

**STRUCTURAL NOTES:**

1. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO PROCEEDING WITH ANY WORK OR FABRICATION. NOTIFY THE ENGINEER OF ANY DISCREPANCY.
2. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD AND SPECIFICATION FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, DATED 2012, AND AMENDMENTS.
3. THE SOLDIER PILE WALLS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE RETAINING WALL PROVISIONS OF THE 6TH EDITION OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT BY ICYCLE ENGINEERS DATED NOVEMBER 12, 2012.
4. ALL HP 14x89 STEEL PILE SHALL BE ASTM A572 GR50, AND ALL OTHER STRUCTURAL STEEL SHALL BE ASTM A36 OR ASTM A992. ALL STEEL WITH THE EXCEPTION OF THE STEEL PILES SHALL BE GALVANIZED WITH THE GALVANIZING CONFORMING TO ASTM 153.

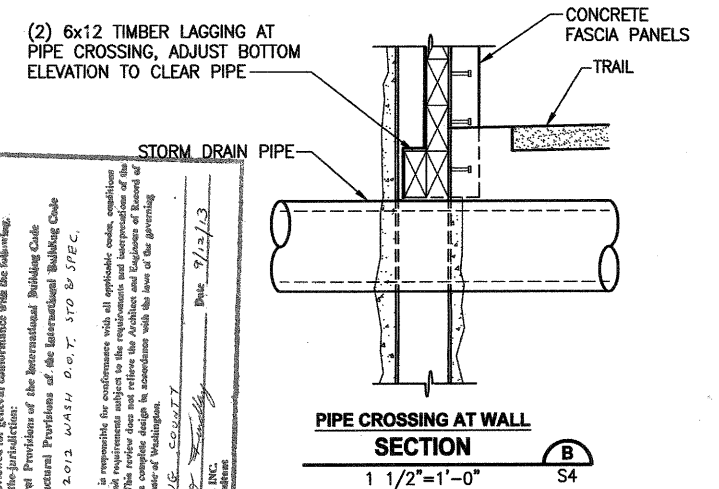
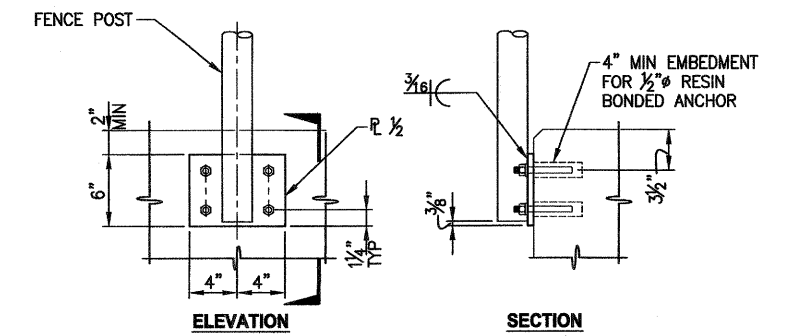
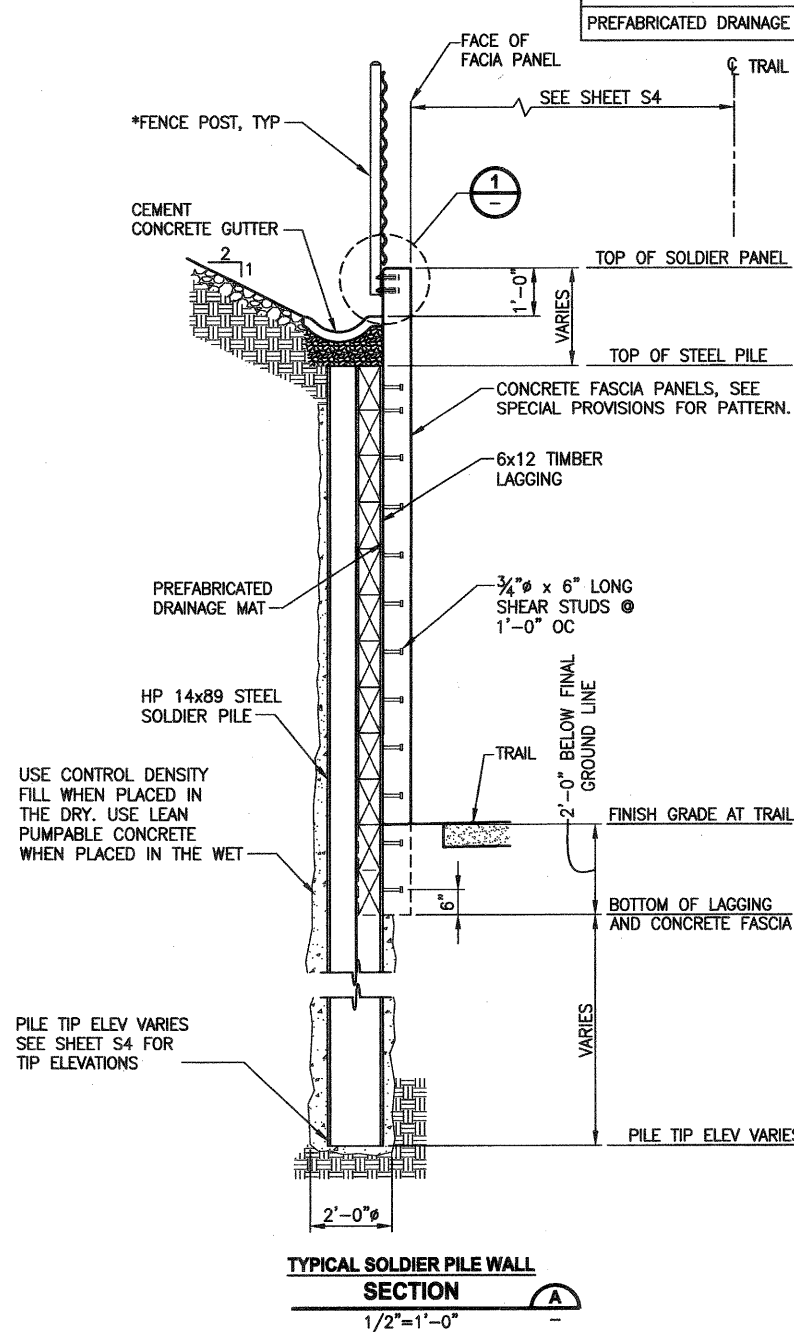
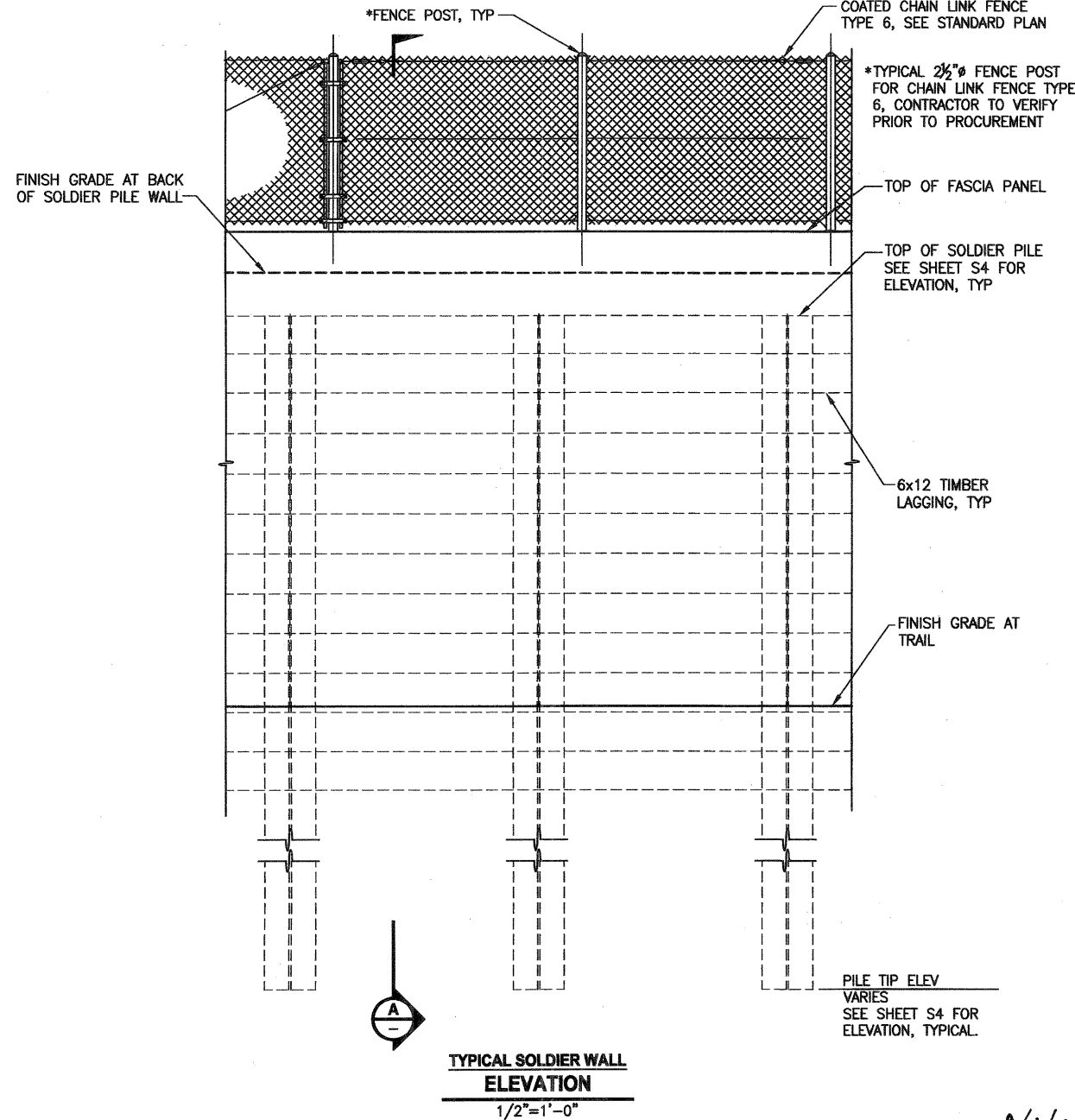
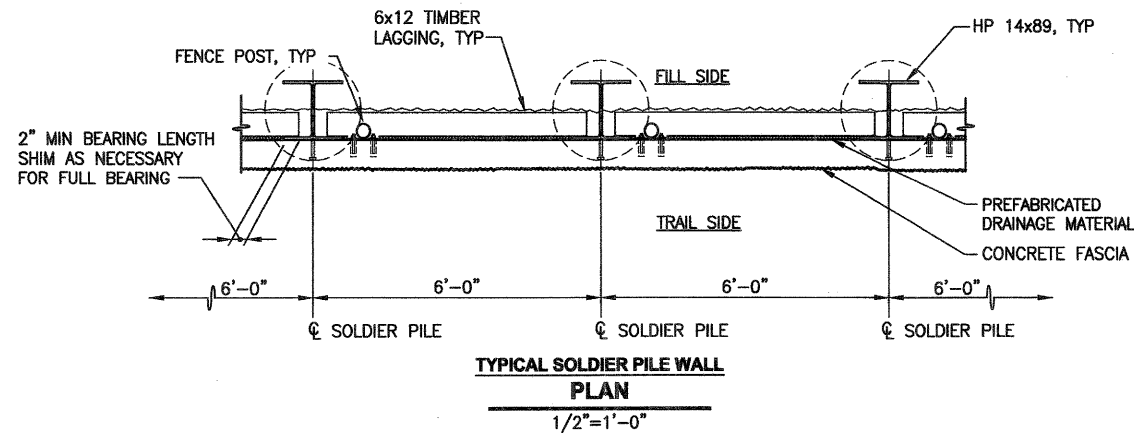
5. ALL WELDING SHALL CONFORM TO AWS D1.1 WELDING CODE. MINIMUM SIZE WELDS  $\frac{3}{16}$ " CONTINUOUS FILLET, UNLESS OTHERWISE NOTED.
6. CONCRETE FOR THE FASCIA PANELS SHALL BE CLASS 4000 CONCRETE. SEE SPECIAL PROVISIONS FOR FASCIA PANEL PATTERN.

