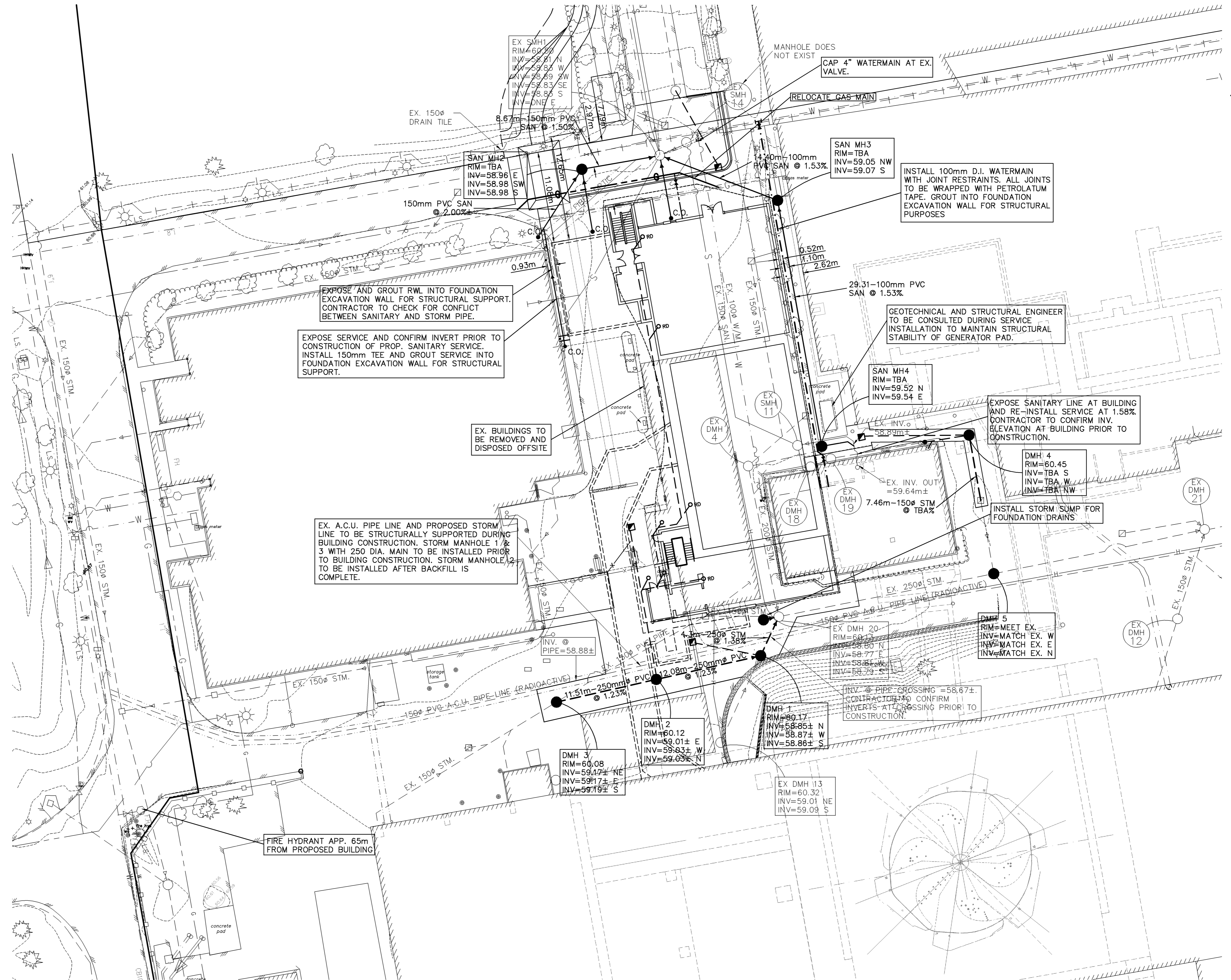




**GENERAL NOTES:**

- ALL OUTSIDE UTILITY LINE CONSTRUCTION TO CONFORM TO UBC TECHNICAL GUIDELINES DIVISION 2.
- ALL CONSTRUCTION SHALL CONFORM TO THE BRITISH COLUMBIA BUILDING AND PLUMBING CODE. UBC TECHNICAL GUIDELINES WILL PREVAIL IN CASE OF CONFLICTS BETWEEN THE TWO GUIDELINES.
- THE DRAWING SHALL BE READ IN CONJUNCTION WITH OTHER CONSULTANTS DRAWINGS INCLUDING ARCHITECTURAL, MECHANICAL, ELECTRICAL AND LANDSCAPE DRAWINGS.
- WATERMANS SHALL HAVE A MIN. COVER OF 1.0m.
- FOR THRUST BLOCK DETAILS SEE M.M.C.D SECTION 02666.
- FOR ALL OTHER DETAILS WITHIN ONE METRE OF THE BUILDING SEE MECHANICAL DRAWINGS.
- STORM AND SANITARY SEWER UNDER THE ROAD SURFACE, WITH LESS THAN 1.0m COVER TO BE DWV CERTIFIED OR APPROVED EQUIVALENT.
- ALL CONNECTIONS TO BE 1.0m FROM BUILDING UNLESS OTHERWISE NOTED.
- SEE MECHANICAL DRAWINGS FOR WATER CONNECTION VALVE DETAILS. THESE SERVICES TO BE CONSTRUCTED UNDER THE MECHANICAL CONTRACT.
- CATCH BASINS TO BE AS PER DOBNEY No. 23 (GRATE) AND No. 24 (FRAME) OR APPROVED EQUIVALENT.
- ALL WATERMAIN TO BE CLASS 50 DUCTILE IRON PIPE UNLESS NOTED OTHERWISE.
- CONTRACTOR TO TEST, CHLORINATE AND FLUSH THE WATER SYSTEM UNDER THE SUPERVISION OF THE UTILITIES MECHANICAL ENGINEER PRIOR TO TIE-INTO MUNICIPAL SYSTEM. 24 HOURS NOTICE IS REQUIRED (USE UTILITY SERVICE ACTIVATION REQUEST FORM).
- ALL TOP ELEVATIONS OF MANHOLES, I.C.'s, CLEANOUTS AND BUILDING SUMP COVERS IN ROADWAY AND/OR PARKING STALLS TO BE FLUSH WITH FINISHED GRADE.
- ALL DIMENSIONS AND ELEVATIONS ARE IN METRIC UNITS.
