Figure 2.5-128— {Aerial Photo of Site with Waypoints from Field Reconnaissance}

10-4310-GIS-B041

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Figure 2.5-129— {Boring Location Plan}

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Figure 2.5-130— {Geotechnical Cross Sections}

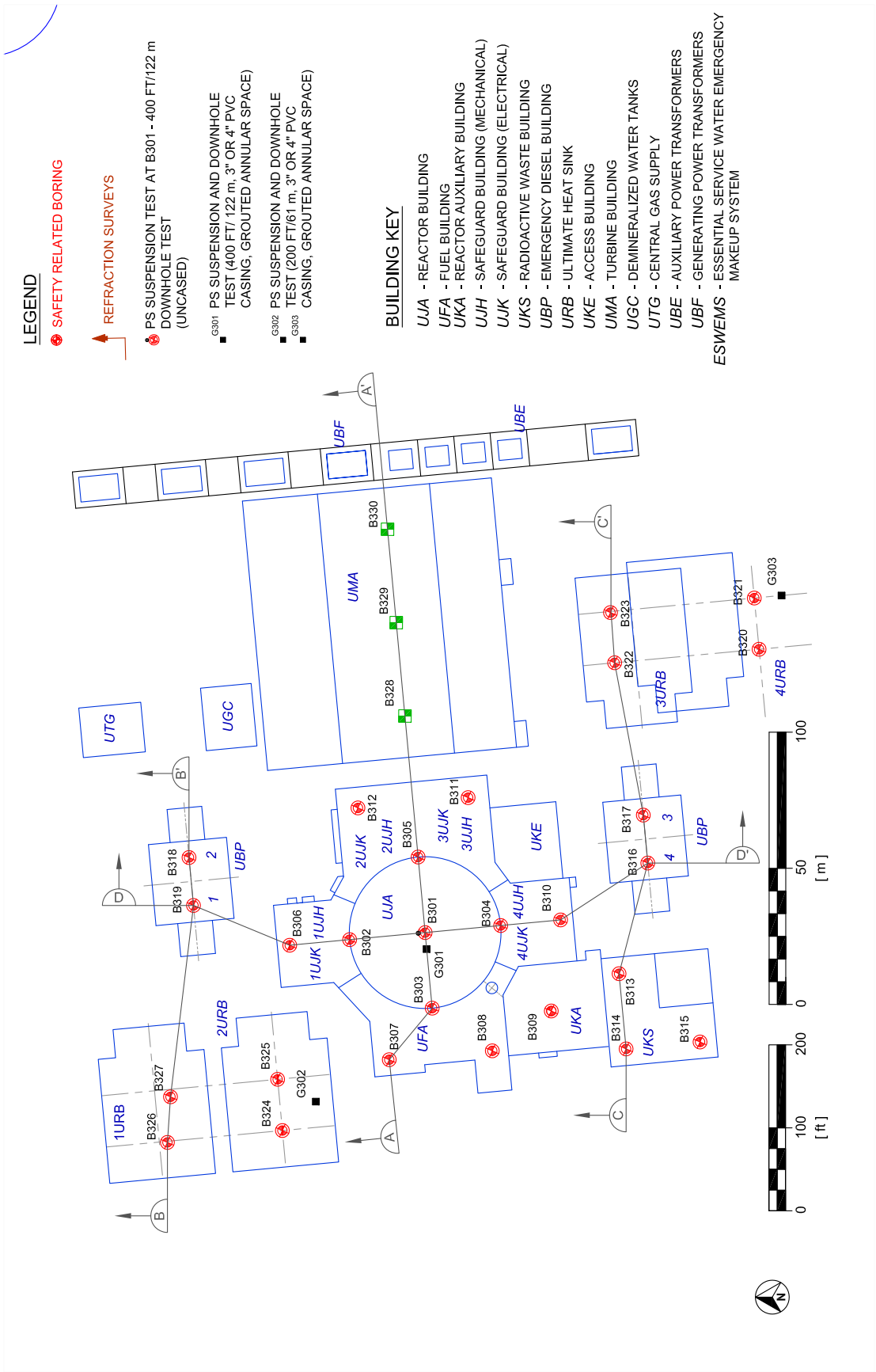

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Figure 2.5-131— {Geotechnical Subsurface Section A-A'}

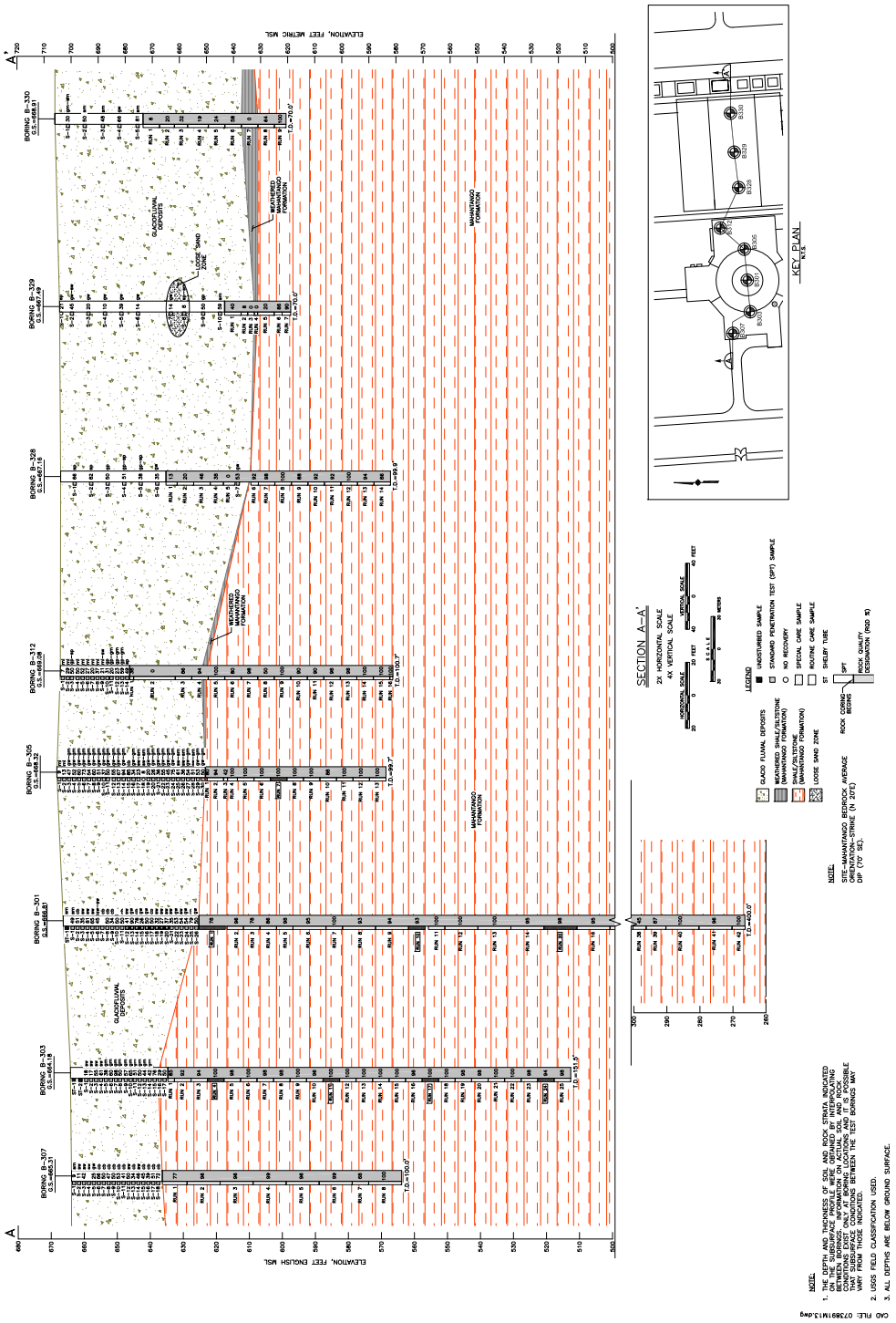

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Figure 2.5-132— {Geotechnical Subsurface Section B-B'}

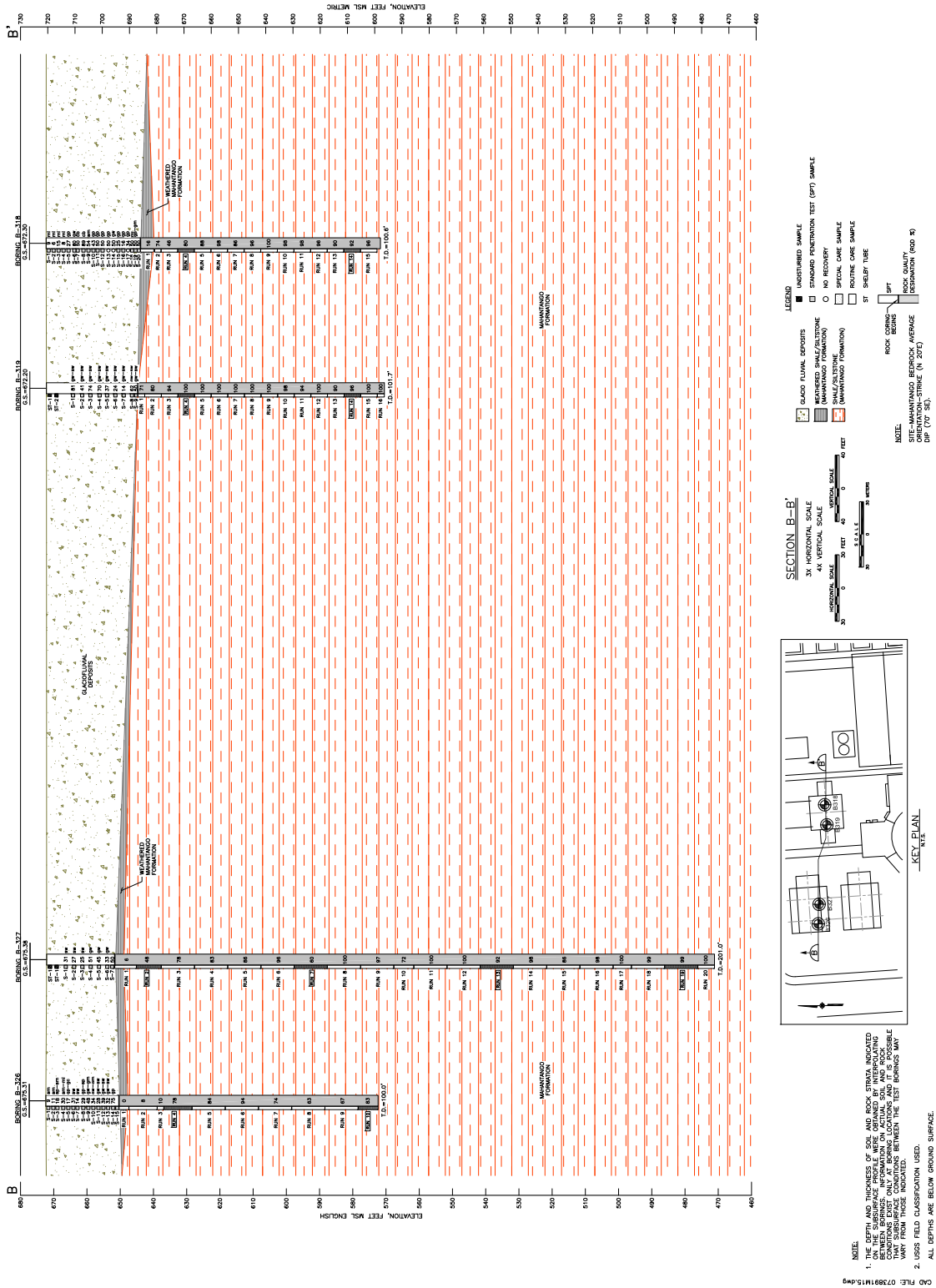

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Figure 2.5-133— {Geotechnical Subsurface Section C-C'}

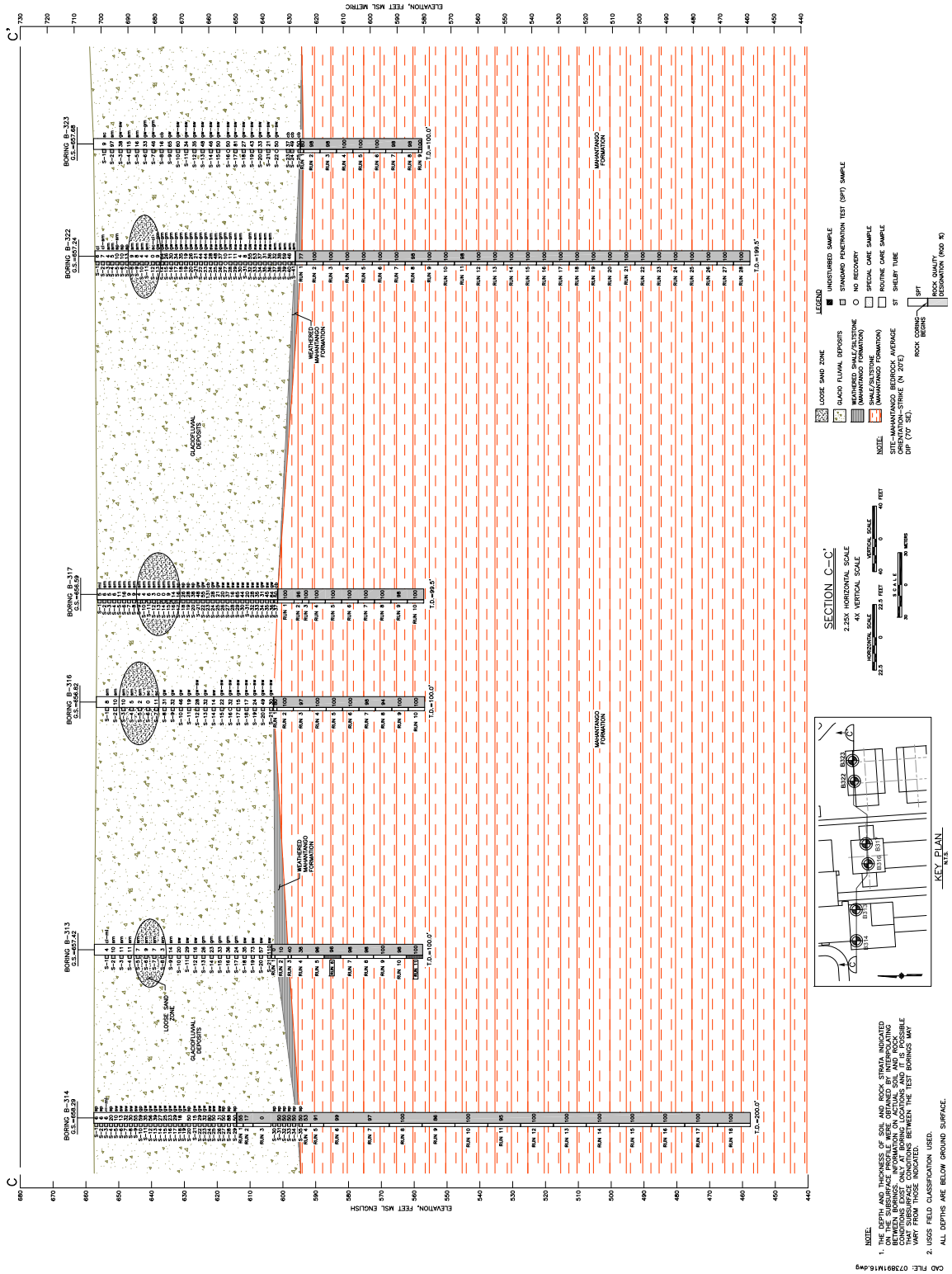

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Figure 2.5-134— {Geotechnical Subsurface Section D-D'}

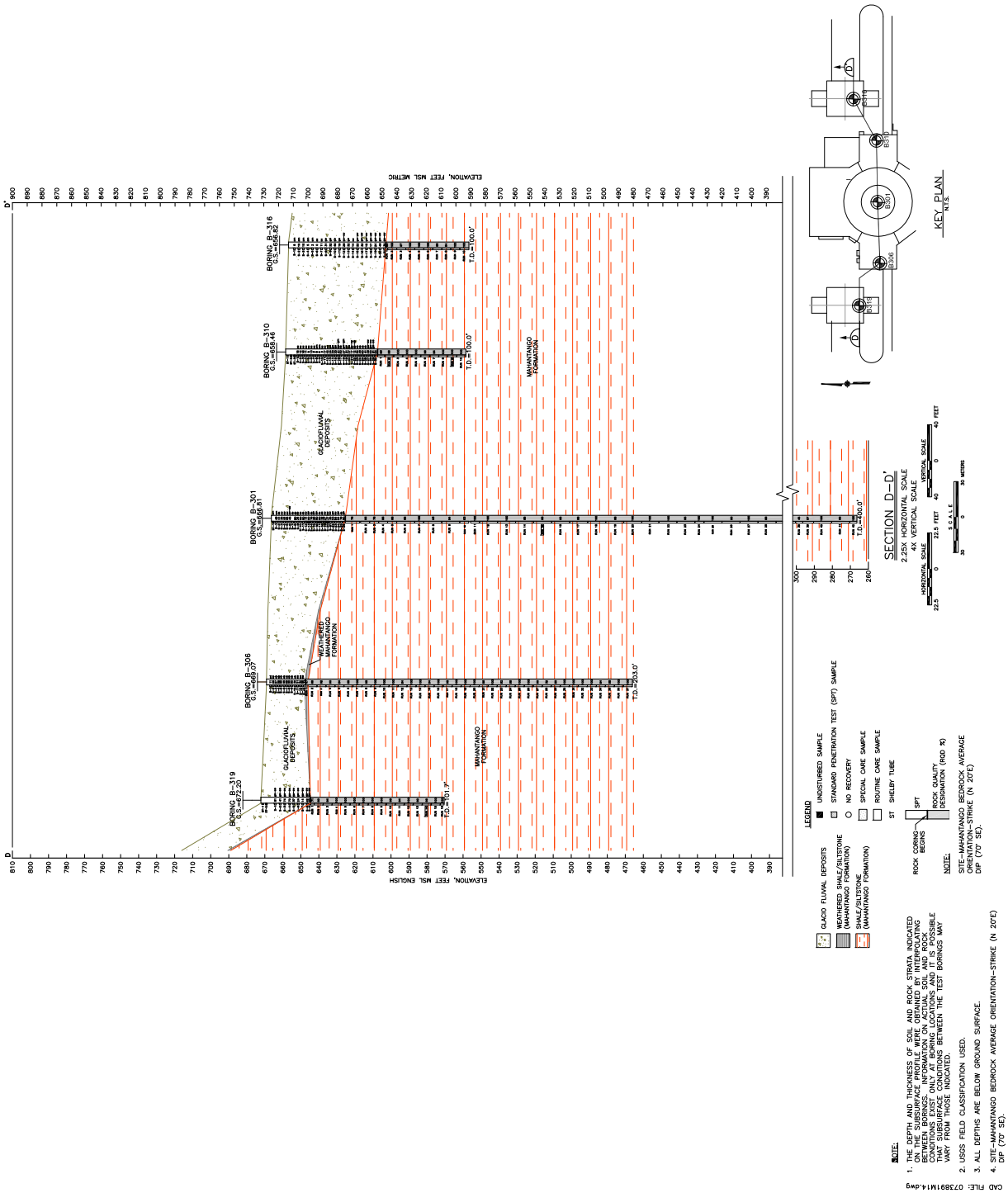

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Figure 2.5-135— {Surface Elevation Contours}

