES**
- VALVES AND HYDRANTS OF EXISTING SYSTEM TO NOT BE OPERATED WITHOUT THE PERMISSION OF THE ENGINEER AND WATER UTILITY.
 - WATER SERVICE CONNECTIONS UP TO 75mm TO BE POLYETHYLENE GOLD STRIPE SERIES 200 OR APPROVED EQUAL AND SIZED AS SPECIFIED. WATER SERVICE CONNECTION COMPLETE WITH SERVICE BOX TO RESORT MUNICIPALITY OF WHISTLER STANDARD DRAWING W2-A & W2-B. SERVICE CONNECTIONS 100mm AND UP TO BE DUCTILE IRON TO THE SAME SPECIFICATION AS THE WATERMAIN NOTED BELOW.
 - TIE-INS TO THE EXISTING WATERMAIN(S) SHALL BE DONE BY THE CONTRACTOR AND WITNESSED BY THE RMOW WHILE UNDER CONSTRUCTION OR NEARLY COMPLETE. CONTRACTOR TO GIVE RMOW AND ENGINEER 72 HOURS NOTICE PRIOR TO TIE-IN WORK.
 - ALL WATERMAIN PIPING TO BE DUCTILE IRON TO AMERICAN WATER WORKS ASSOCIATION C151, CEMENT MORTAR LINED TO AWWA C104, PRESSURE CLASS 350 OR PVC DR18 PIPE TO AWWA C900 FOR PIPE UP TO 300mm DIAMETER, AND AWWA C905 FOR PIPE LARGER THAN 300mm. ALL PIPE TO BE CSA B137.3 CERTIFIED. EBA METALLIC JOINT RESTRAINT ASSEMBLY TO BE USED WHERE GRADE IS AT OR EXCEEDS 20%.
 - TYTON JOINTS TO AWWA C111 AND ASTM D313.9 & GASKET TO ASTM F477.
 - TESTING OF THE WATERMAIN TO BE COMPLETED BY THE CONTRACTOR AS NOTED IN THE CONSTRUCTION SPECIFICATIONS. ENGINEER & REGULATORY AUTHORITY MUST BE NOTIFIED 48 HOURS IN ADVANCE OF ANY TESTING.
 - ALL WORKS TO BE PER MASTER MUNICIPAL CONSTRUCTION DOCUMENTS, MUNICIPAL REQUIREMENTS, CONTRACT DOCUMENTS AND ALSO THE BRITISH COLUMBIA BUILDING CODE WITHIN PROPERTY LIMITS.
 - HYDRANTS TO BE INSTALLED TO RMOW STANDARDS AS PER RMOW STANDARD DRAWINGS W3 & W4 COMPLETE WITH STORZ NOZZLE.
 - SERVICE CONNECTIONS FROM THE PROPERTY LINE TO THE BUILDING TO BE 38mm POLYBUTYLENE TO AWWA C902 CLASS 160, POLYETHYLENE TO AWWA C901, PRESSURE CLASS TUBING TO CSA B137.1 OR ENGINEER APPROVED ALTERNATIVE UNLESS SPECIFIED OTHERWISE.
 - ALL FITTINGS TO BE DUCTILE IRON TO AWWA C110 OR C153, CEMENT MORTAR LINED TO AWWA C104, TYTON JOINTS TO AWWA C111, WITH CLOSED LUGS.
 - SERVICE CONNECTIONS TO BE MARKED WITH A 50mm x 100mm POST PAINTED BLUE AT TERMINATION. SERVICES TO BE TERMINATED 1m BEYOND THE PROPERTY LINE, UNLESS OTHERWISE NOTED.
 - DURING CONSTRUCTION AND AT ANY TIME PRIOR TO ACCEPTANCE AND PRESSURIZING OF MAINS, THE CONTRACTOR SHALL PLACE A 0.3m SQUARE 20mm SHEET OF PLYWOOD OVER THE PUMPER NOZZLE OF THE HYDRANT TO INDICATE THE HYDRANT IS NOT IN USE.
 - WATERMAIN TO BE CONSTRUCTED A MINIMUM OF 0.5m ABOVE STORM OR SANITARY SEWERS AND MAINTAIN 3.0m HORIZONTAL CLEARANCE. IN AREAS WHERE LESS THAN 0.5m VERTICAL OR 3.0m HORIZONTAL CLEARANCE CAN NOT BE MAINTAINED, ALL JOINTS TO BE HEAT SHRINK WRAPPED OR TAPE WRAPPED AS PER MINISTRY OF HEALTH STANDARDS; AMERICAN NATIONAL STANDARDS INSTITUTE/AWWA C214 (FACTORY APPLIED), ANSI/AWWA C209 (FIELD APPLIED), ANSI/AWWA C217-90 (PETROLATUM TAPE). ALL TO MINISTRY OF HEALTH STANDARDS. WATERMAIN CROSSINGS OF STORM OR SANITARY SEWER TO BE MADE AT MIDPOINT OF PIPE.
 - WHERE SEWER MAIN CROSSES WATERMAIN AND CLEARANCE IS LESS THAN 0.5m, THE UPPER PIPE SHALL BE CONCRETE ENCASED PER RMOW STD DWG G6.
 - PIPE BEDDING TO CONFORM WITH RMOW STANDARDS. SEE RMOW STD DWG G4 & G9, AND BE COMPACTED TO 95% MODIFIED PROCTOR PRIOR TO BACKFILLING TRENCH.
 - EXCAVATION AND PAVEMENT RESTORATION TO BE COMPLETED BY CONTRACTOR PER REGULATORY AUTHORITY REQUIREMENTS, MMCD STANDARDS AND CONTRACT DOCUMENTS. CONTRACTOR TO GIVE NOTICE PRIOR TO COMPLETING WORKS.
 - INSTALLATION, TESTING AND CHLORINATING TO BE PERFORMED IN ACCORDANCE WITH RMOW AND MMCD CONSTRUCTION SPECIFICATIONS AND AWWA C600 AND C651. INSTALLATION AND TESTING OF PVC WATERMAIN TO AWWA M23.
 - MINIMUM COVER ON WATERMAIN & WATER SERVICE = 1.8m.
 - METERED WATER SERVICES AS PER RMOW STD DWG W2-C.
 - THRUST BLOCKS AS PER RMOW STD DWG W12-A, W12-B, & W12-C.
 - VALVE BOXES, AIR RELIEF STATIONS, BLOW OFFS, PIGGING PORTS, AND WATER SAMPLING STATIONS AS PER RMOW STD DWG W3, W6-A, W6-B, W8, W11, & W13 RESPECTIVELY.
 - COVERS FOR INSPECTION CHAMBERS, VALVE RISERS AND METER CHAMBERS LOCATED WITHIN DRIVEWAYS SHALL BE SUITABLE FOR TRAVELED LOADS.
 - LOCATION OF SERVICE CONNECTIONS TO BE CONFIRMED BY ENGINEER ONCE ROUGH GRADING COMPLETE.

CONTRACTOR TO VERIFY & LOCATE EXISTING MAINS & SERVICE CONNECTIONS & NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO BEGINNING CONSTRUCTION

NOT FOR CONSTRUCTION



DRAWING LEGEND

	EXISTING	PROP.	TO BE REMOVED
LEGAL LINE	---	---	---
EASEMENT	---	---	---
WATERMAIN	---	---	---
SANITARY	---	---	---
STORM	---	---	---
HYDRO	---	---	---
TIE	---	---	---
STREETLIGHT	---	---	---
GAS	---	---	---
FIRE HYDRANT	---	---	---
GATE VALVE	---	---	---
AIR VALVE	---	---	---
REDUCER	---	---	---
INSPECTION CHAMBER	---	---	---
CATCHER (STDS)	---	---	---
CAP	---	---	---
MANHOLE	---	---	---
POWER POLE	---	---	---
STREETLIGHT	---	---	---

client
ROBERTO VELENOSI

project
2077 GARIBALDI WAY WHISTLER, BC

title
SERVICING PLAN

no.	(y/m/d)	revision	checked	date
6	22-07-21	UPDATED PER RMOW COMMENTS	BEM	
5	22-07-20	UPDATED PER RMOW COMMENTS	BEM	
4	22-07-13	UPDATED PER RMOW COMMENTS	BEM	
3	22-05-31	ISSUED FOR DP	BEM	
2	22-03-28	UPDATED PER CLIENT COMMENTS	BEM	
1	22-02-17	ISSUED FOR REVIEW	BEM	

engineer of record: KBH scales: hor: 1:500 vert: -
designed by: KBH file no.: 13137
drawn by: BEM drawing no.:
date: 2022-01-28 SERV-1

DRAWING LEGEND

	EXISTING	PROP.	TO BE REMOVED
LEGAL LINE	---	---	---
EASEMENT	---	---	---
WATERMAIN	---	---	---
SANITARY	---	---	---
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GAS	---	---	---
FIRE HYDRANT	---	---	---
GATE VALVE	---	---	---
AIR VALVE	---	---	---
REDUCER	---	---	---
INSPECTION CHAMBER	---	---	---
CATCHER/BN (STDS)	---	---	---
CAP	---	---	---
MANHOLE	---	---	---
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STREETLIGHT	---	---	---



