

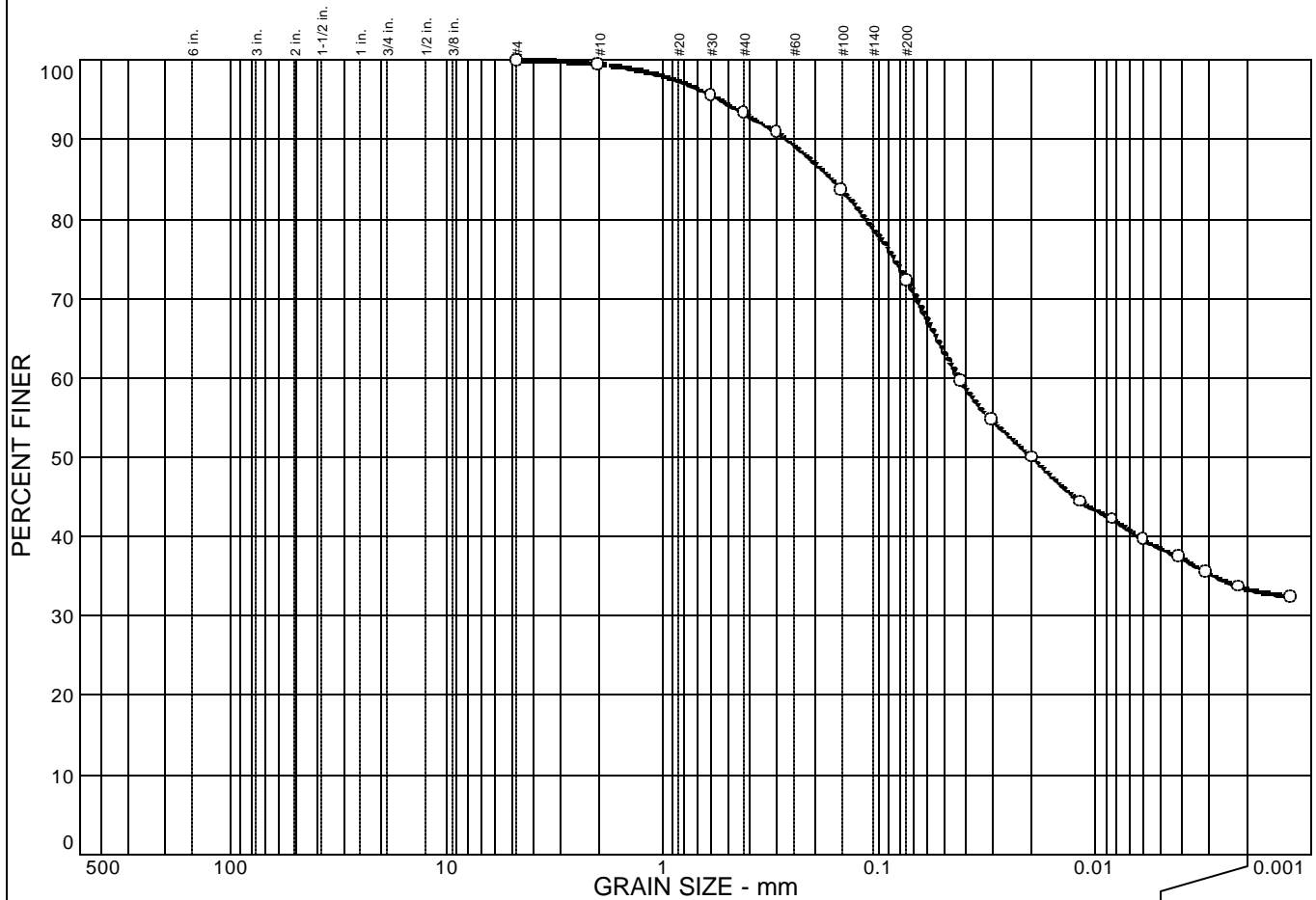
# Appendix A

## Storm Drainage Master Plan (Part 2)





# Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	0.0	27.7	38.9	33.4

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#10	99.5		
#30	95.6		
#40	93.3		
#50	90.9		
#100	83.7		
#200	72.3		
0.0420 mm.	59.5		
0.0303 mm.	54.7		
0.0198 mm.	50.0		
0.0117 mm.	44.4		
0.0084 mm.	42.2		
0.0060 mm.	39.6		
0.0041 mm.	37.4		
0.0031 mm.	35.5		
0.0022 mm.	33.7		
0.0012 mm.	32.4		

**Soil Description**

Brown CLAY w/ Sand

**Atterberg Limits**

PL=                      LL=                      PI=

**Coefficients**

D<sub>85</sub>= 0.166              D<sub>60</sub>= 0.0432              D<sub>50</sub>= 0.0198

D<sub>30</sub>=                      D<sub>15</sub>=                      D<sub>10</sub>=

C<sub>u</sub>=                      C<sub>c</sub>=

**Classification**

USCS=                      AASHTO=

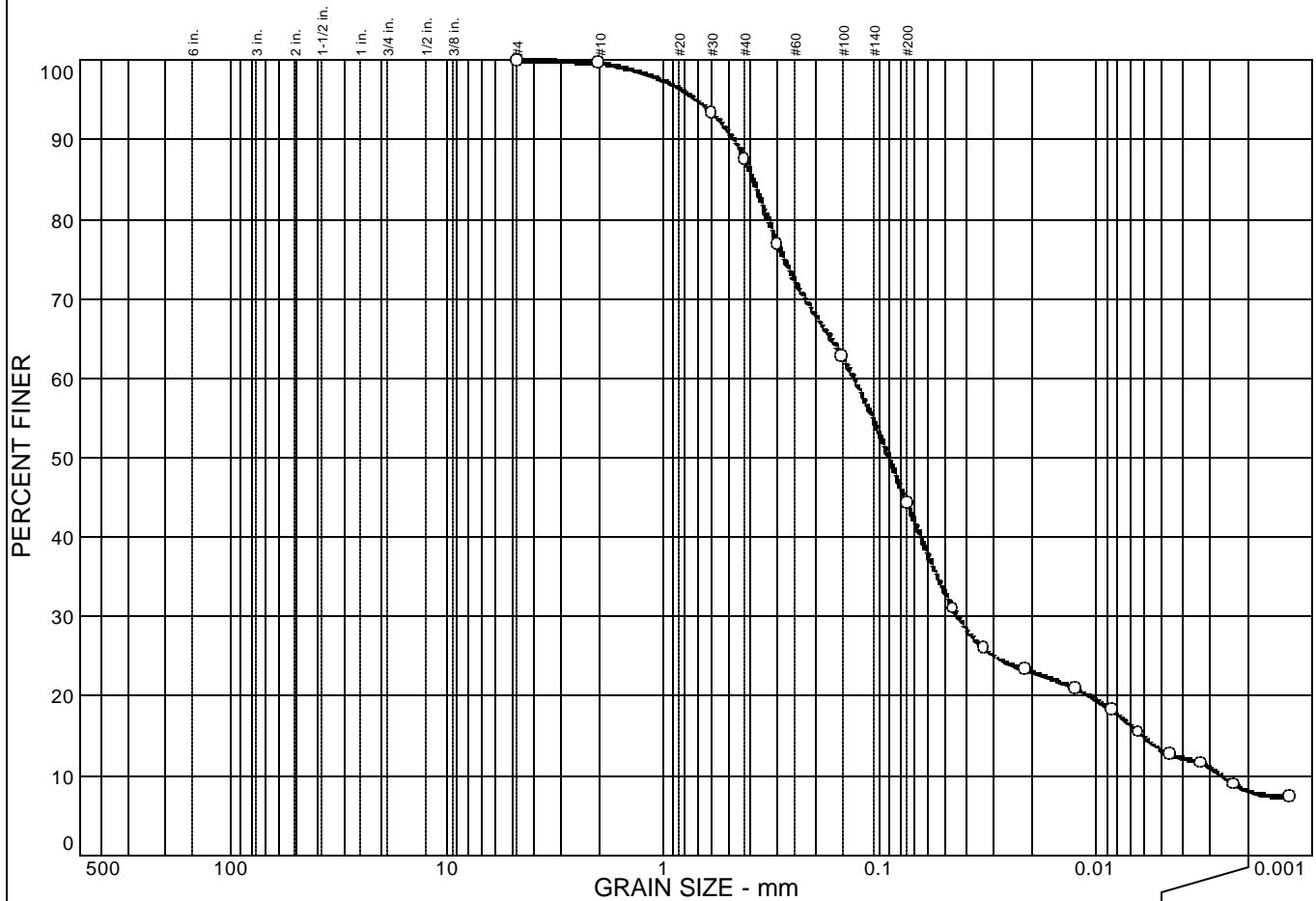
**Remarks**

\* (no specification provided)

**Sample No.:**                      **Source of Sample:** 34-A                      **Date:**

**Location:**                      **Elev./Depth:** 1.67'

# Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	0.0	55.8	36.1	8.1

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#10	99.7		
#30	93.4		
#40	87.6		
#50	76.9		
#100	62.7		
#200	44.2		
0.0461 mm.	31.0		
0.0333 mm.	26.0		
0.0214 mm.	23.3		
0.0124 mm.	20.9		
0.0085 mm.	18.2		
0.0064 mm.	15.5		
0.0046 mm.	12.6		
0.0033 mm.	11.6		
0.0023 mm.	8.9		
0.0013 mm.	7.3		

**Soil Description**

Yellowish Brown Silty SAND

**Atterberg Limits**

PL=                      LL=                      PI=

**Coefficients**

D<sub>85</sub>= 0.388              D<sub>60</sub>= 0.133              D<sub>50</sub>= 0.0912

D<sub>30</sub>= 0.0439              D<sub>15</sub>= 0.0061              D<sub>10</sub>= 0.0026

