

**LEGEND**

★ Site Location

**NOTES**

1. Original in colour.
2. Numerical scale reflects full size print. Print scaling will distort this scale, however scale bar will remain accurate.
3. Intended for illustration purposes, accuracy has not been verified for construction or navigation purposes.



*M.A. GUEST*  
*Sept 15/17*

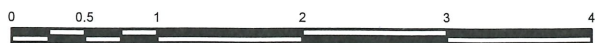


**SNC • LAVALIN**

CLIENT NAME:  
Public Works and Government  
Services Canada

PROJECT LOCATION:  
Fireside Maintenance Camp  
Alaska Highway, BC

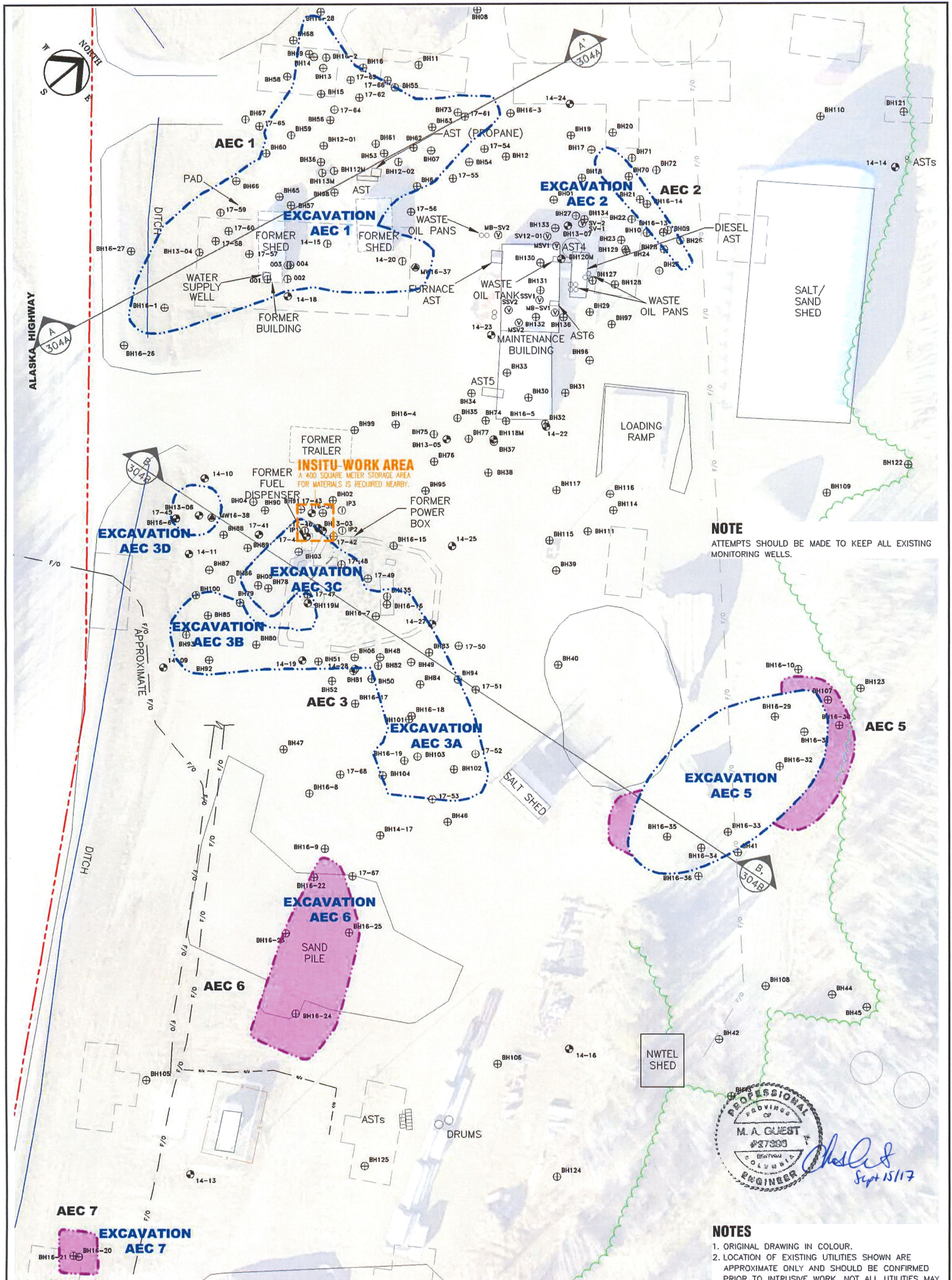
**Fireside Maintenance  
Camp Site Location**



BY: PB  
CHK'D: CS

DATE: 2017-03-03  
SCALE: 1:50,000

REF No: **636200-301**  
REV: 0



**LEGEND**

--- SUBJECT PROPERTY LIMITS	--- INSITU WORK AREA
--- TREE LINE	--- FIBRE OPTIC LINE - UNDERGROUND
--- FENCE	--- APPROXIMATE CUT LINE
--- FORMER SITE CONFIGURATION	--- FIBRE OPTIC LINE - OVERHEAD
--- SITE FEATURE	⊕ BOREHOLE
--- FY 2017/2018 PROPOSED APPROXIMATE EXCAVATION LIMIT	⊕ MONITORING WELL
--- FY 2016/2017 EXCAVATION BOUNDARY	⊕ INJECTION WELL
--- SECTION LINE	⊕ SOIL VAPOUR WELL
	⊕ DESTROYED MONITORING WELL

**REFERENCE DRAWINGS**

DWG. NO.	DATE	DESCRIPTION
4	2017-09-14	ISSUED TO CLIENT
3	2017-08-21	ISSUED TO CLIENT
2	2017-07-20	ISSUED TO CLIENT
1	2017-07-07	ISSUED TO CLIENT
0	2017-06-16	ISSUED AS DRAFT

**REVISIONS**

REV.	DATE	DESCRIPTION	BY	CHK
4	2017-09-14	ISSUED TO CLIENT	PES	CS
3	2017-08-21	ISSUED TO CLIENT	PES	CS
2	2017-07-20	ISSUED TO CLIENT	PES	CS
1	2017-07-07	ISSUED TO CLIENT	PRT	MG
0	2017-06-16	ISSUED AS DRAFT	PRT	CS