7. THE CONTRACTOR SHALL PROVIDE SPECIAL INSPECTIONS BY QUALIFIED SPECIAL INSPECTORS PER WSDOT CONSTRUCTION MANUAL AND IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:
  - A. CONCRETE PLACEMENT AT CONCRETE CONSTRUCTION: CONTINUOUS
  - B. REINFORCEMENT AT CONCRETE CONSTRUCTION: PERIODIC
  - C. SINGLE PASS FILLET AND GROOVE WELDS: PERIODIC

COPIES OF THE INSPECTION REPORTS SHALL BE SUBMITTED TO THE BUILDING OFFICIAL AT KING COUNTY AND THE ENGINEER OF RECORD.

8. THE CONTRACTOR SHALL SUBMIT TESTING REPORTS, CERTIFICATE OF MATERIALS, AND OTHER DOCUMENTS RELATED TO STRUCTURAL INSPECTIONS AND TESTS TO KING COUNTY. SPECIFIC REQUIREMENTS SHALL COMPLY WITH WSDOT STD. SPECIFICATION SECTION 1-06 AND THE WSDOT CONSTRUCTION MANUAL.

MATERIAL	SPECIFICATION
CONCRETE CL 4000	6-02.3
WELDED SHEAR CONNECTOR	9-06.15
REINFORCING STEEL	9-07
RESIN BONDED ANCHORS	SPECIAL PROVISIONS
GRAVEL BACKFILL FOR DRAIN	9-03.12 (4)
DRAINAGE GEOTEXTILE	9-33.2 (1)
PREFABRICATED DRAINAGE MAT	9-33.2 (3)



**REVIEWED**  
 This plan was reviewed for general conformance with the following:  
 Structural Provisions of the International Building Code  
 Manufacturer's Provisions of the International Building Code  
 Chart: 2013 WASH. D.O.T. STD. & SPEC.  
 The project engineer is responsible for conformance with all applicable codes, conditions and specifications. This review is limited to the information and representations of the contractor. The engineer does not assume any liability for the design or construction of the project. The engineer's responsibility is limited to the design and construction of the project as shown on the drawings.  
 Approved: *[Signature]* Date: 9/15/13  
 RBD CONSULTING, INC.  
 Civil & Structural Engineers

**CITY OF SAMMAMISH APPROVAL**  
*[Signature]* 9-16-13  
 City Engineer Date  
*[Signature]* 9-16-13  
 Community Development Date

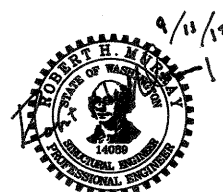
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 SEP 17 2013  
 KING COUNTY, WASH.

**DPER ACTIVITY NUMBER**  
 GRDE12-0017/SHOR12-0003  
 FEDERAL AID # STPE-2017 (126)

LAYOUT: SI  
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 PLOTTED BY: valenav DATE: Wednesday, September 11, 2013 4:35:10 PM

REVISIONS	DATE	BY	DESIGNED
			S. BROWN
			A. VALENCIA
			J. MERTH
			B. MURRAY

**ONE INCH AT FULL SCALE, IF NOT, SCALE ACCORDINGLY**  
 FILE NAME: PU1521075P15T03S-1  
 JOB No: 554-1521-075-P15T04B  
 DATE: SEPTEMBER 2013