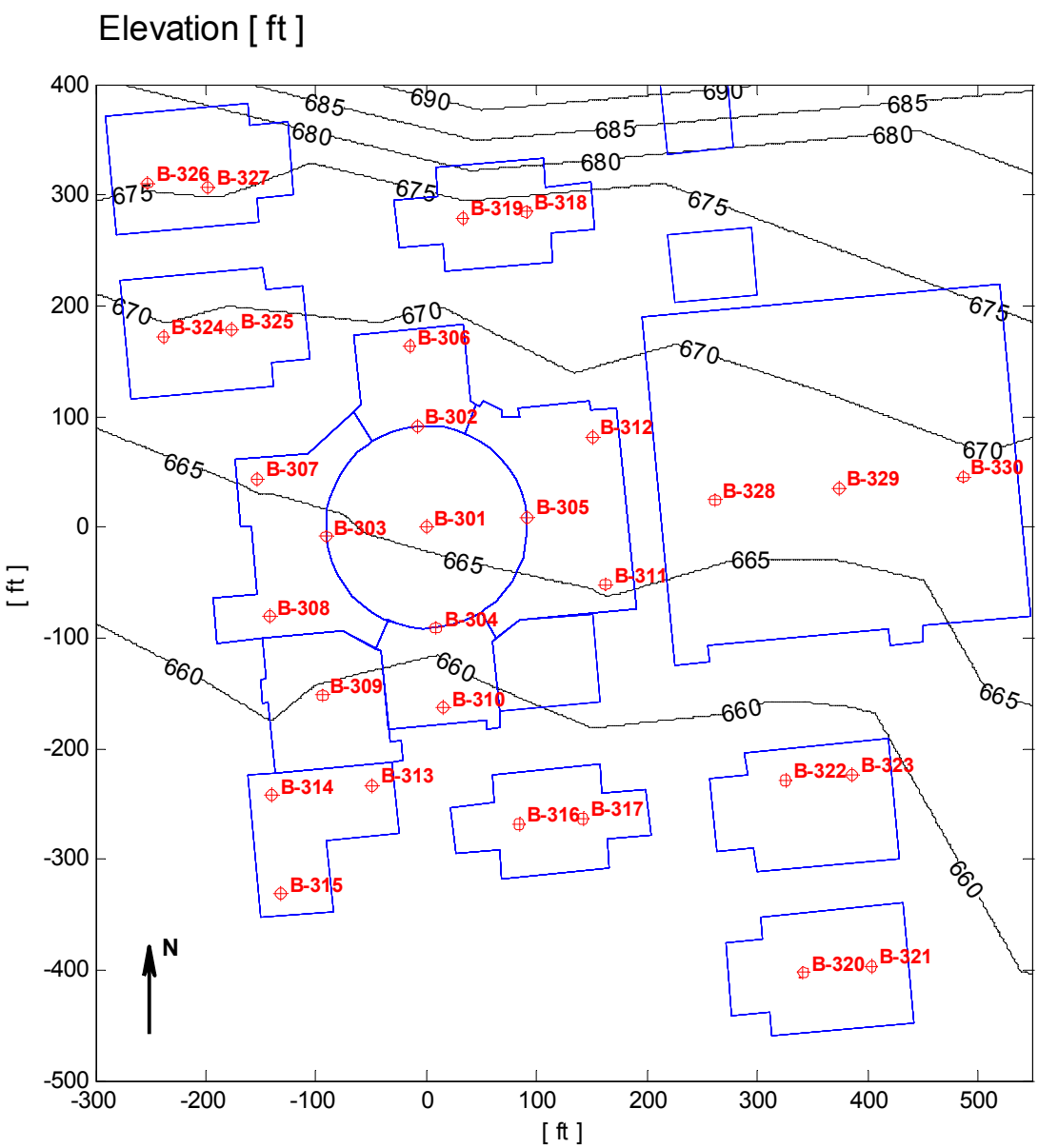

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Figure 2.5-136— {Thickness of Overburden}

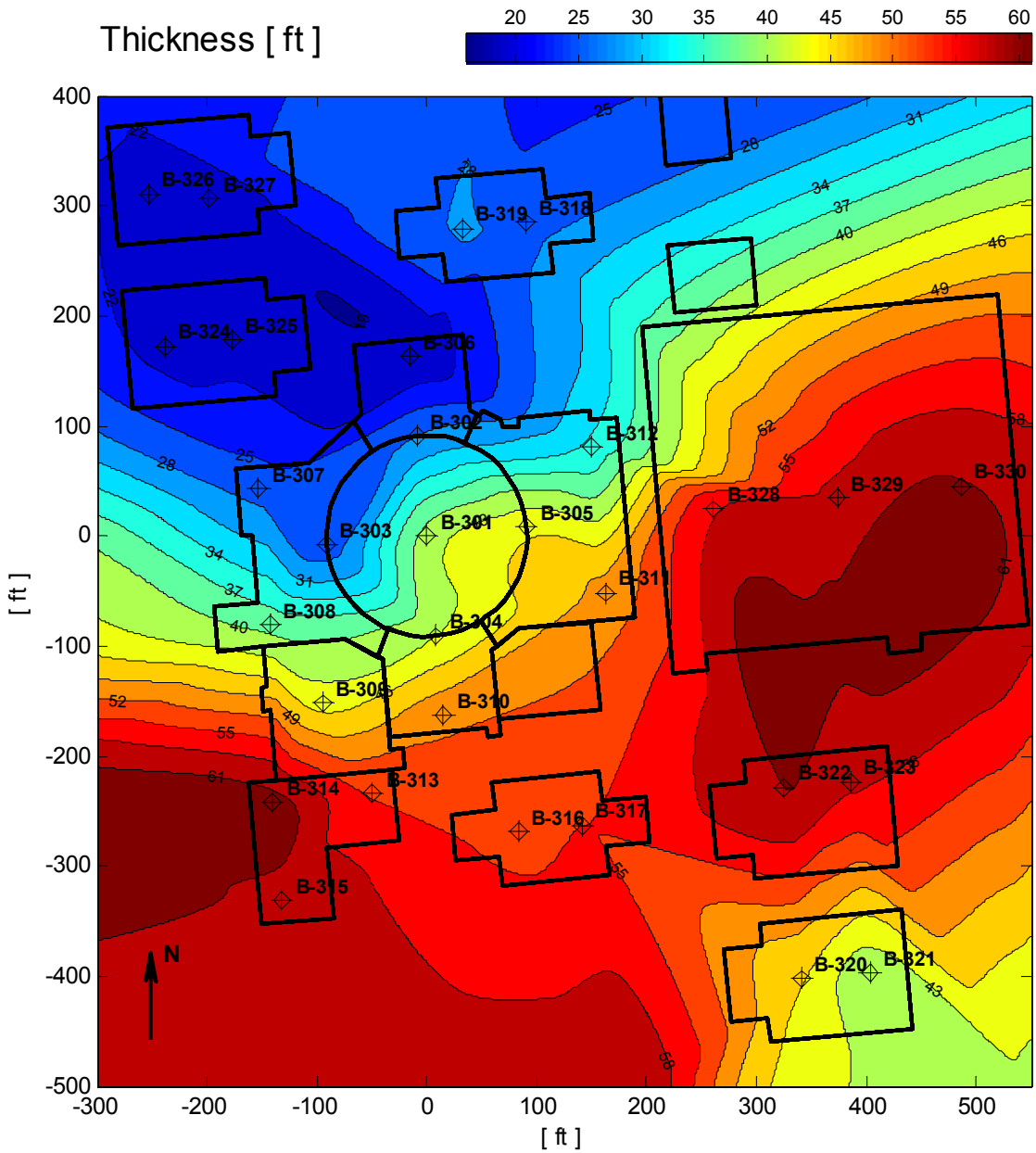

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Figure 2.5-137— {Thickness of Weathered Rock}

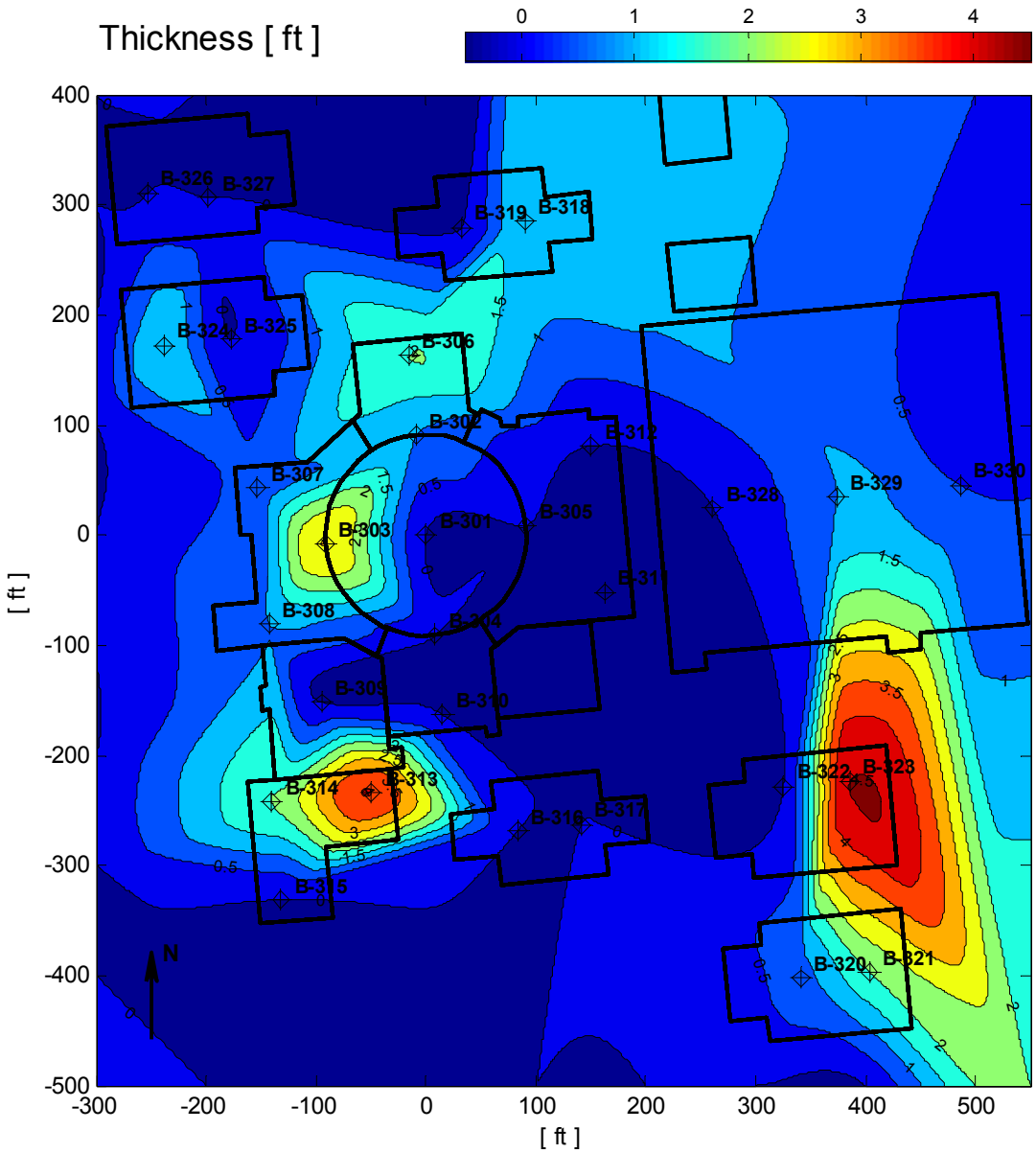

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Figure 2.5-138— {Elevation of Competent Rock}

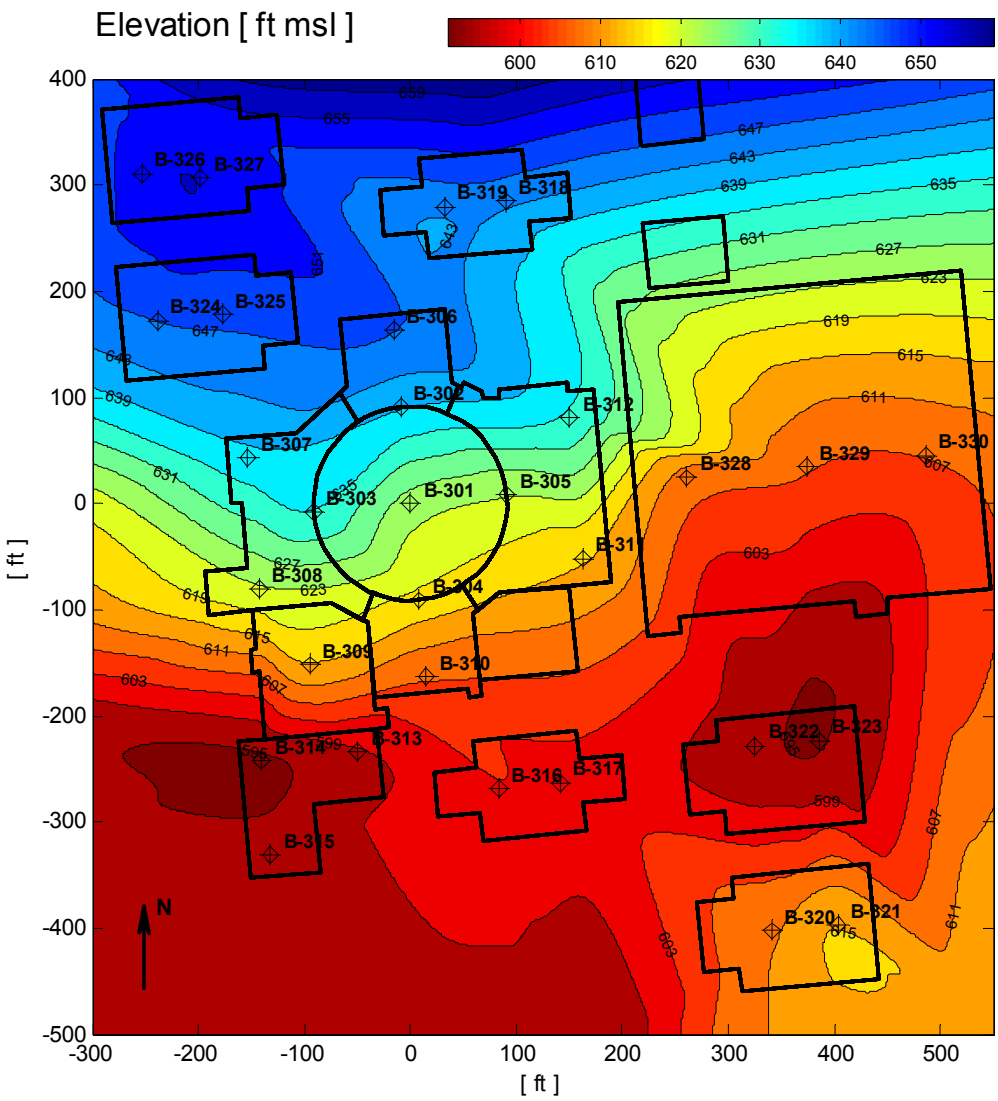

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Figure 2.5-139— {Overburden Thickness and Elevation of Rock (Area near Essential Service Water Emergency Makeup System - ESWEMS)}

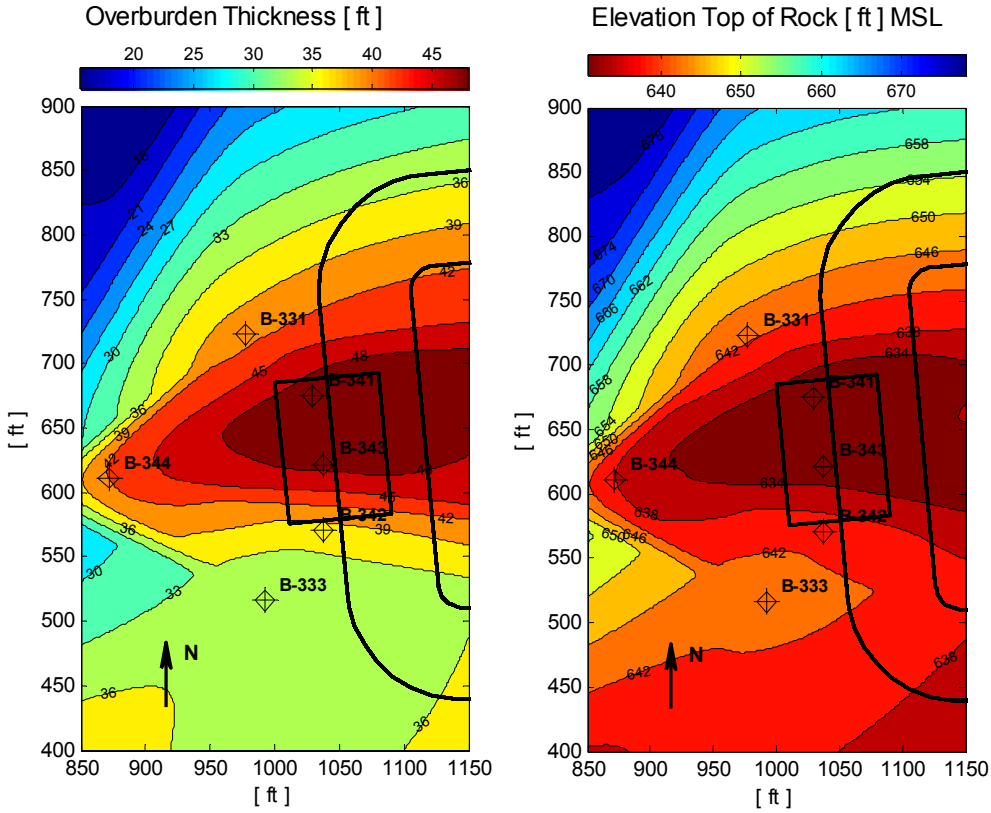

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Figure 2.5-140— {Location of Shelby Tubes}