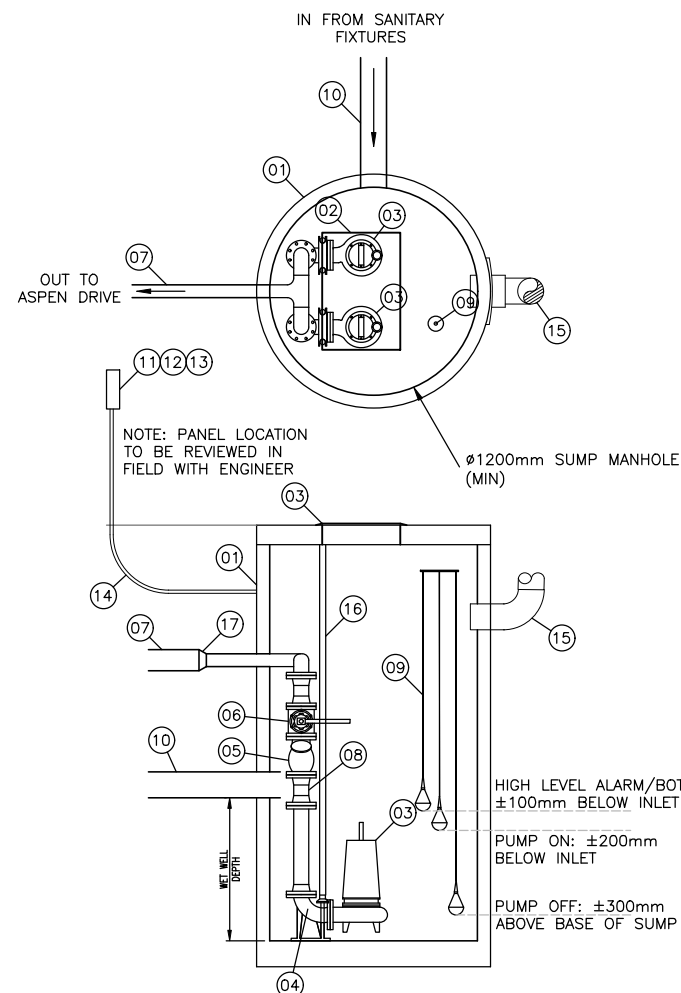
client
ROBERTO VELENOSI

project
**2077 GARIBALDI WAY
WHISTLER, BC**

title
SANITARY PUMP

no.	(y/m/d)	revision	author	check'd
3	22-07-20	UPDATED PER RMOW COMMENTS	BEM	
2	22-07-13	UPDATED PERM RMOW COMMENTS	BEM	
1	22-05-31	ISSUED FOR DP	BEM	
engineer of record: KBH scales: hor. - vert. - designed by: KBH file no.: 13137 drawn by: BEM drawing no.: date: 2022-01-28 SAN-PUMP				

PLUMBING



NOTE: PANEL LOCATION TO BE REVIEWED IN FIELD WITH ENGINEER

HIGH LEVEL ALARM/BOTH PUMPS ON: ±100mm BELOW INLET

PUMP ON: ±200mm BELOW INLET

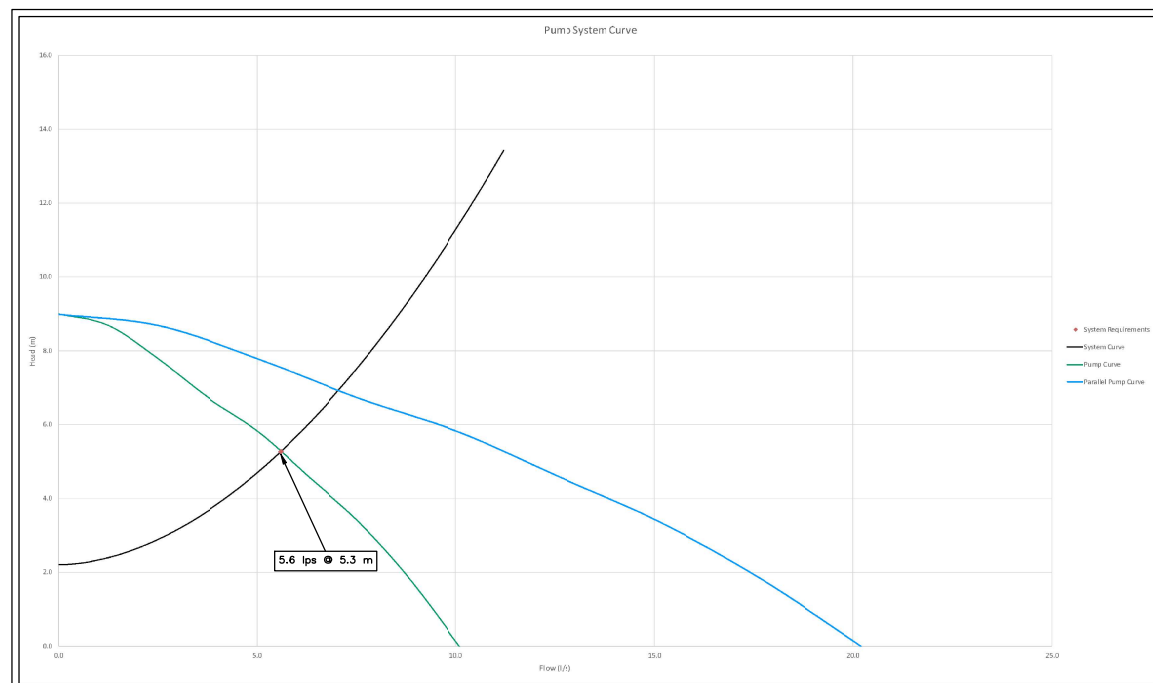
PUMP OFF: ±300mm ABOVE BASE OF SUMP

*FLOAT LEVELS TO BE USED AS GUIDE ONLY. REFER TO PUMP SPECIFICATIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES

WET WELL DEPTH = 1200mm/47"

*THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THE MINIMUM WET DEPTH IS ACHIEVED PRIOR TO BACKFILLING THE PUMP CHAMBER AND TO NOTIFY THE ENGINEER OF ANY DISCREPANCIES

SUMMARY OF REQUIREMENTS	
SUMP ø	= 1200mm/47"
WET WELL DEPTH	= 1200mm/47"
PUMP MAKE	= LIBERTY
PUMP MODEL	= LE71M2 (3/4HP)
PUMP DISCHARGE ø	= 75mm/3"
FORCEMAIN ø	= 75mm/3"
CONTROL PANEL WITH HIGH LEVEL ALARM BACK UP POWER SYSTEM	

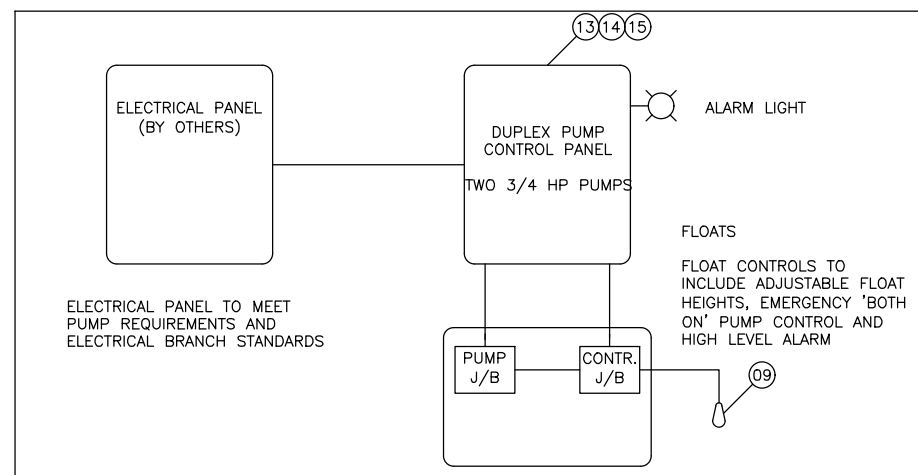


PARTS LIST

MATERIALS LIST

PART NO.	QTY	SIZE / MODEL	MATERIAL	DESCRIPTION
1	1	1200mm ø	FIBERGLASS	FIBERGLASS SUMP
2	1	N/A	-	LID / ACCESS HATCH
3	2	MAKE MODEL	-	PUMP
		3/4HP, 115V, 1ø		
		75mm DISCHARGE		
4	2	N/A	CAST IRON	PUMP SUPPORT
5	2	75mm	-	CHECK VALVE
6	2	75mm	-	BALL VALVE
7	1	75mm	PE OR PVC	FORCEMAIN
8	2	75mm	-	UNION
9	1	N/A	N/A	FLOATS
10	1	200mm	PVC	INLET PIPE
11	1	BY OTHERS	N/A	ENCLOSURE (WEATHERPROOF)
12	1	BY OTHERS	N/A	DUPLEX CONTROL PANEL
13	1	BY OTHERS	N/A	ALARM PACKAGE C/W LIGHT
14	1	-	-	ELECTRICAL CONDUIT
15	1	50mm	PVC	AIR VENT
16	2	N/A	SS	GUIDE RAILS

*OR APPROVED EQUIVALENT



SPECIFICATIONS

1. General:

- Contractor to provide a complete submersible pump system as described on the following specifications and drawings.
- The following is a performance specification only. The Contractor shall provide detailed shop drawings and specifications for review and approval prior to fabrication.
- Site, soil and groundwater conditions to be reviewed in field by Engineer during excavation in wet weather conditions. Owner and Contractor to notify engineer if any non-standard conditions are encountered during excavation and any changes from conditions indicated on drawings. Pump specifications may be adjusted, if required by Engineer.
- See civil / architectural drawings for location, orientation, inverts and connections.
- Contractor to confirm inverts at property line match levels indicated on drawing, prior to ordering equipment.
- All works to conform to the more onerous of CSA, BCBC, MMCD, manufacturer's specifications or other applicable standards. All permits are the responsibility of the contractor.
- Contractor to provide the owner copies of all warranty and operation and maintenance manuals for all components.
- Contractor to provide commissioning and testing of finished product in the presence of the Engineer and provide documentation to owner and Engineer
- Pump designed to handle flows associated with the internal sanitary fixtures of the identified building element as identified on the architectural floor plans. The Engineer to be updated with any change to sanitary loading or requirements.
- Sump pump to be monitored on a regular basis to determine if pump performance is adequate and that there has been no change to sanitary loading
- The pump system has been designed in accordance with manufactures recommendations for minimum pump run time and starts per hour. If the minimum design wet depth and or pump chamber diameter are not met, this may negatively impact the long term performance of the system and effect pump model selections.