- FOR THRUST BLOCK DETAILS SEE M.M.C.D. SECTION 02666.
- ALL STORM SEWER PIPE TO BE PVC SDR28 (150mm OR SMALLER) OR SDR35 CONCRETE (REINFORCED C76 FOR PIPES GREATER THAN 600mm).
- ALL SANITARY SEWER PIPE TO BE PVC SDR28 (150mm OR SMALLER) AND SDR35 CONCRETE (REINFORCED C76 FOR PIPES GREATER THAN 600mm).
- ALL TRENCH EXCAVATION AND BACKFILL TO CONFORM TO MASTER MUNICIPAL SPEC'S.
- ALL LAWN BASINS TO BE 300# TYPE I AS PER MMCD STD. DWG. S12 U.N.O.
- ALL LAWN BASIN LEADS TO BE 150# PVC DR35 @ 1% MIN. U.N.O.
- CONTRACTOR TO TAKE ALL MEASURES REQUIRED TO PROTECT UNDERGROUND SERVICES FROM CONSTRUCTION TRAFFIC WHERE SERVICES HAVE LESS THAN 0.9m COVER DURING CONSTRUCTION.
- ALL CATCH BASIN LEADS TO BE 200# PVC SDR35 @ 1.0% MIN. U.N.O.
- ALL STORM CONNECTIONS TO EXCLUDE BUILDING SUMPS. SUMPS TO BE INSTALLED BY OTHERS.
- ALL WATERMAIN FITTINGS TO BE RESTRAINED AS PER UBC TECHNICAL GUIDELINES DIVISION 2, SECTION 02660.
- ALL SERVICES ARE TO BE INSTALLED AND BEDDED ON COMPETENT SUBGRADE. ANY AREA REQUIRING STRUCTURAL FILL OR BULK EXCAVATION MUST BE BACKFILLED AND COMPACTED WITH SUITABLE GRANULAR MATERIAL UNDER THE SUPERVISION OF A QUALIFIED GEOTECHNICAL ENGINEER.
- ALL TRENCH BACKFILL TO BE NATIVE MATERIAL, COMPACTED TO 95% MPMD.
- ALL MANHOLES RIMS WITHIN LANDSCAPE AREAS ARE APPROXIMATE ONLY AND ARE TO BE CONFIRMED UPON FINALIZATION AND COORDINATION OF CIVIL AND LANDSCAPE DRAWINGS.
- WATERMANS SHALL HAVE A MINIMUM DEPTH OF 1.0m METRE.
- WATER VALVE INSTALLATION AND VALVE BOX SPEC TO FOLLOW UBC TECHNICAL GUIDELINES DIVISION 2, SECTION 02660.