C<sub>u</sub>= 50.13                      C<sub>c</sub>= 5.48

**Classification**

USCS=                                      AASHTO=

**Remarks**

\* (no specification provided)

**Sample No.:**  
**Location:**

**Source of Sample:** 34-B

**Date:**  
**Elev./Depth:** 5.17'

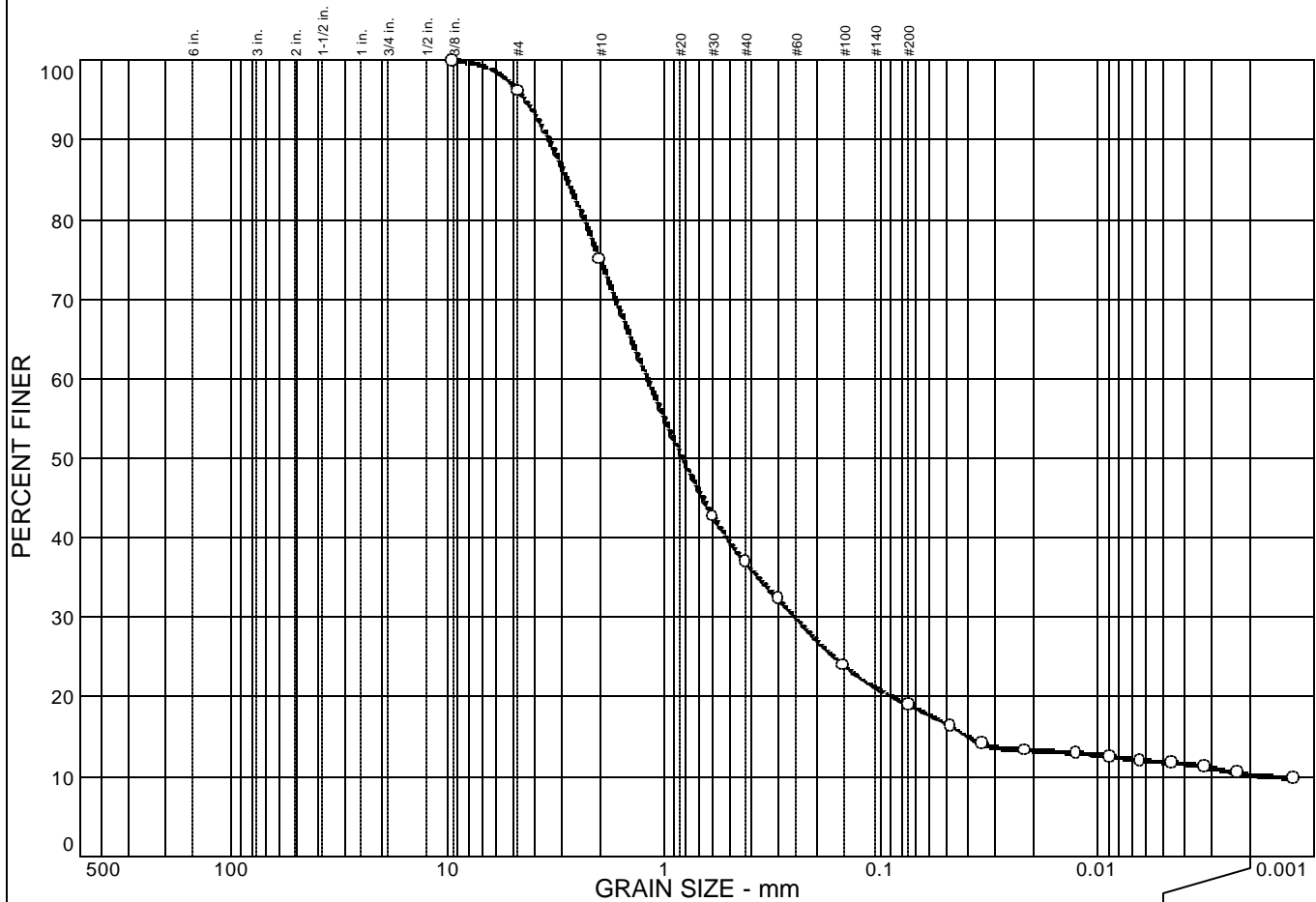
**COOPER TESTING LABORATORY**

**Client:** CBEC, Inc.  
**Project:** ELVERTA HMP - 09-1036

**Project No.:** 670-006

**Figure**

# Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	3.8	77.2	8.8	10.2

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/8 in.	100.0		
#4	96.2		
#10	75.0		
#30	42.7		
#40	36.9		
#50	32.3		
#100	24.0		
#200	19.0		
0.0479 mm.	16.3		
0.0342 mm.	14.1		
0.0219 mm.	13.3		
0.0126 mm.	12.9		
0.0089 mm.	12.5		
0.0064 mm.	12.0		
0.0045 mm.	11.7		
0.0032 mm.	11.2		
0.0023 mm.	10.4		
0.0013 mm.	9.8		

**Soil Description**

Yellowish Brown Clayey SAND

**Atterberg Limits**

PL=                      LL=                      PI=

**Coefficients**

D<sub>85</sub>= 2.82                      D<sub>60</sub>= 1.21                      D<sub>50</sub>= 0.832  
 D<sub>30</sub>= 0.251                      D<sub>15</sub>= 0.0399                      D<sub>10</sub>= 0.0017  
 C<sub>u</sub>= 705.55                      C<sub>c</sub>= 30.47

**Classification**

USCS=                      AASHTO=

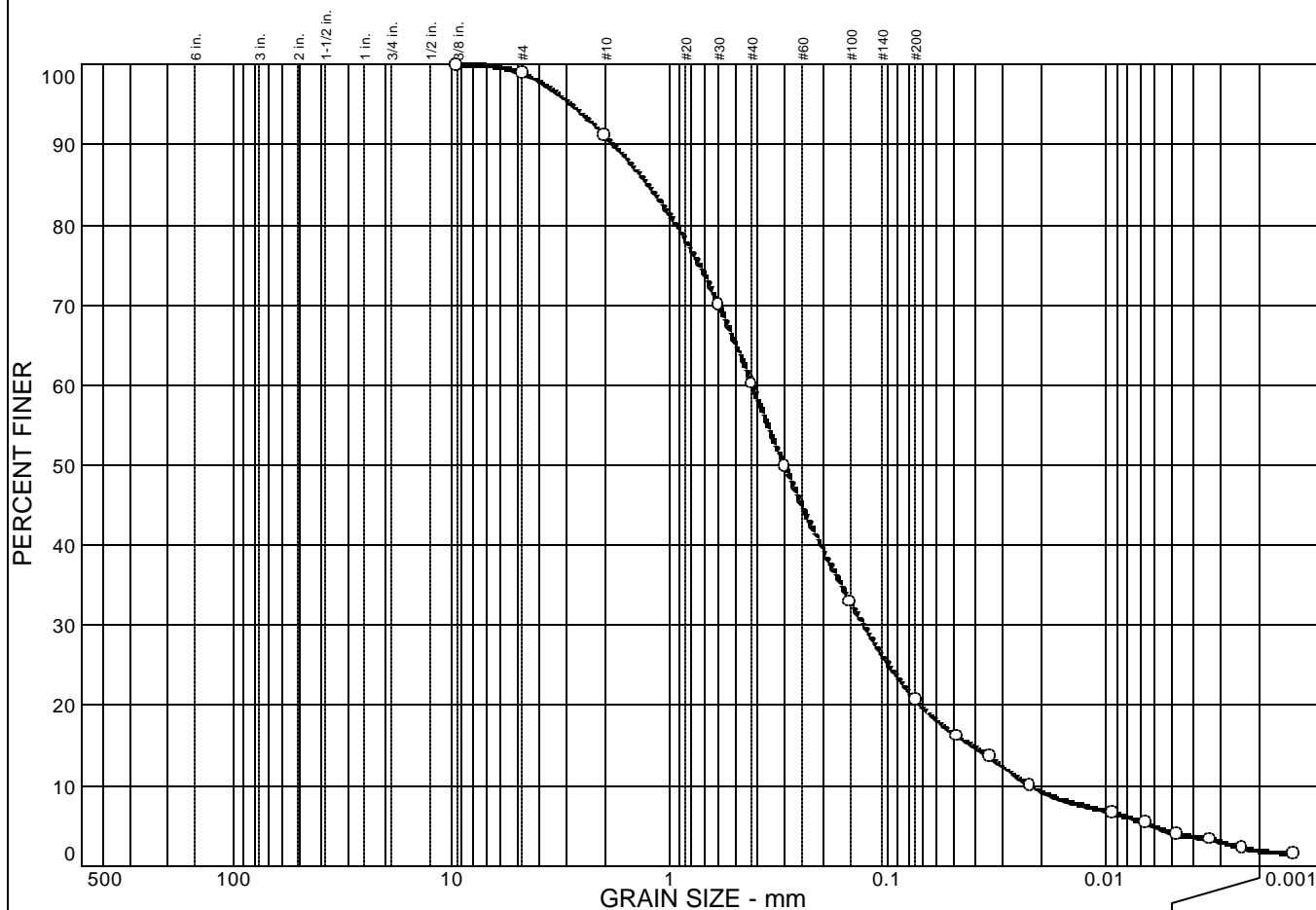
**Remarks**

\* (no specification provided)

**Sample No.:**                      **Source of Sample:** 36-A                      **Date:**  
**Location:**                      **Elev./Depth:** 8.33'

<b>COOPER TESTING LABORATORY</b>	<b>Client:</b> CBEC, Inc. <b>Project:</b> ELVERTA HMP - 09-1036  <b>Project No:</b> 670-006	<b>Figure</b>
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# Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	1.1	78.2	18.9	1.8