2. Chamber:

- Pump chambers to be constructed of fiberglass to ASTM D3753 or fiberglass lined concrete per ASTM F2414-02.
- Joints in chamber sections, if applicable, to be made watertight using cement mortar or rubber gaskets to ASTM C443M.
- Pump chamber to be 1200 mm nominal inside diameter.
- Wet sump to be minimum 1200 mm deep, or as required by pump configuration.

3. Pump:

- Each pump shall have a capacity of 5.6 lps at 5.3 m head
- Impeller to be non-clog type with pump-out vanes and minimum 2.0" solids handling capacity.
- The pump shall be securely mounted in the pump chamber and shall be accessible from the surface.
- The motor shall be of the submersible type and rated for continuous duty.
- The motor shall be protected from over current and overheating conditions with automatic reset.

4. Piping and Valves:

- The forcemain piping from the combined pumps shall be 75 mm.
- The discharge and internal fittings from each pump shall be 75mm.
- External piping shall be PVC Sched 40 to ASTM D1785, or approved alternative.
- Internal piping shall be PVC Sched 40 to ASTM D1785, or approved alternative.
- Discharge piping shall be furnished with a check valve and shut-off valve.
- All piping within the chamber to be secured to the chamber wall.

5. Control:

- Provide a duplex sump pump controller in a securely fastened weatherproof enclosure.
- Pump controller to accept input from minimum 4 floats and provide for full automatic operation of pumps with alternating control of pumps starts and high level alarm triggering both pumps c/w indication alarm lights.
- Provide minimum 3 mechanical float switches and brackets c/w sufficient cable lengths.
 - Floats to be set for pump off, pump on and high level alarm.

6. Electrical:

- All electrical works to be completed by a licensed electrician.
- Contractor to include copy of electrical permit and electrical signoff with O&M manuals.
- The sump pump shall have a hard-wired direct connection to the building electrical system.
- The electrical supply shall include a circuit breaker and supply no other outlet or equipment.
- Pump high level alarm to be wired to different circuit than pump
- Back up power system to be installed by others as per municipal requirements

7. General Maintenance:

- CREUS recommends the owner conduct a full pump system review on a regular basis, per manufacturers recommendations and whenever system is not operating per normal conditions. In addition the following items should be checked at least once per year:
 - The system is working per design parameters for on cycle, off cycle and dual pump operation
 - Both pumps are functional and operating per manufacturer recommendations
 - The pumps operate without unusual noise, vibration, surge or stutter in operation
 - The pumps are not operating on a continuous cycle
 - There are no significant odor issues
 - The pumps fully empty the sump to the level of the off float in a similar time to the previous inspection
 - No debris has entered the sump that could impede the operation of either the pumps or floats
 - No grease or debris has built up on the pump or sump
 - The floats are hanging properly and are not obstructed or tangled
 - The high level alarm system is functioning
 - The power supply and backup generator are operating properly
- If the owner has any uncertainty or concerns about the pump system or items listed above, a qualified professional should be contacted for assistance.



SITE MAP

DRAWING LEGEND

	EXISTING	PROP.	TO BE REMOVED
LEGAL LINE	---	---	---
EASEMENT	---	---	---
WATERMAIN	---	---	---
SANITARY	---	---	---
STORM	---	---	---
HYDRO	---	---	---
TEL	---	---	---
STREETLIGHT	---	---	---
GAS	---	---	---
FIRE HYDRANT	○	○	○
GATE VALVE	○	○	○
AIR VALVE	○	○	○
REDUCER	○	○	○
INSPECTION CHAMBER	○	○	○
CATCH-BASIN (STDS)	○	○	○
CAP	○	○	○
MANHOLE	○	○	○
POWER POLE	○	○	○
STREETLIGHT	○	○	○



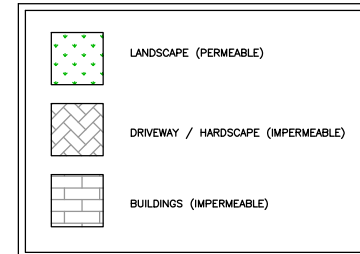
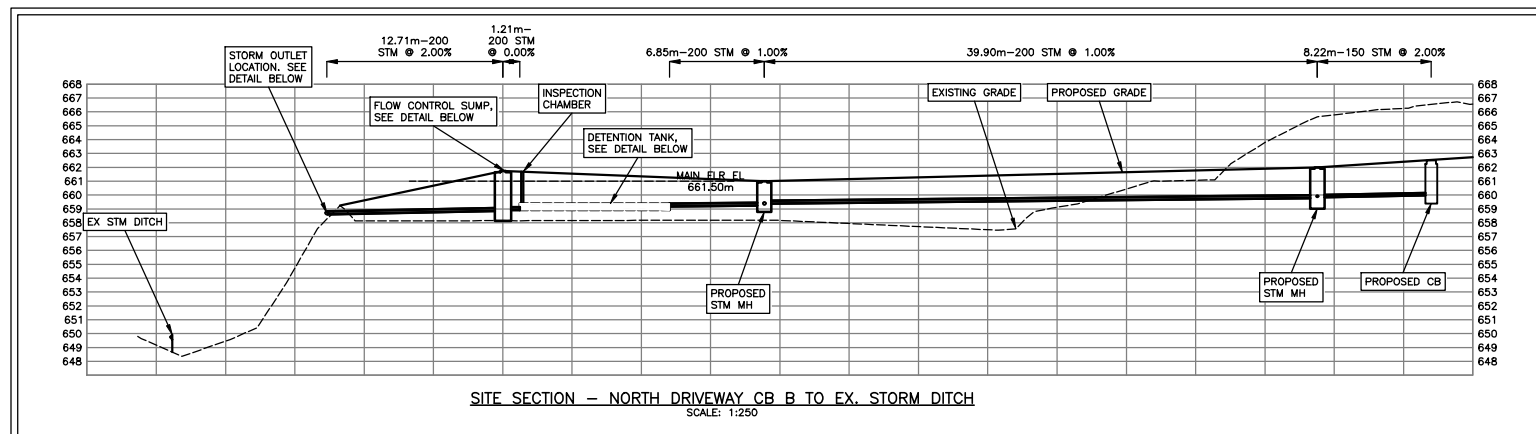
client
ROBERTO VELENOSI

project
**2077 GARIBALDI WAY
 WHISTLER, BC**

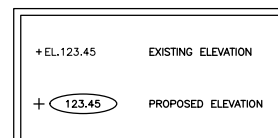
title
STORMWATER MANAGEMENT

no.	(y/m/d)	revision	author	check
5	22-07-21	UPDATED PER RMOW COMMENTS	BEM	
4	22-07-20	UPDATED PER RMOW COMMENTS	BEM	
3	22-07-13	UPDATED PER RMOW COMMENTS	BEM	
2	22-05-31	ISSUED FOR DP	BEM	
1	22-05-19	ISSUED FOR REVIEW	BEM	