**SNC • LAVALIN**

CLIENT NAME: PUBLIC SERVICES AND PROCUREMENT CANADA  
PROJECT LOCATION: FIRESIDE MAINTENANCE CAMP ALASKA HIGHWAY, BC

TITLE: **SITE PLAN AND INFRASTRUCTURE RESTRICTIONS**

DWN BY: BB SCALE: 1:800 DATE: 2017-03-03 DWG No: REV: 4  
CHK'D: CS PLOT: 20170914.1148 CADFILE: 636200R14 **636200-302**

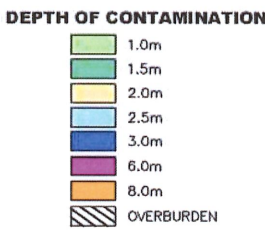


Excavation Area	Surface Area (m <sup>2</sup> )	Estimated Contaminated Soil Volume (m <sup>3</sup> )	Estimated Non-Impacted Overburden Volume (m <sup>3</sup> )
AEC 5	298	418	-

- THE FOLLOWING IS A LIST OF ANTICIPATED CONTAMINANTS OF CONCERN ON THE SITE.  
SOIL - PETROLEUM HYDROCARBONS (BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, VOLATILE PETROLEUM HYDROCARBONS, EXTRACTABLE PETROLEUM HYDROCARBONS, LIGHT EXTRACTABLE PETROLEUM HYDROCARBONS, PETROLEUM HYDROCARBON FRACTIONS F1 TO F3, POLYCYCLIC AROMATIC HYDROCARBONS).
- PREVIOUS FILL MATERIAL (FY2016/2017 EXCAVATION BOUNDARY) TO BE SEGREGATED AS CLEAN OVERBURDEN WHERE REQUIRED.

**NOTES**

- ORIGINAL DRAWING IN COLOUR.
- LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY AND SHOULD BE CONFIRMED PRIOR TO INTRUSIVE WORK. NOT ALL UTILITIES MAY BE SHOWN.



*Checked & Sept 15/17*

**LEGEND**

- FY 2017/2018 PROPOSED APPROXIMATE EXCAVATION LIMIT
- FY 2016/2017 EXCAVATION BOUNDARY
- FORMER SITE CONFIGURATION
- SITE FEATURE
- MONITORING WELL
- BOREHOLE
- TESTPIT

**REFERENCE DRAWINGS**

DWG. NO.	DATE	DESCRIPTION
-	-	-

**REVISIONS**

REV.	DATE	DESCRIPTION	BY	CHK
2	2017-09-14	ISSUED TO CLIENT	PES	CS
1	2017-07-07	ISSUED TO CLIENT	PRT	MG
0	2017-06-16	ISSUED AS DRAFT	PRT	CS

**SNC • LAVALIN**

CLIENT NAME: PUBLIC SERVICES AND PROCUREMENT CANADA  
PROJECT LOCATION: FIRESIDE MAINTENANCE CAMP ALASKA HIGHWAY, BC

TITLE: **CONTAMINATED MATERIALS EXTENTS - AEC 5**

DWN BY: PRT    SCALE: 1:400    DATE: 2017-06-15    DWG No:    REV.: **2**  
CHK'D: CS    PLOT: 20170914.1126    CADFILE: 636200R14    **636200-303A**

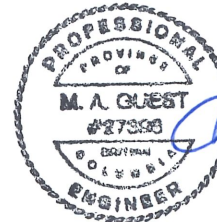
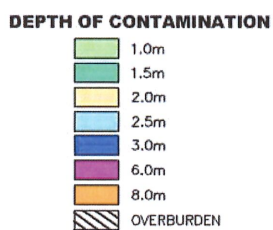


Excavation Area	Surface Area (m <sup>2</sup> )	Estimated Contaminated Soil Volume (m <sup>3</sup> )	Estimated Non-Impacted Overburden Volume (m <sup>3</sup> )
AEC 6	639	1,395	-
AEC 7	81	243	-

- THE FOLLOWING IS A LIST OF ANTICIPATED CONTAMINANTS OF CONCERN ON THE SITE.  
SOIL - PETROLEUM HYDROCARBONS (BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, VOLATILE PETROLEUM HYDROCARBONS, EXTRACTABLE PETROLEUM HYDROCARBONS, LIGHT EXTRACTABLE PETROLEUM HYDROCARBONS, PETROLEUM HYDROCARBON FRACTIONS F1 TO F3, POLYCYCLIC AROMATIC HYDROCARBONS).
- PREVIOUS FILL MATERIAL (FY2016/2017 EXCAVATION BOUNDARY) TO BE SEGREGATED AS CLEAN OVERBURDEN WHERE REQUIRED.

**NOTES**

- ORIGINAL DRAWING IN COLOUR.
- LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY AND SHOULD BE CONFIRMED PRIOR TO INTRUSIVE WORK. NOT ALL UTILITIES MAY BE SHOWN.



**LEGEND**

- FY 2017/2018 PROPOSED APPROXIMATE EXCAVATION LIMIT
- FY 2016/2017 EXCAVATION BOUNDARY
- FORMER SITE CONFIGURATION
- SITE FEATURE
- MONITORING WELL
- BOREHOLE
- TESTPIT