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/8 in.	100.0		
#4	98.9		
#10	91.2		
#30	70.0		
#40	60.2		
#50	49.9		
#100	33.0		
#200	20.7		
0.0483 mm.	16.2		
0.0345 mm.	13.6		
0.0224 mm.	10.0		
0.0094 mm.	6.6		
0.0066 mm.	5.3		
0.0047 mm.	3.9		
0.0034 mm.	3.3		
0.0024 mm.	2.2		
0.0014 mm.	1.5		

**Soil Description**

Yellowish Brown Silty SAND

**Atterberg Limits**

PL=                      LL=                      PI=

**Coefficients**

D<sub>85</sub>= 1.26              D<sub>60</sub>= 0.422              D<sub>50</sub>= 0.301  
D<sub>30</sub>= 0.130              D<sub>15</sub>= 0.0413              D<sub>10</sub>= 0.0224  
C<sub>u</sub>= 18.83              C<sub>c</sub>= 1.78

**Classification**

USCS=                      AASHTO=

**Remarks**

\* (no specification provided)

**Sample No.:**  
**Location:**

**Source of Sample:** 45-A

**Date:**  
**Elev./Depth:** 6.25'

**COOPER TESTING LABORATORY**

**Client:** CBEC, Inc.  
**Project:** ELVERTA HMP - 09-1036

**Project No:** 670-006

**Figure**

## APPENDIX B – CHUNK DENSITY



## Chunk Density (USACE - Displacement method)

CTL Job No: 670-006

Project No.: 09-1036

Client: CBEC, Inc.

Date: 8/19/10

Project Name: Elverta HMP

By: PJ

<b>Boring:</b>	2-B	7-A	29-B	34-B	36-A	45-A		
<b>Depth, in.:</b>	72	75	80	62	100	75		
<b>Depth, ft:</b>	6.00	6.25	6.67	5.17	8.33	6.25		
<b>Visual Description:</b>	Light Yellowish Brown Sandy CLAY	Brown SAND w/ Clay	Light Yellowish Brown Sandy CLAY	Brown CLAY w/ Sand	Brown Clayey SAND	Yellowish Brown SAND w/ Clay		
<b>Actual <math>G_s</math></b>								
<b>Assumed <math>G_s</math></b>	2.70	2.70	2.70	2.70	2.70	2.70		
<b>Total Vol cc</b>	37.47	13.22	11.88	8.89	9.37	8.39		
<b>Vol Solids, cc</b>	25.22	7.88	7.74	6.03	5.90	5.50		
<b>Vol Voids, cc</b>	12.25	5.34	4.13	2.86	3.47	2.89		
<b>Moisture, %</b>	11.9	11.6	7.4	8.1	9.9	10.1		
<b>Wet Unit wt, pcf</b>	126.9	112.0	118.0	123.5	116.5	121.6		
<b>Dry Unit wt, pcf</b>	113.4	100.4	109.8	114.3	106.0	110.4		
<b>Saturation, %</b>	66.2	46.1	37.4	46.0	45.3	52.0		
<b>Porosity, %</b>	32.7	40.4	34.8	32.2	37.1	34.5		
<b>Void Ratio</b>	0.486	0.678	0.534	0.474	0.589	0.526		
<b>Series</b>	1	2	3	4	5	6	7	8

Note: If an assumed specific gravity ( $G_s$ ) was used then the saturation, porosities, and void ratio should be considered approximate.

The Zero Air-Voids curves represent the dry density at 100% saturation for each value of specific gravity

# COOPER

## TESTING LABORATORY

NOTE: Due to the very small size of these samples, the reported densities should be considered approximate.



## Chunk Density (USACE - Displacement method)

CTL Job No: 670-006

Project No.: 09-1036

Client: CBEC, Inc.

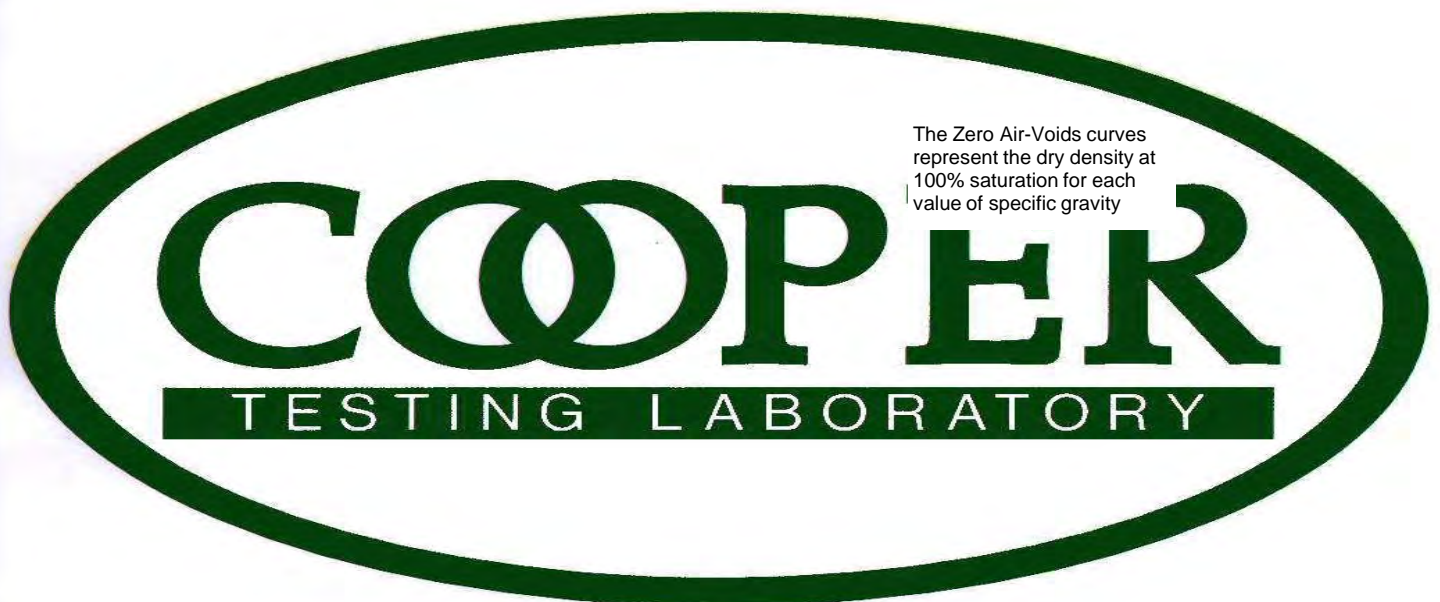
Date: 8/25/10

Project Name: Elverta HMP

By: PJ

<b>Boring:</b>	2-A	28-A	29-A	34-A				
<b>Sample:</b>								
<b>Depth, ft:</b>	1.67	1.67	1.67	1.67				
<b>Visual Description:</b>	Brown Silty SAND (slightly plastic)	Brown Clayey SAND	Brown Clayey SAND	Brown Clayey SAND				
<b>Actual <math>G_s</math></b>								
<b>Assumed <math>G_s</math></b>	2.70	2.70	2.70	2.70				
<b>Total Vol cc</b>	16.38	31.79	26.19	20.56				
<b>Vol Solids, cc</b>	10.58	21.82	17.33	12.83				
<b>Vol Voids, cc</b>	5.80	9.96	8.86	7.73				
<b>Moisture, %</b>	2.6	4.2	12.1	16.1				
<b>Wet Unit wt, pcf</b>	111.6	120.5	125.0	122.1				
<b>Dry Unit wt, pcf</b>	108.8	115.7	111.5	105.1				
<b>Saturation, %</b>	12.6	24.7	63.9	72.3				
<b>Porosity, %</b>	35.4	31.3	33.8	37.6				
<b>Void Ratio</b>	0.548	0.457	0.511	0.603				
<b>Series</b>	1	2	3	4	5	6	7	8

Note: If an assumed specific gravity ( $G_s$ ) was used then the saturation, porosities, and void ratio should be considered approximate.



## APPENDIX C – FALLING HEAD HYDRAULIC CONDUCTIVITY





**Hydraulic Conductivity**  
**ASTM D 5084**  
 Method C: Falling Head Rising Tailwater

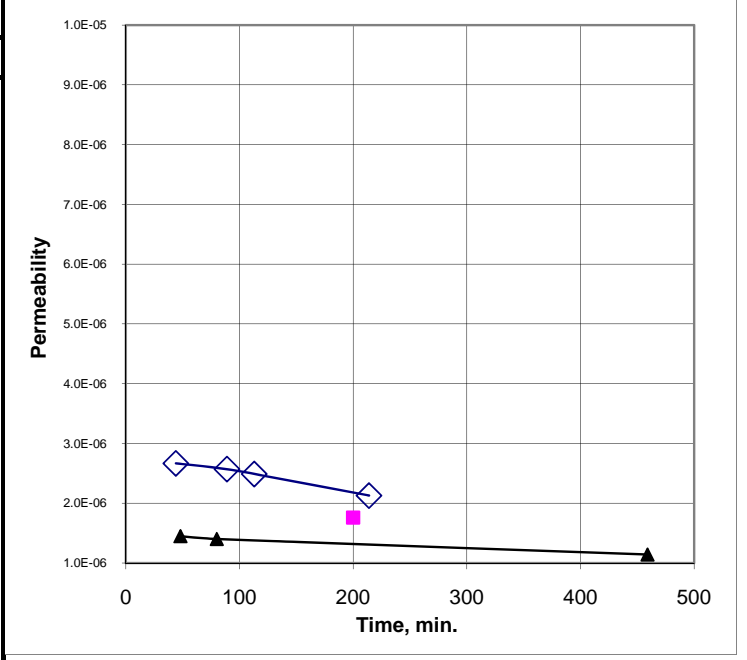
Job No: 670-006 Boring: 2A Date: 09/27/10  
 Client: CBEC Sample: By: MD/PJ  
 Project: 09-1036 Depth, ft.: Remolded: Target= 90% of 108.8 pcf.  
 Visual Classification: Dark Reddish Brown Silty SAND w/ surface organics