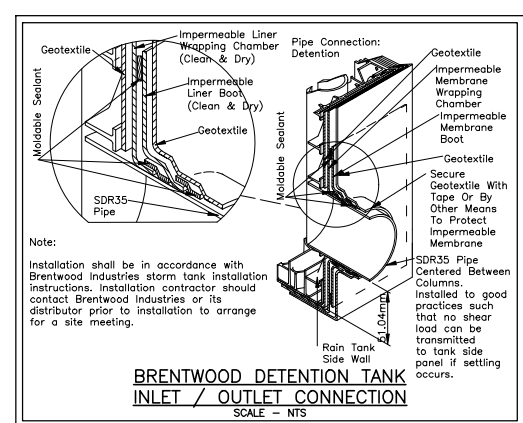
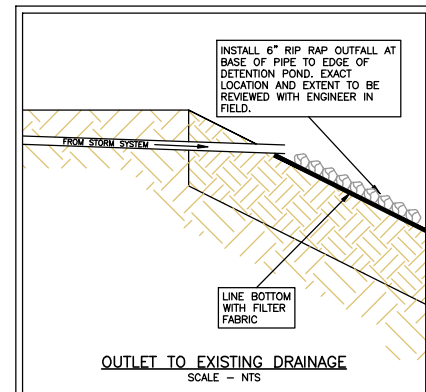
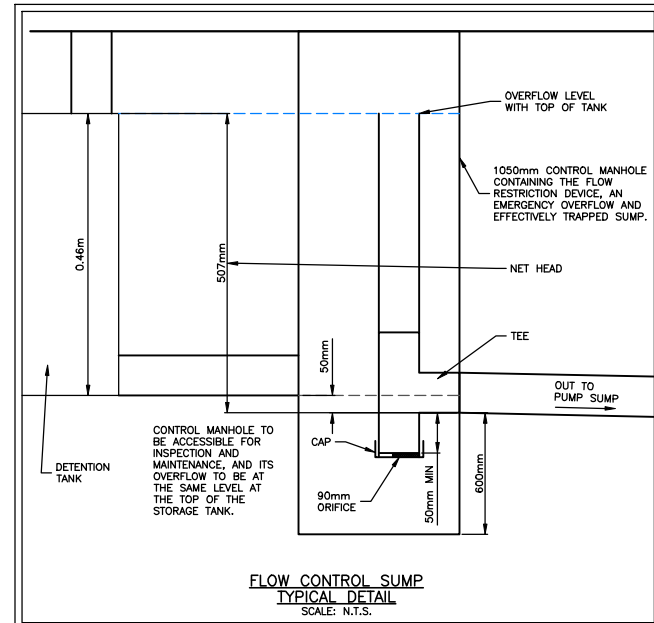
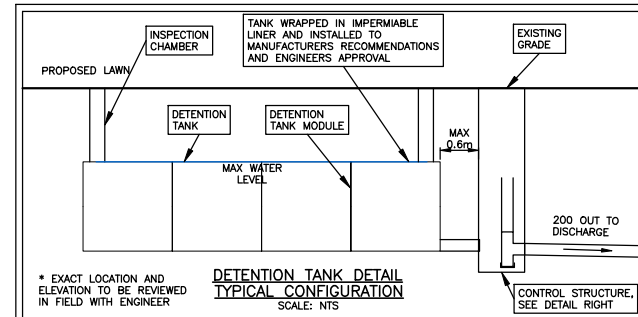
engineer of record	KBH	scale	hor: 1:500	vert: -
designed by	KBH	file no.	13137	
drawn by	BEM	drawing no.	SMP-1	
date	2022-01-28	current rev. #	4	



- NOTES:
- SITE GRADES SHOWN FOR REFERENCE ONLY. DETAILED SITE GRADING BY OTHERS
 - SITE DRAINAGE SHOWN RELATES TO STORMWATER MANAGEMENT ONLY. CONTRACTOR TO ENSURE ADEQUATE DRAINAGE PROVIDED.
 - ALL WORKS TO CONFORM TO CURRENT MUNICIPAL AND BC BUILDING & PLUMBING CODE REQUIREMENTS.
 - INFILTRATION TRENCH LOCATIONS AND EXTENTS TO BE COORDINATED IN FIELD WITH ENGINEER.
 - MUNICIPAL SERVICE CONNECTION IS TO BE INSTALLED & VERIFIED PRIOR TO THE INSTALLATION OF THE STORMWATER MANAGEMENT SYSTEM.



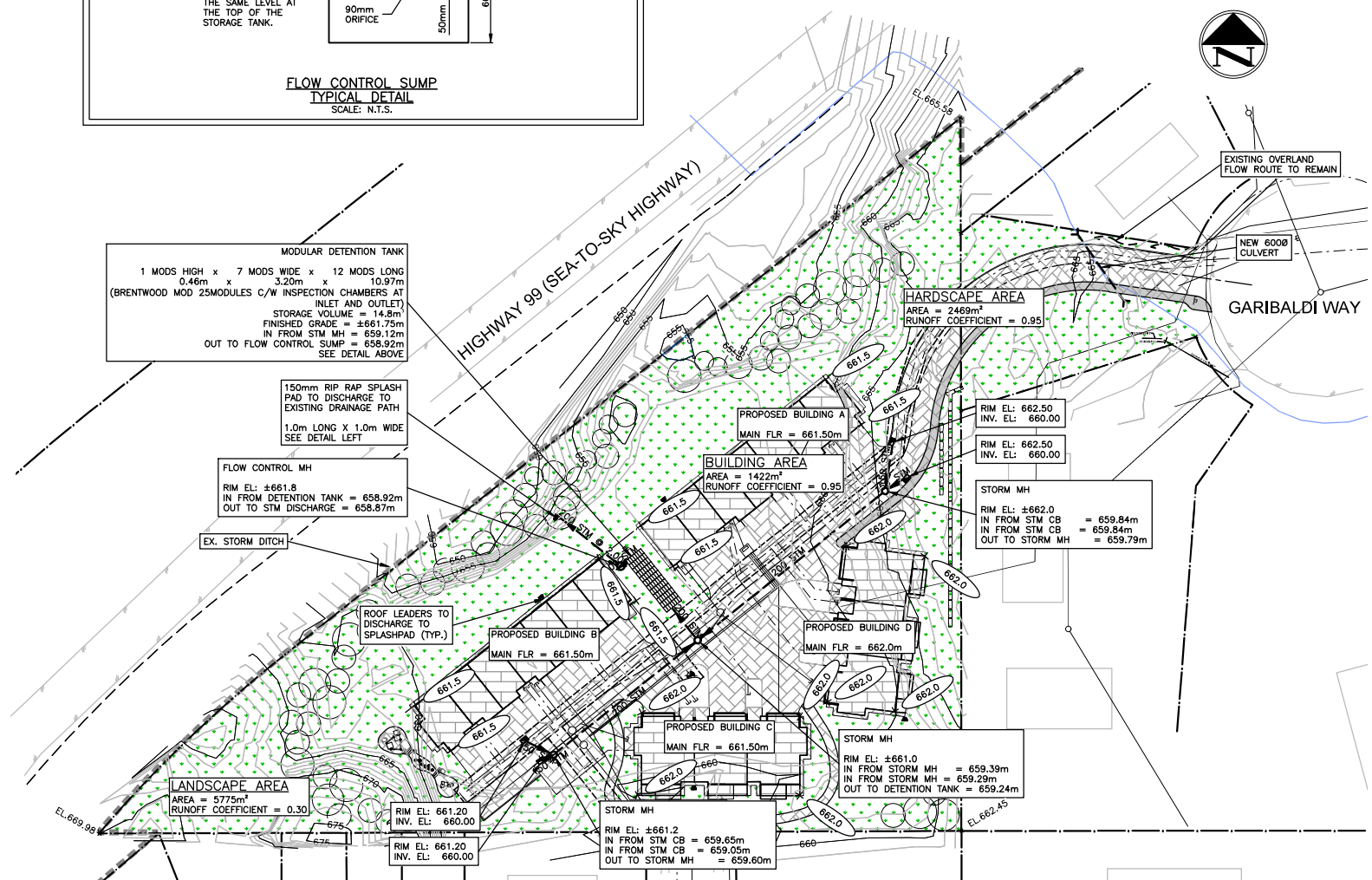
CONTRACTOR TO VERIFY & LOCATE EXISTING MAINS & SERVICE CONNECTIONS & NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO BEGINNING CONSTRUCTION



MODULAR DETENTION TANK
 1 MODS HIGH x 7 MODS WIDE x 12 MODS LONG
 0.46m x 3.20m x 10.97m
 (BRENTWOOD MOD 25MODULES C/W INSPECTION CHAMBERS AT INLET AND OUTLET)
 STORAGE VOLUME = 14.8m³
 FINISHED GRADE = ±661.75m
 IN FROM STM MH = 659.12m
 OUT TO FLOW CONTROL SUMP = 658.92m
 SEE DETAIL ABOVE

150mm RIP RAP SPLASH PAD TO DISCHARGE TO EXISTING DRAINAGE PATH
 1.0m LONG X 1.0m WIDE
 SEE DETAIL LEFT

FLOW CONTROL MH
 RIM EL: ±661.8
 IN FROM DETENTION TANK = 658.92m
 OUT TO STM DISCHARGE = 658.87m



CREUS Engineering Ltd
 Civil Engineers

Calculations

Project: 2077 Garibaldi Way File: 13137
 Subject: Stormwater Management Plan Date: 2022-04-12
 Section: SMP Source Control Calculations By: BEM

Objectives:
 Limit Runoff From The 10-Year Storm Event To Pre Development Levels
 Adhere to RMOW guidelines and "Develop with Care" best practices

Detention Tank Capture

Detention Tank Depth	0.46 m	7 module
Detention Tank Width	3.20 m	7 modules
Detention Tank Length	10.97 m	12 modules
Storage Volume	14.8 m³	(Storage Volume)
Infiltration Rate	0 mm/hr	
Potential Infiltration Provided Over 24hrs	0.0 m³	(Infiltration Volume)
Detention Tank Capture	14.8 m³	(Storage)

Pre-Development Catchment Area

Building/Roof Area (Impervious)	9756 m²
Hardscape Area (Impervious)	0 m²
Landscape Area (Penious)	9756 m²
Post Development Catchment Area	9756 m²
Building/Roof Area (Impervious)	1422 m²
Hardscape Area (Impervious)	2469 m²
Landscape Area (Penious)	5865 m²
Post Development Percent Impervious	40%

Pre-Development Peak Flows

Catchment Area (A)	9756 m²	(As Above)
Weighted Average From Impervious And Penious Areas	0.55	for 9 m²
Building/Roof Runoff Coefficient	0.80	for 0 m²
Landscape Runoff Coefficient	0.30	for 9756 m²
Pre Development Runoff Coefficient (C)	0.30	for 9756 m²
Rainfall Intensity (I)	20 min	
Pre Development TOC From CNV City Hall IDF Curve - 10yr Rainfall Intensity	15 mm/hr	
Pre-Development Peak Flow (Q=CIA)	12.5 l/s	