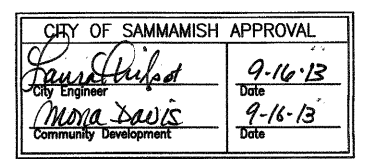
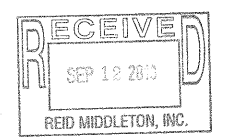
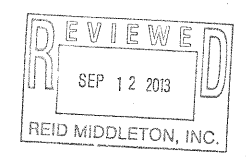
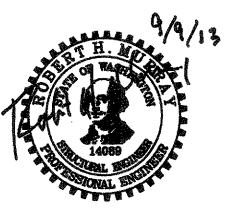
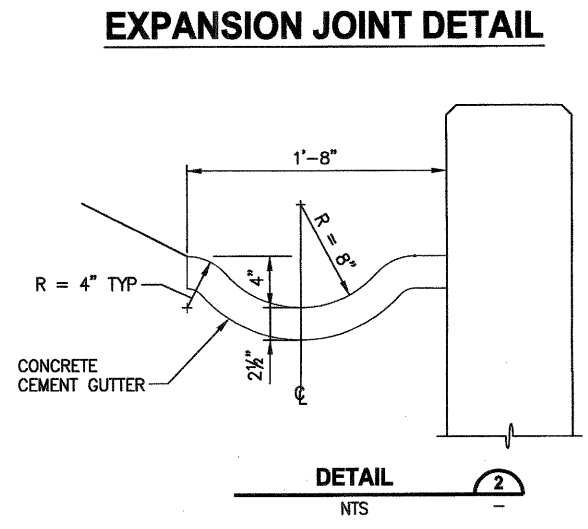