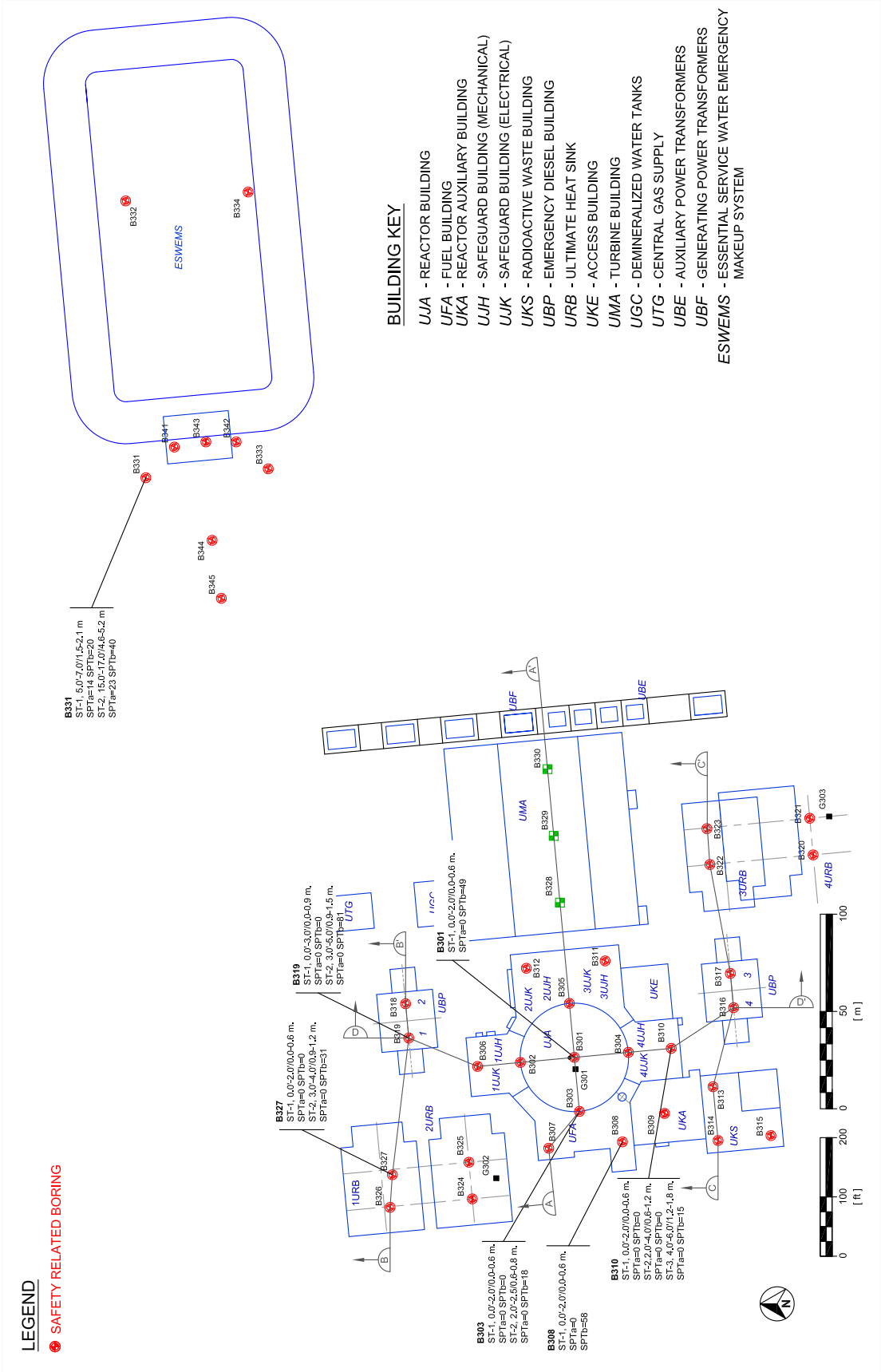

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Figure 2.5-141— {Location of Special Care Samples}

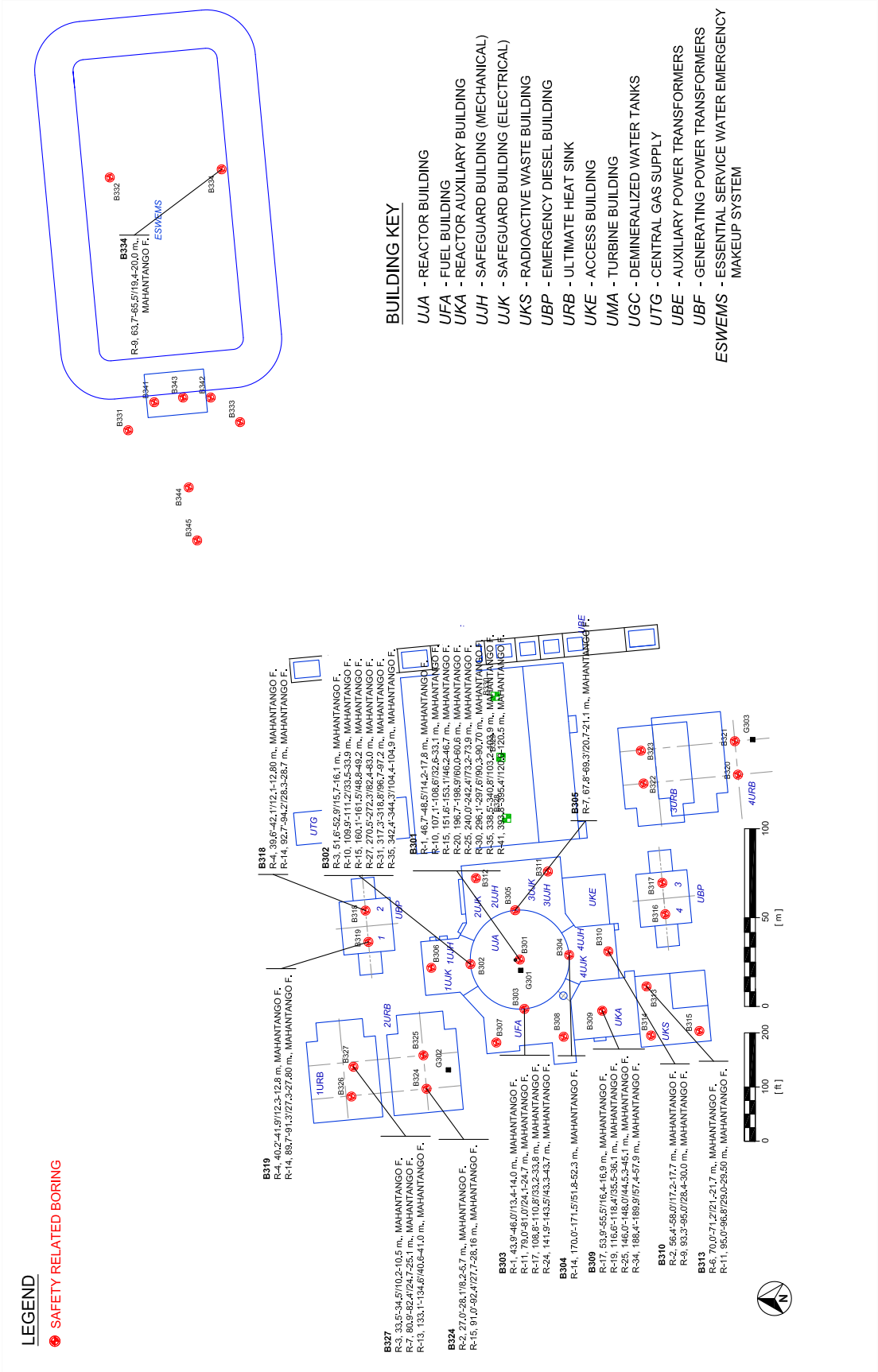

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Figure 2.5-142— {Standard Penetration Test (SPT) Variability}

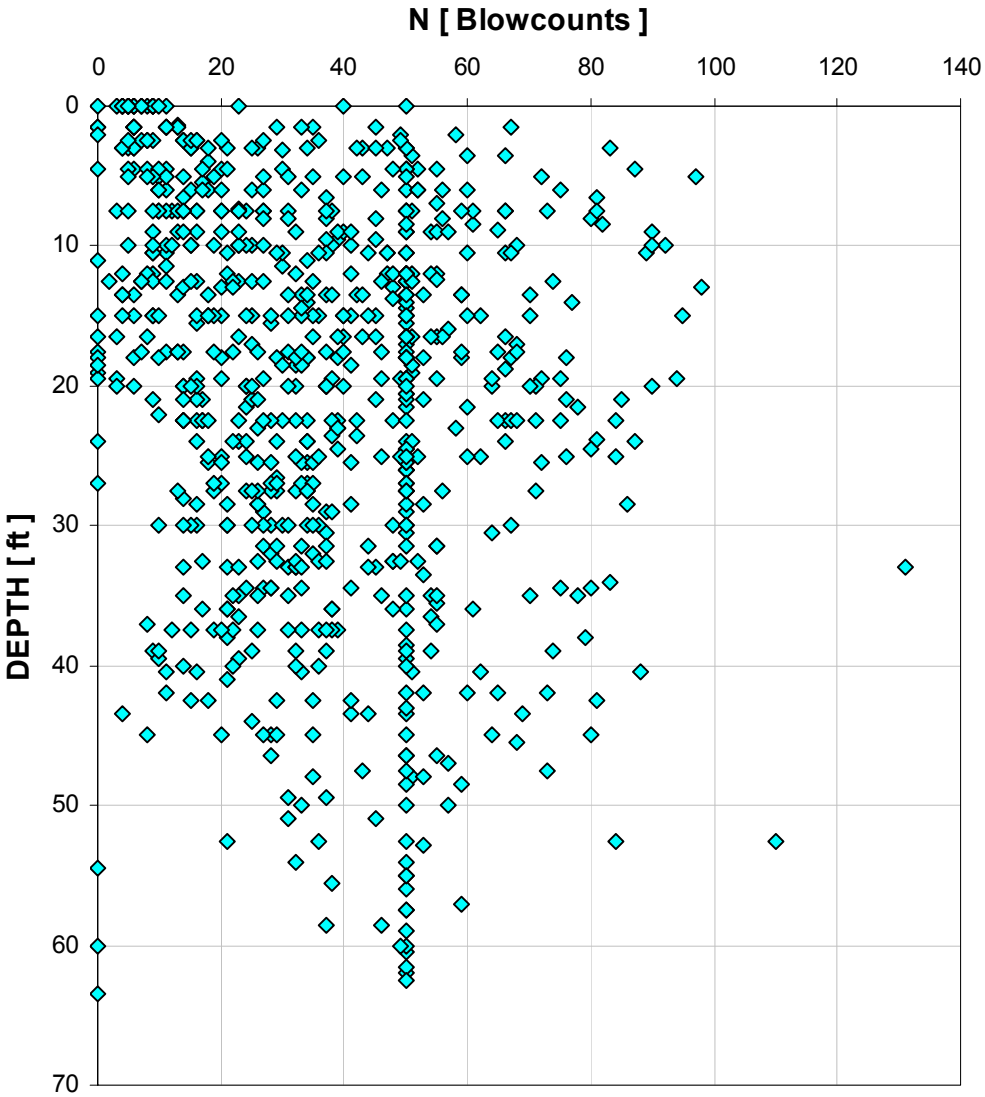

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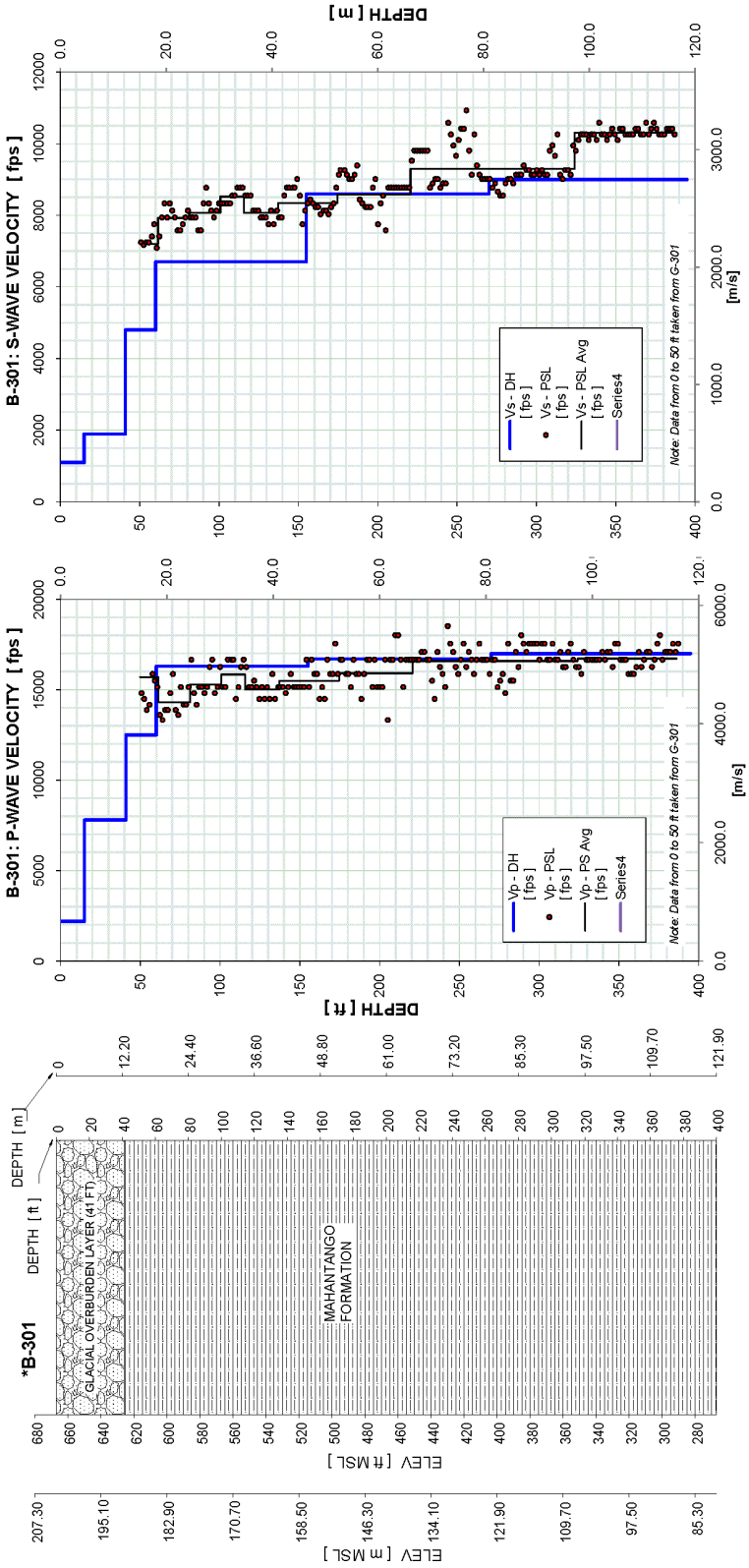
Figure 2.5-143— {Geophysical Tests B-301}



Notes:

PSL PS Suspension Logging Test
DH Downhole Test
PSL Avg Average of PS Test Data

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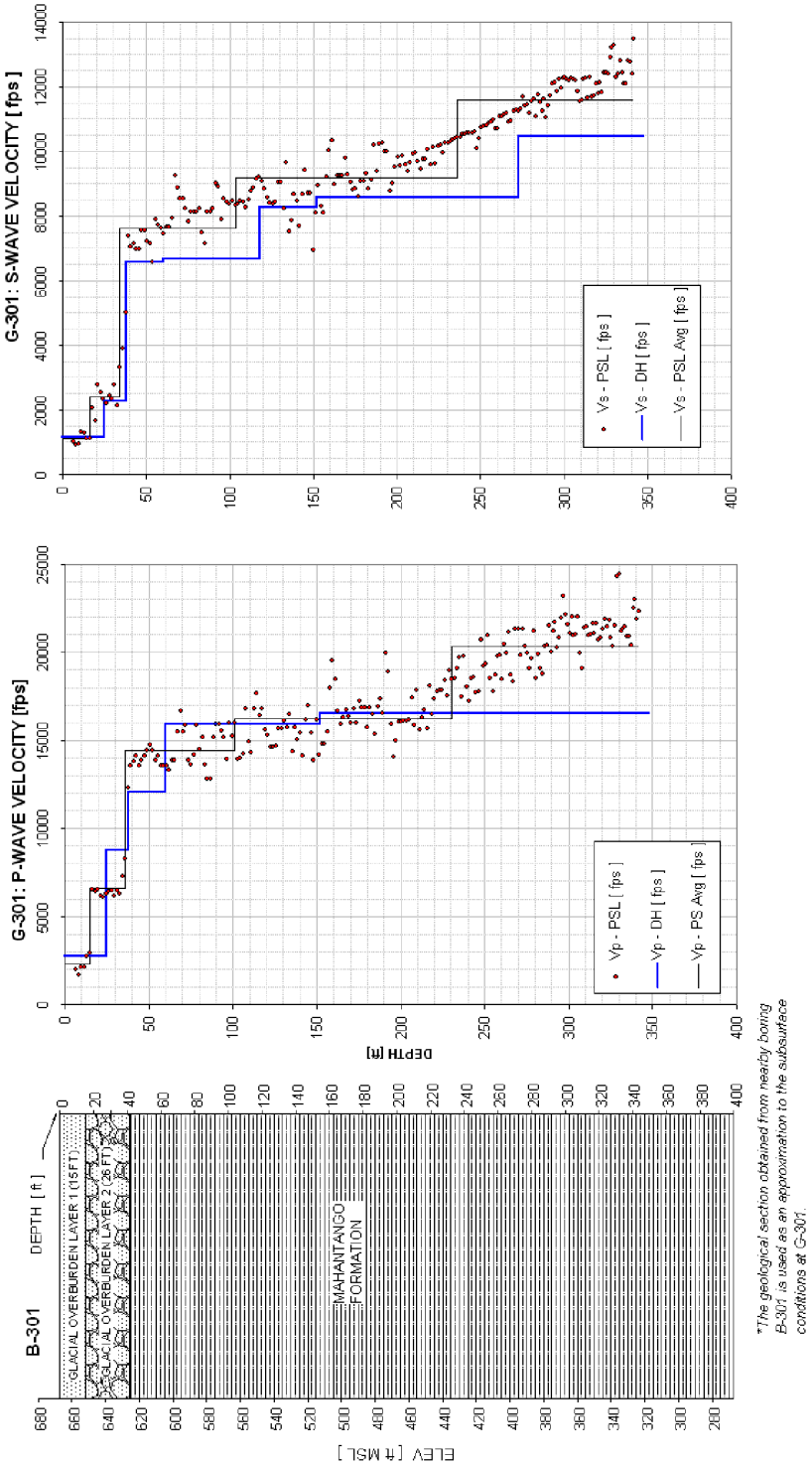
Figure 2.5-144— {Geophysical Tests G-301}



*The geological section obtained from nearby boring B-301 is used as an approximation to the subsurface conditions at G-301.