**Max Sample Pressures, psi:** B: = >0.95 ("B" is an indication of saturation)

Cell:	Bottom	Top	Avg. Sigma3
94	89.5	88.5	5

**Max Hydraulic Gradient: = 14**

Date	Minutes	Head, (in)	K, cm/sec
9/8/2010	0.00	42.69	Start of Test
9/8/2010	44.00	39.54	2.7E-06
9/8/2010	89.00	36.79	2.6E-06
9/8/2010	113.00	35.59	2.5E-06
9/8/2010	214.00	31.39	2.1E-06
9/8/2010	200.00	33.64	1.8E-06
9/9/2010	48.00	40.79	1.4E-06
9/9/2010	80.00	39.69	1.4E-06
9/9/2010	459.00	29.64	1.1E-06



**Average Permeability: 2.0.E-06 cm/sec**

Sample Data:	Initial	Final
Height, in	3.00	3.00
Diameter, in	2.37	2.37
Area, in <sup>2</sup>	4.41	4.41
Volume in <sup>3</sup>	13.23	13.23
Total Volume, cc	216.9	216.9
Volume Solids, cc	125.9	125.9
Volume Voids, cc	91.0	91.0
Void Ratio	0.7	0.7
Total Porosity, %	42.0	42.0
Air-Filled Porosity, %	29.5	0.4
Water-Filled Porosity, %	12.5	41.6
Saturation, %	29.8	99.1
Specific Gravity	2.70 Assumed	2.70
Wet Weight, gm	366.9	430.0
Dry Weight, gm	339.8	339.8
Tare, gm	0.00	0.00
Moisture, %	8.0	26.5
Dry Density, pcf	97.8	97.8

Remarks: The sample sample was free-draining and slumped after the test when the confining pressure was reduced. Therefore, the final dimensions, moisture content and associated values are approximate.



**Hydraulic Conductivity**  
**ASTM D 5084**  
 Method C: Falling Head Rising Tailwater

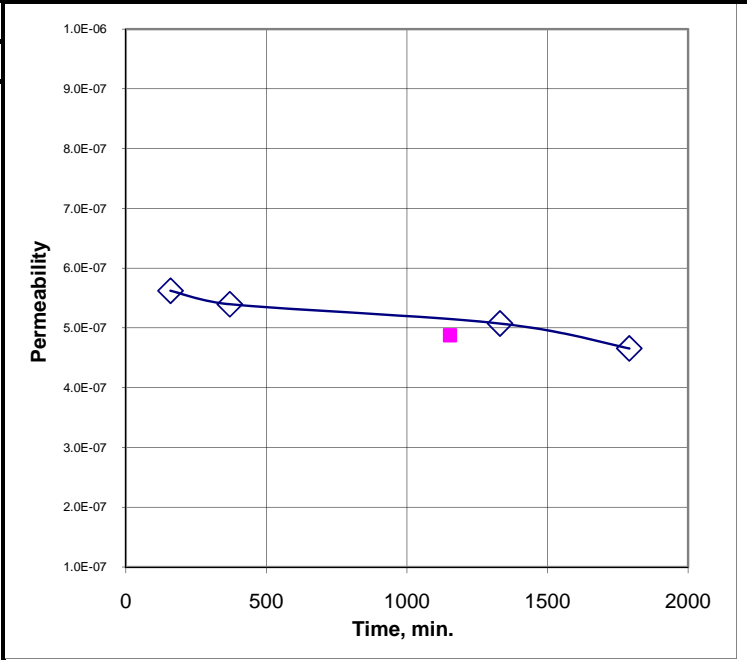
Job No: 670-006 Boring: 2B Date: 09/13/10  
 Client: CBEC Sample: By: MD/PJ  
 Project: 09-1036 Depth, ft.: 6 Remolded: Target= 90% of 113.4 pcf.  
 Visual Classification: Pale Yellow SILT w/ Sand

Max Sample Pressures, psi:			
Cell:	Bottom	Top	Avg. Sigma3
84	79.5	78.5	5

B: = >0.95 ("B" is an indication of saturation)

Max Hydraulic Gradient: = 14

Date	Minutes	Head, (in)	K,cm/sec
9/8/2010	0.00	42.69	Start of Test
9/8/2010	159.00	40.14	5.6E-07
9/8/2010	370.00	37.19	5.4E-07
9/9/2010	1331.00	27.09	5.1E-07
9/9/2010	1791.00	23.59	4.7E-07
9/10/2010	1153.00	29.29	4.9E-07



**Average Permeability: 5.1.E-07 cm/sec**

Sample Data:	Initial	Final
Height, in	3.00	3.04
Diameter, in	2.38	2.41
Area, in <sup>2</sup>	4.43	4.56
Volume in <sup>3</sup>	13.29	13.87
Total Volume, cc	217.8	227.2
Volume Solids, cc	130.3	130.3
Volume Voids, cc	87.5	96.9
Void Ratio	0.7	0.7
Total Porosity, %	40.2	42.7
Air-Filled Porosity, %	14.6	1.3
Water-Filled Porosity, %	25.5	41.3
Saturation, %	63.6	96.9
Specific Gravity	2.70	2.70
	Assumed	
Wet Weight, gm	407.5	445.8
Dry Weight, gm	351.9	351.9
Tare, gm	0.00	0.00
Moisture, %	15.8	26.7
Dry Density, pcf	100.8	96.6

Remarks:



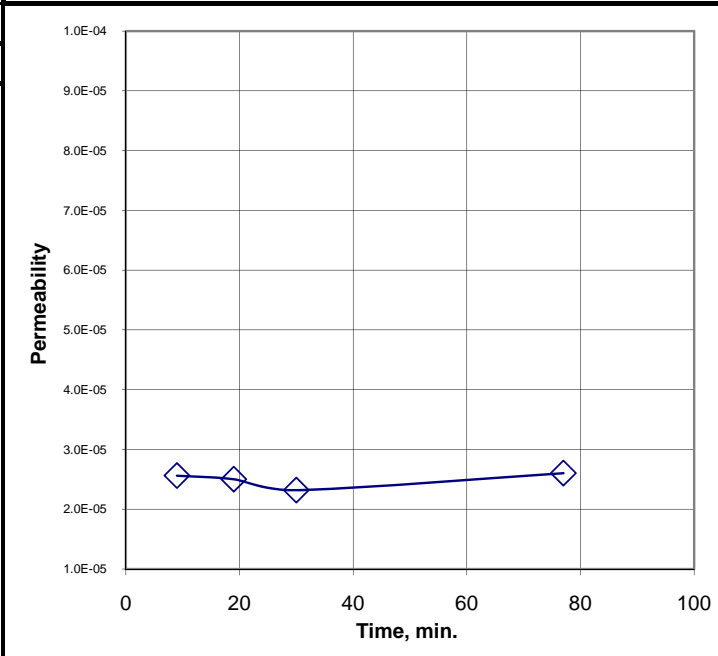
**Hydraulic Conductivity**  
**ASTM D 5084**  
 Method C: Falling Head Rising Tailwater

Job No: 670-006 Boring: 7A Date: 09/27/10  
 Client: CBEC Sample: \_\_\_\_\_ By: MD/PJ  
 Project: 09-1036 Depth, ft.: 6.25 Remolded: Target= 90% of 100.4 pcf.  
 Visual Classification: Yellowish Brown Clayey SAND

**Max Sample Pressures, psi:** B: = >0.95 ("B" is an indication of saturation)

Cell:	Bottom	Top	Avg. Sigma3	<b>Max Hydraulic Gradient: = 5</b>
74	69	69	5	

Date	Minutes	Head, (in)	K,cm/sec
9/7/2010	0.00	15.00	Start of Test
9/7/2010	9.00	12.90	2.6E-05
9/7/2010	19.00	11.00	2.5E-05
9/7/2010	30.00	9.55	2.3E-05
9/7/2010	77.00	4.15	2.6E-05



**Average Permeability: 2.5.E-05 cm/sec**

Sample Data:	Initial	Final
Height, in	2.98	2.92
Diameter, in	2.36	2.31
Area, in <sup>2</sup>	4.37	4.19
Volume in <sup>3</sup>	13.04	12.24
Total Volume, cc	213.6	200.5
Volume Solids, cc	114.8	114.8
Volume Voids, cc	98.8	85.7
Void Ratio	0.9	0.7
Total Porosity, %	46.3	42.7
Air-Filled Porosity, %	31.7	1.9
Water-Filled Porosity, %	14.5	40.9
Saturation, %	31.4	95.7
Specific Gravity	2.70	2.70
	Assumed	
Wet Weight, gm	341.0	392.0
Dry Weight, gm	310.0	310.0
Tare, gm	0.00	0.00
Moisture, %	10.0	26.5
Dry Density, pcf	90.6	96.5

Remarks: The sample sample slumped after the test when the confining pressure was reduced. Therefore, the final dimensions, moisture content and associated values are approximate.