REV.	DATE	REVISION DESCRIPTION	BY	REV.	DATE	REVISION DESCRIPTION	BY
1	18/05/2011	UBC UTILITIES PRE-DEVELOPMENT PERMIT COMMENTS	NM				

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All dimensions on the project must be checked by the contractor.

This drawing must not be used for construction purposes until here counter-signed.

cta: cta: date: date:

**H.Y. ENGINEERING LTD.**

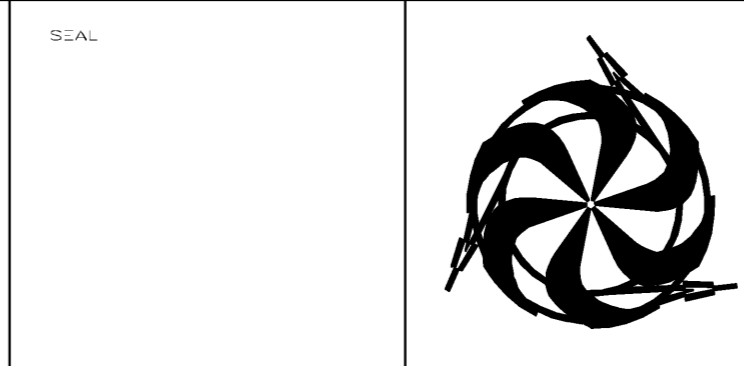
110-1281 West Georgia  
Vancouver, British Columbia  
Canada V6E 3J5

• #200-9128-152nd St. Surrey, BC V3R 4E7 • TEL 604-583-1616  
• Website: www.hyengineering.com • FAX 604-583-1737

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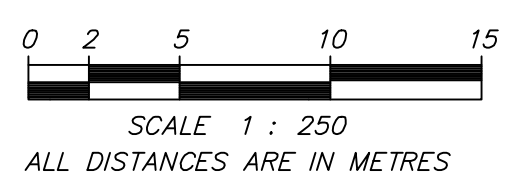
Tel. 604 689-9460  
Fax 604 683-7684