**REFERENCE DRAWINGS**

DWG. NO.	DATE	DESCRIPTION
-	-	-

**REVISIONS**

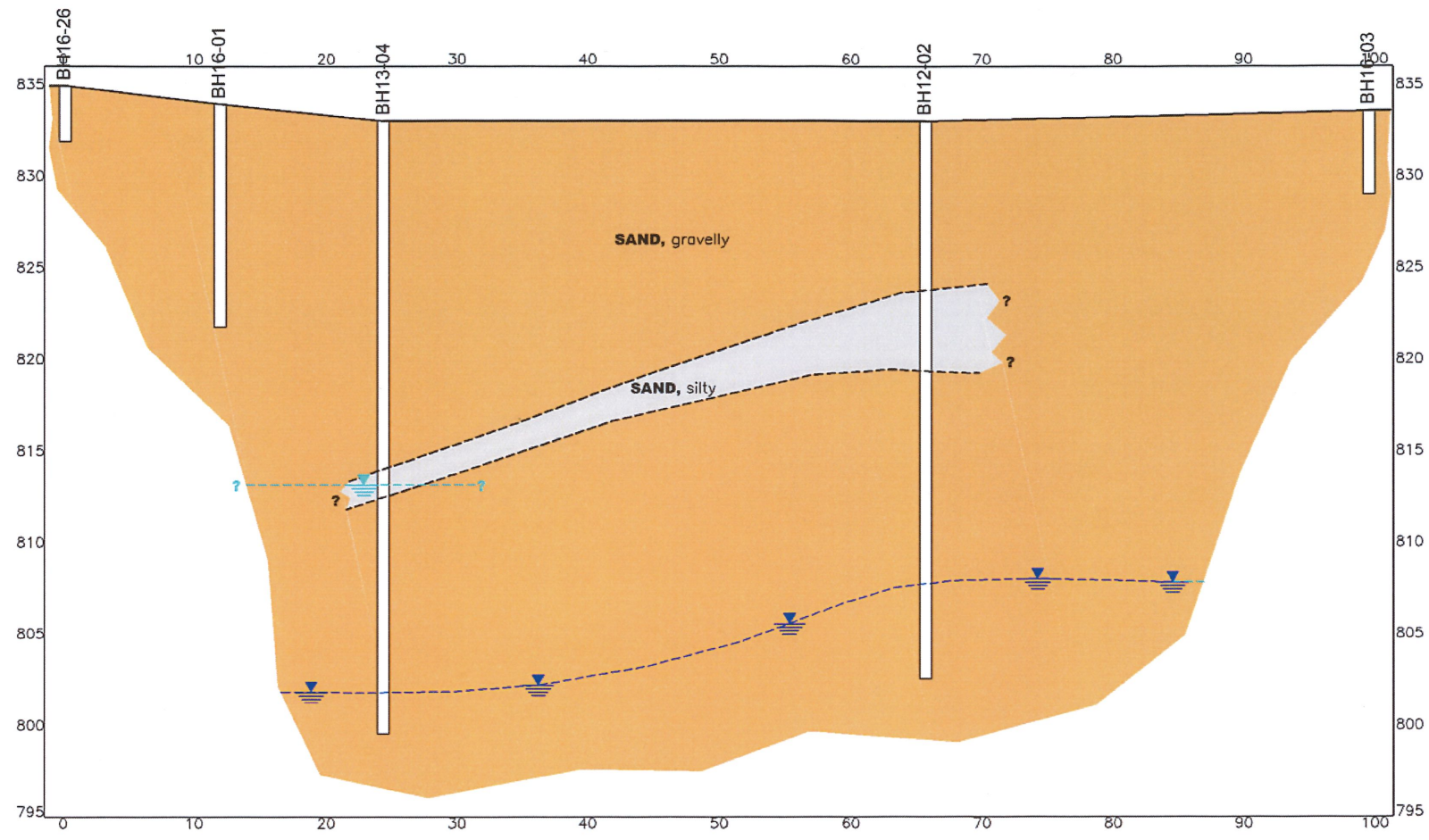
REV.	DATE	DESCRIPTION	BY	CHK
2	2017-09-14	ISSUED TO CLIENT	PES	CS
1	2017-07-07	ISSUED TO CLIENT	PRT	MG
0	2017-06-16	ISSUED AS DRAFT	PRT	CS

**SNC • LAVALIN**

CLIENT NAME: PUBLIC SERVICES AND PROCUREMENT CANADA  
PROJECT LOCATION: FIRESIDE MAINTENANCE CAMP ALASKA HIGHWAY, BC

TITLE: **CONTAMINATED MATERIALS EXTENTS - AEC 6 & 7**

DWN BY: PRT SCALE: 1:400 DATE: 2017-06-15 DWG No: REV.: **2**  
CHK'D: CS PLOT: 20170914.1141 CADFILE: 636200R14 **636200-303B**



**A-A' SECTION**  
302 HORIZONTAL SCALE  
1:500 (m)



*Checked*  
Sept 15/17

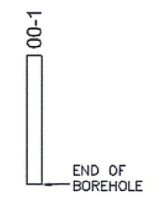
**NOTES**

1. THE CROSS SECTION DEPICTED IS BASED ON INTERPRETATION OF LIMITED GEOLOGICAL DATA. ACTUAL GEOLOGICAL CONDITIONS MAY BE DIFFERENT FROM THOSE INTERPRETED.
2. REFER TO PLAN MAP 636200-302 FOR LOCATION OF CROSS SECTION LINE.
3. INFORMATION PRESENTED IS WITHIN 10m OF SECTION LINE UNLESS INDICATED OTHERWISE ON DRAWING.
4. ORIGINAL DRAWING IN COLOUR.
5. CROSS SECTIONS SHOWN ARE CONDITIONS PRIOR TO FY2016/2017 REMEDIAL EXCAVATION TO ILLUSTRATE NATIVE STRATIGRAPHY.

**LEGEND**

- SAND, gravelly
- SAND, silty
- INFERRED STRATIGRAPHIC BOUNDARY
- APPROXIMATE DEPTH OF LOWER PERCHED WATER TABLE
- APPROXIMATE DEPTH OF REGIONAL WATER TABLE