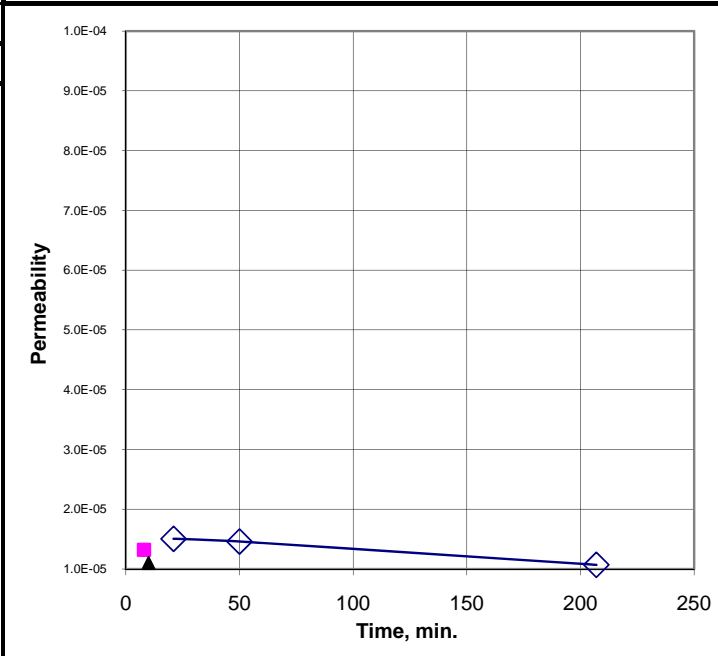
**Hydraulic Conductivity**  
**ASTM D 5084**  
 Method C: Falling Head Rising Tailwater

Job No: 670-006 Boring: 28A Date: 09/20/10  
 Client: CBEC Sample: \_\_\_\_\_ By: MD/PJ  
 Project: 09-1036 Depth, ft.: 1.67 Remolded: Target= 90% of 115.7 pcf.  
 Visual Classification: Dark Yellowish Brown Clayey SAND

**Max Sample Pressures, psi:** B: = >0.95 ("B" is an indication of saturation)

Cell:	Bottom	Top	Avg. Sigma3	<b>Max Hydraulic Gradient: = 5</b>
64	59	59	5	

Date	Minutes	Head, (in)	K,cm/sec
9/2/2010	0.00	15.00	Start of Test
9/2/2010	21.00	11.95	1.5E-05
9/2/2010	50.00	8.85	1.5E-05
9/2/2010	207.00	2.95	1.1E-05
9/3/2010	8.00	13.90	1.3E-05
9/7/2010	10.00	13.90	1.1E-05



**Average Permeability: 1.3.E-05 cm/sec**

Sample Data:	Initial	Final
Height, in	3.00	2.92
Diameter, in	2.37	2.38
Area, in <sup>2</sup>	4.41	4.43
Volume in <sup>3</sup>	13.23	12.94
Total Volume, cc	216.9	212.0
Volume Solids, cc	132.9	132.9
Volume Voids, cc	84.0	79.1
Void Ratio	0.6	0.6
Total Porosity, %	38.7	37.3
Air-Filled Porosity, %	17.9	1.9
Water-Filled Porosity, %	20.8	35.4
Saturation, %	53.8	95.0
Specific Gravity	2.70	2.70
	Assumed	
Wet Weight, gm	404.0	434.0
Dry Weight, gm	358.9	358.9
Tare, gm	0.00	0.00
Moisture, %	12.6	20.9
Dry Density, pcf	103.3	105.6

Remarks: \_\_\_\_\_



**Hydraulic Conductivity**  
**ASTM D 5084**  
 Method C: Falling Head Rising Tailwater

Job No: 670-006 Boring: 29A Date: 09/13/10  
 Client: CBEC Sample: \_\_\_\_\_ By: MD/PJ  
 Project: 09-1036 Depth, ft.: 1.67 Remolded: Target= 90% of 111.5 pcf.  
 Visual Classification: Brown Sandy CLAY

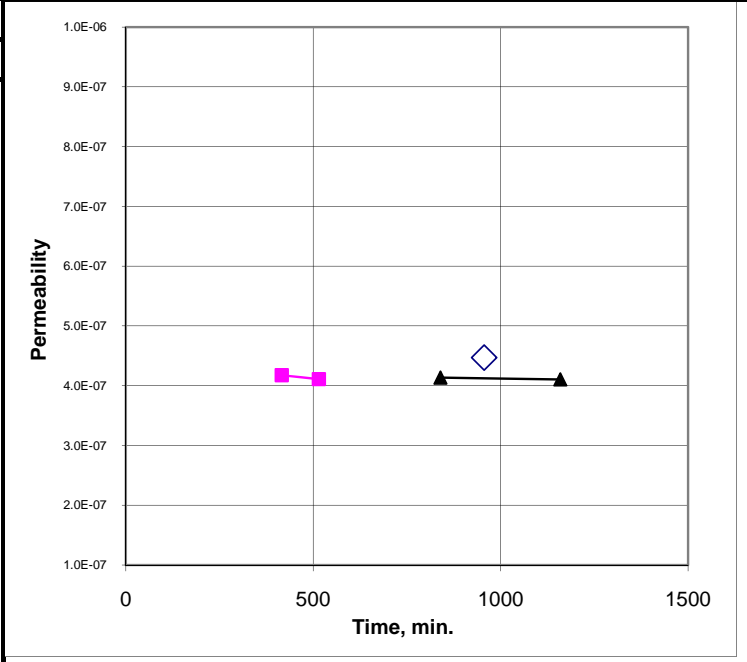
**Max Sample Pressures, psi:**

Cell:	Bottom	Top	Avg. Sigma3
63.5	59	58	5

**B: = >0.95** ("B" is an indication of saturation)

**Max Hydraulic Gradient: = 32**

Date	Minutes	Head, (in)	K,cm/sec
9/8/2010	0.00	97.33	Start of Test
9/9/2010	956.00	77.93	4.5E-07
9/9/2010	416.00	88.33	4.2E-07
9/9/2010	515.00	86.53	4.1E-07
9/10/2010	839.00	81.33	4.1E-07
9/10/2010	1159.00	76.13	4.1E-07



**Average Permeability: 4.2.E-07 cm/sec**

Sample Data:	Initial	Final
Height, in	3.00	3.03
Diameter, in	2.38	2.40
Area, in <sup>2</sup>	4.43	4.52
Volume in <sup>3</sup>	13.29	13.71
Total Volume, cc	217.8	224.6
Volume Solids, cc	128.7	128.7
Volume Voids, cc	89.1	95.9
Void Ratio	0.7	0.7
Total Porosity, %	40.9	42.7
Air-Filled Porosity, %	17.8	1.4
Water-Filled Porosity, %	23.1	41.3
Saturation, %	56.5	96.8
Specific Gravity	2.70 Assumed	2.70
Wet Weight, gm	397.9	440.4
Dry Weight, gm	347.6	347.6
Tare, gm	0.00	0.00
Moisture, %	14.5	26.7
Dry Density, pcf	99.6	96.6

Remarks: \_\_\_\_\_



## Hydraulic Conductivity ASTM D 5084

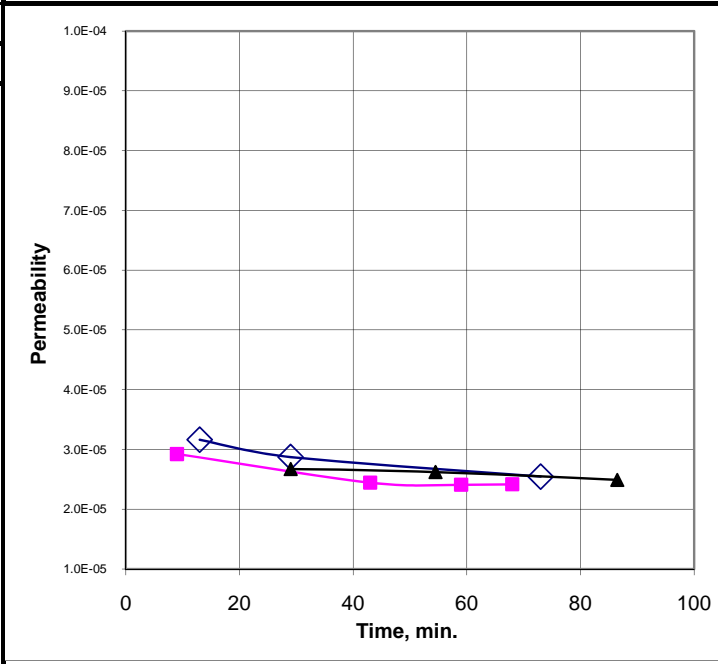
Method C: Falling Head Rising Tailwater

**Job No:** 670-006      **Boring:** 29B      **Date:** 09/20/10  
**Client:** CBEC      **Sample:**      **By:** MD/PJ  
**Project:** 09-1036      **Depth, ft.:** 6.67      **Remolded:** Target= 90% of 109.8 pcf.  
**Visual Classification:** Brown Sandy SILT

**Max Sample Pressures, psi:**      **B: = >0.95**      ("B" is an indication of saturation)

<b>Cell:</b>	<b>Bottom</b>	<b>Top</b>	<b>Avg. Sigma3</b>	<b>Max Hydraulic Gradient: =</b>	<b>5</b>
74	69	69	5		

Date	Minutes	Head, (in)	K, cm/sec
9/7/2010	0.00	15.00	Start of Test
9/7/2010	13.00	11.35	3.2E-05
9/7/2010	29.00	8.55	2.9E-05
9/7/2010	73.00	4.35	2.5E-05
9/8/2010	9.00	12.60	2.9E-05
9/8/2010	43.00	7.50	2.4E-05
9/8/2010	59.00	5.90	2.4E-05
9/8/2010	68.00	5.10	2.4E-05
9/9/2010	29.00	9.00	2.7E-05
9/9/2010	54.50	5.90	2.6E-05
9/9/2010	86.50	3.70	2.5E-05