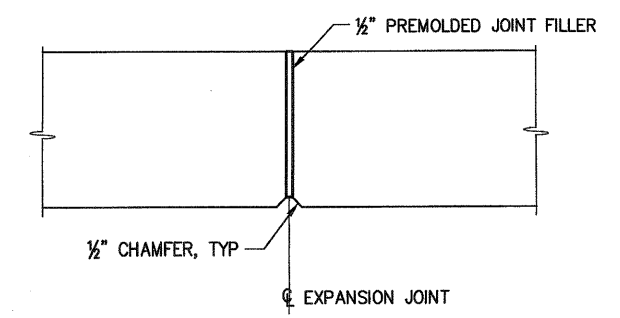
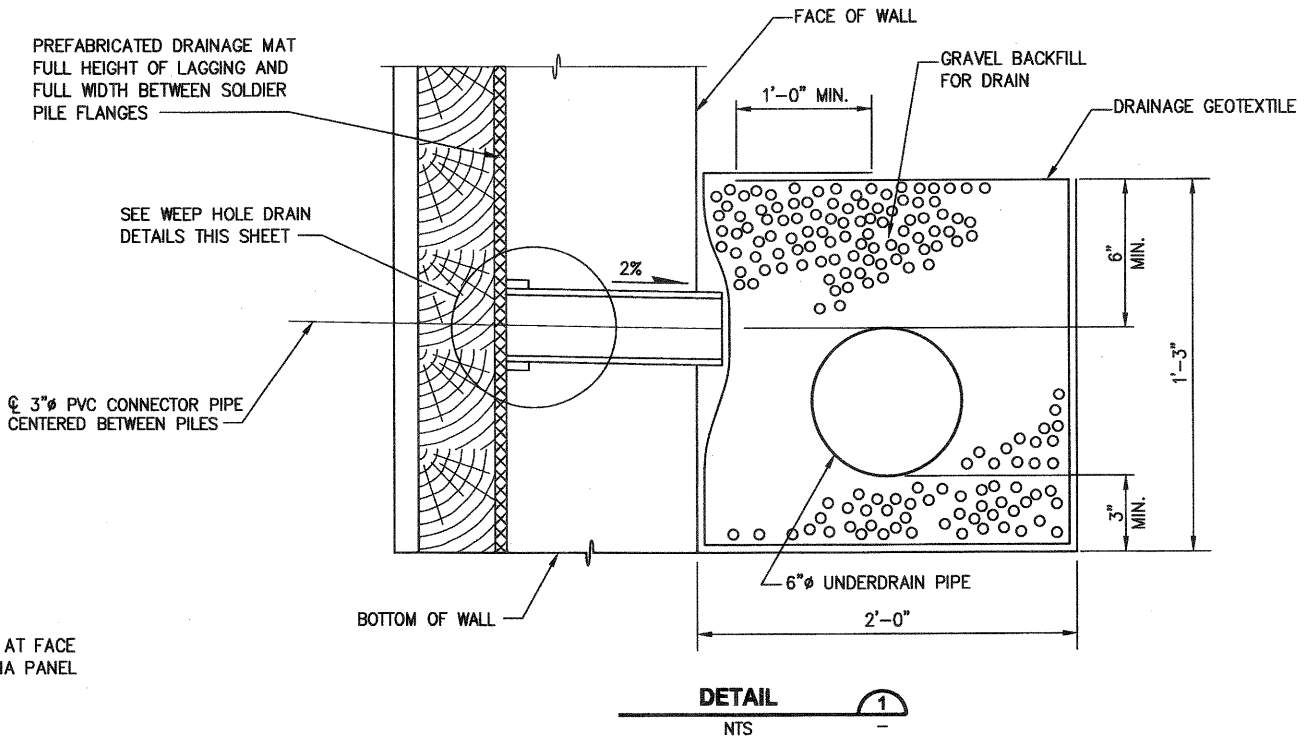
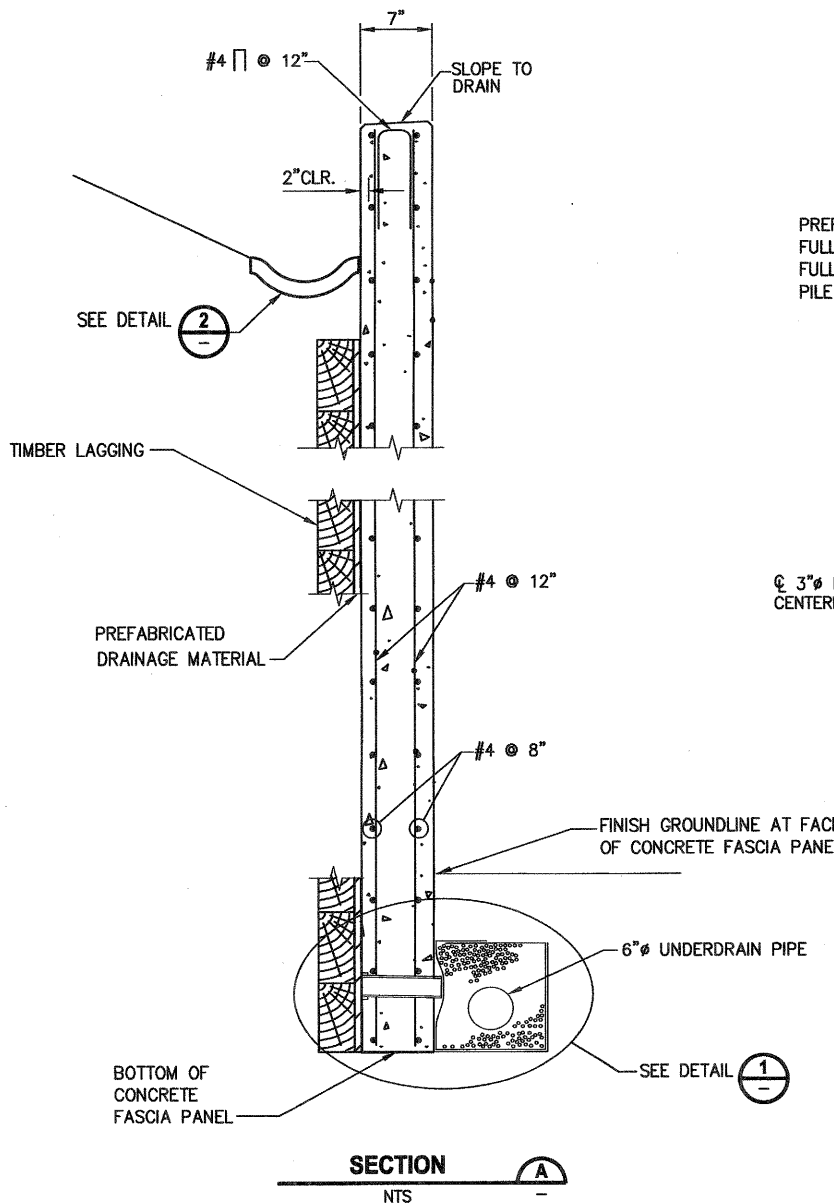
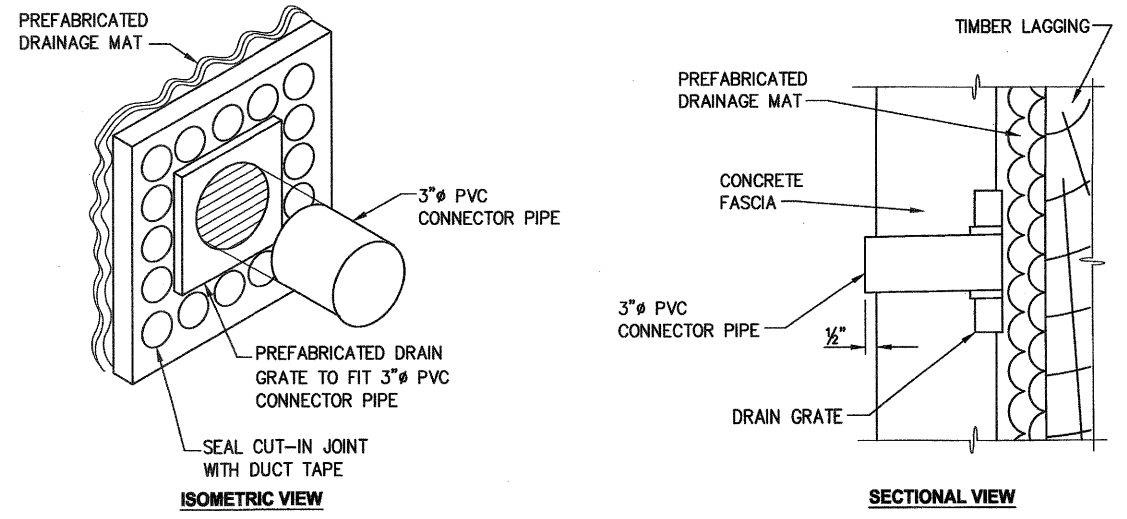
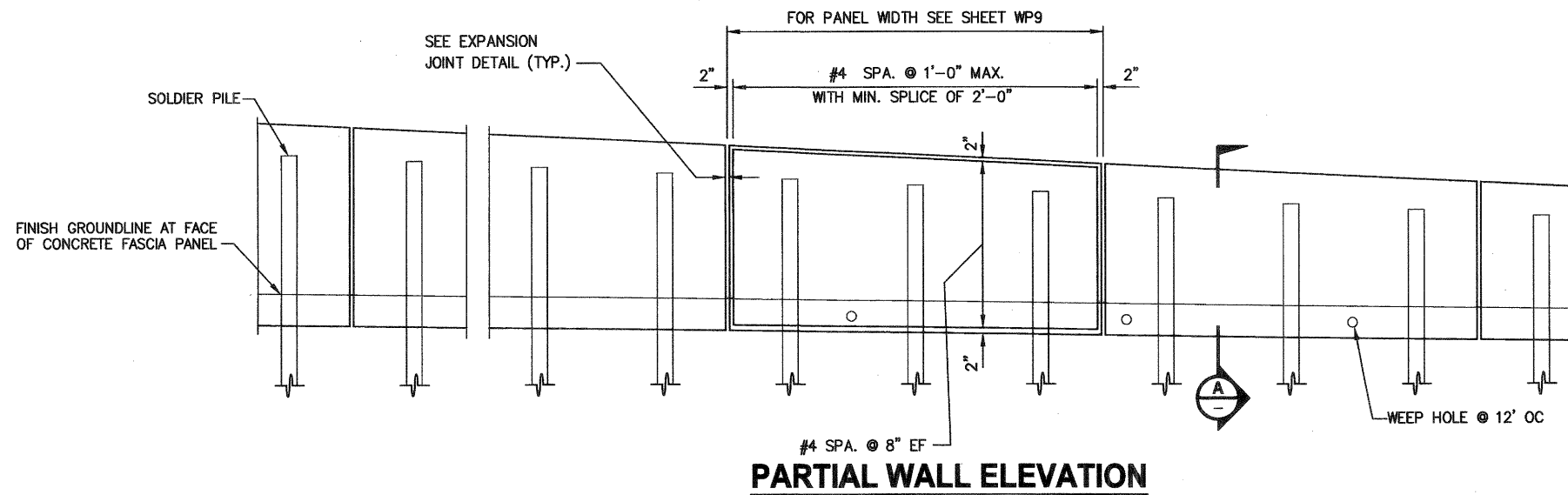