**BOREHOLE LEGEND**

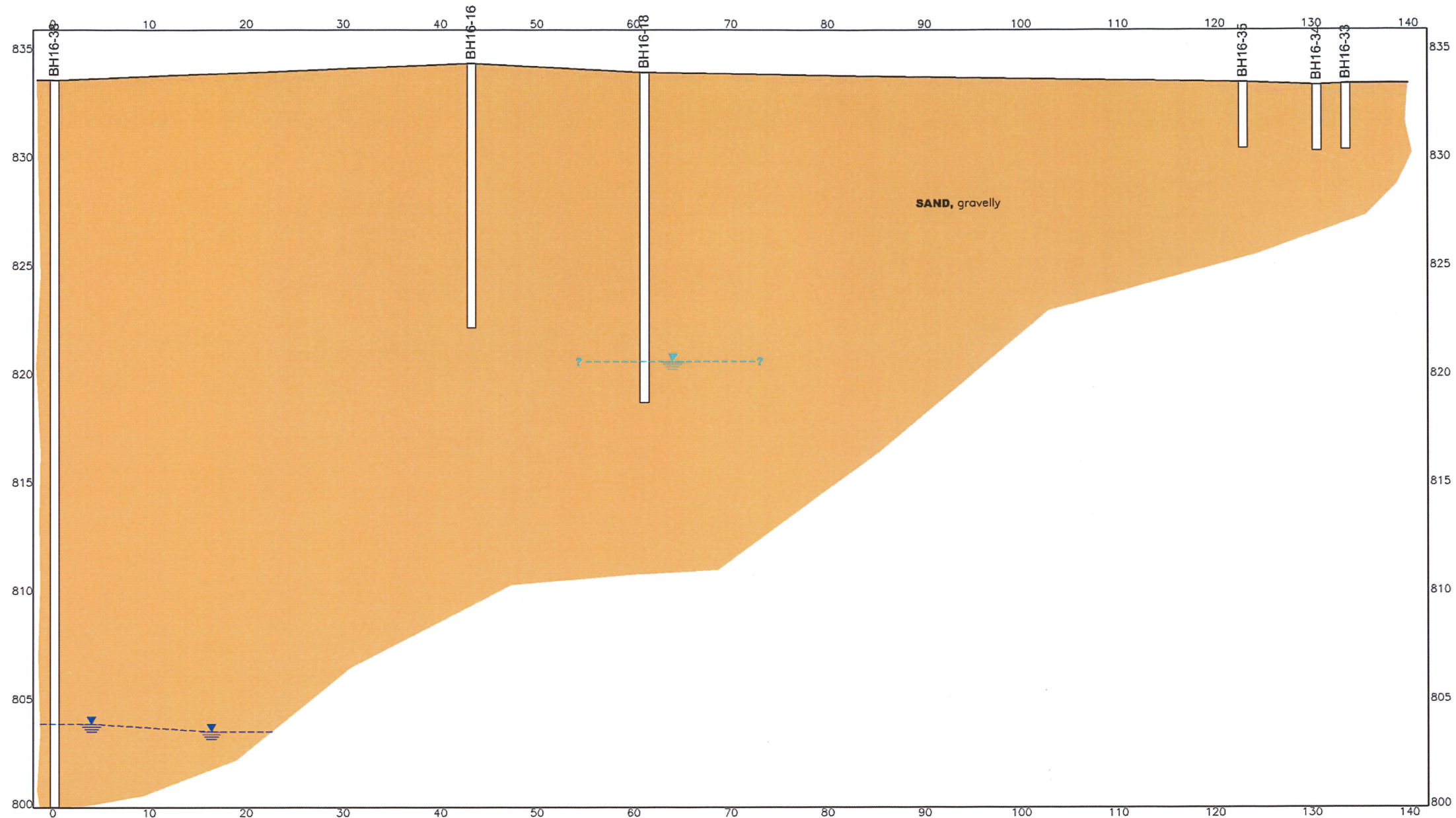


**REFERENCE DRAWINGS**

DWG. NO.	DATE	DESCRIPTION	BY	CHK
<b>REVISIONS</b>				
3	2017-09-14	ISSUED TO CLIENT	PES	CS
2	2017-07-07	ISSUED TO CLIENT	PRT	MG
1	2017-06-16	ISSUED AS DRAFT	PRT	CS
0	2016-07-21	ISSUED TO CLIENT	PES	MG
REV.	DATE	DESCRIPTION	BY	CHK



CLIENT NAME: PUBLIC SERVICES AND PROCUREMENT CANADA		PROJECT LOCATION: FIRESIDE ALASKA HIGHWAY, BC	
<b>TITLE:</b> <b>GEOLOGICAL CROSS SECTION A-A'</b>			
DWN BY: PES	SCALE: AS NOTED	DATE: 2016-07-14	DWG No: REV.: <b>3</b>
CHK'D: CT	PLOT: 20170914.1149	CADFILE: 636200X02	<b>636200-304A</b>



PROFESSIONAL  
ENGINEER  
M. A. GUEST  
#27308  
BRITISH COLUMBIA  
Sept 15/17

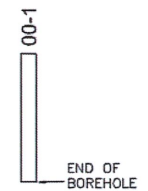
**B-B'** SECTION  
302 HORIZONTAL SCALE  
1:500 (m)

- NOTES**
1. THE CROSS SECTION DEPICTED IS BASED ON INTERPRETATION OF LIMITED GEOLOGICAL DATA. ACTUAL GEOLOGICAL CONDITIONS MAY BE DIFFERENT FROM THOSE INTERPRETED.
  2. REFER TO PLAN MAP 636200-302 FOR LOCATION OF CROSS SECTION LINE.
  3. INFORMATION PRESENTED IS WITHIN 10m OF SECTION LINE UNLESS INDICATED OTHERWISE ON DRAWING.
  4. ORIGINAL DRAWING IN COLOUR.
  5. CROSS SECTIONS SHOWN ARE CONDITIONS PRIOR TO FY2016/2017 REMEDIAL EXCAVATION TO ILLUSTRATE NATIVE STRATIGRAPHY.