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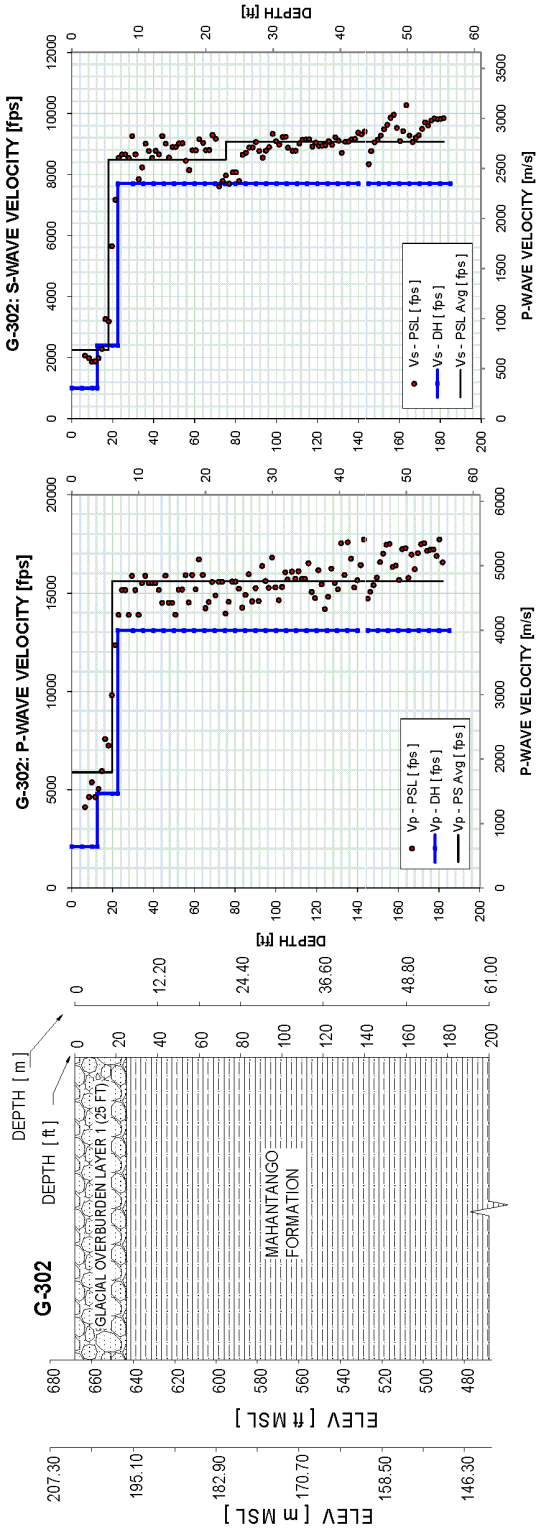
Figure 2.5-145— {{Geophysical Tests G-302}}



Notes:
PSL PS Suspension Logging Test
DH Downhole Test
PSL Avg Average of PS Test Data

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Figure 2.5-146— {Geophysical Tests G-303}

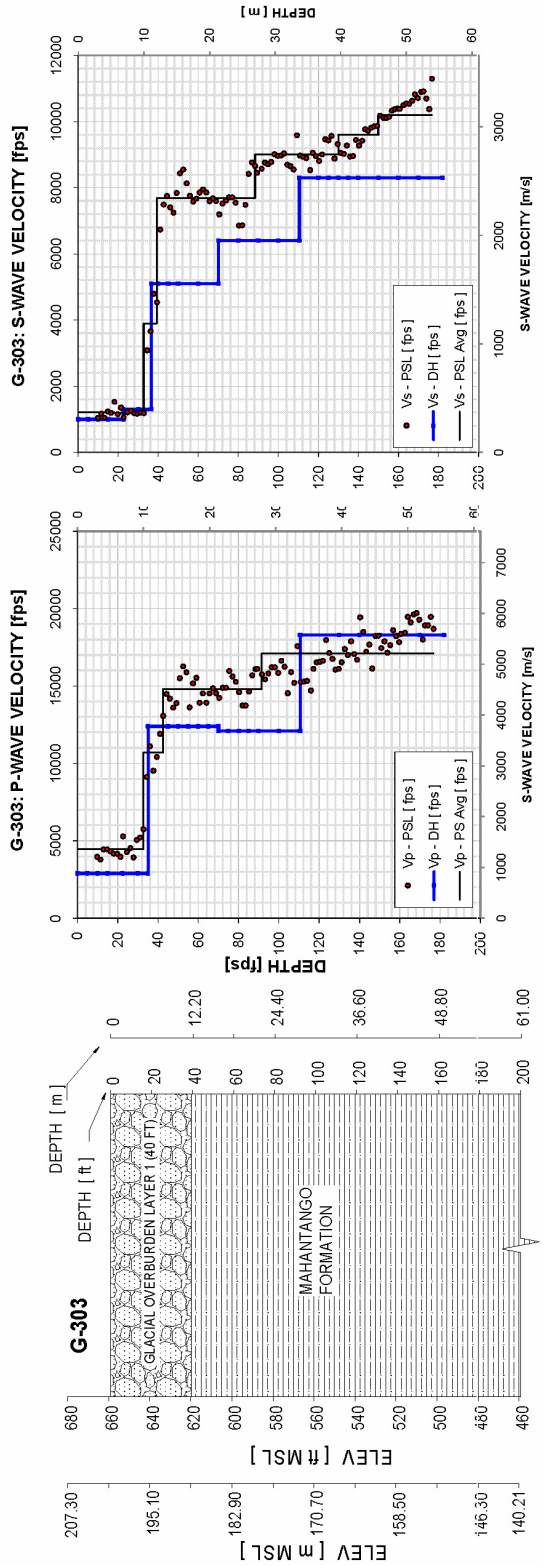

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Figure 2.5-147— {Refraction Survey Page 1 of 7}

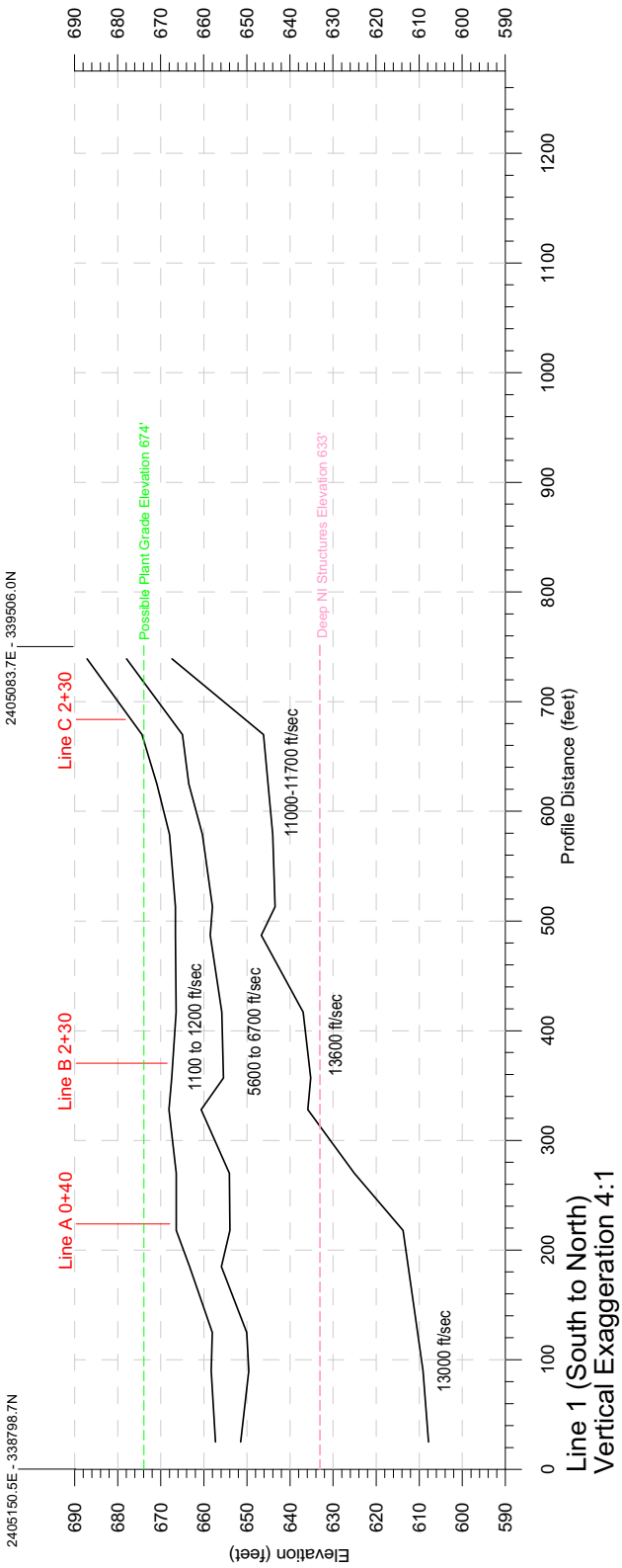

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Figure 2.5-148— {Refraction Survey Page 2 of 7}

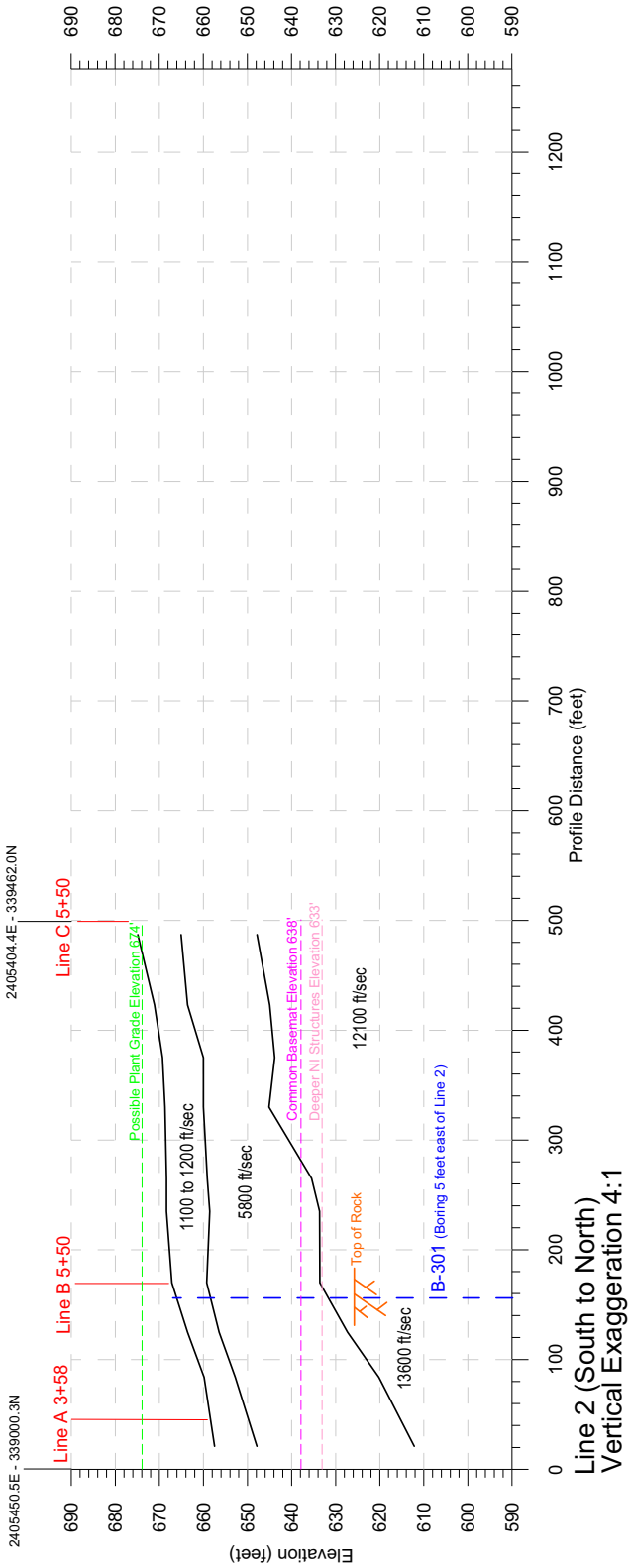

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Figure 2.5-149— {Refraction Survey Page 3 of 7}

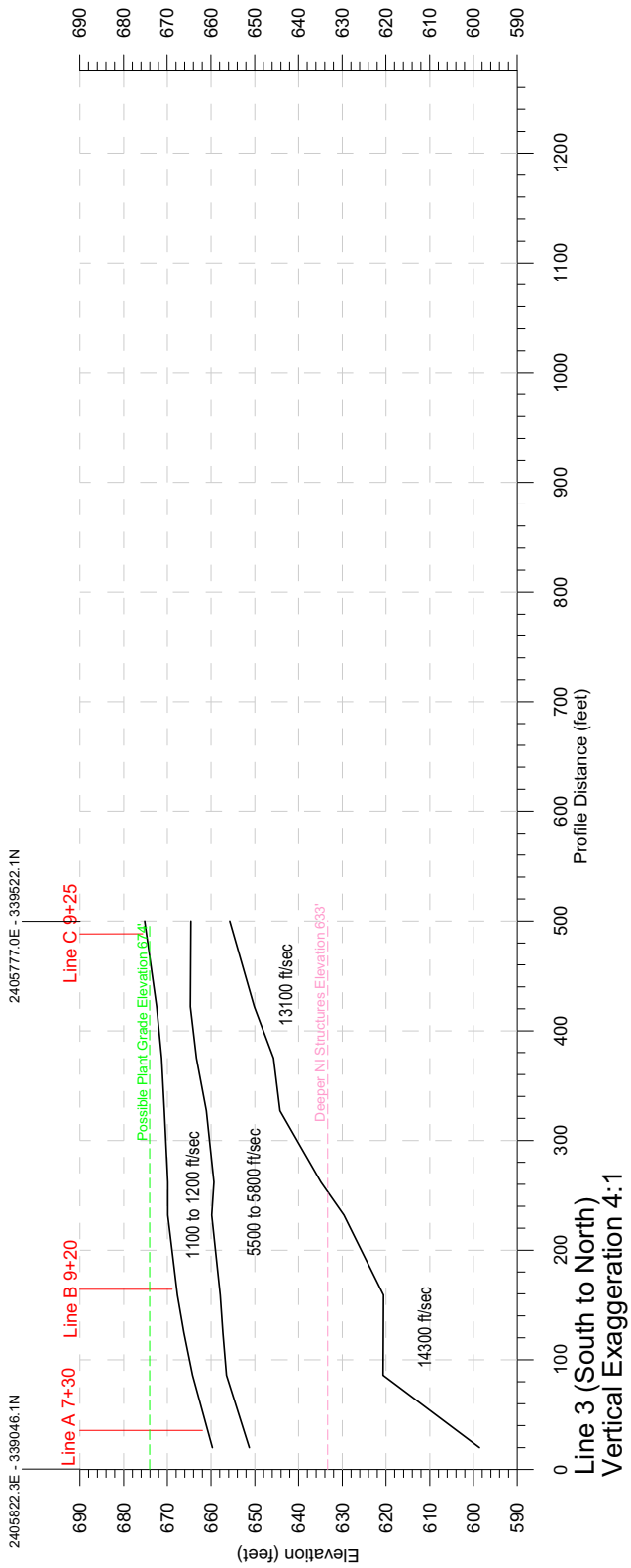

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Figure 2.5-150— {Refraction Survey Page 4 of 7}

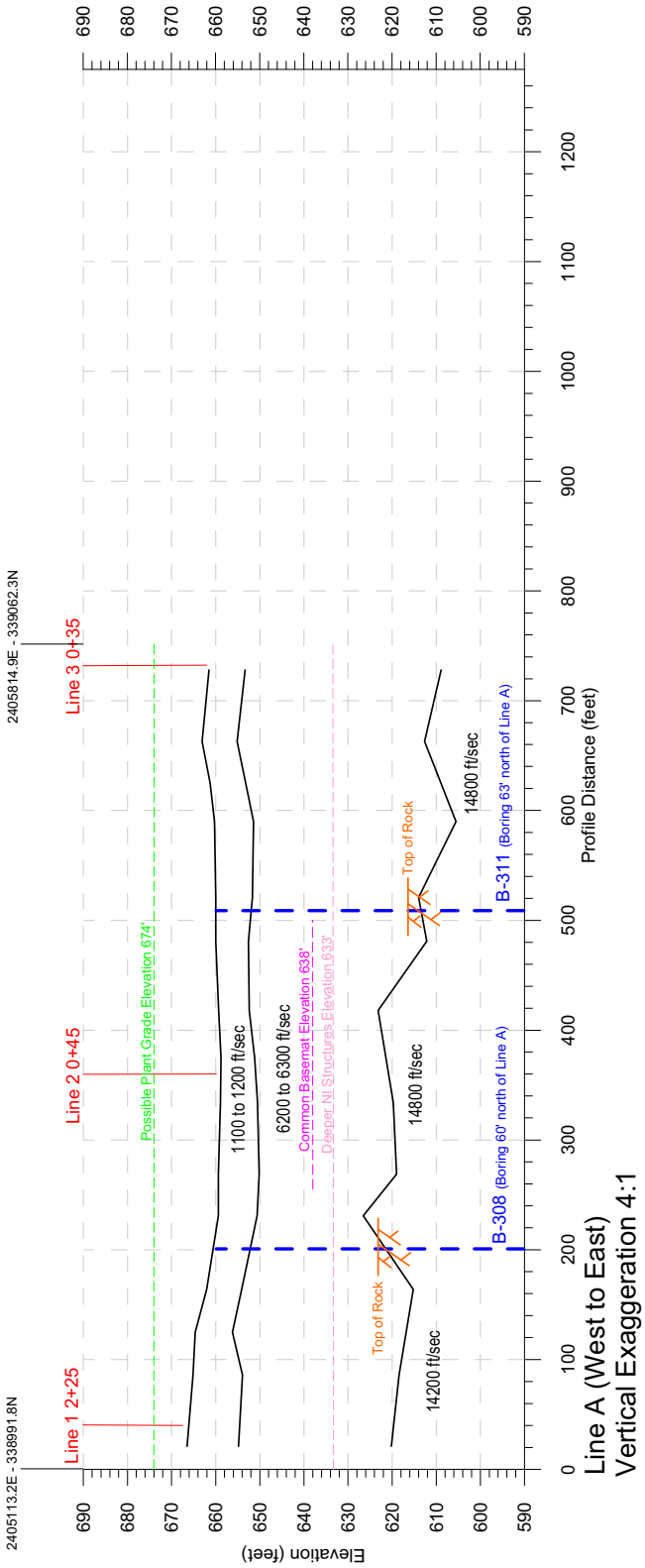

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Figure 2.5-151— {Refraction Survey Page 5 of 7}