**Parametrix**  
 ENGINEERING · PLANNING · ENVIRONMENTAL SCIENCES  
 411 NORTH AVENUE N.E., SUITE 1900  
 BELLEVUE, WASHINGTON 98004  
 T. 425.458.8200 F. 425.458.8383  
 www.parametrix.com

**PROJECT NAME**  
 EAST LAKE SAMMAMISH  
 MASTER PLAN TRAIL  
 NORTH SAMMAMISH SEGMENT  
 SAMMAMISH, WA

**SOLDIER PILE WALL TYPICAL PLAN AND ELEVATIONS**

SHEET NO.  
 102 OF 127  
**S1**



DPER ACTIVITY NUMBER  
GRDE12-0017/SHOR12-0003  
FEDERAL AID # STPE-2017 (126)

LAYOUT: S2 PATH: \\parametrix.com\pmx\Bell\Projects\Clients\1521-King City\954-1521-075-ELST\995\es\CADD\Phase 15\Task 03\DWG\ PLOTTED BY: valencia DATE: Monday, September 09, 2013 2:58:41 PM

REVISIONS	DATE	BY	DESIGNED
			S. BROWN
			A. VALENCIA
			J. MERTH
			B. MURRAY

ONE INCH AT FULL SCALE, IF NOT, SCALE ACCORDINGLY

FILE NAME: PU1521075P15T03S-1

JOB No. 554-1521-075-P15T04B

DATE: SEPTEMBER 2013

**Parametrix**  
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

411 100TH AVENUE N.E., SUITE 1000  
BELLEVUE, WASHINGTON 98004  
T. 425.468.6200 F. 425.468.6265  
www.parametrix.com