**Average Permeability: 2.7.E-05 cm/sec**

Sample Data:	Initial	Final
Height, in	3.00	3.02
Diameter, in	2.38	2.40
Area, in <sup>2</sup>	4.43	4.51
Volume in <sup>3</sup>	13.29	13.61
Total Volume, cc	217.8	222.9
Volume Solids, cc	129.5	129.5
Volume Voids, cc	88.3	93.4
Void Ratio	0.7	0.7
Total Porosity, %	40.5	41.9
Air-Filled Porosity, %	12.0	1.6
Water-Filled Porosity, %	28.5	40.3
Saturation, %	70.4	96.1
Specific Gravity	2.65	2.65
	Assumed	
Wet Weight, gm	405.4	433.0
Dry Weight, gm	343.2	343.2
Tare, gm	0.00	0.00
Moisture, %	18.1	26.2
Dry Density, pcf	98.3	96.1

Remarks:



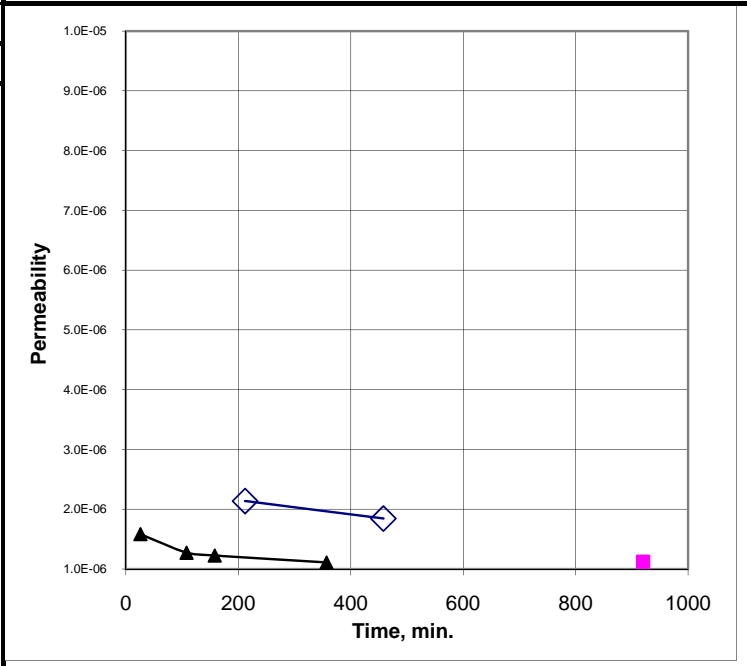
**Hydraulic Conductivity**  
**ASTM D 5084**  
 Method C: Falling Head Rising Tailwater

Job No: 670-006 Boring: 34A Date: 09/14/10  
 Client: CBEC Sample: By: MD/PJ  
 Project: 09-1036 Depth, ft.: 1.67 Remolded: Target= 90% of 105.1 pcf.  
 Visual Classification: Brown CLAY w/ Sand

Max Sample Pressures, psi:			
Cell:	Bottom	Top	Avg. Sigma3
63.5	59	58	5

B: = >0.95 ("B" is an indication of saturation)  
**Max Hydraulic Gradient: = 32**

Date	Minutes	Head, (in)	K,cm/sec
9/7/2010	0.00	97.33	Start of Test
9/7/2010	212.00	76.23	2.1E-06
9/7/2010	458.00	61.03	1.8E-06
9/8/2010	920.00	57.23	1.1E-06
9/8/2010	26.00	95.33	1.6E-06
9/8/2010	108.00	90.43	1.3E-06
9/8/2010	158.00	87.73	1.2E-06
9/8/2010	357.00	78.63	1.1E-06



**Average Permeability: 1.5.E-06 cm/sec**

Sample Data:	Initial	Final
Height, in	3.00	3.00
Diameter, in	2.38	2.38
Area, in <sup>2</sup>	4.43	4.43
Volume in <sup>3</sup>	13.29	13.29
Total Volume, cc	217.8	217.8
Volume Solids, cc	123.4	123.4
Volume Voids, cc	94.4	94.4
Void Ratio	0.8	0.8
Total Porosity, %	43.3	43.3
Air-Filled Porosity, %	22.1	2.0
Water-Filled Porosity, %	21.2	41.4
Saturation, %	49.0	95.5
Specific Gravity	2.70	2.70
	Assumed	
Wet Weight, gm	379.4	423.3
Dry Weight, gm	333.2	333.2
Tare, gm	0.00	0.00
Moisture, %	13.9	27.0
Dry Density, pcf	95.5	95.5

Remarks:



**Hydraulic Conductivity**  
**ASTM D 5084**  
 Method C: Falling Head Rising Tailwater

Job No: 670-006 Boring: 34B Date: 09/20/10  
 Client: CBEC Sample: By: MD/PJ  
 Project: 09-1036 Depth, ft.: Remolded: Target= 90% of 114.3 pcf  
 Visual Classification: Yellowish Brown Silty SAND

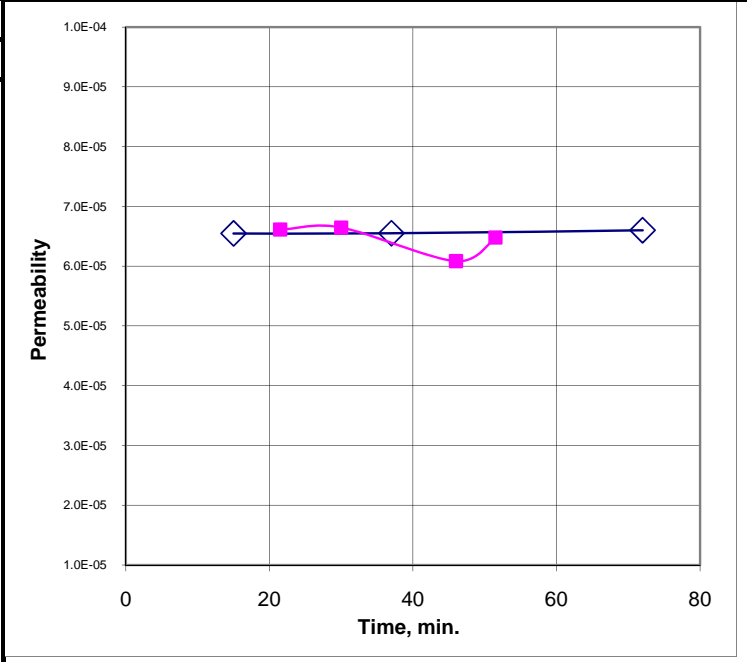
**Max Sample Pressures, psi:**

Cell:	Bottom	Top	Avg. Sigma3
83.5	78.5	78.5	5

**B: = >0.95** ("B" is an indication of saturation)

**Max Hydraulic Gradient: = 8**

Date	Minutes	Head, (in)	K,cm/sec
9/7/2010	0.00	25.00	Start of Test
9/7/2010	15.00	14.80	6.5E-05
9/7/2010	37.00	6.60	6.5E-05
9/7/2010	72.00	1.90	6.6E-05
9/8/2010	21.50	12.00	6.6E-05
9/8/2010	30.00	9.00	6.6E-05
9/8/2010	46.00	6.00	6.1E-05
9/8/2010	51.50	4.60	6.5E-05



**Average Permeability: 6.5.E-05 cm/sec**

Sample Data:	Initial	Final
Height, in	3.00	2.98
Diameter, in	2.37	2.38
Area, in <sup>2</sup>	4.41	4.45
Volume in <sup>3</sup>	13.23	13.26
Total Volume, cc	216.9	217.2
Volume Solids, cc	134.1	134.1
Volume Voids, cc	82.8	83.2
Void Ratio	0.6	0.6
Total Porosity, %	38.2	38.3
Air-Filled Porosity, %	16.0	1.0
Water-Filled Porosity, %	22.2	37.3
Saturation, %	58.0	97.5
Specific Gravity	2.65	2.65
	Assumed	
Wet Weight, gm	403.4	436.4
Dry Weight, gm	355.4	355.4
Tare, gm	0.00	0.00
Moisture, %	13.5	22.8
Dry Density, pcf	102.2	102.1

Remarks: The sample slumped after the test when the confining pressure was released. Because of this, the final dimensions and associated values are approximate.





**Hydraulic Conductivity**  
**ASTM D 5084**  
 Method C: Falling Head Rising Tailwater

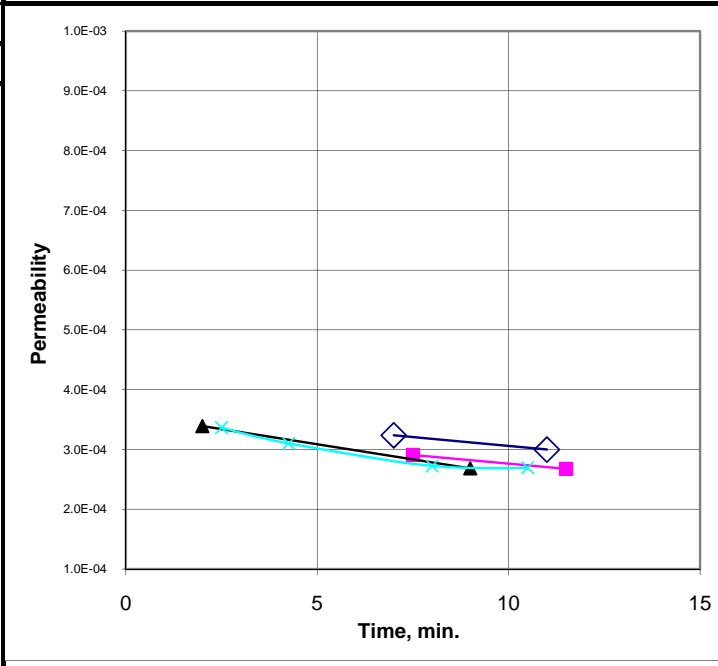
Job No: 670-006 Boring: 36A Date: 09/27/10  
 Client: CBEC Sample: By: MD/PJ  
 Project: 09-1036 Depth, ft.: 8.33 Remolded: Target= 90% of 106.0 pcf.  
 Visual Classification: Yellowish Brown Clayey SAND