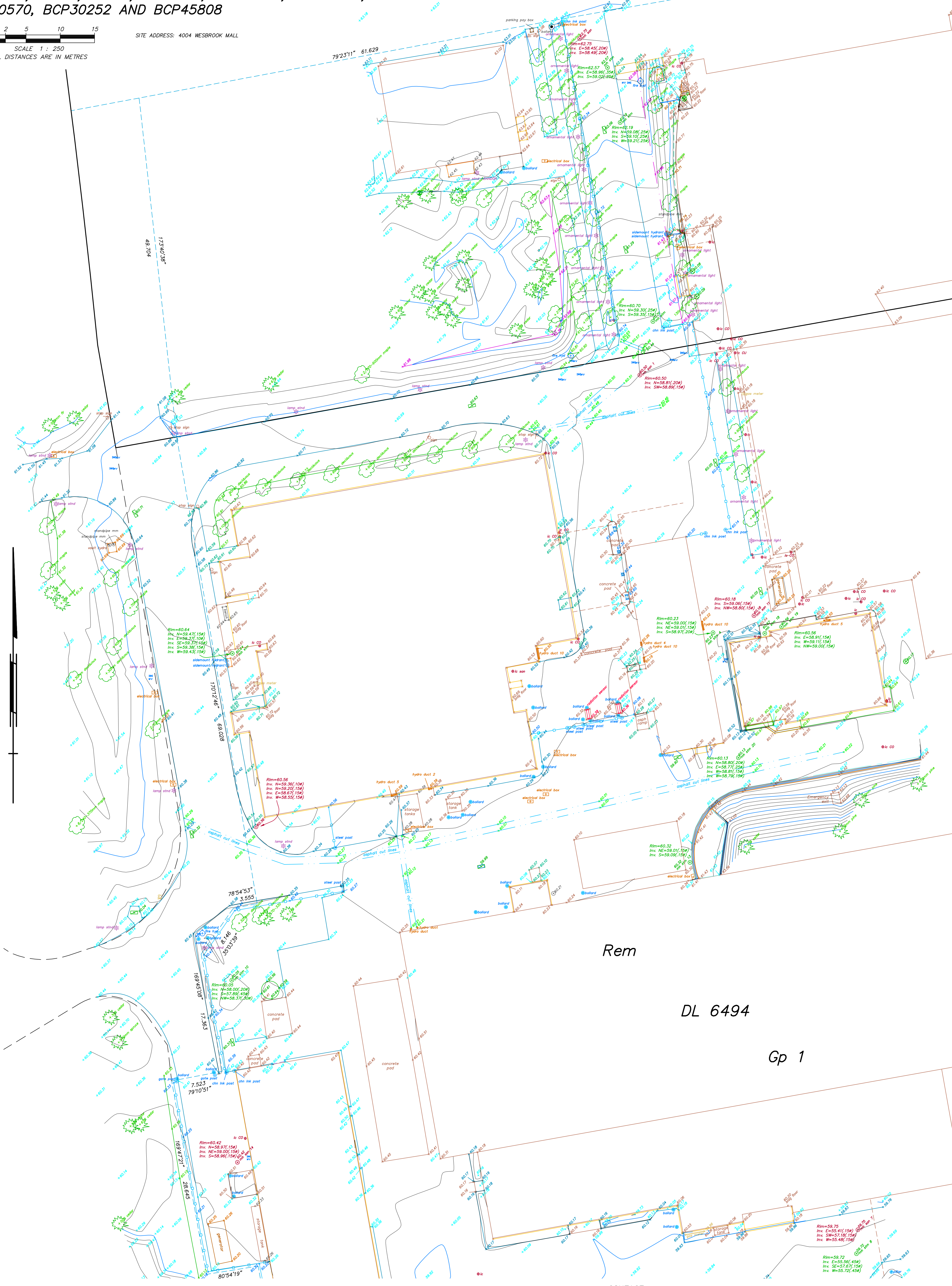
<b>TRIUMF</b> Canada's National Laboratory for Particle and Nuclear Physics		4004 Wesbrook Mall   Vancouver BC   Canada V6T-2A3	
DESIGNED NM	ARIEL ONSITE KEY PLAN		
DRAWN NM	CIVIL		
CHECKED PH			
REA# -	PLOT SCALE 1:250	DWG NO. 3193-01K	FILE NO. 103193
APPROVED -	DATE 18/05/2011		REV. 1

SKETCH SHOWING TOPOGRAPHIC SURVEY OF A PORTION OF  
 TRIUMF FACILITY  
 SOUTH CAMPUS  
 UNIVERSITY OF BRITISH COLUMBIA

LEGAL DESCRIPTION:  
 PORTION OF DISTRICT LOT 6494 GROUP 1 NEW WESTMINSTER  
 DISTRICT EXCEPT PARTS IN PLANS  
 11345, 18645, 21966, BCP5864, BCP23588, BCP26848,  
 20570, BCP30252 AND BCP45808



SITE ADDRESS: 4004 WESBROOK MALL



Rem

DL 6494

Gp 1

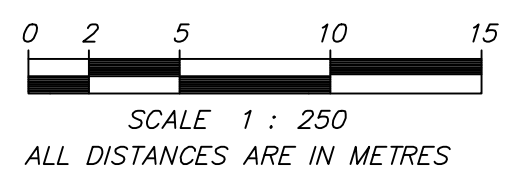
**NOTES :**  
 All elevations and distances shown are in metres.  
 Elevations are derived from UBC Monument W-W, located  
 on East Mall in front of the CEME Building (between  
 Agronomy Road and University Boulevard)  
 Geodetic Elevation = 93.631  
 Contour Interval = 0.25m

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 (604) 572-5422  
 rjanzen@murray.com  
 Additional topographic survey May 03, 2011  
 Updated (MH added) January 27, 2011  
 December 06, 2010  
 FILE 8613EX-1