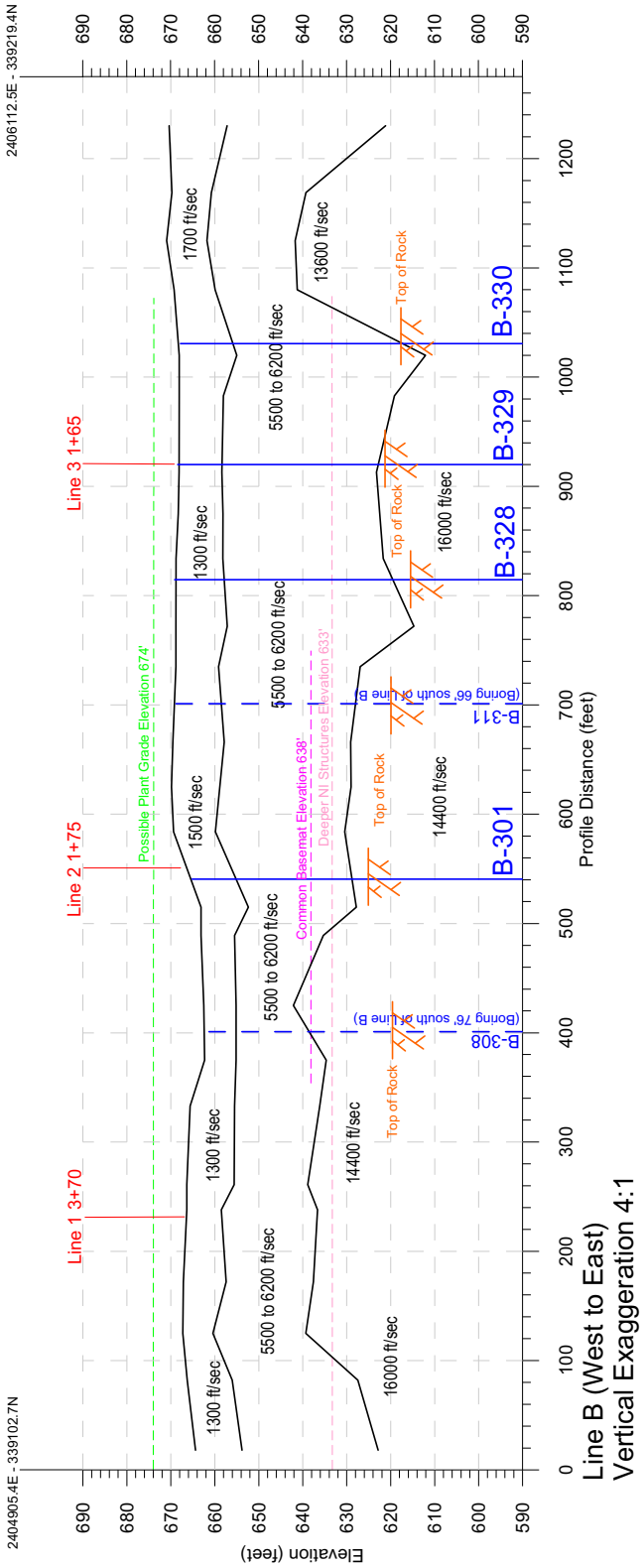

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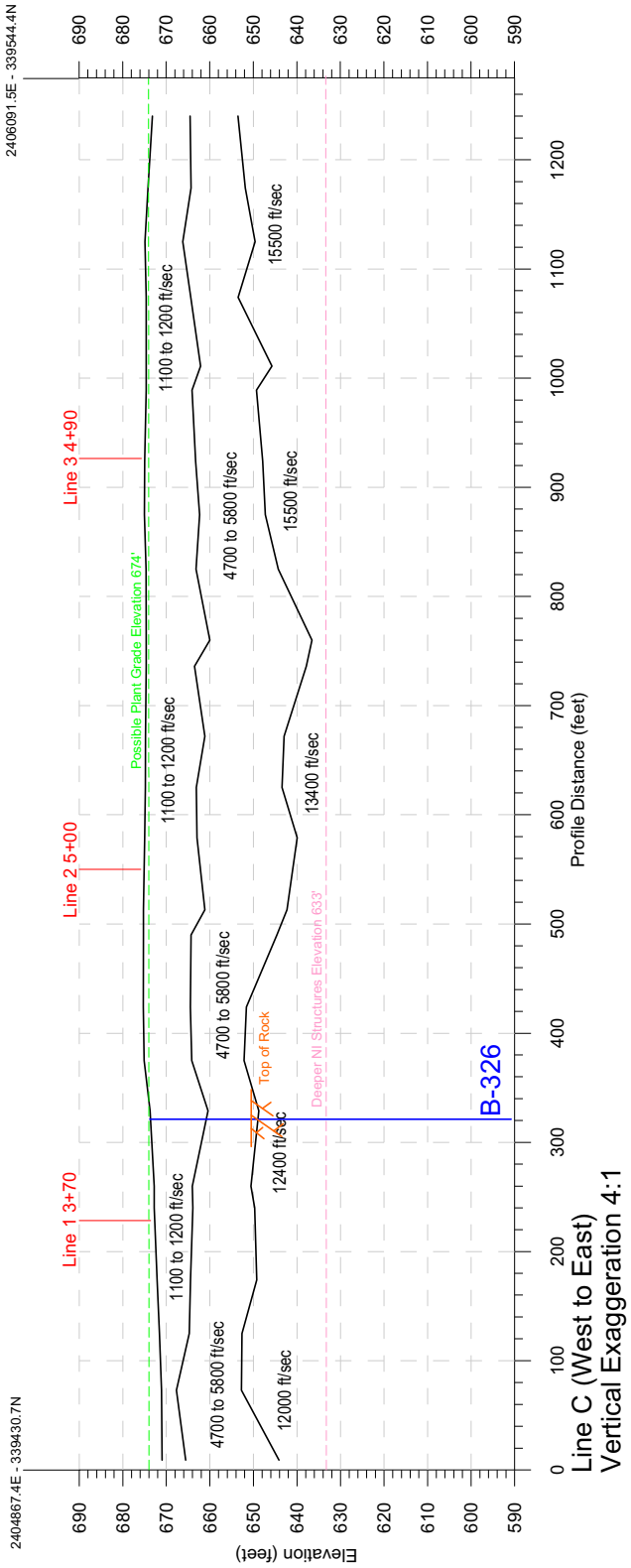
Figure 2.5-152— {Refraction Survey Page 6 of 7}



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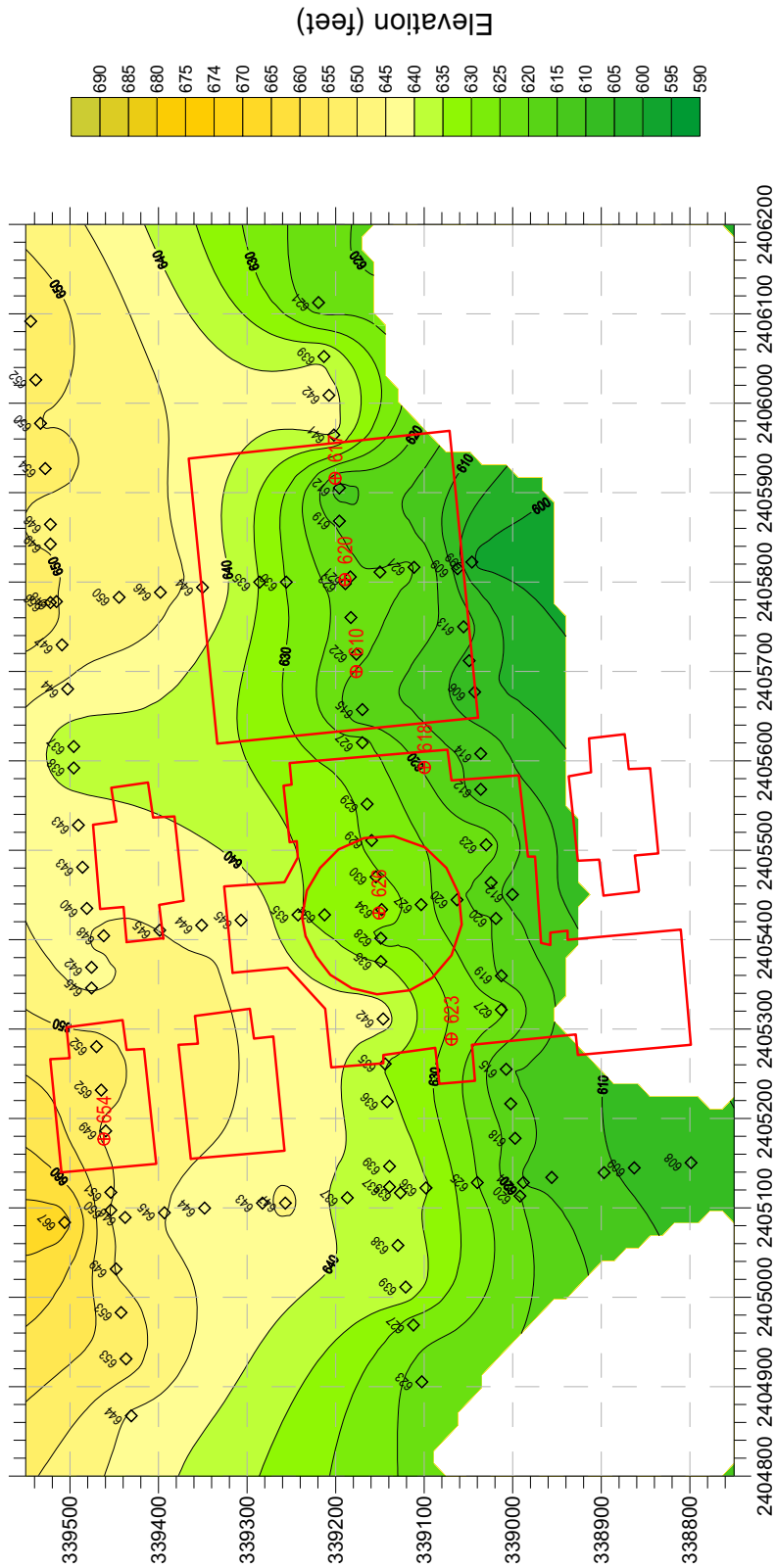

Figure 2.5-153— {Refraction Survey Page 7 of 7}

Horizontal Scale = Distance [ft]
Top of Bedrock (Vp > 14000 fps)

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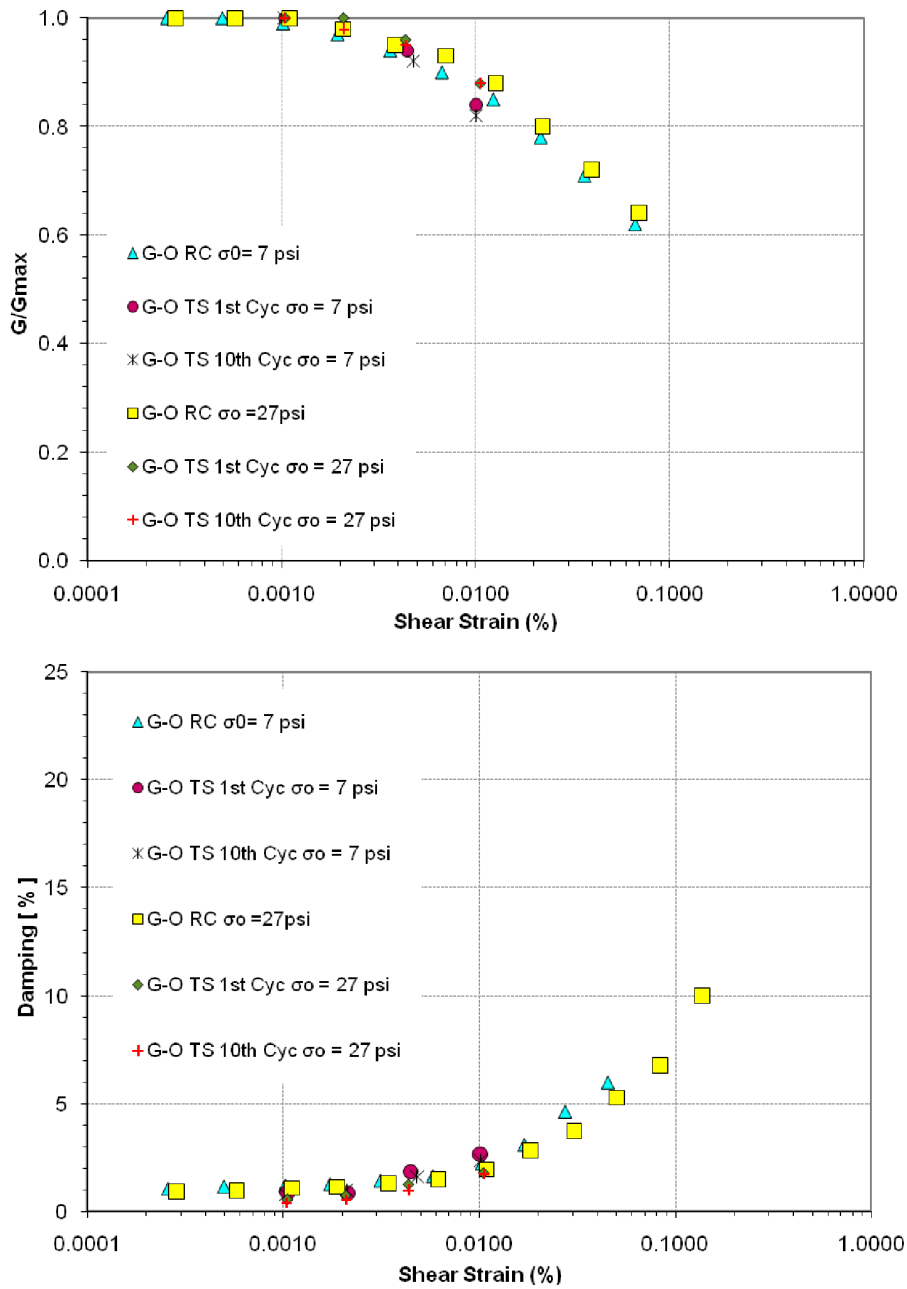
Figure 2.5-154— {Resonant Column Test A B331-ST-2}



G-O: Glacial Overburden
RC: Resonant Column
TS: Torsional Shear

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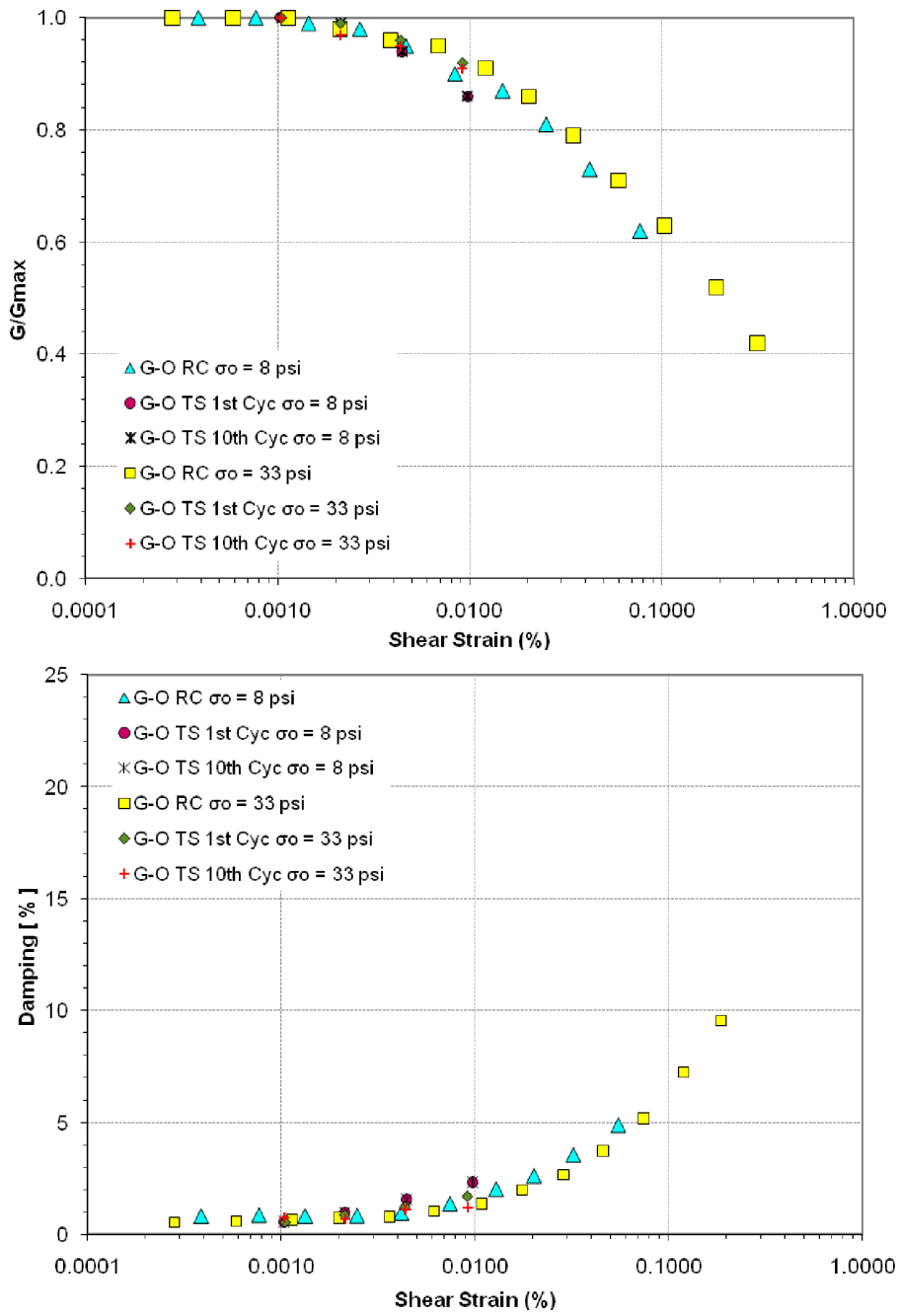
Figure 2.5-155— {Resonant Column Test A B310-U3}



G-O: Glacial Overburden
RC: Resonant Column
TS: Torsional Shear

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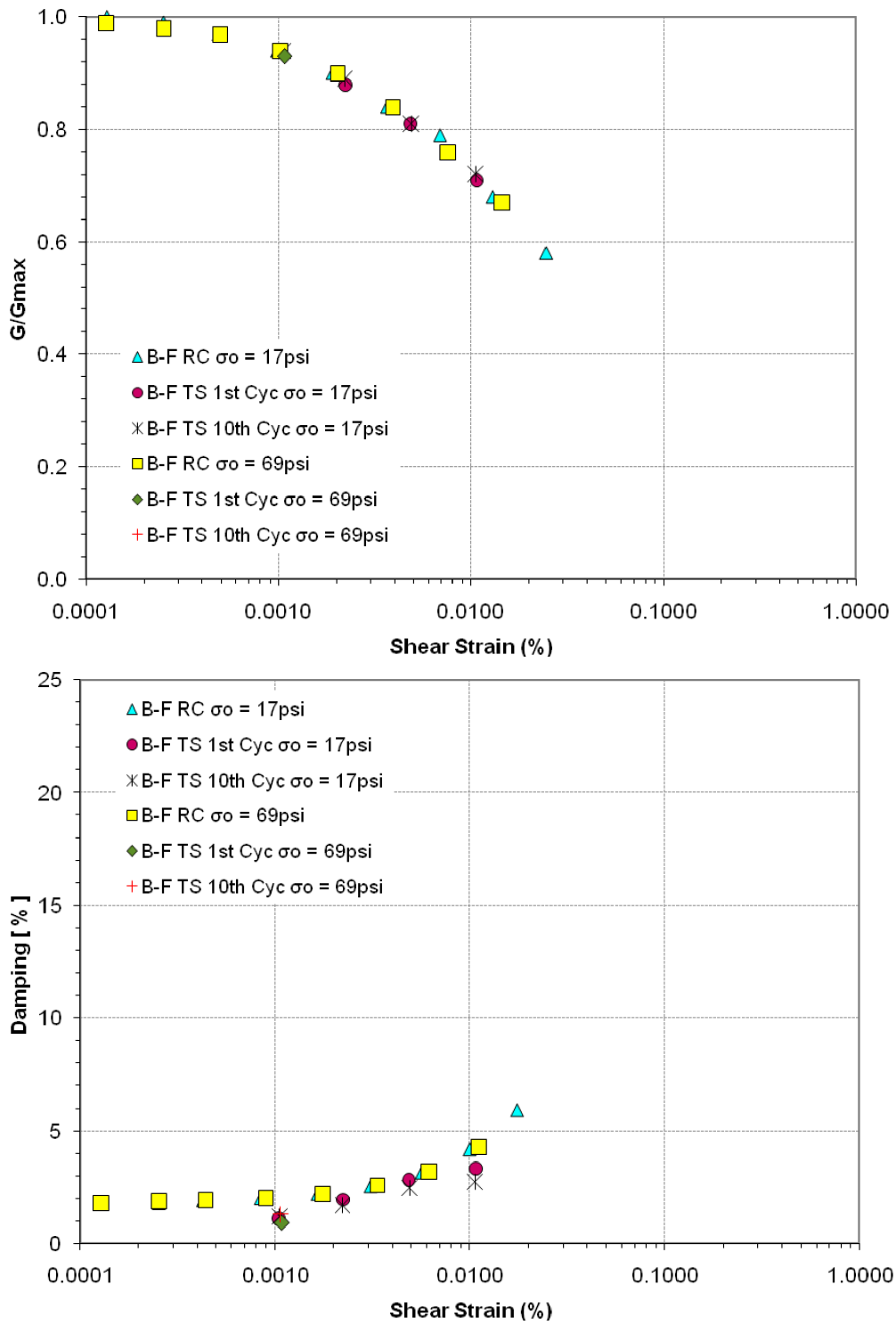
Figure 2.5-156— {Resonant Column Test Pit Face}



B-F: Back Fill
RC: Resonant Column
TS: Torsional Shear

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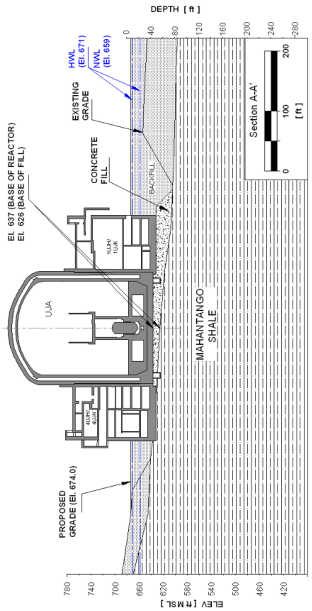
Figure 2.5-157— {NI Soil Velocity Profile}