**Max Sample Pressures, psi:** B: = >0.95 ("B" is an indication of saturation)

Cell:	Bottom	Top	Avg. Sigma3
53.5	48.5	48.5	5

**Max Hydraulic Gradient: = 7**

Date	Minutes	Head, (in)	K,cm/sec
9/7/2010	0.00	22.00	Start of Test
9/7/2010	7.00	4.80	3.2E-04
9/7/2010	11.00	2.40	3.0E-04
9/7/2010	7.50	5.10	2.9E-04
9/7/2010	11.50	2.80	2.7E-04
9/7/2010	2.00	14.00	3.4E-04
9/7/2010	9.00	4.40	2.7E-04
9/8/2010	2.50	12.70	3.4E-04
9/8/2010	4.25	9.30	3.1E-04
9/8/2010	8.00	5.30	2.7E-04
9/8/2010	10.50	3.50	2.7E-04



**Average Permeability: 3.0.E-04 cm/sec**

Sample Data:	Initial	Final
Height, in	3.00	3.00
Diameter, in	2.37	2.37
Area, in <sup>2</sup>	4.41	4.41
Volume in <sup>3</sup>	13.23	13.23
Total Volume, cc	216.9	216.9
Volume Solids, cc	123.3	123.3
Volume Voids, cc	93.6	93.6
Void Ratio	0.8	0.8
Total Porosity, %	43.2	43.2
Air-Filled Porosity, %	31.1	2.1
Water-Filled Porosity, %	12.0	41.1
Saturation, %	27.8	95.2
Specific Gravity	2.70	2.70
	Assumed	
Wet Weight, gm	358.9	422.0
Dry Weight, gm	332.9	332.9
Tare, gm	0.00	0.00
Moisture, %	7.8	26.8
Dry Density, pcf	95.8	95.8

Remarks: The sample sample was free-draining and slumped after the test when the confining pressure was reduced. Therefore, the final dimensions, moisture content and associated values are approximate.



**Hydraulic Conductivity**  
**ASTM D 5084**  
 Method C: Falling Head Rising Tailwater

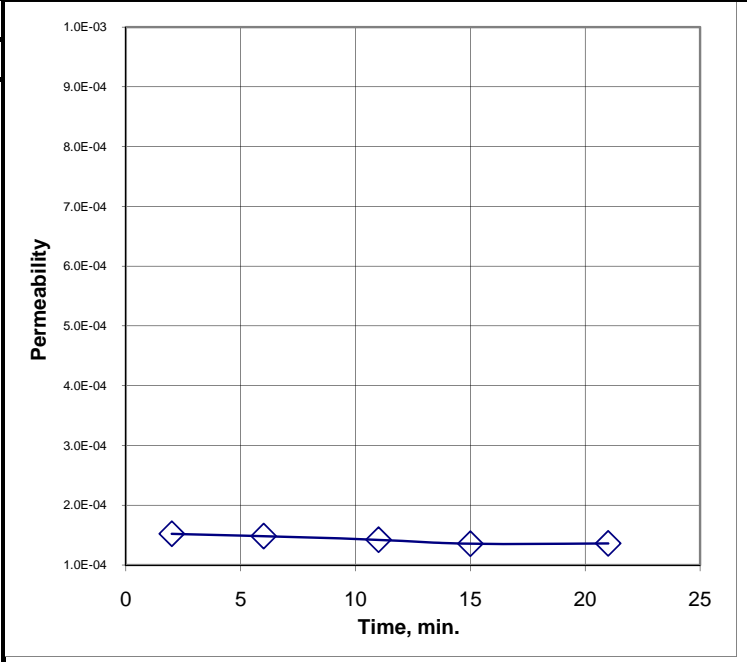
Job No: 670-006 Boring: 45A Date: 09/24/10  
 Client: CBEC Sample: By: MD/PJ  
 Project: 09-1036 Depth, ft.: 6.25 Remolded: Target= 90% of 110.4 pcf.  
 Visual Classification: Yellowish Brown Silty SAND

**Max Sample Pressures, psi:** B: = >0.95 ("B" is an indication of saturation)

Cell:	Bottom	Top	Avg. Sigma3
84	79	79	5

**Max Hydraulic Gradient: = 5**

Date	Minutes	Head, (in)	K,cm/sec
9/7/2010	0.00	15.00	Start of Test
9/7/2010	2.00	12.20	1.5E-04
9/7/2010	6.00	8.20	1.5E-04
9/7/2010	11.00	5.20	1.4E-04
9/7/2010	15.00	3.80	1.4E-04
9/7/2010	21.00	2.20	1.4E-04

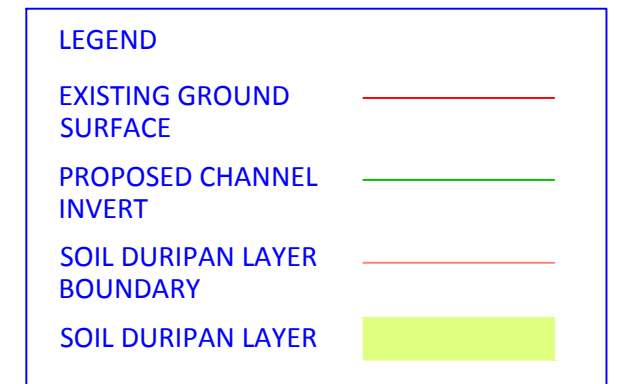
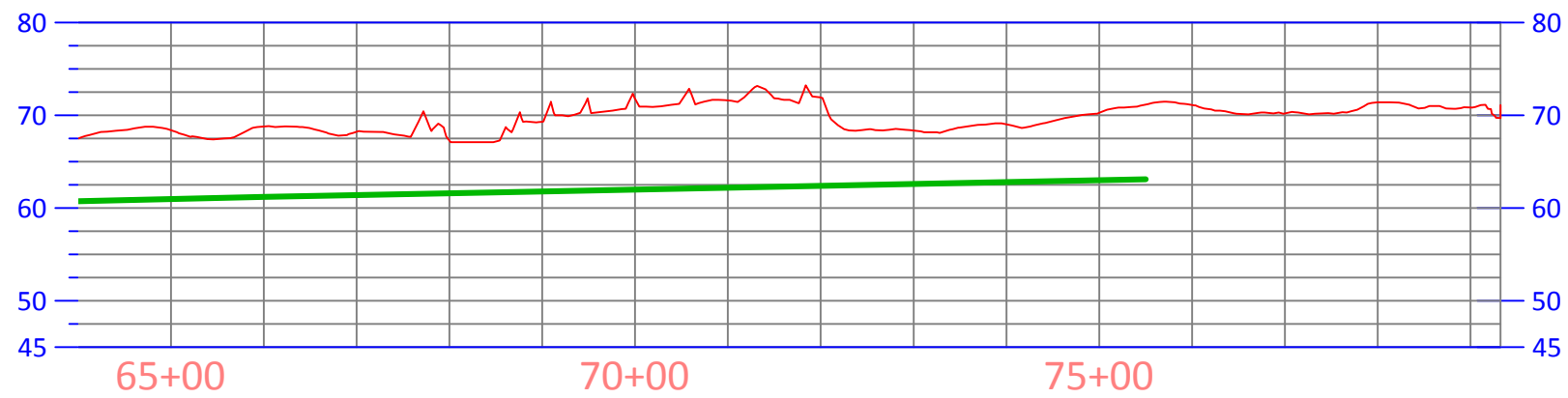
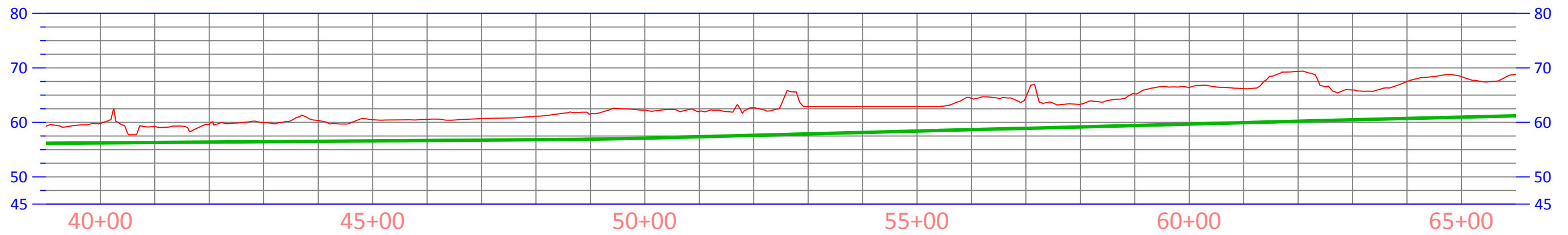
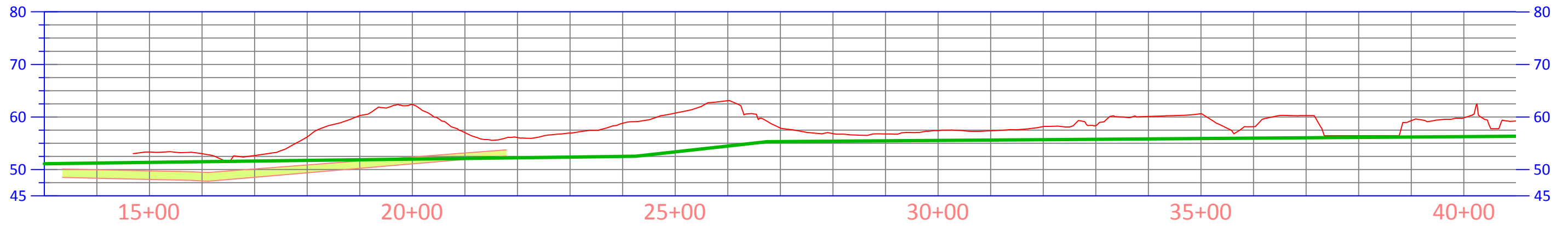