**LEGEND**

- SAND, gravelly
- APPROXIMATE DEPTH OF SHALLOW PERCHED WATER TABLE
- APPROXIMATE DEPTH OF REGIONAL WATER TABLE

**BOREHOLE LEGEND**



**REFERENCE DRAWINGS**

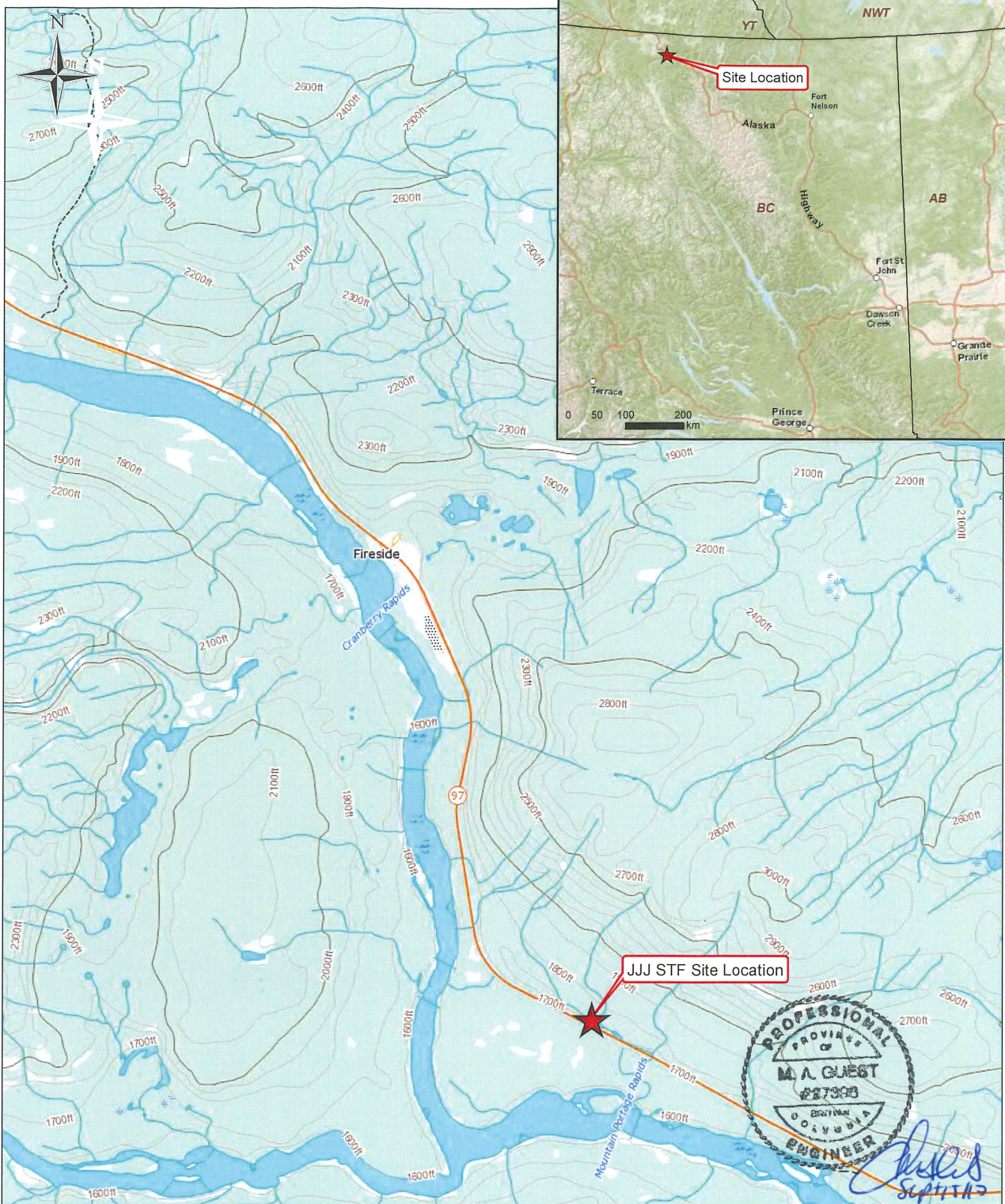
DWG. NO.	DATE	DESCRIPTION	BY	CHK
3	2017-09-14	ISSUED TO CLIENT	PES	CS
2	2017-07-07	ISSUED TO CLIENT	PRT	MG
1	2017-06-16	ISSUED AS DRAFT	PRT	CS
0	2016-07-21	ISSUED TO CLIENT	PES	MG



CLIENT NAME: PUBLIC SERVICES AND PROCUREMENT CANADA  
PROJECT LOCATION: FIRESIDE ALASKA HIGHWAY, BC

**GEOLOGICAL CROSS SECTION B-B'**

DWN BY: PES SCALE: AS NOTED DATE: 2016-07-14 DWG No: REV.: 3  
CHK'D: CT PLOT: 20170914.1150 CADFILE: 636200X02 **636200-304B**



**LEGEND**

★ Site Location

**NOTES**

1. Original in colour.
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3. Intended for illustration purposes, accuracy has not been verified for construction or navigation purposes.



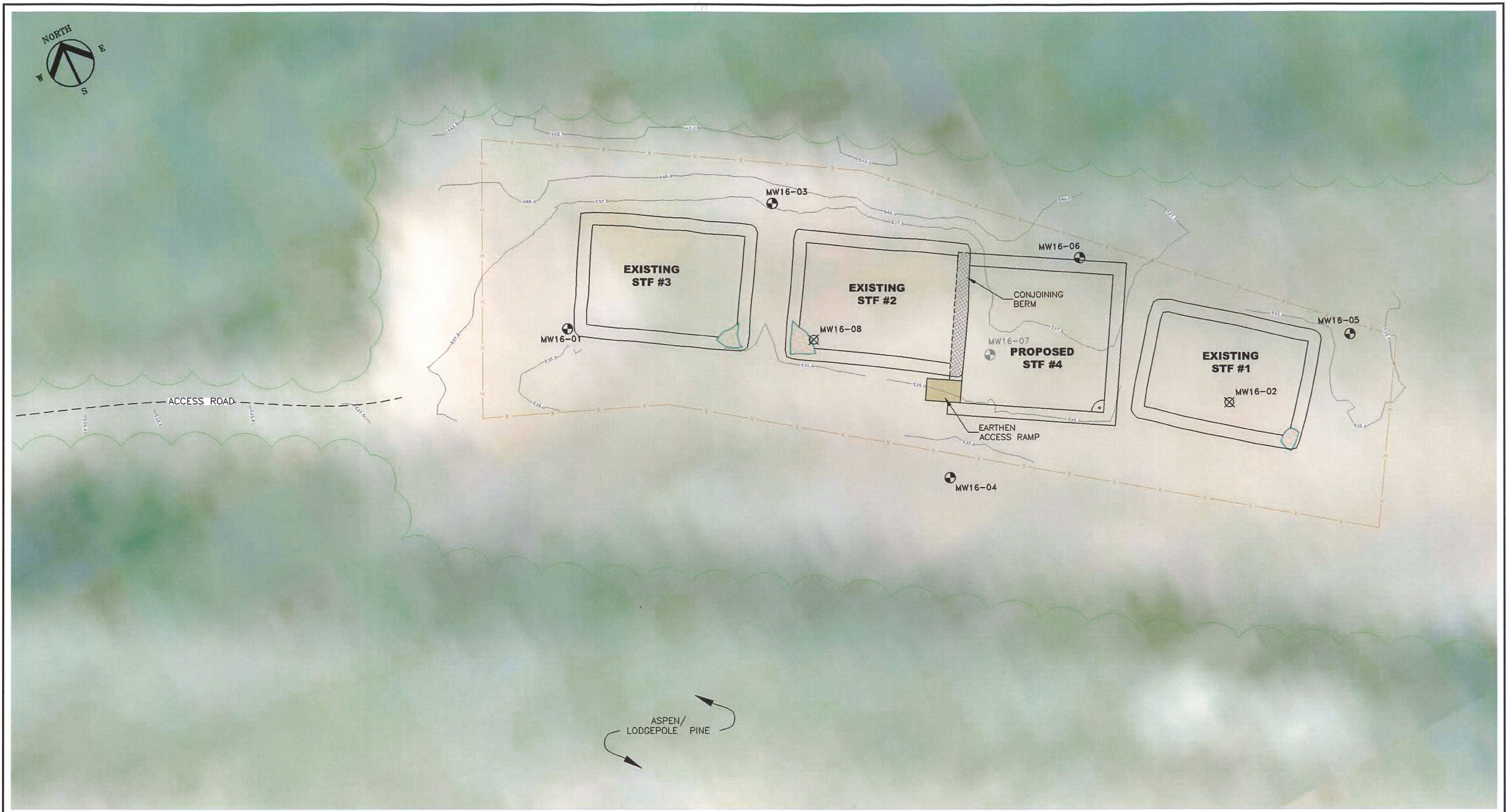
CLIENT NAME: Public Works and Government Services Canada	PROJECT LOCATION: JJJ STF Alaska Highway, BC
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**JJJ STF Site Location**