Post-Development Peak Flows

Catchment Area (A)	9756 m²	(As Above)
Weighted Average From Impervious And Penious Areas	0.55	for 1422 m²
Building/Roof Runoff Coefficient	0.55	for 2469 m²
Detention Pond Runoff Coefficient	1.00	for 90 m²
Landscape Runoff Coefficient	0.30	for 5865 m²
Post Development Runoff Coefficient (C)	0.57	for 9756 m²
Rainfall Intensity (I)	20 min	
Pre Development TOC From RMOW IDF Curve - 10yr Rainfall Intensity	15 mm/hr	
Post-Development Peak Flow (Q=CIA)	23.8 l/s	

Define The Post-Development 10-Year Storm Event And Release At Pre-Development Levels

Duration (min)	Intensity (mm/hr)	Peak Flow (l/s)	Release Rate (l/s)	Difference (l/s)	Volume (m³)
5	27.6	42.3	12.5	29.8	7.2
10	20.5	31.7	12.5	19.2	10.5
20	15.4	23.8	12.5	11.3	13.5
30	13.0	20.1	12.5	7.6	14.3
40	9.8	15.1	12.5	2.6	11.3
60	7.3	11.3	12.5	-1.2	-4.7
180	6.2	9.5	12.5	-3.0	-26.6
240	5.5	8.5	12.5	-4.0	-51.7

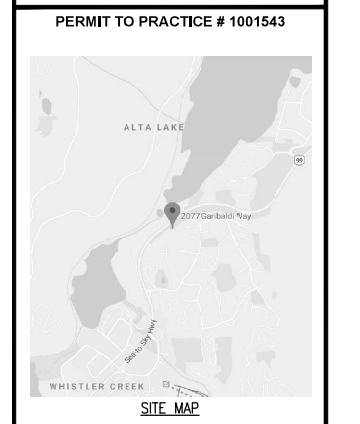
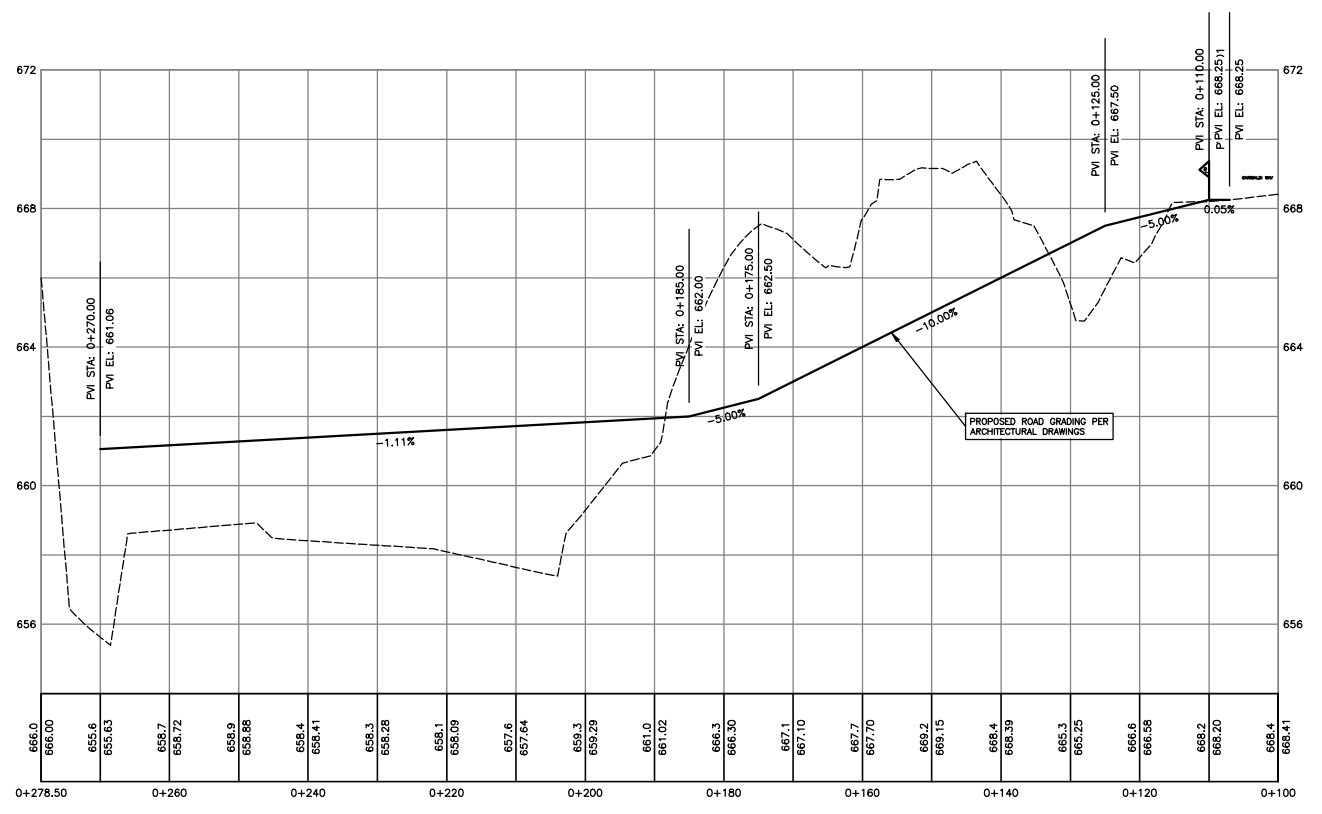
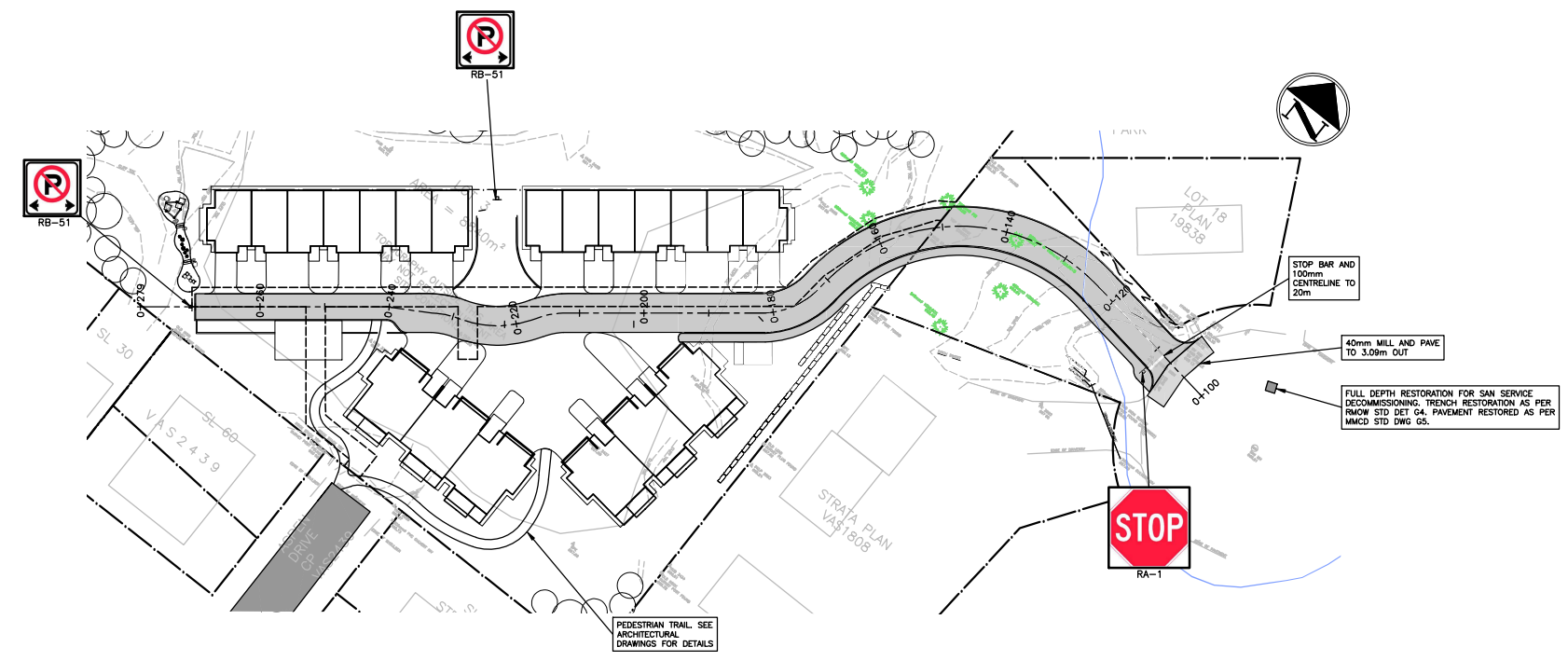
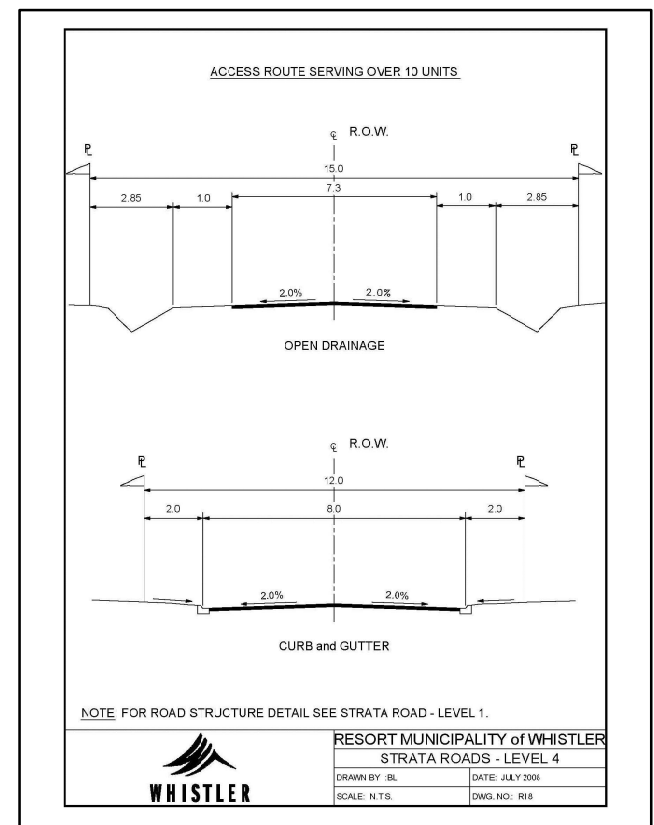
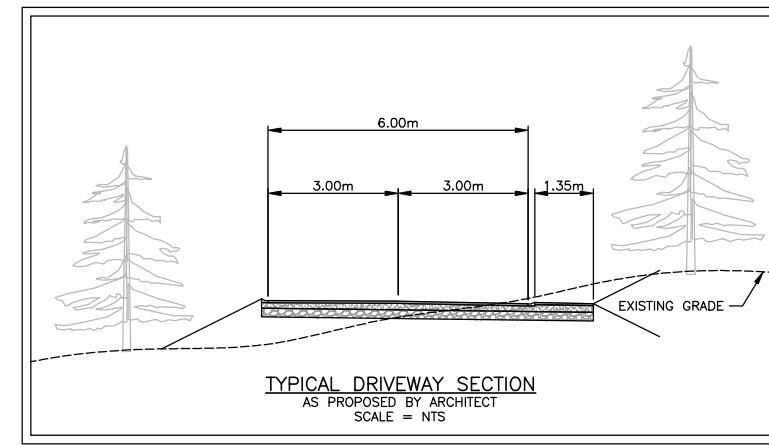
Peak Storage Requirement