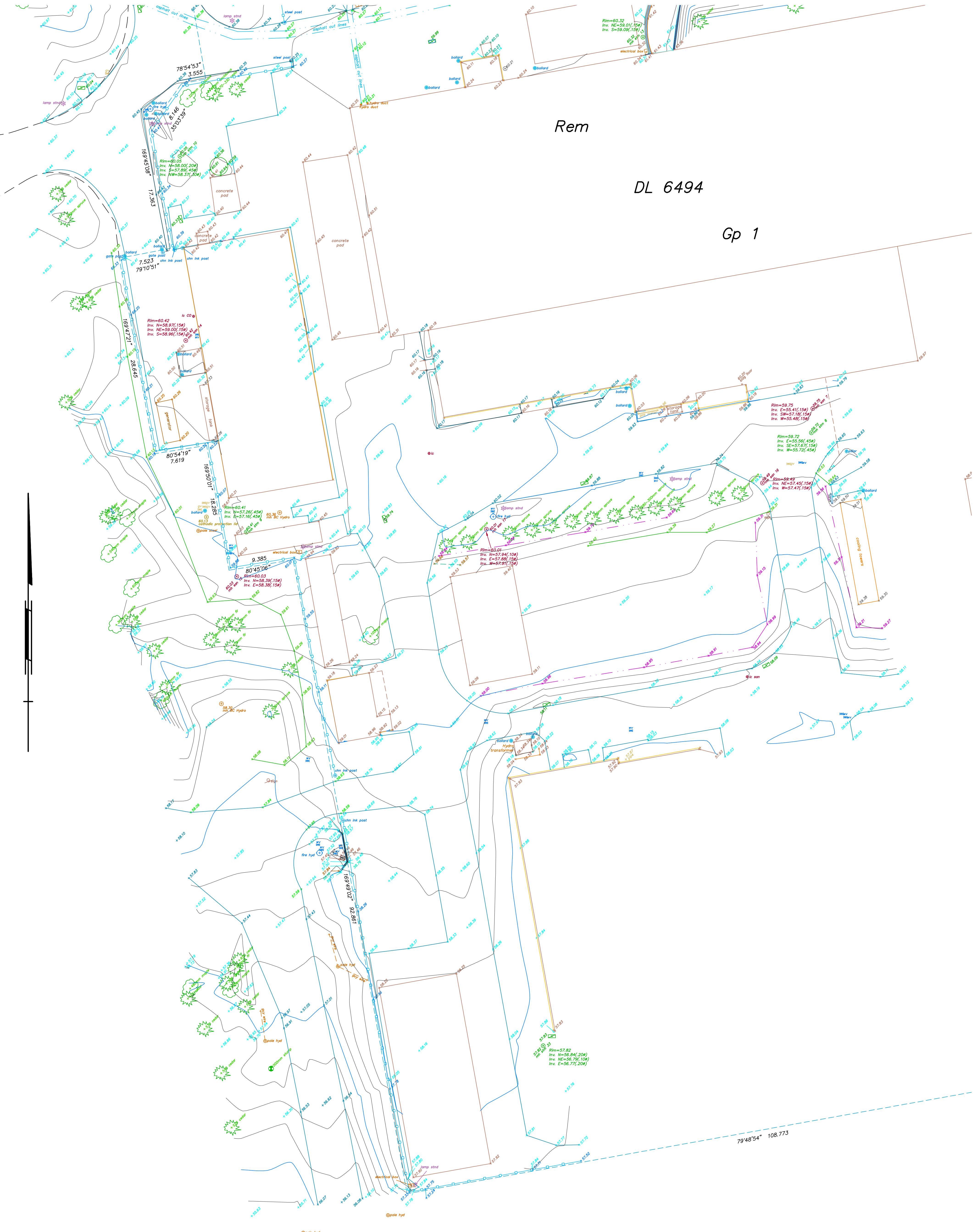
CERTIFIED CORRECT ACCORDING TO SURVEY.  
 DATED THIS 6TH DAY OF DECEMBER, 2010.

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MURRAY & ASSOCIATES  
 201-12448 82nd AVENUE  
 SURREY, B.C.  
 V3W 3E9  
 (604) 597-9189

SHEET 2 OF 2

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B. C. L. S.