PROJECT NAME  
**EAST LAKE SAMMAMISH MASTER PLAN TRAIL NORTH SAMMAMISH SEGMENT**  
SAMMAMISH, WA

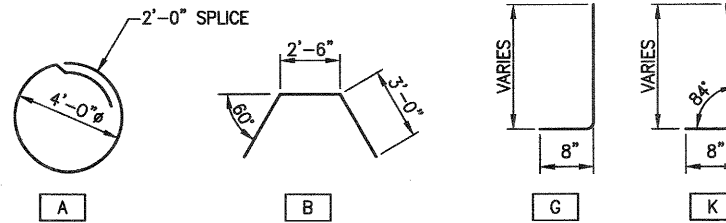
**SOLDIER PILE WALL DETAILS**

SHEET NO.  
103 OF 127

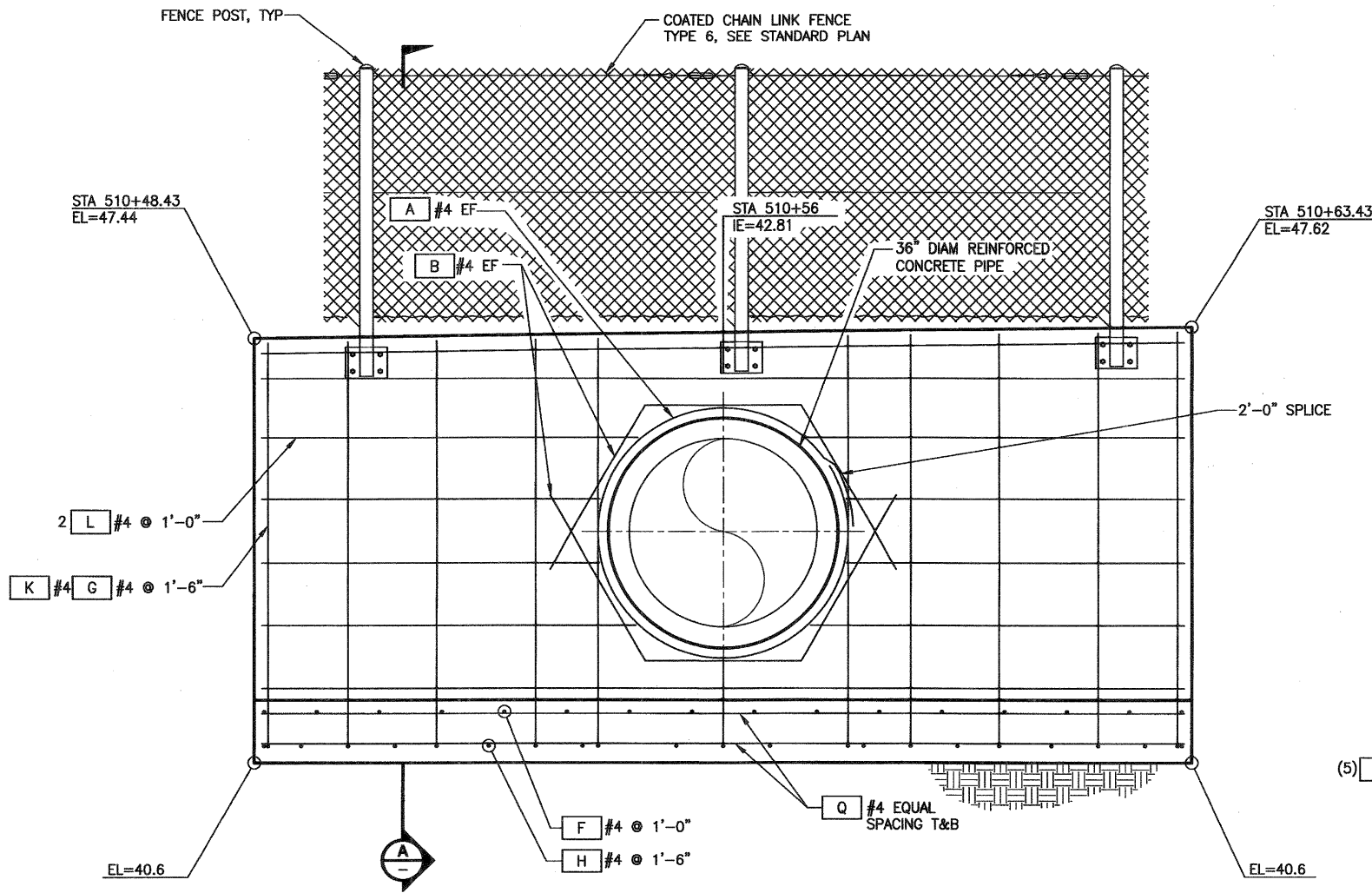
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**STRUCTURAL WALL NOTES:**

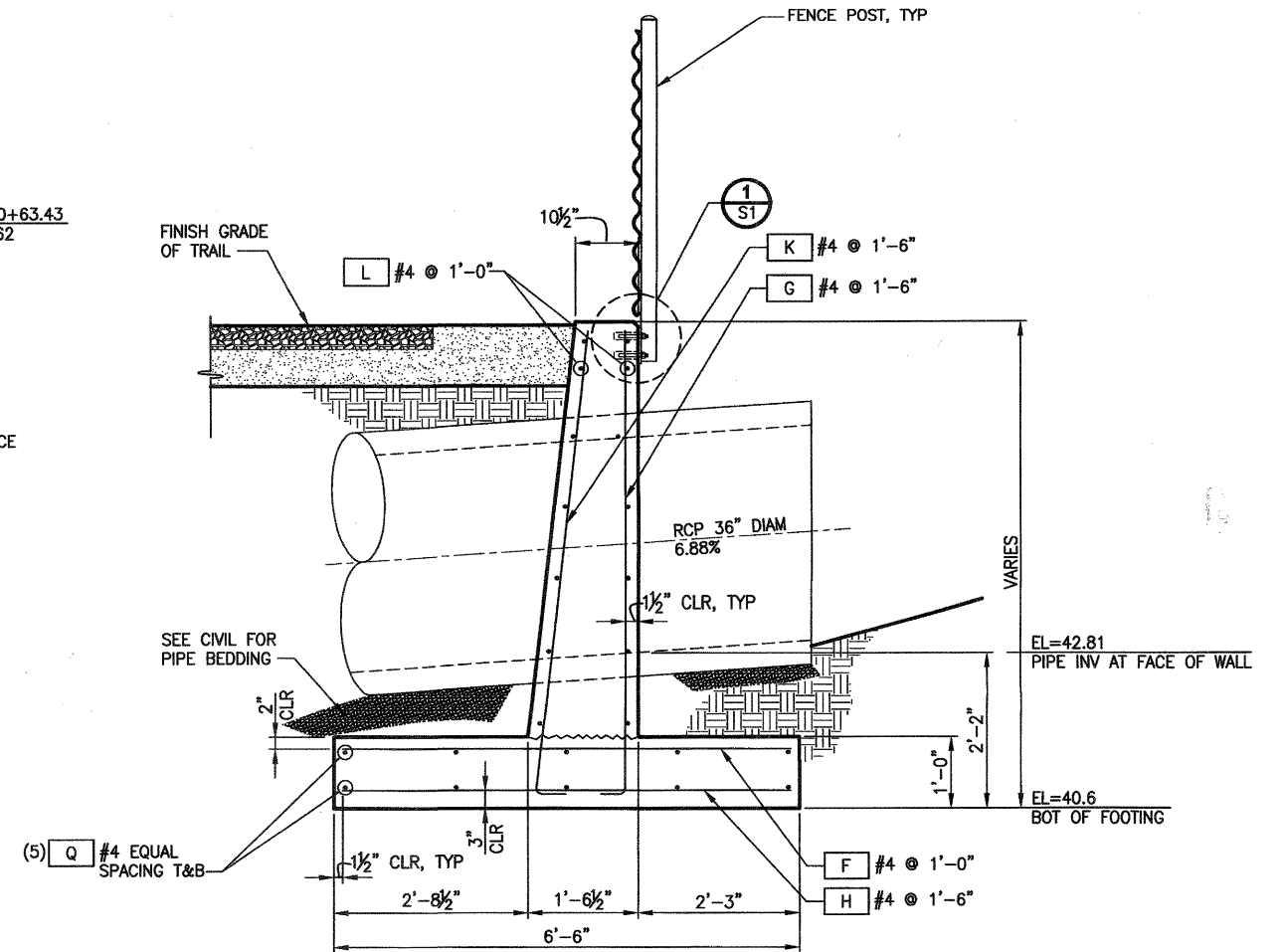
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3. ALL CONCRETE SHALL BE CLASS 4000.
4. FOR BACKFILL REQUIREMENTS, SEE STANDARD PLAN D-4. GRAVEL BACKFILL FOR WALL SHALL MEET REQUIREMENTS OF SECTION 9-03.12 (2).
5. THE WALL DESIGN IS PER AASHTO LRFD AND IS BASED ON STANDARD PLAN D-10.40-01.
6. CONSTRUCTION GEOTEXTILE FOR UNDERGROUND DRAINAGE, NON WOVEN, MODERATE SURVIVABILITY, CLASS B, SHALL MEET REQUIREMENTS OF SECTION 9-33.2 (1).