Storage Provided	14.8	>	14.3	m³
Office Size				
Net Head	=	0.907 m		
Office Size	=	90 mm		
Flow Out of System	=	12.5 l/s	OKAY	

NOT FOR CONSTRUCTION

SEE DRAWING KEY-1 FOR GENERAL NOTES
 SEE DRAWING R-1 FOR ROADWORKS NOTES
 SEE DRAWING SERV-1 FOR WATERWORKS NOTES
 SEE DRAWING SERV-1 FOR STORM & SANITARY NOTES

CONTRACTOR TO VERIFY & LOCATE
 EXISTING MAINS & SERVICE
 CONNECTIONS & NOTIFY THE
 ENGINEER OF ANY DISCREPANCIES
 PRIOR TO BEGINNING CONSTRUCTION



DRAWING LEGEND

	EXISTING	PROP.	TO BE REMOVED
LEGAL LINE	---	---	---
EASEMENT	---	---	---
WATERMAIN	---	---	---
SANITARY	---	---	---
STORM	---	---	---
HYDRO	---	---	---
FEL	---	---	---
STREETLIGHT	---	---	---
GAS	---	---	---

	EXISTING	PROP.	TO BE REMOVED
FIRE HYDRANT	⊗	⊗	⊗
GATE VALVE	⊗	⊗	⊗
AIR VALVE	⊗	⊗	⊗
REDUCER	⊗	⊗	⊗
INSPECTION CHAMBER	⊗	⊗	⊗
CATCHER (STDS)	⊗	⊗	⊗
CAP	⊗	⊗	⊗
MANHOLE	⊗	⊗	⊗
POWER POLE	⊗	⊗	⊗
STREETLIGHT	⊗	⊗	⊗