NI - Best Estimate	D_{top} [ft]	γ [pcf]	V_s [fps]	V_p [fps]	ν	G_{max} [ksf]	E_{max} [ksf]	DS_0 [%]
1 Engineered Fill 1	-36	140	600	1250	0.35	1570	4240	1.00
2 Engineered Fill 2	-26	140	800	1670	0.35	2780	7510	1.00
3 Engineered Fill 3	-16	140	1000	2100	0.35	4350	11770	1.00
4 Concrete	0	150	7240	11820	0.20	244180	586930	0.80
5 Mahantango Formation Layer 1	10	170	6800	12900	0.31	244120	638430	0.80
6 Mahantango Formation Layer 2	30	170	7150	15300	0.36	269900	734290	0.80
7 Mahantango Formation Layer 3	70	170	7600	16100	0.36	304940	827390	0.70
8 Mahantango Formation Layer 4	125	170	8500	16100	0.31	381440	999910	0.70
9 Mahantango Formation Layer 5	190	170	8950	16750	0.30	422900	1099710	0.70
10 Mahantango Formation Layer 6	240	170	9600	16850	0.26	486560	1225840	0.70

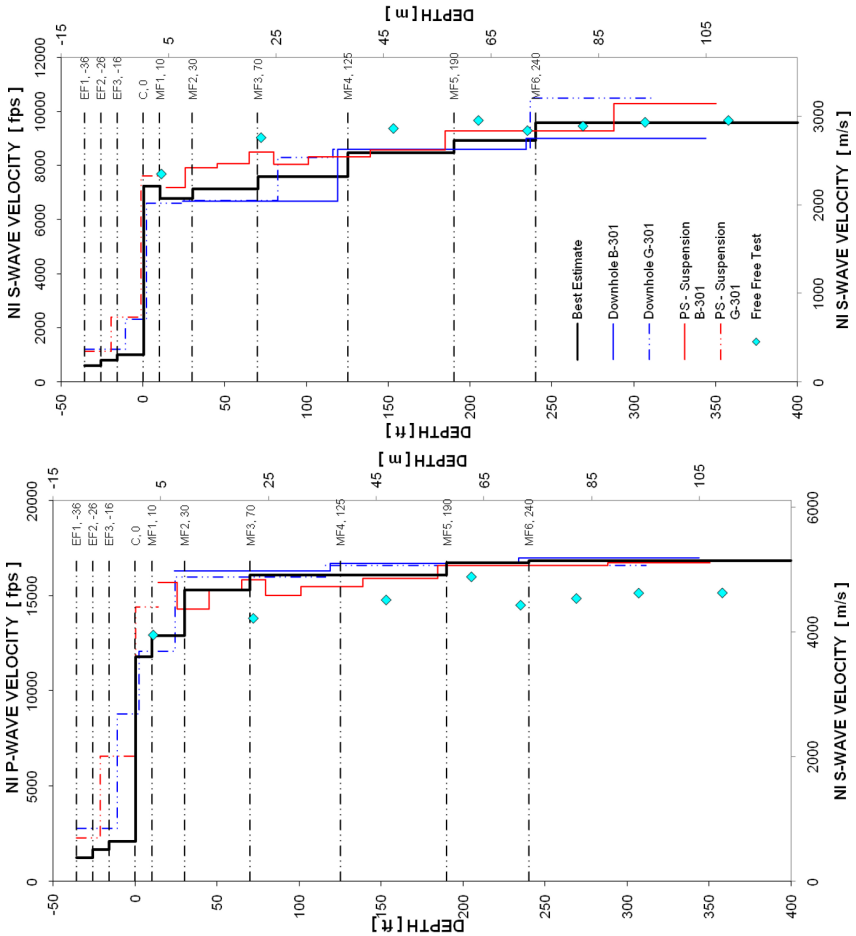


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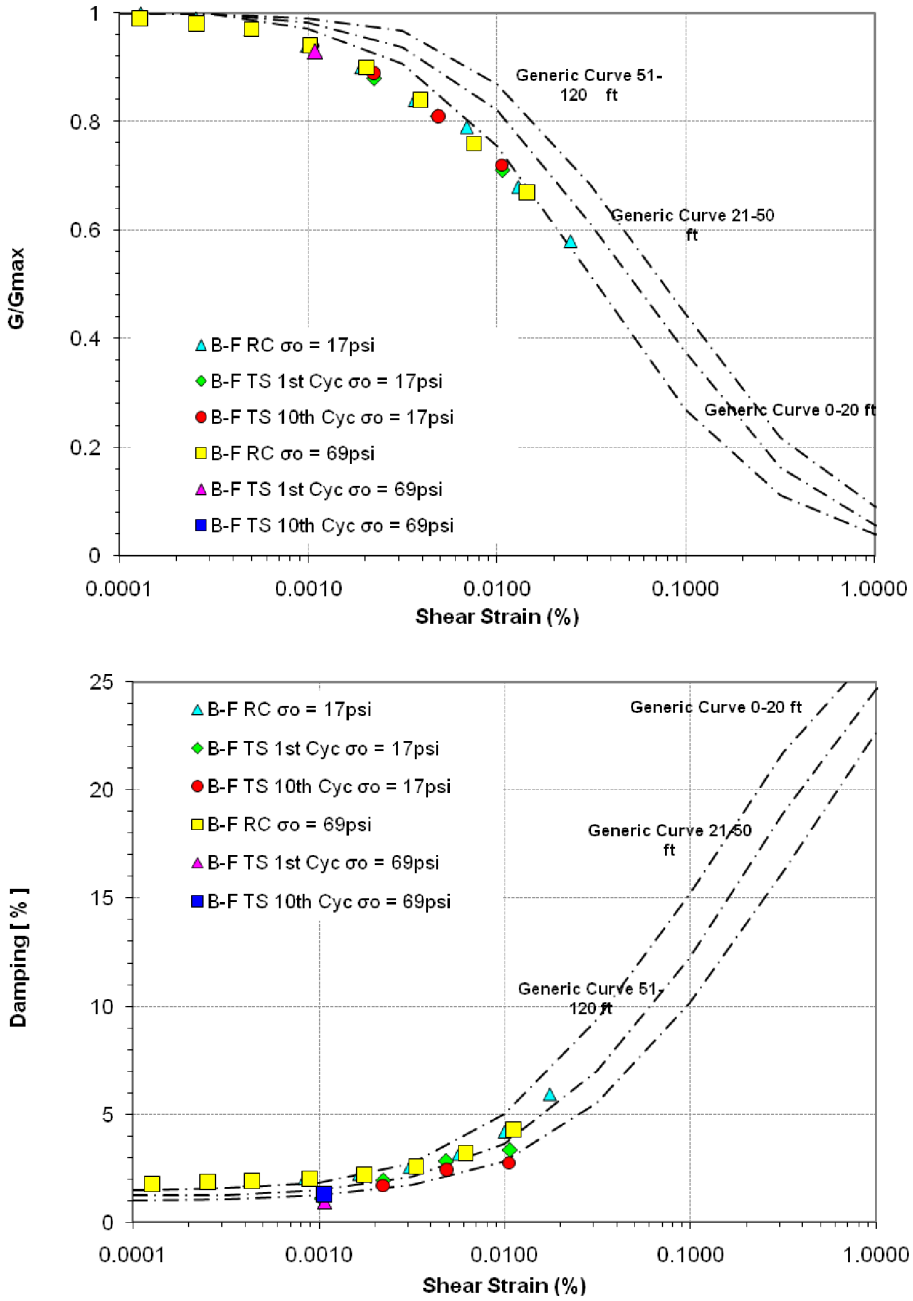
Figure 2.5-158— {Recommended Strain Dependent Properties}



B-F: Back Fill
RC: Resonant Column
TS: Torsional Shear

Generic curves: EPRI

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Figure 2.5-159— {Excavation Plan}

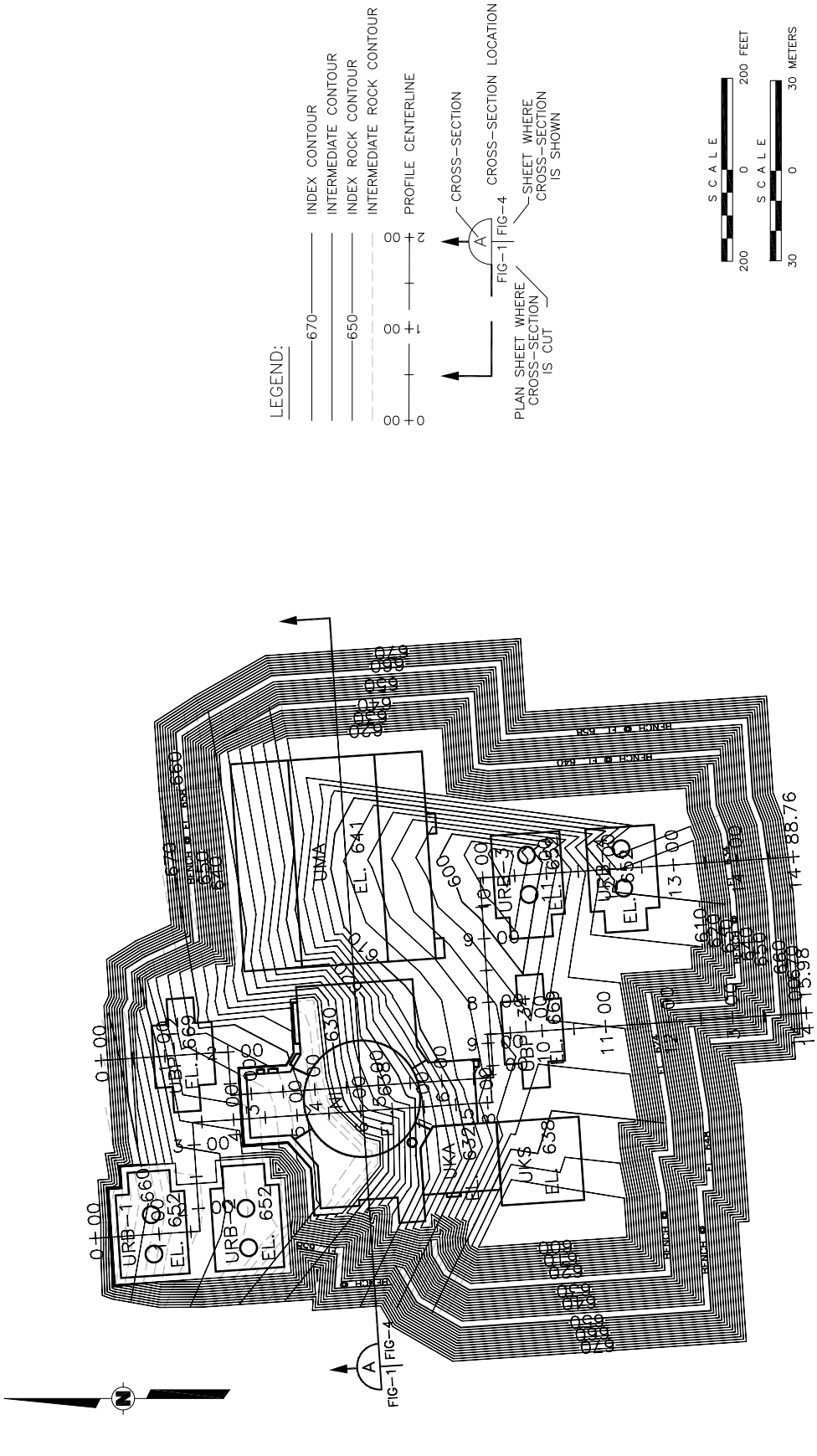

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Figure 2.5-160— {Excavation West Profile}

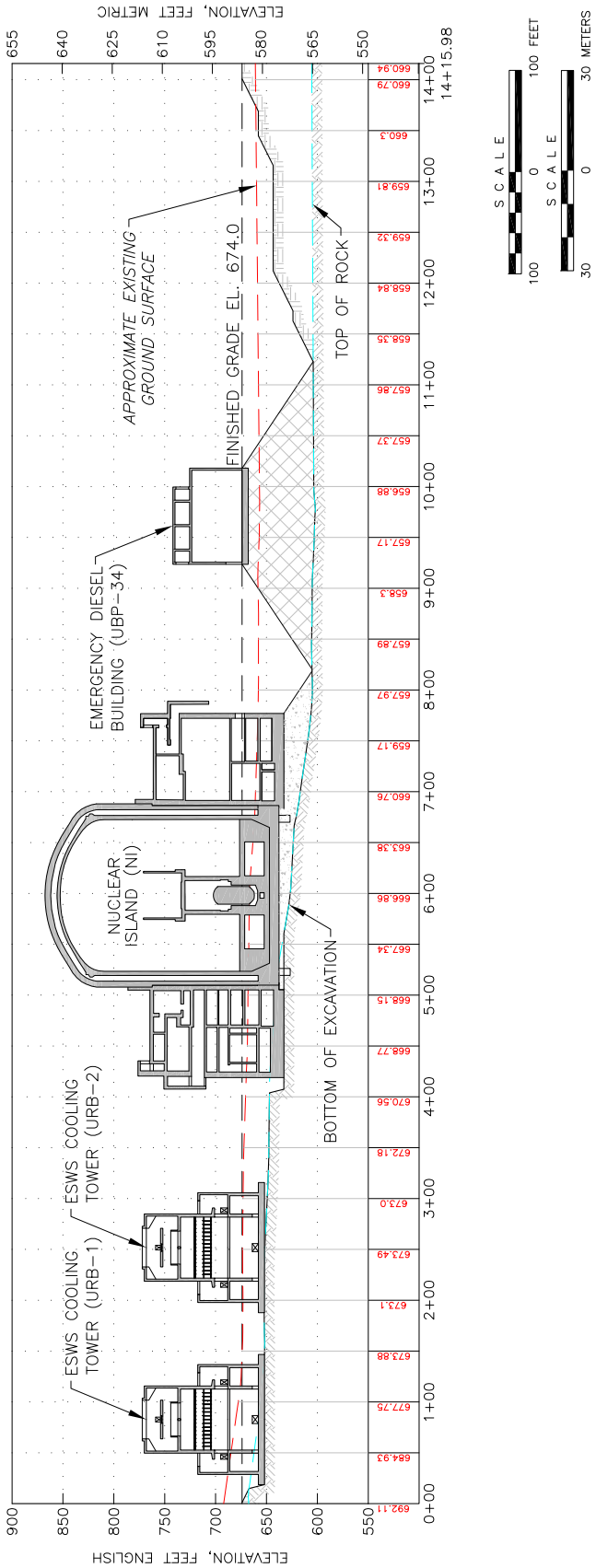

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Figure 2.5-161 — {Excavation East Profile}

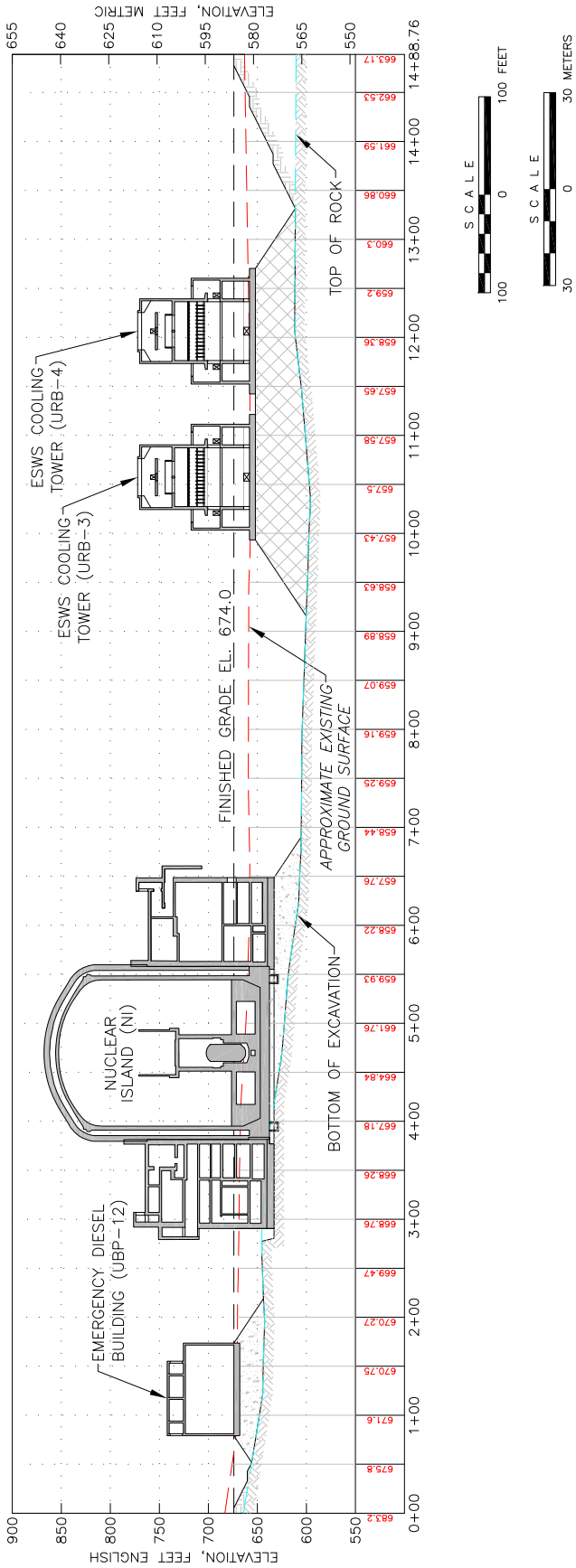

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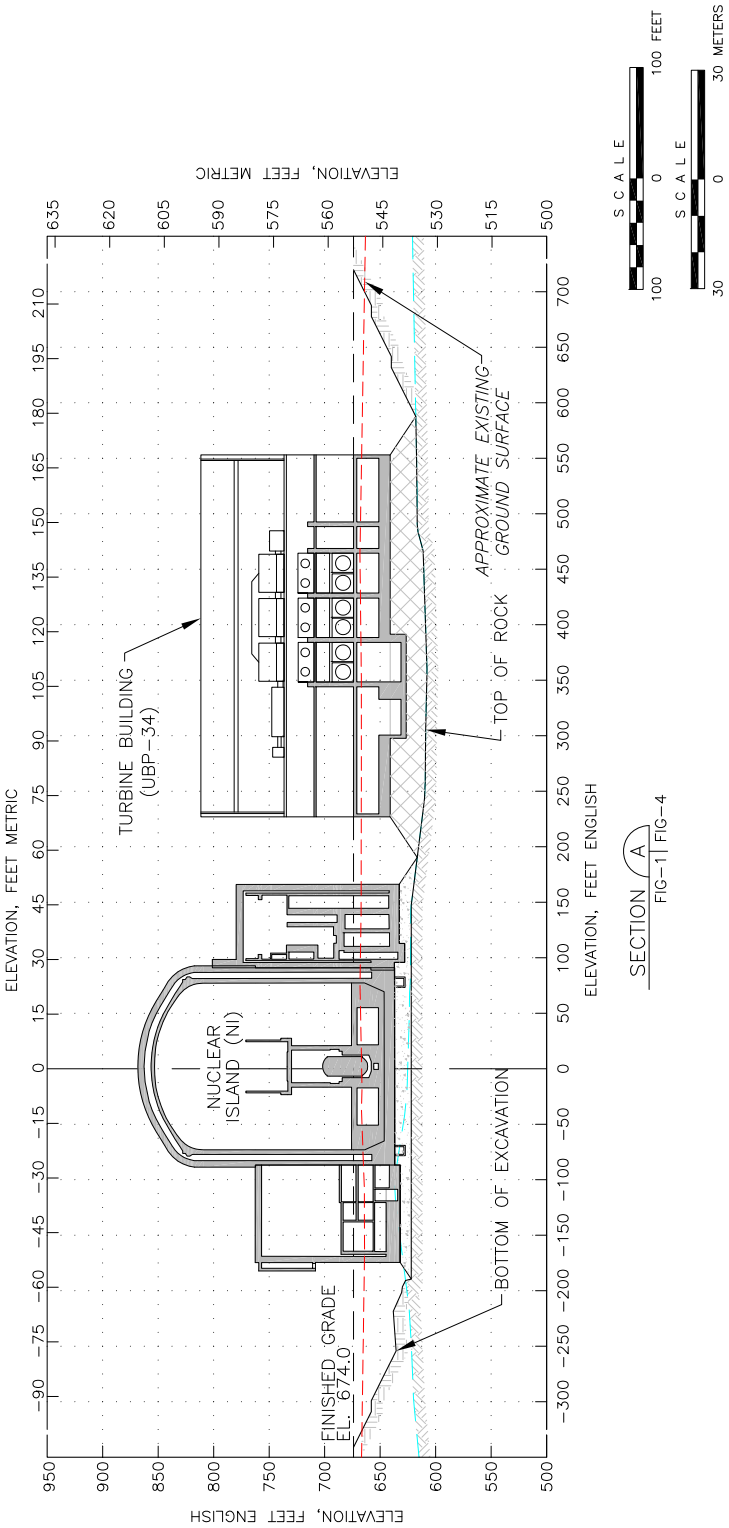
Figure 2.5-162— {Excavation Cross Section}