BENDING DIAGRAM (ALL DIMENSIONS ARE OUT TO OUT)



**WALL #10 REINFORCE CONCRETE RETAINING WALL**  
**ELEVATION**  
 3/4"=1'-0"



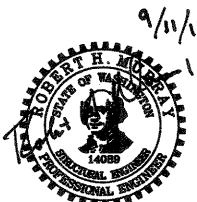
**SECTION**  
 3/4"=1'-0"

CITY OF SAMMAMISH APPROVAL  
 [Signature] City Engineer 9-16-13  
 [Signature] Community Development 9-16-13

REVIEWED  
 SEP 12 2013  
 REID MIDDLETON, INC.

RECEIVED  
 SEP 12 2013  
 REID MIDDLETON, INC.

DPER ACTIVITY NUMBER  
 GRDE12-0017/SHOR12-0003  
 FEDERAL AID # STPE-2017 (126)



9/11/13

ONE INCH AT FULL SCALE.  
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 FILE NAME: PU1521075P15T03S-1  
 JOB NO: 554-1521-075-P15T04B  
 DATE: SEPTEMBER 2013

**Parametrix**  
 ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES  
 411 NORTH AVENUE N.E., SUITE 1000  
 BELLEVUE, WASHINGTON 98004  
 T: 425.450.6900 F: 425.450.6905  
 www.parametrix.com

PROJECT NAME  
**EAST LAKE SAMMAMISH  
 MASTER PLAN TRAIL  
 NORTH SAMMAMISH SEGMENT**  
 SAMMAMISH, WA

**CONCRETE RETAINING WALL  
 ELEVATION AND SECTION**

SHEET NO.  
 104 OF 127  
**S3**

LAYOUT: S3  
 PATH: U:\Bak\Projects\clients\1521-King City\554-1521-075-ELST\999\eva\CADD\Phase 15\Task 03\Draw\ PLOTTED BY: valencia DATE: Wednesday, September 11, 2013 4:15:26 PM

REVISIONS	DATE	BY	DESIGNED
			S. BROWN
			A. VALENCIA
			J. MERTH
			B. MURRAY

WALL NO. 22 SOLDIER PILE LAYOUT

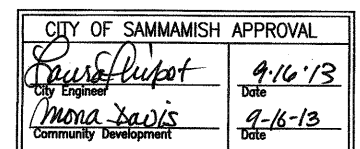
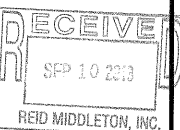
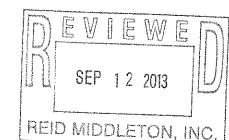
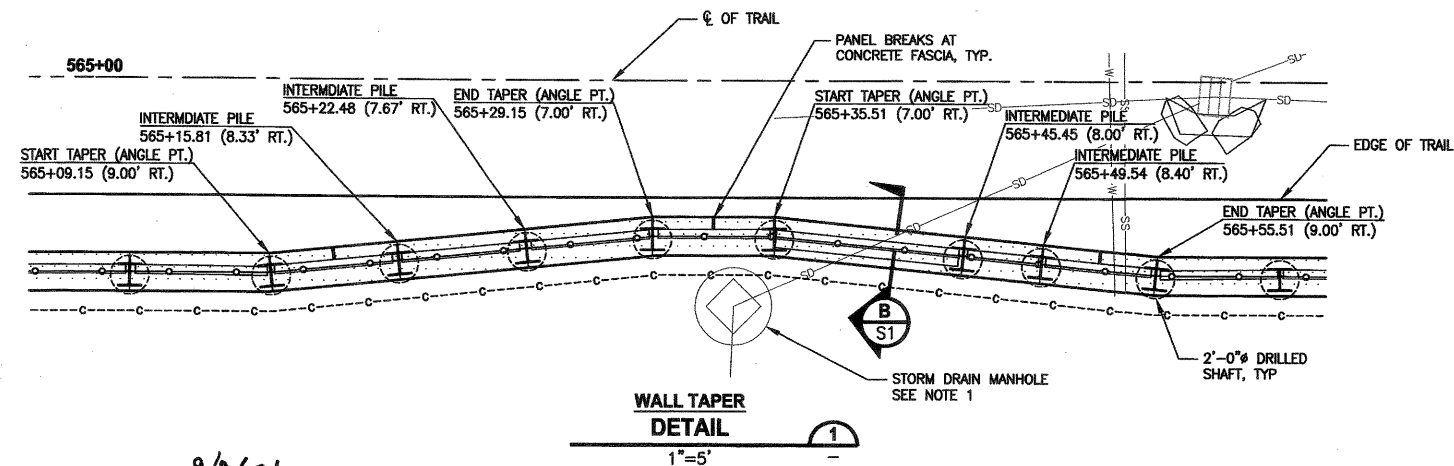
STATION	OFFSET	TOP OF PILE ELEV.	BOT OF LAG. ELEV.	# OF LAGGING	PILE TIP ELEV.	PILE LENGTH	DETAIL
562+73.88	9.00' RT	47.90	44.07	4.00	30.57	17.33	
562+79.88	9.00' RT	48.86	44.07	5.00	30.57	18.29	
562+85.88	9.00' RT	48.86	44.07	5.00	30.57	18.29	
562+91.88	9.00' RT	48.86	44.07	5.00	30.57	18.29	
562+97.88	9.00' RT	49.82	44.07	6.00	28.57	21.25	
563+03.88	9.00' RT	49.82	44.07	6.00	28.57	21.25	
563+09.88	9.00' RT	50.78	44.07	7.00	27.07	23.71	
563+15.88	9.00' RT	50.78	44.07	7.00	27.07	23.71	
563+21.88	9.00' RT	50.78	44.07	7.00	27.07	23.71	
563+27.88	9.00' RT	51.74	44.07	8.00	25.57	26.17	
563+33.88	9.00' RT	51.74	44.07	8.00	25.57	26.17	
563+39.88	9.00' RT	51.74	44.07	8.00	25.57	26.17	
563+45.88	9.00' RT	52.69	44.07	9.00	24.07	28.62	
563+51.88	9.00' RT	52.69	44.07	9.00	24.07	28.62	
563+57.88	9.00' RT	52.69	44.07	9.00	24.07	28.62	
563+63.88	9.00' RT	52.69	44.07	9.00	24.07	28.62	
563+69.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
563+75.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
563+81.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
563+87.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
563+93.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
563+99.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
564+05.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
564+11.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
564+17.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
564+23.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
564+29.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
564+35.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
564+41.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
564+47.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
564+53.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
564+59.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
564+65.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
564+71.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
564+77.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
564+83.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
564+89.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
564+95.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
565+01.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
565+09.15	9.00' RT	53.65	44.07	10.00	22.07	31.58	SEE DETAIL 1
565+15.81	8.33' RT	53.65	44.07	10.00	22.07	31.58	SEE DETAIL 1
565+22.48	7.67' RT	53.65	44.07	10.00	22.07	31.58	SEE DETAIL 1
565+29.15	7.00' RT	53.65	44.07	10.00	22.07	31.58	SEE DETAIL 1
565+35.51	7.00' RT	53.65	44.07	10.00	22.07	31.58	SEE DETAIL 1
565+45.45	8.00' RT	53.65	44.07	10.00	22.07	31.58	SEE DETAIL 1
565+49.54	8.40' RT	53.65	44.07	10.00	22.07	31.58	SEE DETAIL 1
565+55.51	9.00' RT	53.65	44.07	10.00	22.07	31.58	SEE DETAIL 1
565+61.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
565+67.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
565+73.88	9.00' RT	54.61	44.07	11.00	21.07	33.54	
565+79.88	9.00' RT	54.61	44.07	11.00	21.07	33.54	
565+85.88	9.00' RT	54.61	44.07	11.00	21.07	33.54	
565+91.88	9.00' RT	54.61	44.07	11.00	21.07	33.54	
565+97.88	9.00' RT	54.61	44.07	11.00	21.07	33.54	
566+03.88	9.00' RT	54.61	44.07	11.00	21.07	33.54	
566+09.88	9.00' RT	54.61	44.07	11.00	21.07	33.54	
566+15.88	9.00' RT	54.61	44.07	11.00	21.07	33.54	
566+21.88	9.00' RT	54.61	44.07	11.00	21.07	33.54	