client
ROBERTO VELENOSI

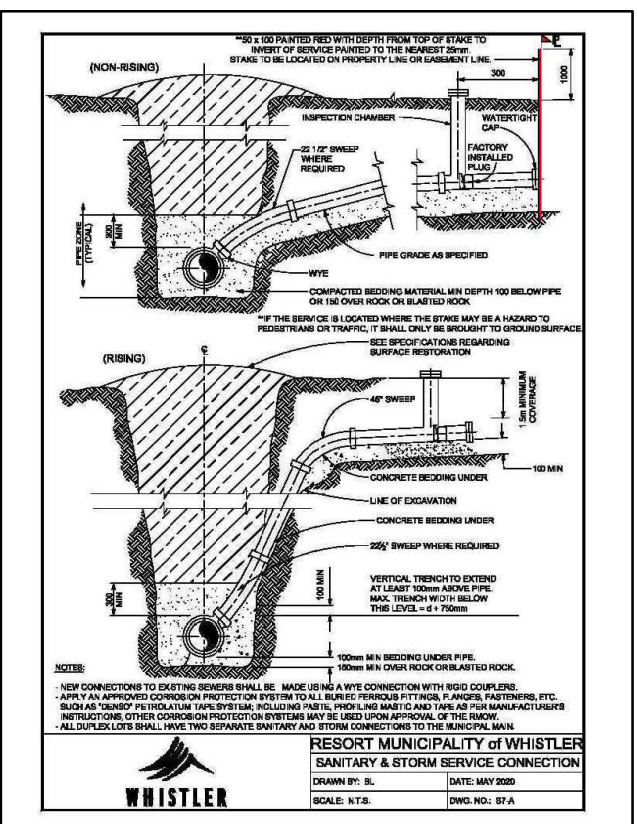
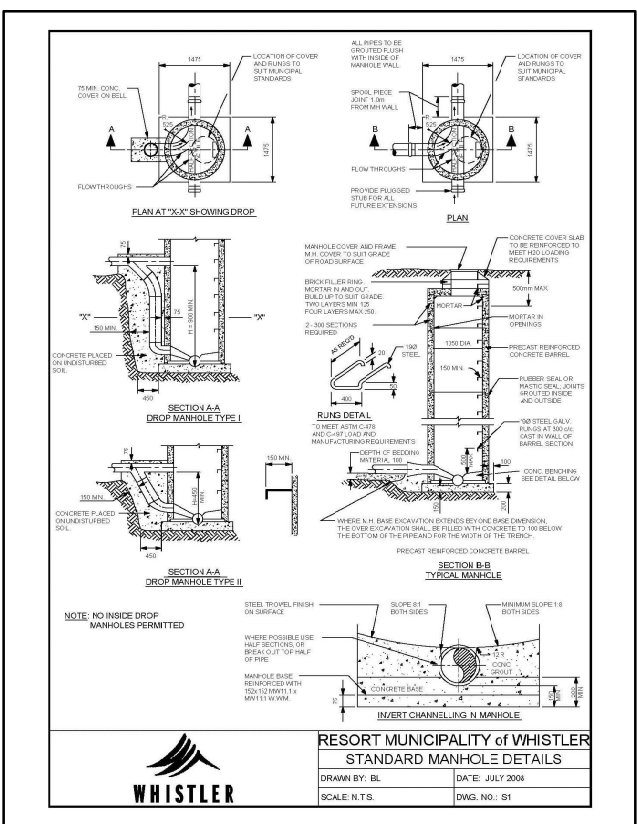
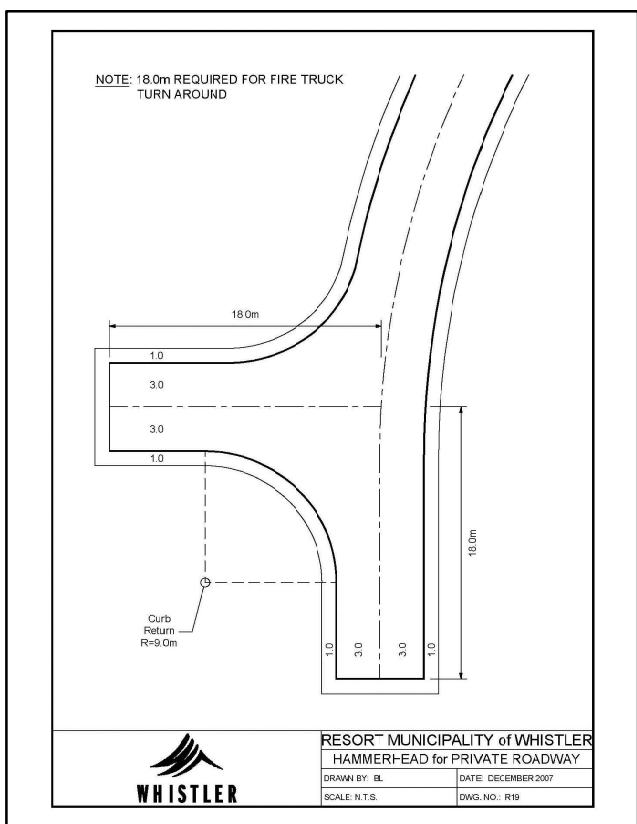
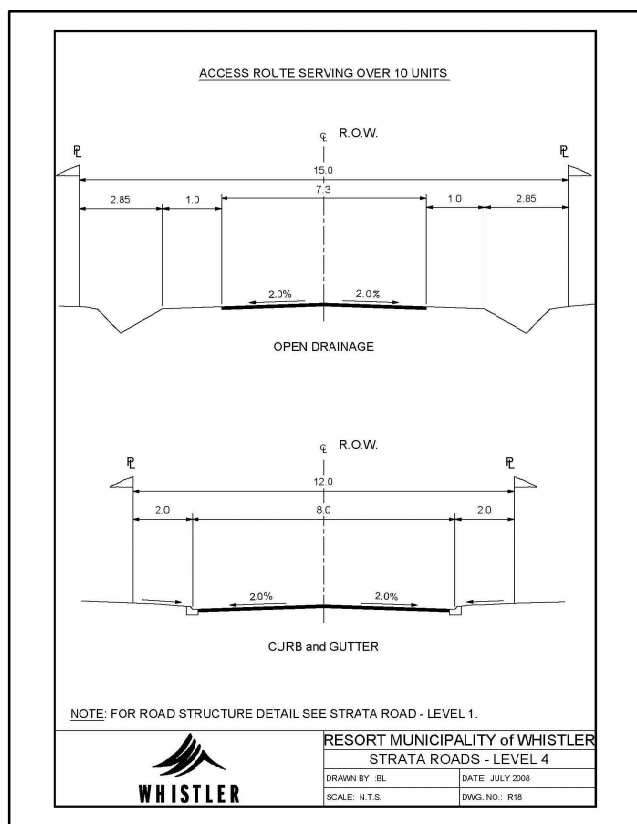
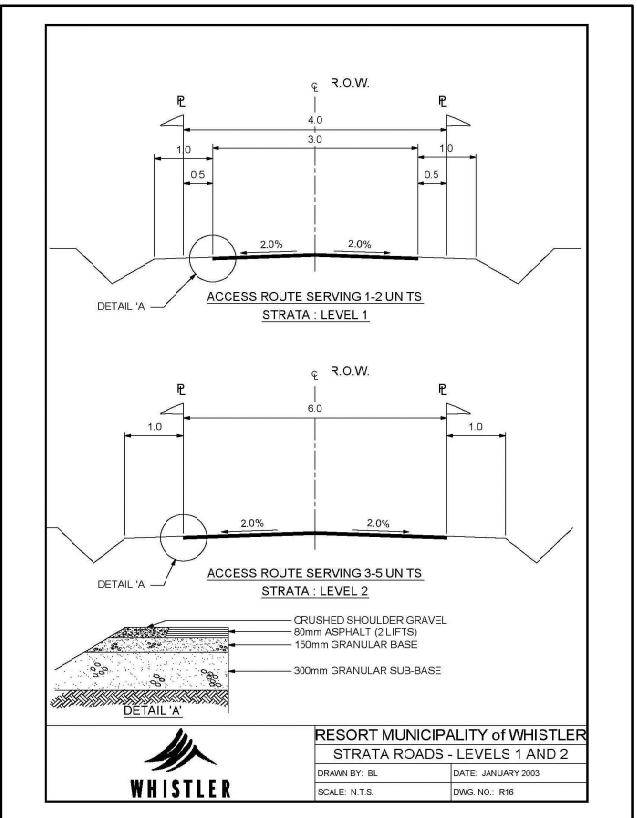
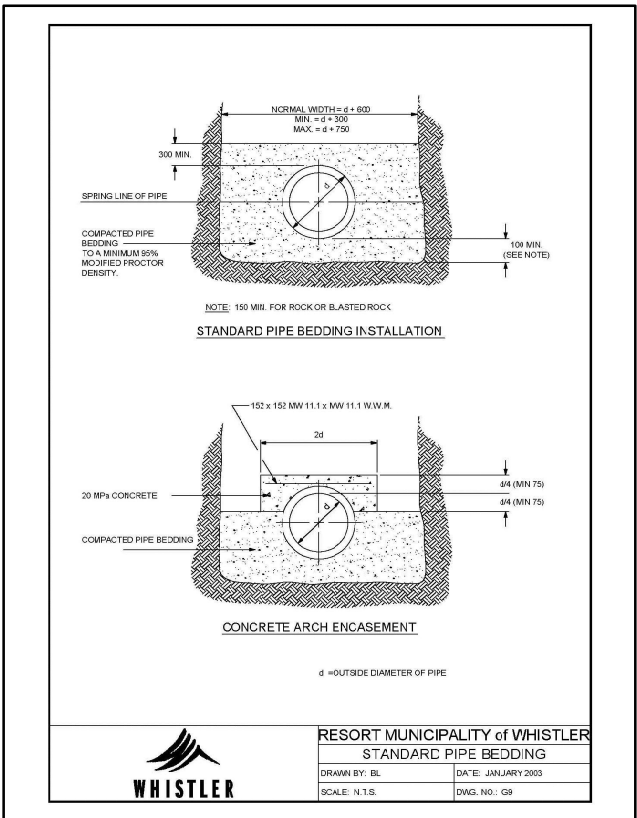
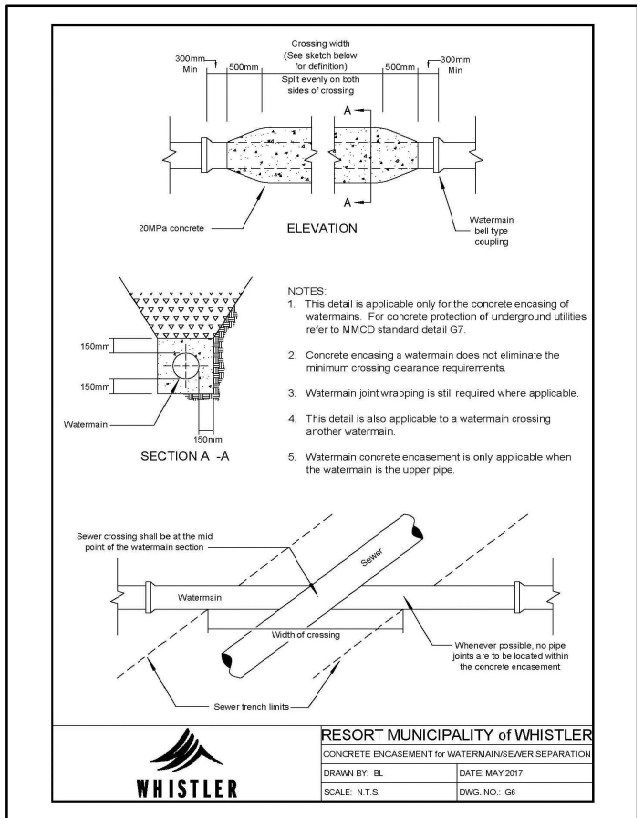
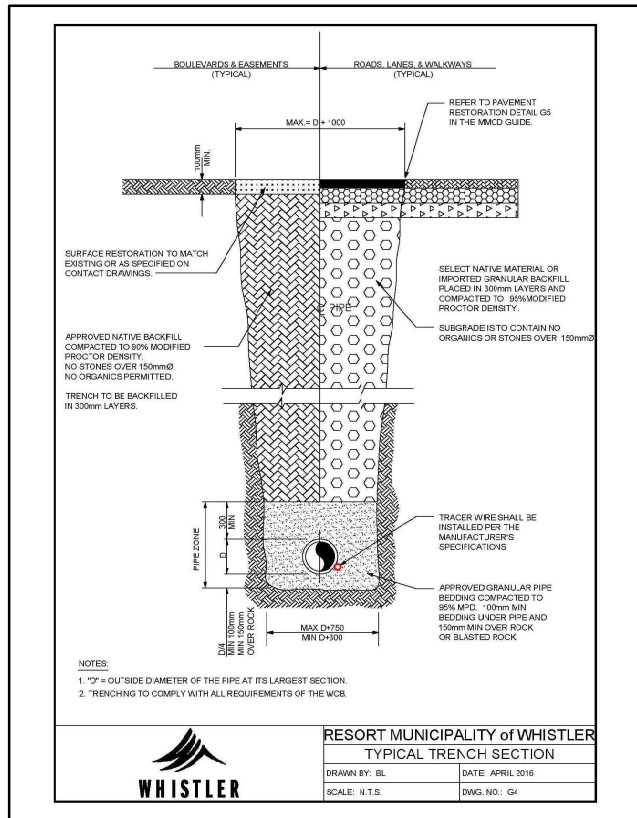
project
**2077 GARIBALDI WAY
 WHISTLER, BC**

title
**ROADWORKS
 PROPOSED DRIVEWAY**

no.	(y/m/d)	revision	author	check
5	22-07-21	UPDATED PER RMOW COMMENTS	BEM	
4	22-07-20	UPDATED PER RMOW COMMENTS	BEM	
3	22-07-13	UPDATED PER RMOW COMMENTS	BEM	
2	22-05-31	ISSUED FOR DP	BEM	
1	22-02-17	ISSUED FOR REVIEW	BEM	

engineer of record	KBH	scales	hor: 1:500	vert: -
designed by	KBH	file no.	13137	
drawn by	BEM	drawing no.	R-1	
date	2022-01-28			