07-3891-B20(M)

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Figure 2.5-163— {Liquefaction Analysis Vs Method}

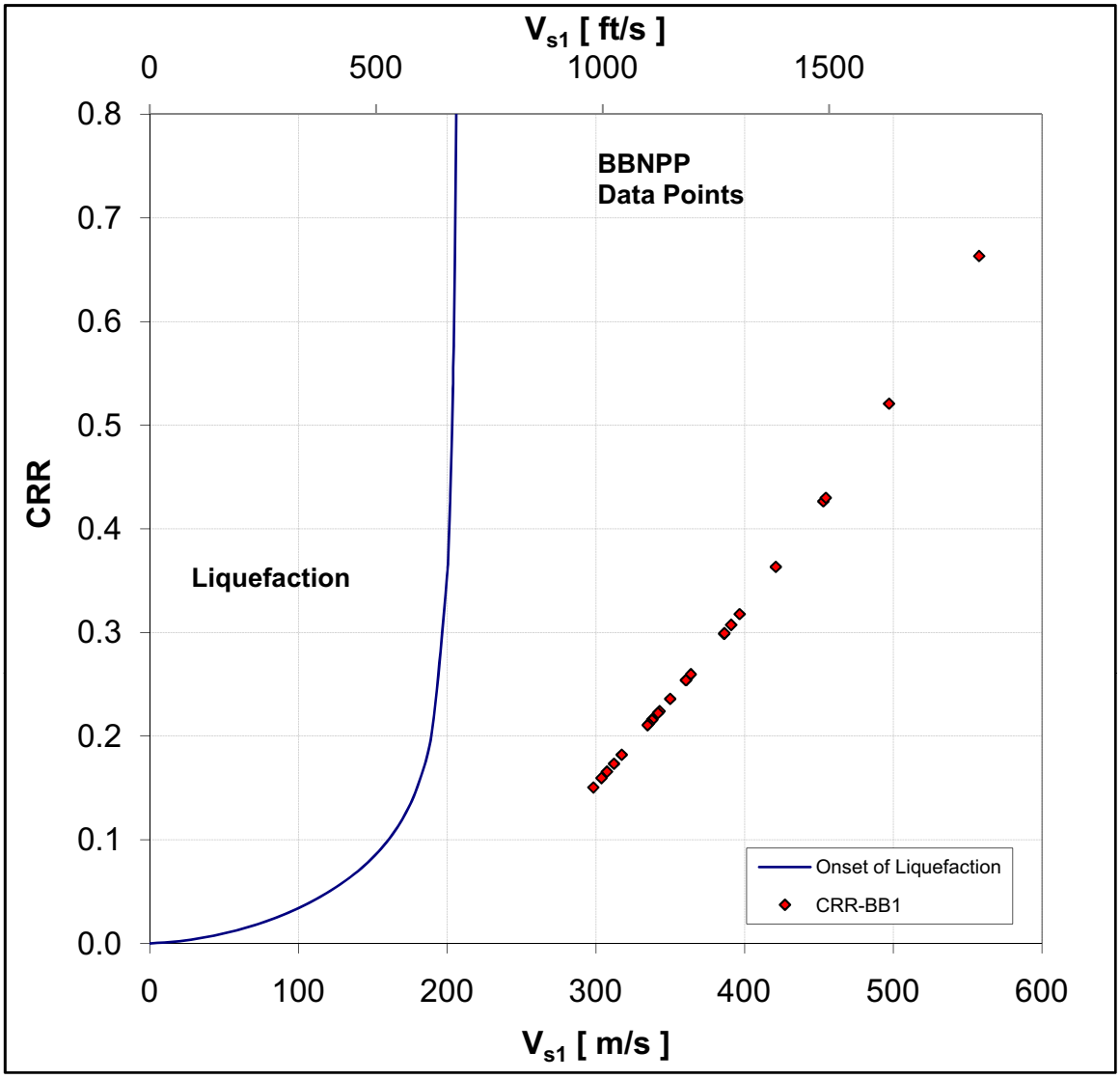

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Figure 2.5-164— {Liquefaction Analysis, SPT Method}

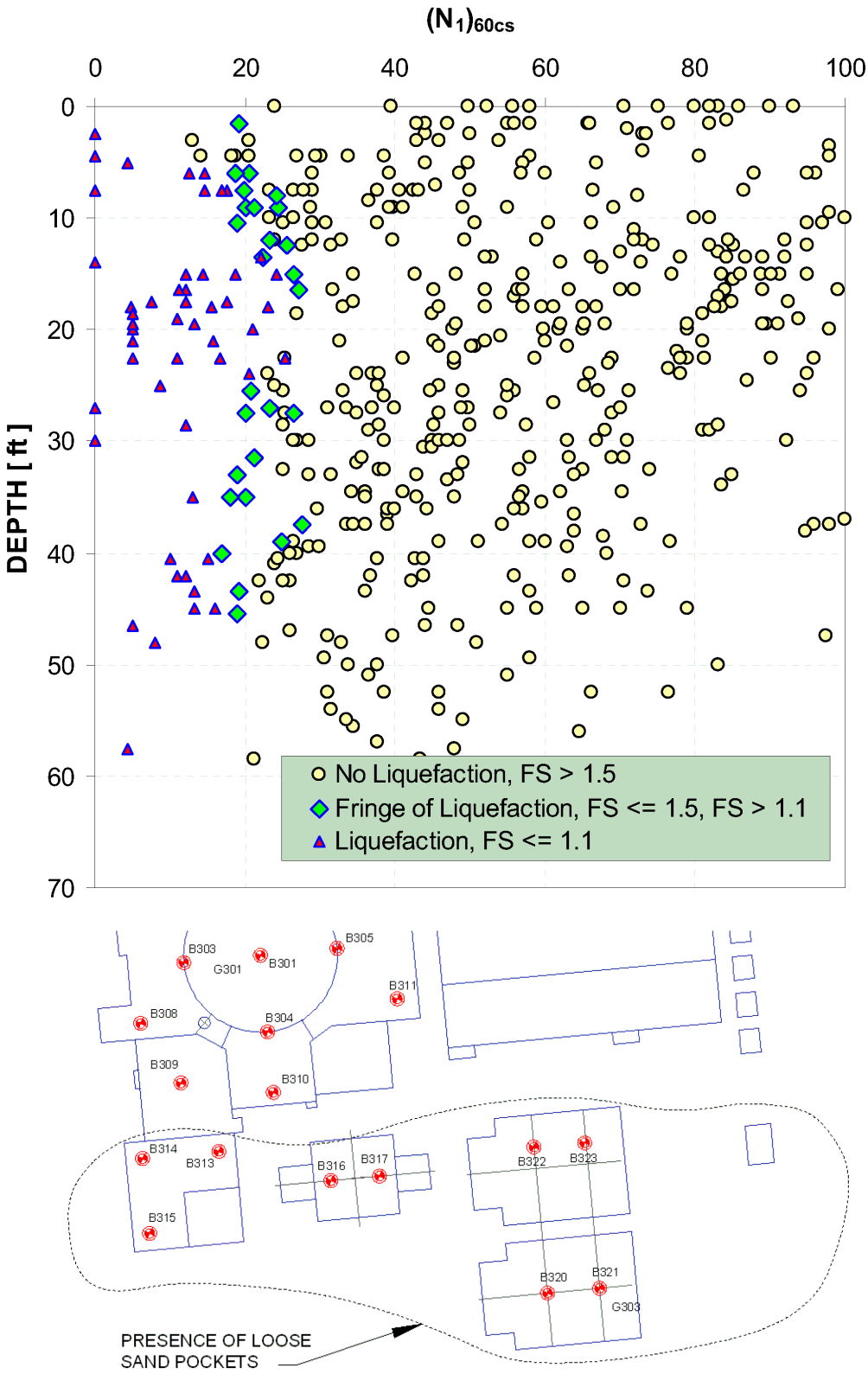

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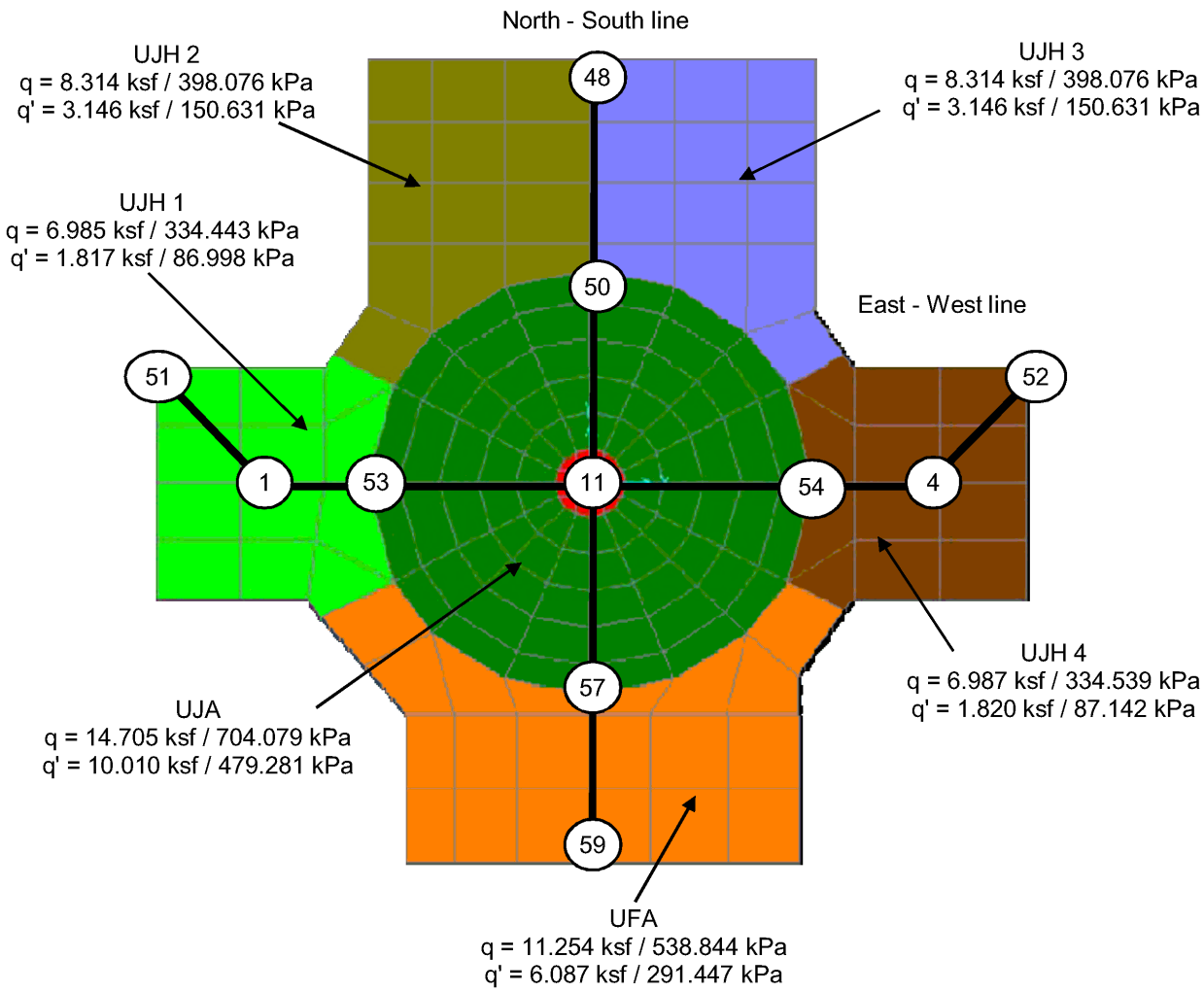
Figure 2.5-165— {NI Settlement Analysis Service Loads}



LEGENED:

UJA:	Reactor building
1-4 UJH:	Safeguard building
UFA:	Fuel building

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Figure 2.5-166— {NI Settlement Analysis Results}

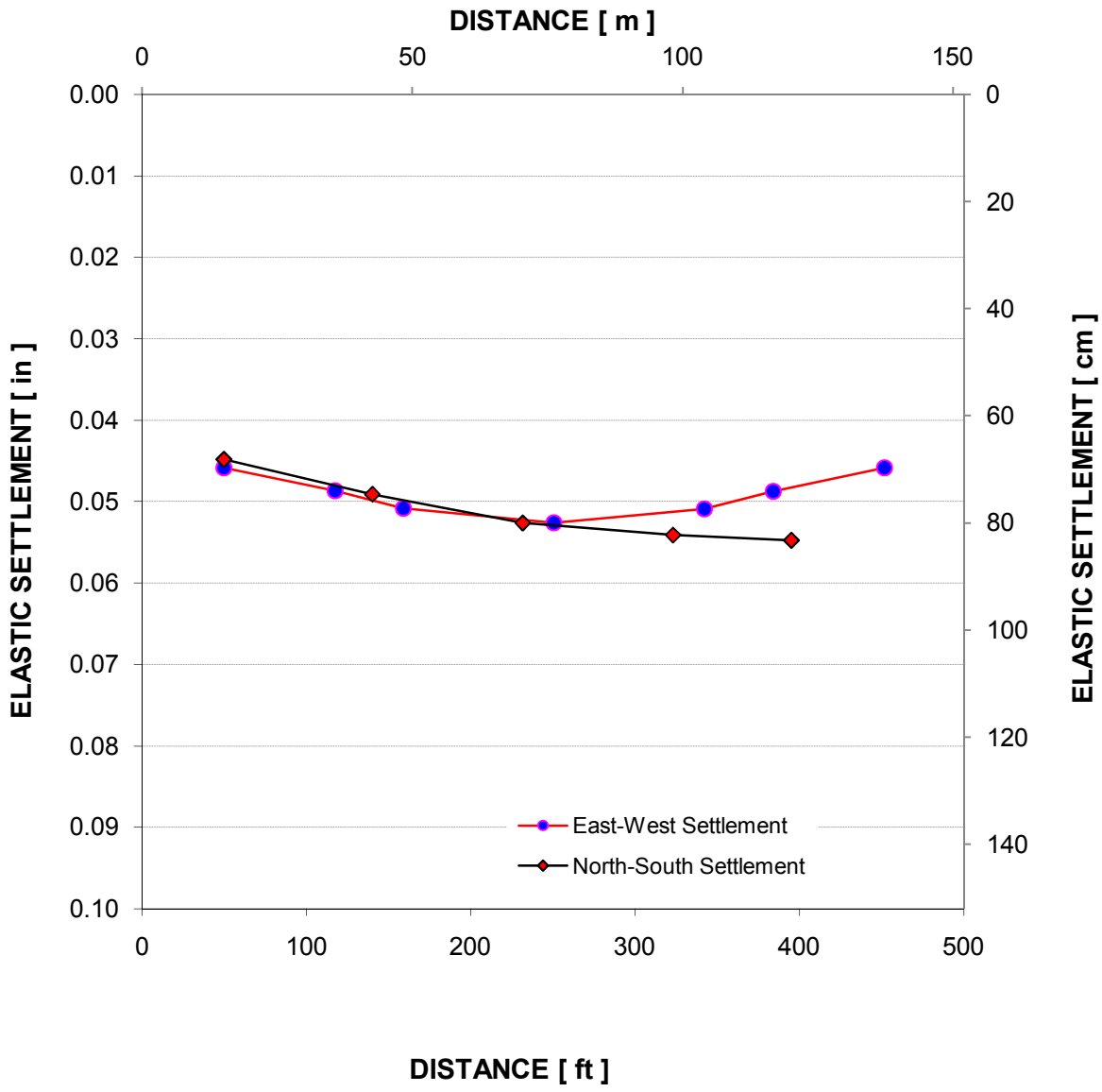

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Figure 2.5-167— {Examples of Earth Pressure Diagrams}

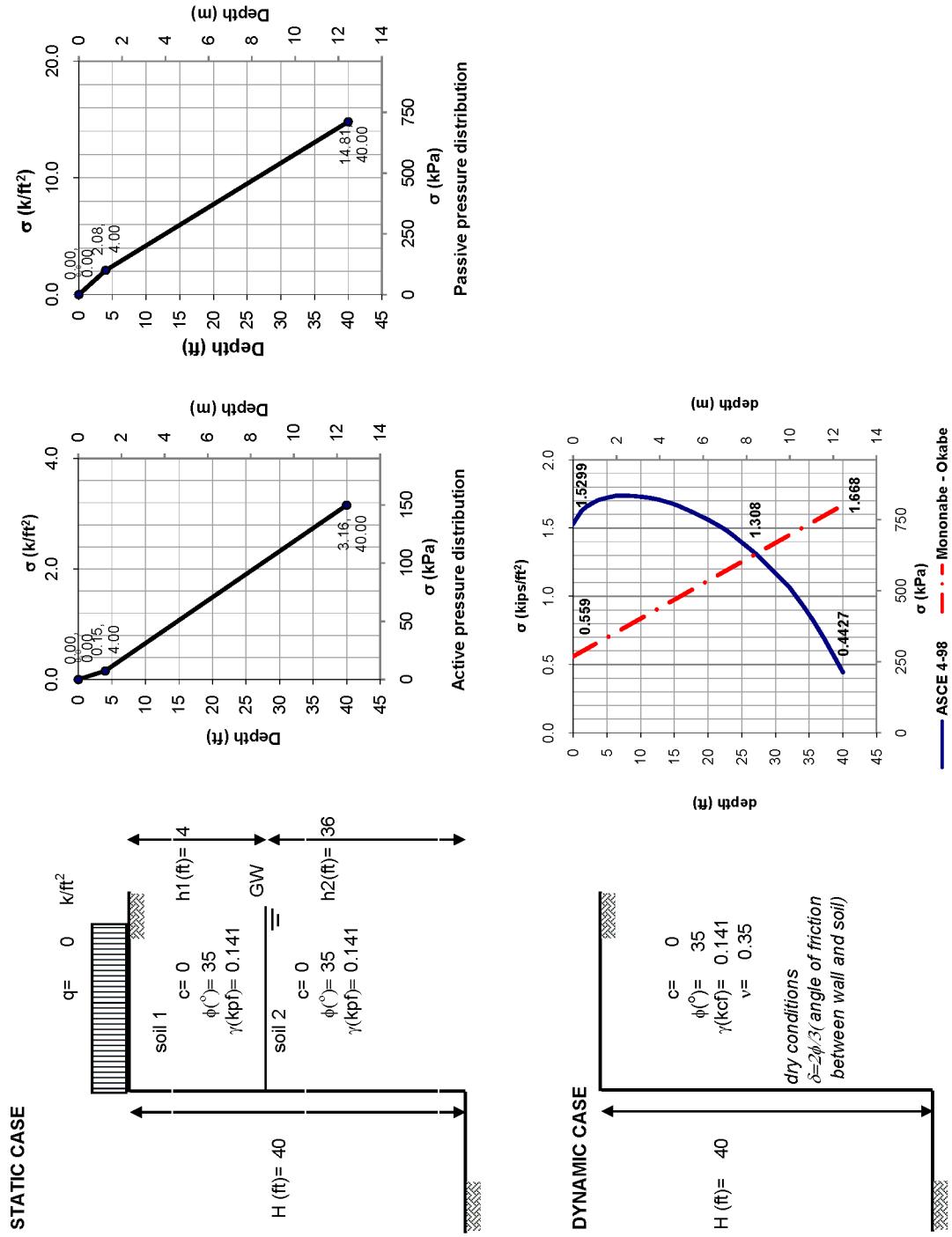

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Figure 2.5-168— {ESWEMS and Cross Sections}