WALL NO. 22 SOLDIER PILE LAYOUT CONT.

STATION	OFFSET	TOP OF PILE ELEV.	BOT OF LAG. ELEV.	# OF LAGGING	PILE TIP ELEV.	PILE LENGTH	DETAIL
566+27.88	9.00' RT	54.61	44.07	11.00	21.07	33.54	
566+33.88	9.00' RT	54.61	44.07	11.00	21.07	33.54	
566+39.88	9.00' RT	54.61	44.07	11.00	21.07	33.54	
566+45.88	9.00' RT	54.61	44.07	11.00	21.07	33.54	
566+51.88	9.00' RT	54.61	44.07	11.00	21.07	33.54	
566+57.88	9.00' RT	54.61	44.07	11.00	21.07	33.54	
566+63.88	9.00' RT	54.61	44.07	11.00	21.07	33.54	
566+69.88	9.00' RT	54.61	44.07	11.00	21.07	33.54	
566+75.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
566+81.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
566+87.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
566+93.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
566+99.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
567+05.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
567+11.88	9.00' RT	53.65	44.07	10.00	22.07	31.58	
567+17.88	9.00' RT	52.69	44.07	9.00	24.07	28.62	
567+23.88	9.00' RT	52.69	44.07	9.00	24.07	28.62	
567+29.88	9.00' RT	52.69	44.07	9.00	24.07	28.62	
567+35.88	9.00' RT	52.69	44.07	9.00	24.07	28.62	
567+41.88	9.00' RT	52.69	44.07	9.00	24.07	28.62	
567+47.88	9.00' RT	52.69	44.07	9.00	24.07	28.62	
567+53.88	9.00' RT	52.69	44.07	9.00	24.07	28.62	
567+59.88	9.00' RT	52.69	44.07	9.00	24.07	28.62	
567+65.88	9.00' RT	52.69	44.07	9.00	24.07	28.62	
567+71.88	9.00' RT	52.69	44.07	9.00	24.07	28.62	
567+77.88	9.00' RT	52.69	44.07	9.00	24.07	28.62	
567+83.88	9.00' RT	52.69	44.07	9.00	24.07	28.62	
567+89.88	9.00' RT	52.69	44.07	9.00	24.07	28.62	
567+95.88	9.00' RT	52.69	44.07	9.00	24.07	28.62	
568+01.88	9.00' RT	51.74	44.07	8.00	25.57	26.17	
568+07.88	9.00' RT	51.74	44.07	8.00	25.57	26.17	
568+13.88	9.00' RT	51.74	44.07	8.00	25.57	26.17	
568+19.88	9.00' RT	51.74	44.07	8.00	25.57	26.17	
568+25.88	9.00' RT	50.78	44.07	7.00	27.07	23.71	
568+31.88	9.00' RT	50.78	44.07	7.00	27.07	23.71	
568+37.88	9.00' RT	50.78	44.07	7.00	27.07	23.71	
568+43.88	9.00' RT	50.78	44.07	7.00	27.07	23.71	
568+49.88	9.00' RT	49.82	44.07	6.00	28.57	21.25	
568+55.88	9.00' RT	49.82	44.07	6.00	28.57	21.25	
568+61.88	9.00' RT	49.82	44.07	6.00	28.57	21.25	
568+67.88	9.00' RT	49.82	44.07	6.00	28.57	21.25	
568+73.88	9.00' RT	48.85	44.07	5.00	30.57	18.28	
568+79.88	9.00' RT	47.88	44.07	4.00	30.57	17.31	
568+85.88	9.00' RT	47.88	44.07	4.00	30.57	17.31	
568+91.88	9.00' RT	46.92	44.07	3.00	30.57	16.35	

NOTES:

1. UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR TO VERIFY LOCATIONS AND DEPTH, AS AUTHORIZED BY THE ENGINEER.



DPER ACTIVITY NUMBER  
GRDE12-0017/SHOR12-0003  
FEDERAL AID # STPE-2017 (126)

DATE: Sep 06, 2013 - 4:12pm  
PLOTTED BY: valmdav

XREFS: XBL1521075P15T03C-TBLK  
XBL1521075P15T03C-BA  
XBL1521075P15T03C-DE

REVISIONS	DATE	BY	DESIGNED
			S. BROWN
			A. VALENCIA
			J. MERTH
			B. MURRAY

ONE INCH AT FULL SCALE.  
IF NOT, SCALE ACCORDINGLY.  
FILE NAME: PUI521075P15T03S-4  
JOB No. 554-1521-075-P15T04B  
DATE: SEPTEMBER 2013



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PROJECT NAME  
**EAST LAKE SAMMAMISH MASTER PLAN TRAIL NORTH SAMMAMISH SEGMENT**  
SAMMAMISH, WA

**SOLDIER PILE WALL NO. 22 LAYOUT TABLE**

SHEET NO.  
105 OF 127  
**S4**