NOT FOR CONSTRUCTION



DRAWING LEGEND

	EXISTING	PROP.	TO BE REMOVED
LEGAL LINE	---	---	---
EASEMENT	---	---	---
WATERMAIN	---	---	---
SANITARY	---	---	---
STORM	---	---	---
HYDRO	---	---	---
TEL	---	---	---
STREETLIGHT	---	---	---
GAS	---	---	---
FIRE HYDRANT	---	---	---
GATE VALVE	---	---	---
AIR VALVE	---	---	---
REDUCER	---	---	---
INSPECTION CHAMBER	---	---	---
CATCHBASIN (STDS)	---	---	---
CAP	---	---	---
MANHOLE	---	---	---
POWER POLE	---	---	---
STREETLIGHT	---	---	---



client
ROBERTO VELENOSI

project
 2077 GARIBALDI WAY
 WHISTLER, BC

STANDARD DETAILS

no.	(y/m/d)	revision	author	check
4	22-07-20	UPDATED PER RMOW COMMENTS	BEM	
3	22-07-13	UPDATED PER RMOW COMMENTS	BEM	
2	22-05-31	ISSUED FOR DP	BEM	
1	22-02-17	ISSUED FOR REVIEW	BEM	

engineer of record: KBH
 designed by: KBH
 drawn by: BEM
 date: 2022-01-28

scales: hor. - vert. -
 no.: 13137
 drawing no.: DET-1

NOT FOR CONSTRUCTION

PERMIT TO PRACTICE # 1001543

CASE 1:
SANITARY SERVICE INSPECTION CHAMBER IN NON TRAVELLED AREA

CASE 2:
INSTALLATION IN BOULEVARD

CASE 3:
ASPHALT/CONCRETE DRIVEWAY

CASE 4:
GRAVEL DRIVEWAY

NOTES:
-INSPECTION CHAMBER FITTING WITH FACTORY INSTALLED PLUG, LERON PLASTICS PART #76A4PPAF OR EQUIVALENT
-200MM INSPECTION CHAMBER LID ADAPTER LOCKING LERON PLASTICS PART #73A, DBHS, OR EQUIVALENT
-200MM RED LOCKING INSPECTION CHAMBER LID, LERON PLASTICS PART #71A3LD06RGL OR EQUIVALENT
-APPLY AN APPROVED CORROSION PROTECTION SYSTEM TO ALL BURIED FERROUS FITTINGS, FLANGES, FASTENERS, ETC. SUCH AS 'DENSO' PETROLIUM TAPE SYSTEM, INCLUDING PASTE, PROFILING MASTIC AND TAPE AS PER MANUFACTURER'S INSTRUCTIONS. OTHER CORROSION PROTECTION SYSTEMS MAY BE USED UPON APPROVAL OF THE RMOW.
-ALL DUPLEX LOTS SHALL HAVE TWO SEPARATE SANITARY AND STORM CONNECTIONS TO THE MUNICIPAL MAIN

RESORT MUNICIPALITY of WHISTLER
 SANITARY & STORM SERVICE INSPECTION CHAMBER
 DRAWN BY: EL DATE: JULY 2017
 SCALE: N.T.S. DWG. NO.: SF-B

NOTE:
ALL DRAINAGE FROM DRIVEWAY AND PRIVATE PROPERTY TO BE DIRECTED TO DITCH BY CROWN AND/OR SWALE. NO DRAINAGE TO STREET.
ONLY ONE (1) DRIVEWAY ACCESS PERMITTED PER RESIDENCE.

RESORT MUNICIPALITY of WHISTLER
 DRIVEWAY CULVERT & HEADWALL
 DRAWN BY: ELJUD DATE: SEPTEMBER 2012
 SCALE: N.T.S. DWG. NO.: SF-5

NOTE:
-WHERE EXCAVATION IS IN ROCK, THE ROCK SHALL BE BLASTED, REMOVED AND ZONE REPLACED WITH COMPACTED GRAVEL BACKFILL FOR A MIN. DISTANCE OF 1.5m BEHIND PROPERTY LINE
-ALL DUPLEX LOTS SHALL HAVE 2 SEPARATE 19mm ID WATER SERVICE CONNECTIONS
-APPLY AN APPROVED CORROSION PROTECTION SYSTEM TO ALL BURIED FERROUS FITTINGS, FLANGES, FASTENERS, ETC. SUCH AS 'DENSO' PETROLIUM TAPE SYSTEM INCLUDING PASTE, PROFILING MASTIC AND TAPE AS PER MANUFACTURER'S INSTRUCTIONS. OTHER CORROSION PROTECTION SYSTEMS MAY BE USED UPON APPROVAL OF THE RMOW.

RESORT MUNICIPALITY of WHISTLER
 STANDARD WATER SERVICE CONNECTION
 DRAWN BY: EL DATE: JANUARY 2018
 SCALE: N.T.S. DWG. NO.: W2-4

NOTE:
-ALL DUPLEX LOTS SHALL HAVE TWO SEPARATE 19mm ID WATER SERVICE CONNECTIONS
-APPLY AN APPROVED CORROSION PROTECTION SYSTEM TO ALL BURIED FERROUS FITTINGS, FLANGES, FASTENERS, ETC. SUCH AS 'DENSO' PETROLIUM TAPE SYSTEM INCLUDING PASTE, PROFILING MASTIC AND TAPE AS PER MANUFACTURER'S INSTRUCTIONS. OTHER CORROSION PROTECTION SYSTEMS MAY BE USED UPON APPROVAL OF THE RMOW.

RESORT MUNICIPALITY of WHISTLER
 RESIDENTIAL WATER SERVICE
 DRAWN BY: EL DATE: JANUARY 2018
 SCALE: N.T.S. DWG. NO.: W6-B

DRAWING LEGEND

	EXISTING	PROP.	TO BE REMOVED
LEGAL LINE	---	---	---
EASEMENT	---	---	---
WATERMAIN	---	---	---
SANITARY	---	---	---
STORM	---	---	---
HYDRO	---	---	---
TEL	---	---	---
STREETLIGHT	---	---	---
GAS	---	---	---

	EXISTING	PROP.	TO BE REMOVED
FIRE HYDRANT	---	---	---
GATE VALVE	---	---	---
AIR VALVE	---	---	---
REDUCER	---	---	---
INSPECTION CHAMBER	---	---	---
CATCHER (STDS)	---	---	---
CAP	---	---	---
MANHOLE	---	---	---
POWER POLE	---	---	---
STREETLIGHT	---	---	---

NOTE:
-METERS SHALL BE INSTALLED IN ACCORDANCE WITH A.W.A. C700 SPEC. IN A PROTECTED FROST FREE LOCATION.
-METERS TO BE SUPPLIED BY THE OWNER TO THE MUNICIPALITY AND REMAIN THE PROPERTY OF THE MUNICIPALITY.
-METERS TO BE ACCESSIBLE BY MUNICIPAL PERSONNEL FOR INSPECTION AND MAINTENANCE.

RESORT MUNICIPALITY of WHISTLER
 STANDARD FOR METERED CONNECTIONS
 DRAWN BY: EL DATE: JUNE 2020
 SCALE: N.T.S. DWG. NO.: W2-C

NOTE:
-APPLY AN APPROVED CORROSION PROTECTION SYSTEM TO ALL BURIED FERROUS FITTINGS, FLANGES, FASTENERS, ETC. SUCH AS 'DENSO' PETROLIUM TAPE SYSTEM INCLUDING PASTE, PROFILING MASTIC AND TAPE AS PER MANUFACTURER'S INSTRUCTIONS. OTHER CORROSION PROTECTION SYSTEMS MAY BE USED UPON APPROVAL OF THE RMOW.

RESORT MUNICIPALITY of WHISTLER
 VALVE BOX ASSEMBLY
 DRAWN BY: EL DATE: JANUARY 2018
 SCALE: N.T.S. DWG. NO.: W5

NOTE:
-CULVERT TO BE SIZED TO CARRY DITCH DESIGN FLOWS. LENGTH 2.0m ON CONCRETE HEADWALLS
-COMPACT BEDDING TO 95% MODIFIED PROCTOR FOR INSTALLATION OF VALVE BOX
-SEE RMOW STANDARD DWG W2
-APPLY AN APPROVED CORROSION PROTECTION SYSTEM TO ALL BURIED FERROUS FITTINGS, FLANGES, FASTENERS, ETC. SUCH AS 'DENSO' PETROLIUM TAPE SYSTEM INCLUDING PASTE, PROFILING MASTIC AND TAPE AS PER MANUFACTURER'S INSTRUCTIONS. OTHER CORROSION PROTECTION SYSTEMS MAY BE USED UPON APPROVAL OF THE RMOW.

APPROVED HYDRANTS:
 - T.S. I.W. C-71P EXTENDED BODY
 - COMPRESSION TYPE HYDRANT CANADA VALVE 'CSTUBBY'
 - CLOW CANADA 'BRISADIER M30'

RESORT MUNICIPALITY of WHISTLER
 STANDARD HYDRANT ASSEMBLY
 DRAWN BY: EL DATE: JANUARY 2018
 SCALE: N.T.S. DWG. NO.: W4

MMCD STANDARD DETAIL DRAWINGS

NOTE: 1. REFER TO CONTRACT DRAWINGS, SECTIONS 31, 23, 01 AND 32, 12, 16 FOR DETAILED SPECIFICATIONS.

NOT TO SCALE

PAVEMENT RESTORATION

DRAWING NUMBER: **G5**

client: **ROBERTO VELENOSI**

project: **2077 GARIBALDI WAY WHISTLER, BC**

title: **STANDARD DETAILS**

no.	(y/m/d)	revision	author	chk'd
4	22-07-20	UPDATED PER RMOW COMMENTS	BEM	
3	22-07-13	UPDATED PER RMOW COMMENTS	BEM	
2	22-05-31	ISSUED FOR DP	BEM	
1	22-02-17	ISSUED FOR REVIEW	BEM	

engineer of record: KBH scales: hor. - vert. -
 designed by: KBH no.: 13137
 drawn by: BEM drawing no.:
 date: 2022-01-28 DET-2

NOT FOR CONSTRUCTION