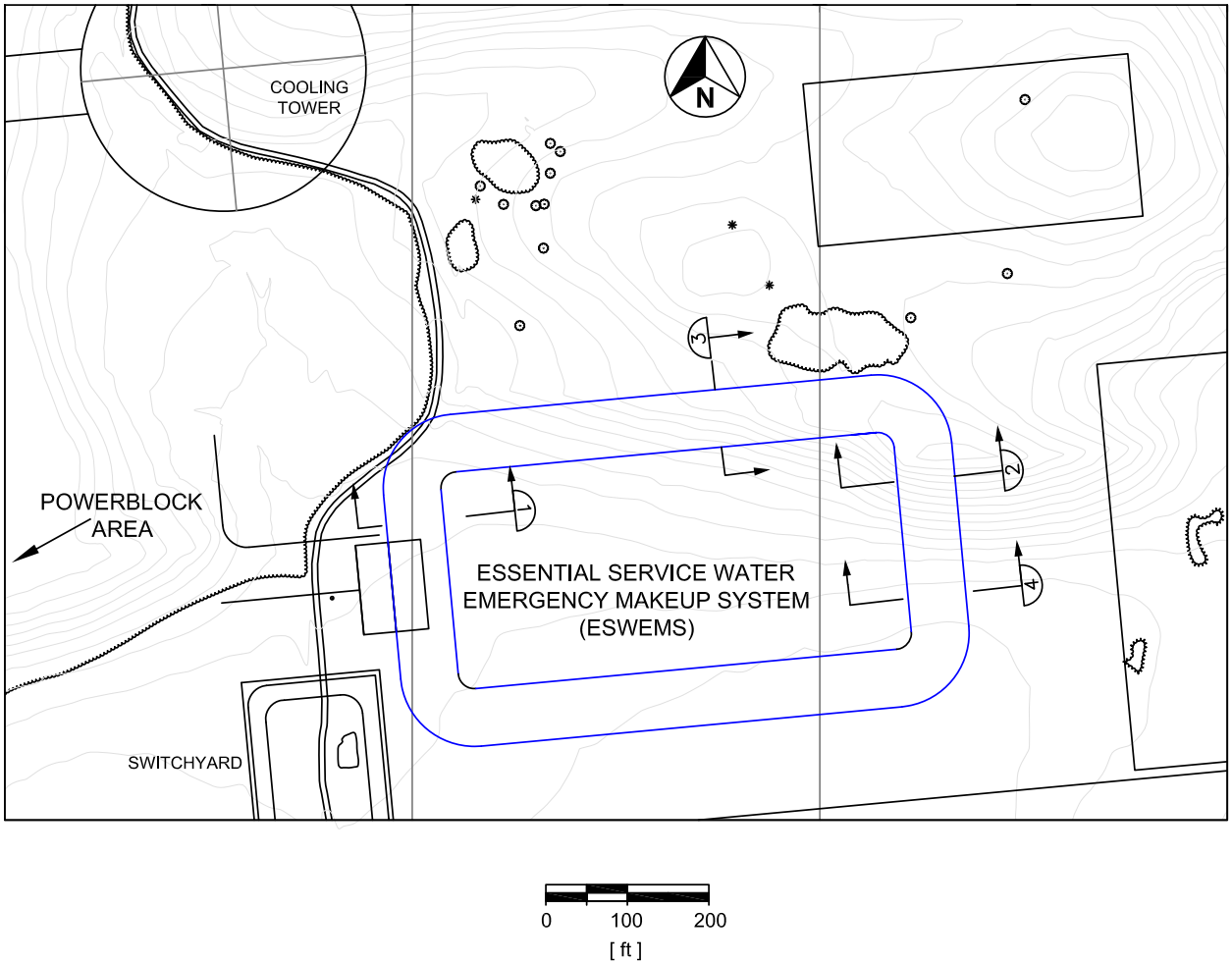

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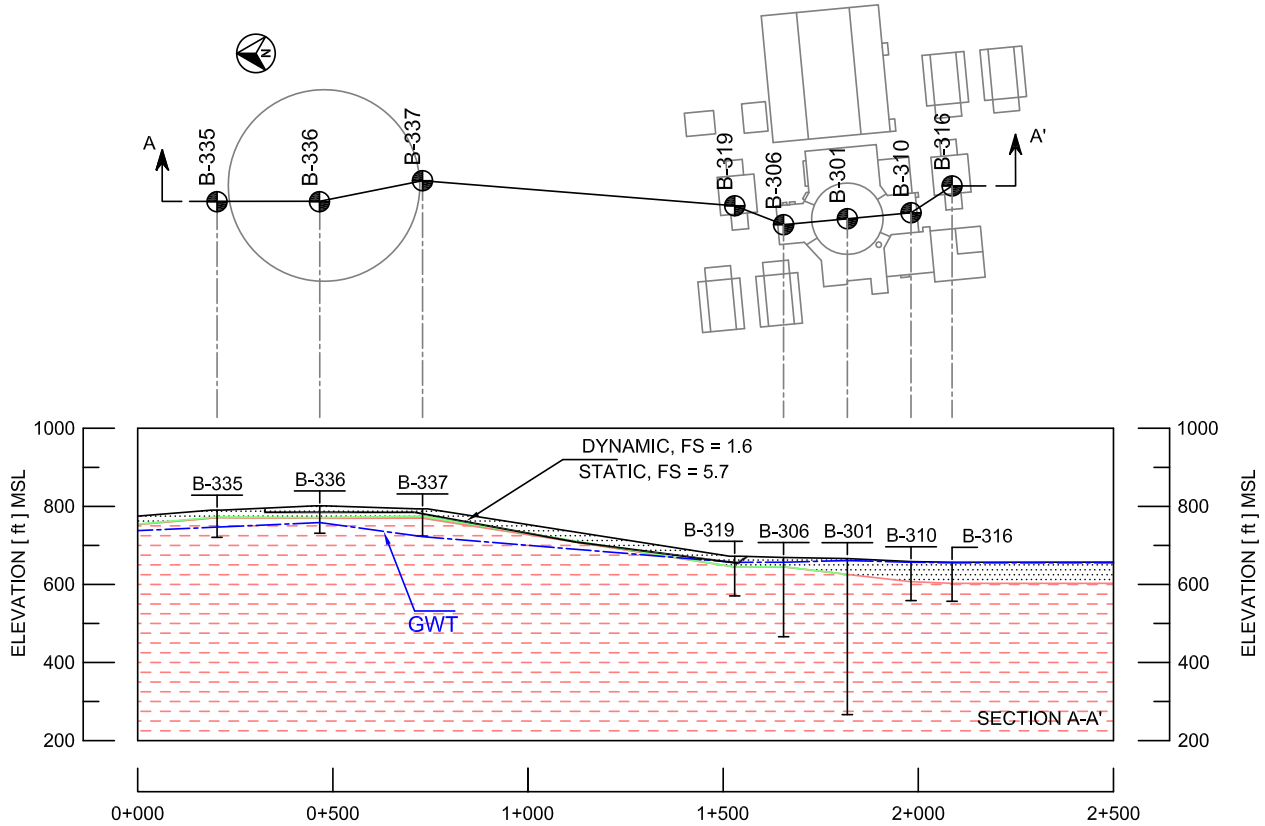
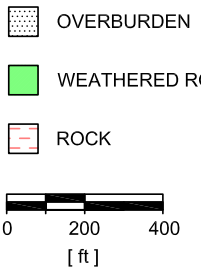
Figure 2.5-169— {North Side Natural Slope}





BORING	SURFACE [ft] MSL	DEPTH TO ROCK [ft]	GW DEPTH [ft]	BORING DEPTH [ft]
B-335	793.7	19.0	43.7	70.0
B-336	801.3	30.0	42.8	70.0
B-337	790.6	19.0	71.3	99.5
B-319	672.2	28.2	15.6	101.7
B-306	669.1	20.0	10.5	203.0
B-301	666.4	41.0	5.2	400.0
B-310	658.5	51.0	1.5	100.0
B-316	656.8	54.0	1.4	100.0

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Figure 2.5-170— {Permanent Slope Cross Sections}

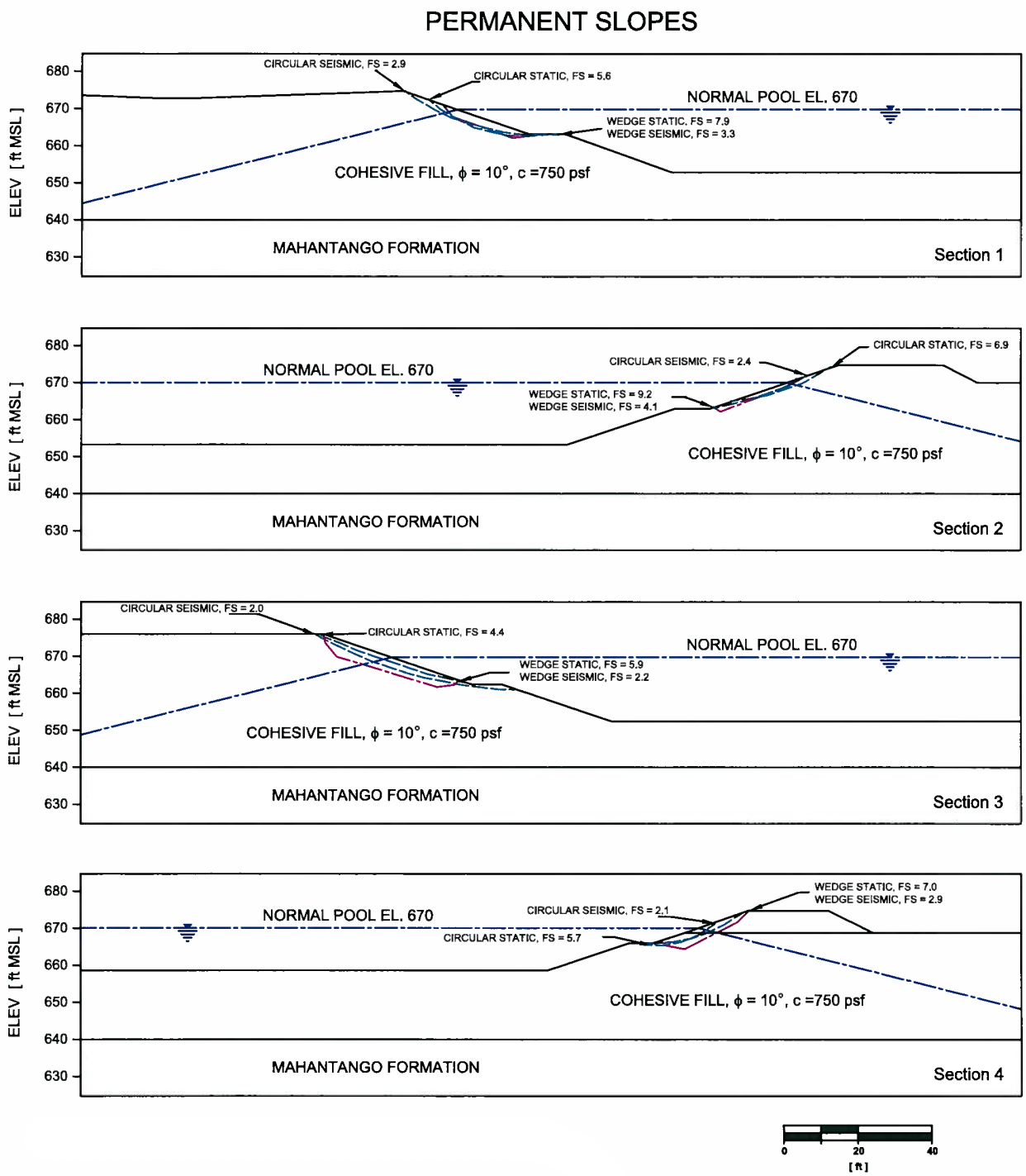

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Figure 2.5-171— {Temporary Slopes Cross Sections}

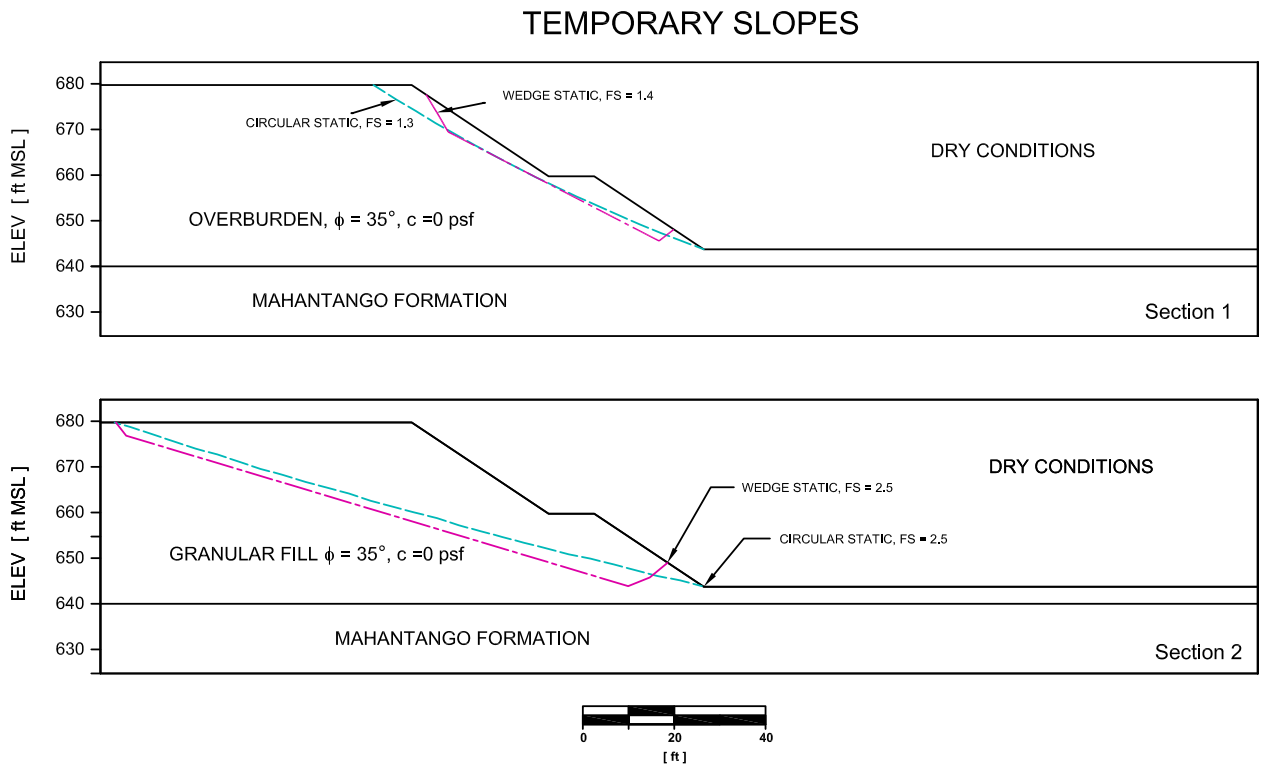

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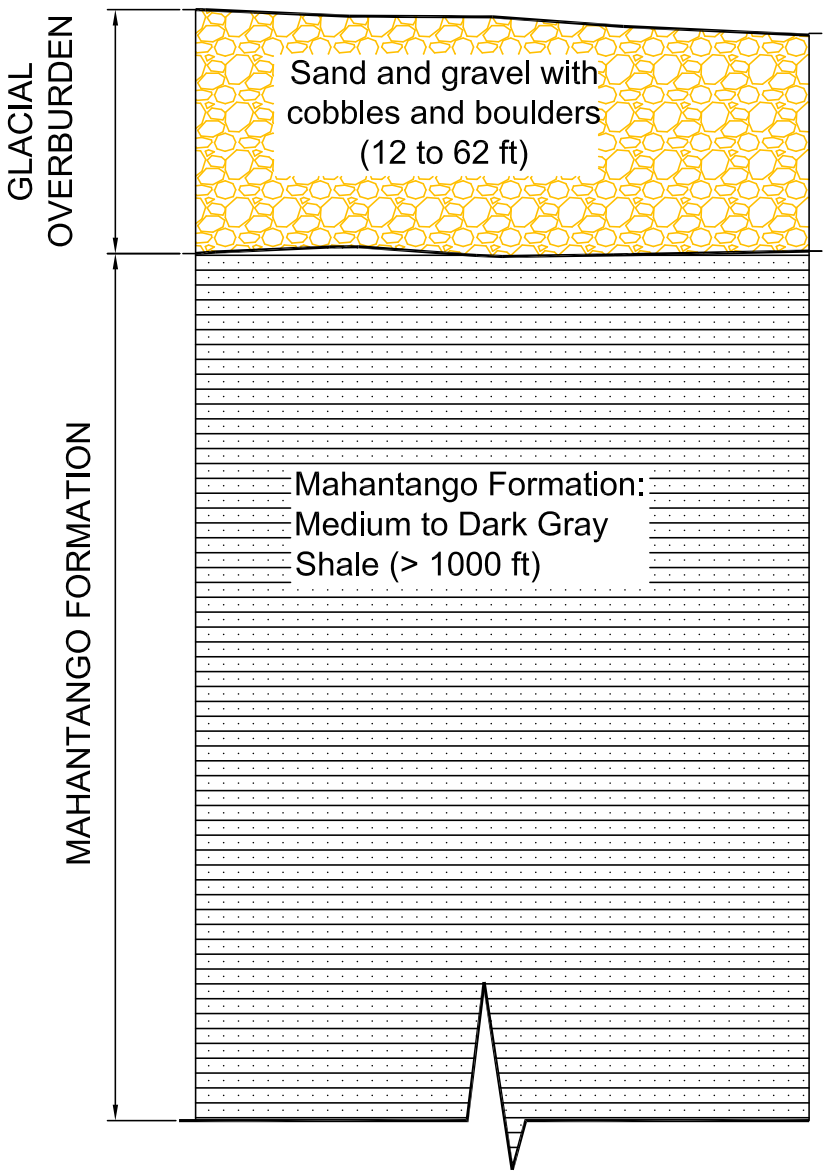
Figure 2.5-172— {Generic Soil Profile}



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