BY PB	DATE: 2017-03-03	REF No: <b>636200-305</b>	REV: 0
CHKD: CS	SCALE: 1:50,000		

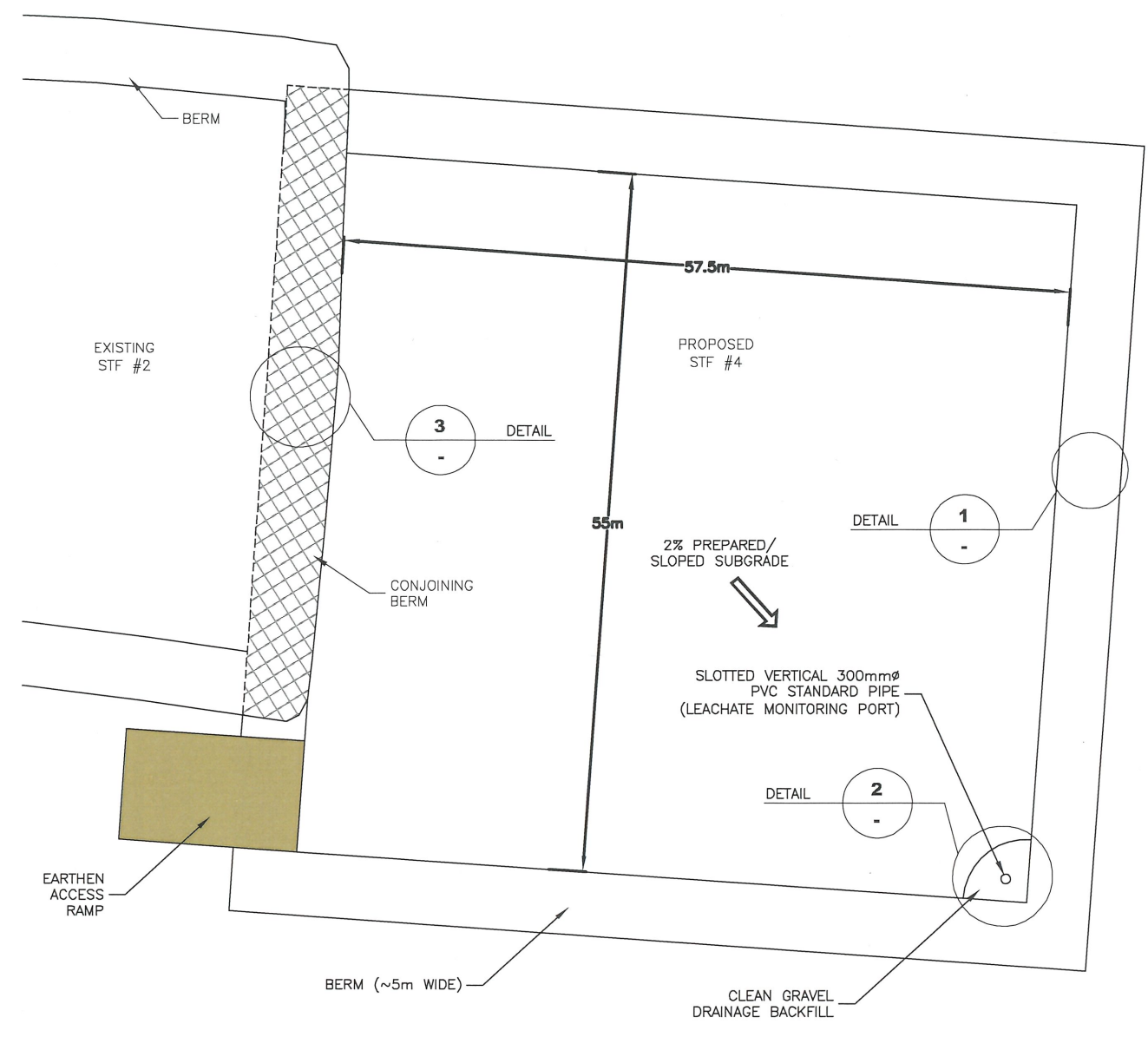
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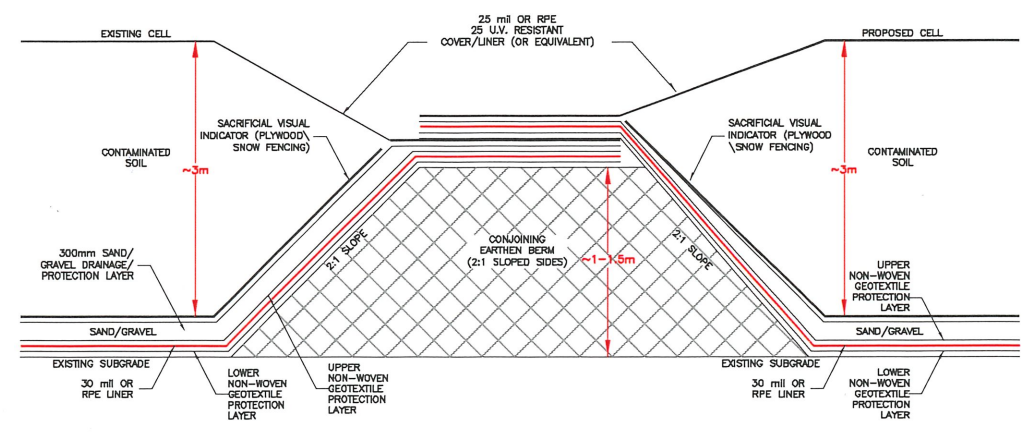
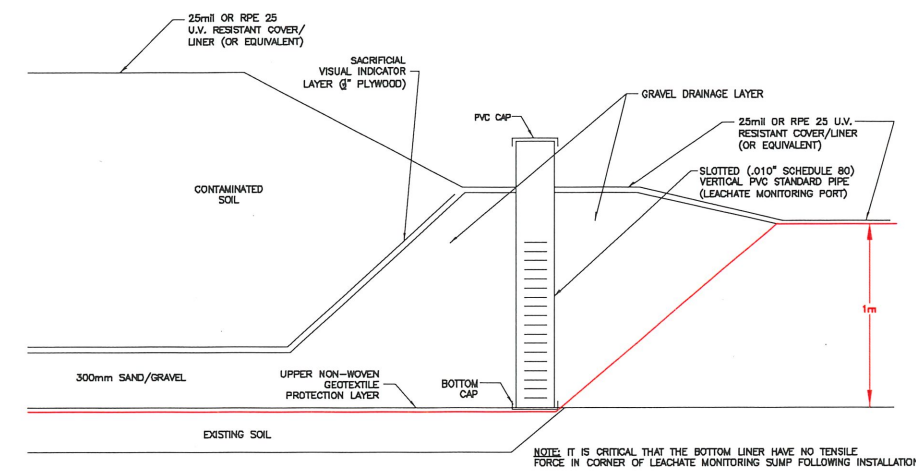
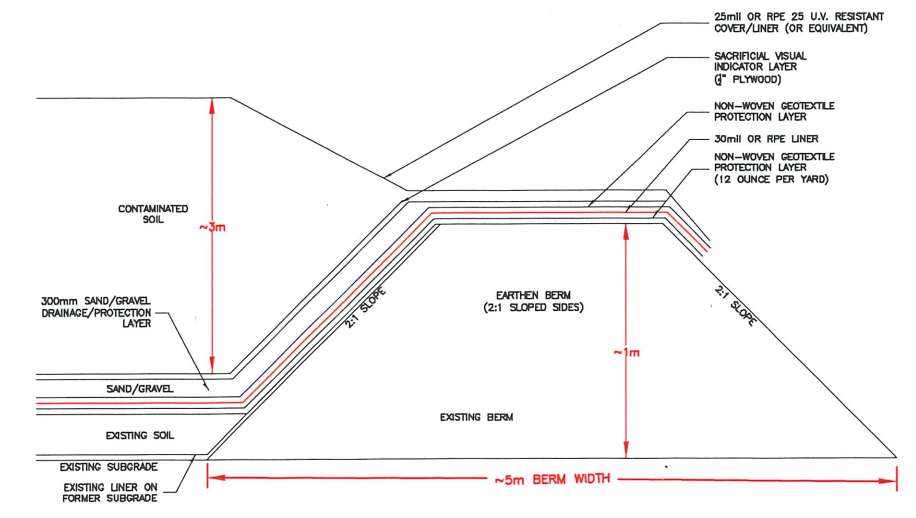
<b>LEGEND</b> TREE LINE (APPROX.) MONITORING WELL LOCATION MONITORING WELL TO BE DECOMMISSIONED DECOMMISSIONED MONITORING WELL FENCE SOIL BERM SOIL PILE	 LEACHATE COLLECTION SYSTEM TOPOGRAPHICAL LINE AND ELEVATION (masl)	<b>NOTES</b> 1. ORIGINAL DRAWING IN COLOUR. 2. LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY AND SHOULD BE CONFIRMED PRIOR TO INTRUSIVE WORK. NOT ALL UTILITIES MAY BE SHOWN.	<b>REFERENCE DRAWINGS</b> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>IMAGERY</th> <th>1969</th> <th>GOOGLE EARTH</th> </tr> <tr> <th>DWG. NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td colspan="3" style="text-align: center;"><b>REVISIONS</b></td> </tr> <tr> <td>2</td> <td>2017-09-14</td> <td>ISSUED TO CLIENT</td> <td>PES</td> <td>CS</td> </tr> <tr> <td>1</td> <td>2017-07-07</td> <td>ISSUED TO CLIENT</td> <td>PRT</td> <td>MG</td> </tr> <tr> <td>0</td> <td>2017-06-16</td> <td>ISSUED AS DRAFT</td> <td>PRT</td> <td>CS</td> </tr> <tr> <th>REV.</th> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> <th>CHK</th> </tr> </tbody> </table>	IMAGERY	1969	GOOGLE EARTH	DWG. NO.	DATE	DESCRIPTION	<b>REVISIONS</b>			2	2017-09-14	ISSUED TO CLIENT	PES	CS	1	2017-07-07	ISSUED TO CLIENT	PRT	MG	0	2017-06-16	ISSUED AS DRAFT	PRT	CS	REV.	DATE	DESCRIPTION	BY	CHK	<div style="text-align: right;"> </div> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">           CLIENT NAME:            PUBLIC SERVICES AND PROCUREMENT CANADA         </td> <td style="width:50%;">           PROJECT LOCATION:            JJJ GRAVEL PIT            KM 839 ALASKA HIGHWAY, FIRESIDE, B.C.         </td> </tr> <tr> <td colspan="2" style="text-align: center;"> <b>TITLE:</b>  <b>SITE PLAN - JJJ GRAVEL PIT</b> </td> </tr> <tr> <td>           DWN BY: PRT            CHK'D: CS         </td> <td>           SCALE: 1:1,500            PLOT: 20170914.1157         </td> <td>           DATE: 2017-06-15            CADFILE: 636200R14         </td> <td>           DWG No: 636200-306            REV.: 2         </td> </tr> </table>	CLIENT NAME: PUBLIC SERVICES AND PROCUREMENT CANADA	PROJECT LOCATION: JJJ GRAVEL PIT KM 839 ALASKA HIGHWAY, FIRESIDE, B.C.	<b>TITLE:</b> <b>SITE PLAN - JJJ GRAVEL PIT</b>		DWN BY: PRT CHK'D: CS	SCALE: 1:1,500 PLOT: 20170914.1157	DATE: 2017-06-15 CADFILE: 636200R14	DWG No: 636200-306 REV.: 2
IMAGERY	1969	GOOGLE EARTH																																							
DWG. NO.	DATE	DESCRIPTION																																							
<b>REVISIONS</b>																																									
2	2017-09-14	ISSUED TO CLIENT	PES	CS																																					
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CLIENT NAME: PUBLIC SERVICES AND PROCUREMENT CANADA	PROJECT LOCATION: JJJ GRAVEL PIT KM 839 ALASKA HIGHWAY, FIRESIDE, B.C.																																								
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DWN BY: PRT CHK'D: CS	SCALE: 1:1,500 PLOT: 20170914.1157	DATE: 2017-06-15 CADFILE: 636200R14	DWG No: 636200-306 REV.: 2																																						

*M.A. Guest*  
 Sept 15/17





**NOTES:**  
 1. PREPARED SUBGRADE TO BE FREE OF PROTRUSIONS (ANGULAR COARSE FRAGMENTS, DEBRIS, ETC.) PRIOR TO CONSTRUCTION OF STF.



**LEGEND**



**NOTES**

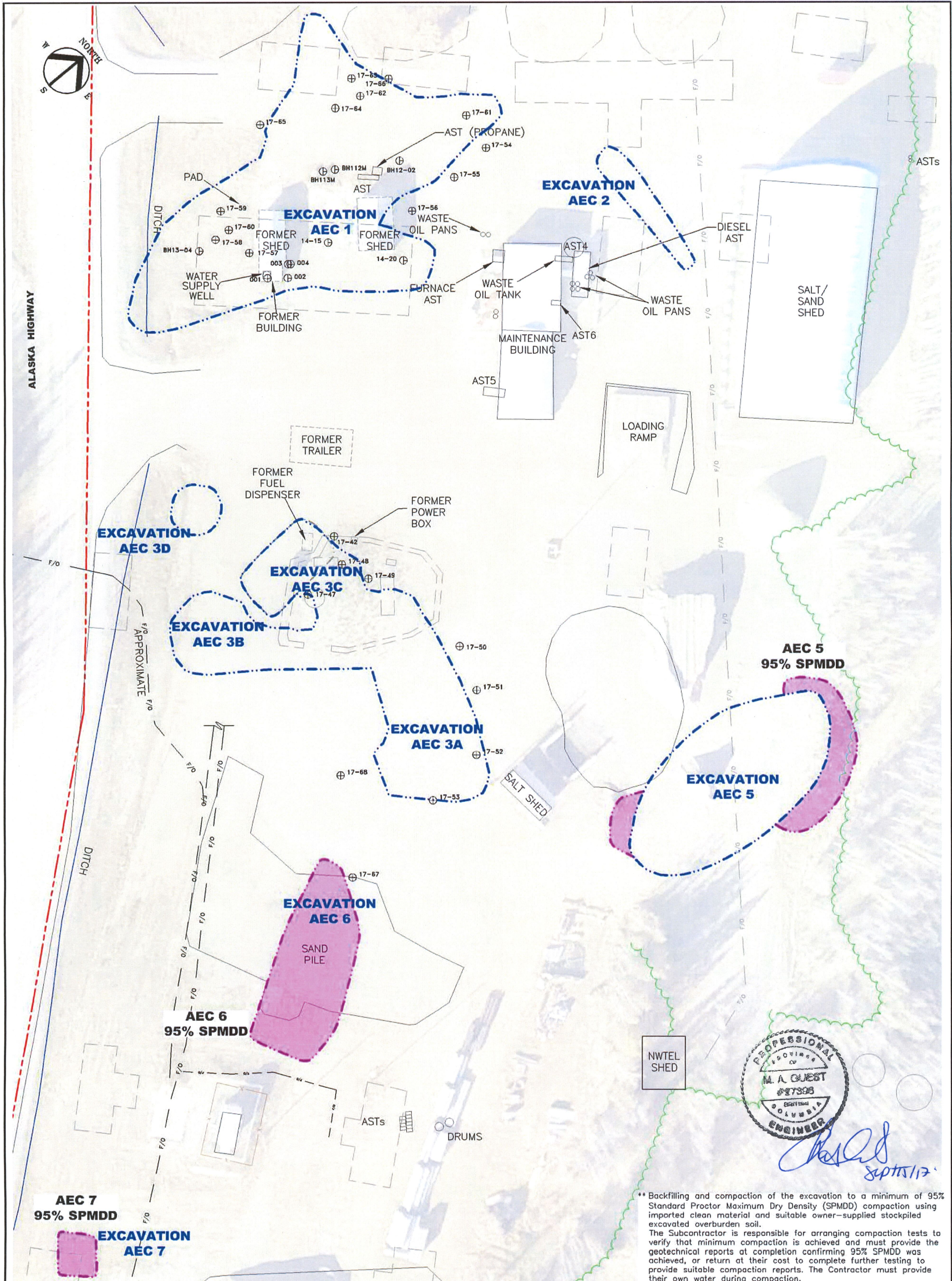
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**REFERENCE DRAWINGS**

IMAGERY	DATE	DESCRIPTION		
IMAGERY	1969	GOOGLE EARTH		
DWG. NO.	DATE	DESCRIPTION		
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REV.	DATE	DESCRIPTION	BY	CHK
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1	2017-07-07	ISSUED TO CLIENT	PRT	MG
0	2017-06-16	ISSUED AS DRAFT	PRT	CS



CLIENT NAME: PUBLIC SERVICES AND PROCUREMENT CANADA	PROJECT LOCATION: JJJ GRAVEL PIT KM 839 ALASKA HIGHWAY, FIRESIDE, B.C.		
TITLE: <b>SOIL TREATMENT FACILITY #4 DESIGN SPECIFICATIONS</b>			
DWN BY: PRT	SCALE: 1:1,500	DATE: 2017-06-15	DWG No: <b>636200-307</b>
CHK'D: CS	PLOT: 20170914.1159	CADFILE: 636200R14	REV.: <b>2</b>



\*\* Backfilling and compaction of the excavation to a minimum of 95% Standard Proctor Maximum Dry Density (SPMDD) compaction using imported clean material and suitable owner-supplied stockpiled excavated overburden soil. The Subcontractor is responsible for arranging compaction tests to verify that minimum compaction is achieved and must provide the geotechnical reports at completion confirming 95% SPMDD was achieved, or return at their cost to complete further testing to provide suitable compaction reports. The Contractor must provide their own water during compaction.

**LEGEND**

- SUBJECT PROPERTY LIMITS
- TREE LINE
- FENCE
- FORMER SITE CONFIGURATION
- SITE FEATURE
- FY 2017/2018 PROPOSED APPROXIMATE EXCAVATION LIMIT
- FY 2016/2017 EXCAVATION BOUNDARY
- FIBRE OPTIC LINE - UNDERGROUND
- APPROXIMATE CUT LINE
- FIBRE OPTIC LINE - OVERHEAD

**NOTES**

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**SNC • LAVALIN**

CLIENT NAME: PUBLIC SERVICES AND PROCUREMENT CANADA  
 PROJECT LOCATION: FRESIDE MAINTENANCE CAMP ALASKA HIGHWAY, BC

TITLE: **SITE RESTORATION**

DWN BY: BB  
 SCALE: 1:800  
 DATE: 2017-03-03  
 DWG No: 636200-308  
 REV.: 2