**Average Permeability: 1.4.E-04 cm/sec**

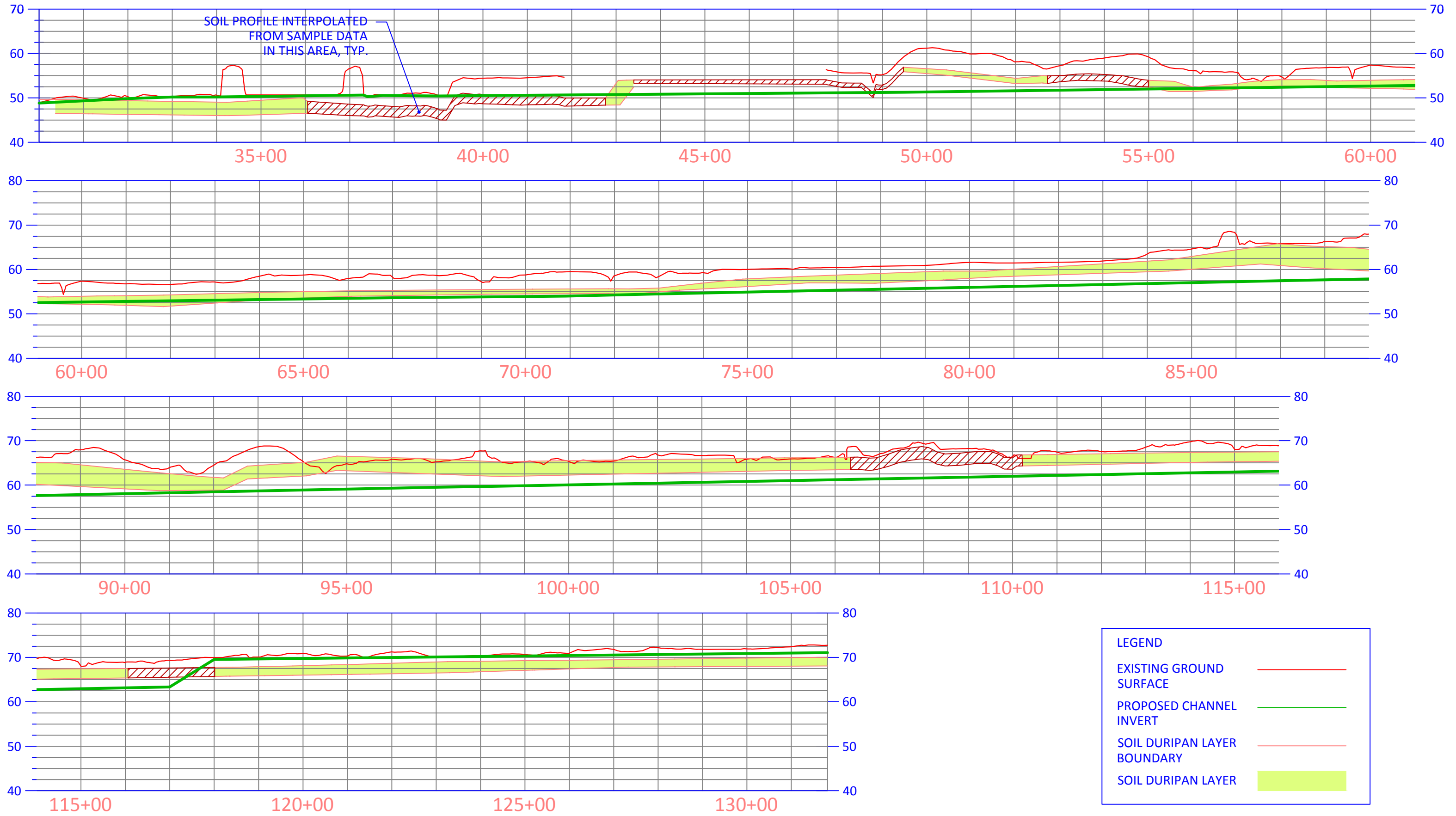
Sample Data:	Initial	Final
Height, in	2.97	2.97
Diameter, in	2.37	2.37
Area, in <sup>2</sup>	4.41	4.41
Volume in <sup>3</sup>	13.10	13.10
Total Volume, cc	214.7	214.7
Volume Solids, cc	128.7	128.7
Volume Voids, cc	86.0	86.0
Void Ratio	0.7	0.7
Total Porosity, %	40.1	40.1
Air-Filled Porosity, %	23.3	1.7
Water-Filled Porosity, %	16.7	38.3
Saturation, %	41.8	95.7
Specific Gravity	2.65	2.65
	Assumed	
Wet Weight, gm	377.0	423.4
Dry Weight, gm	341.1	341.1
Tare, gm	0.00	0.00
Moisture, %	10.5	24.1
Dry Density, pcf	99.1	99.1

Remarks: The sample slumped after the test when the confining pressure was released. Because of this, the final dimensions and associated values are approximate.

# B CORRIDOR SOILS PROFILE



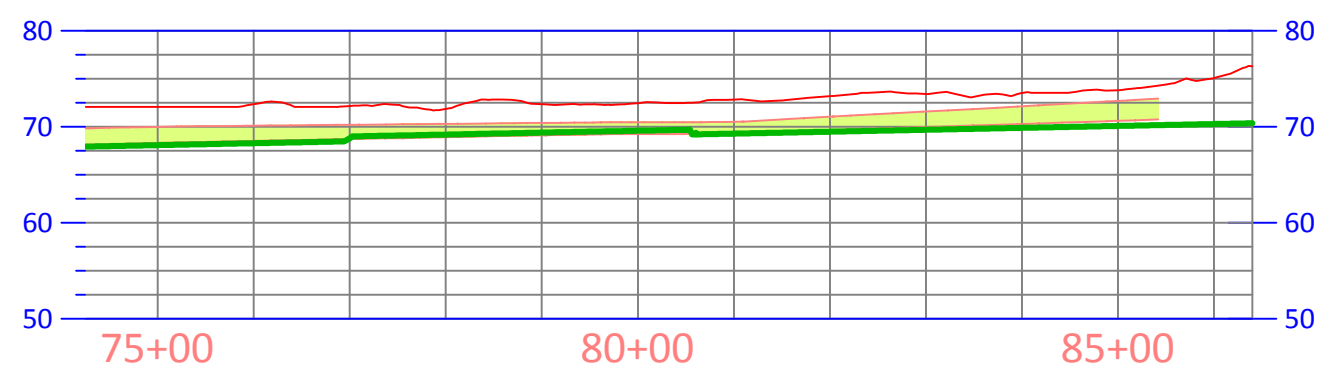
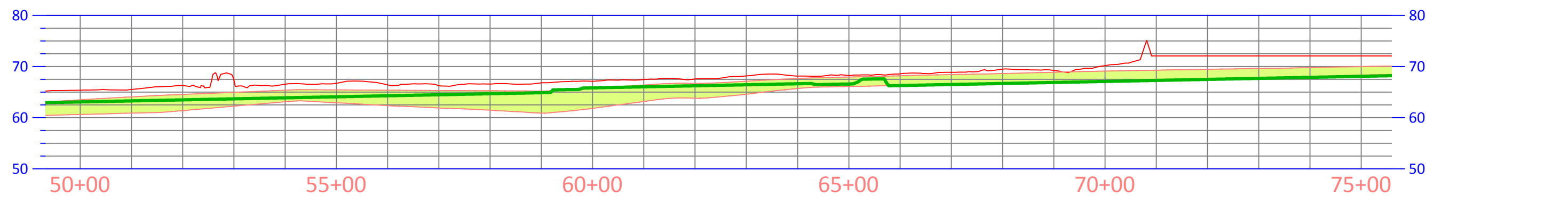
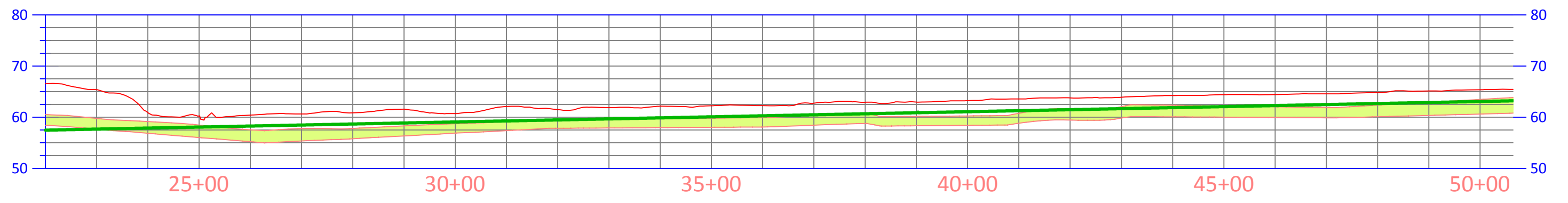
# C CORRIDOR SOILS PROFILE



**LEGEND**

- EXISTING GROUND SURFACE —
- PROPOSED CHANNEL INVERT —
- SOIL DURIPAN LAYER BOUNDARY —
- SOIL DURIPAN LAYER

# D CORRIDOR SOILS PROFILE



**LEGEND**

- EXISTING GROUND SURFACE
- PROPOSED CHANNEL INVERT
- SOIL DURIPAN LAYER BOUNDARY
- SOIL DURIPAN LAYER

## **9.5 Drainage Corridor Habitat Development Plans (Restoration Resources)**



# ELVERTA SPECIFIC PLAN

## Drainage Corridors B, C, & D

### CONCEPTUAL HABITAT DEVELOPMENT PLAN

Elverta, California

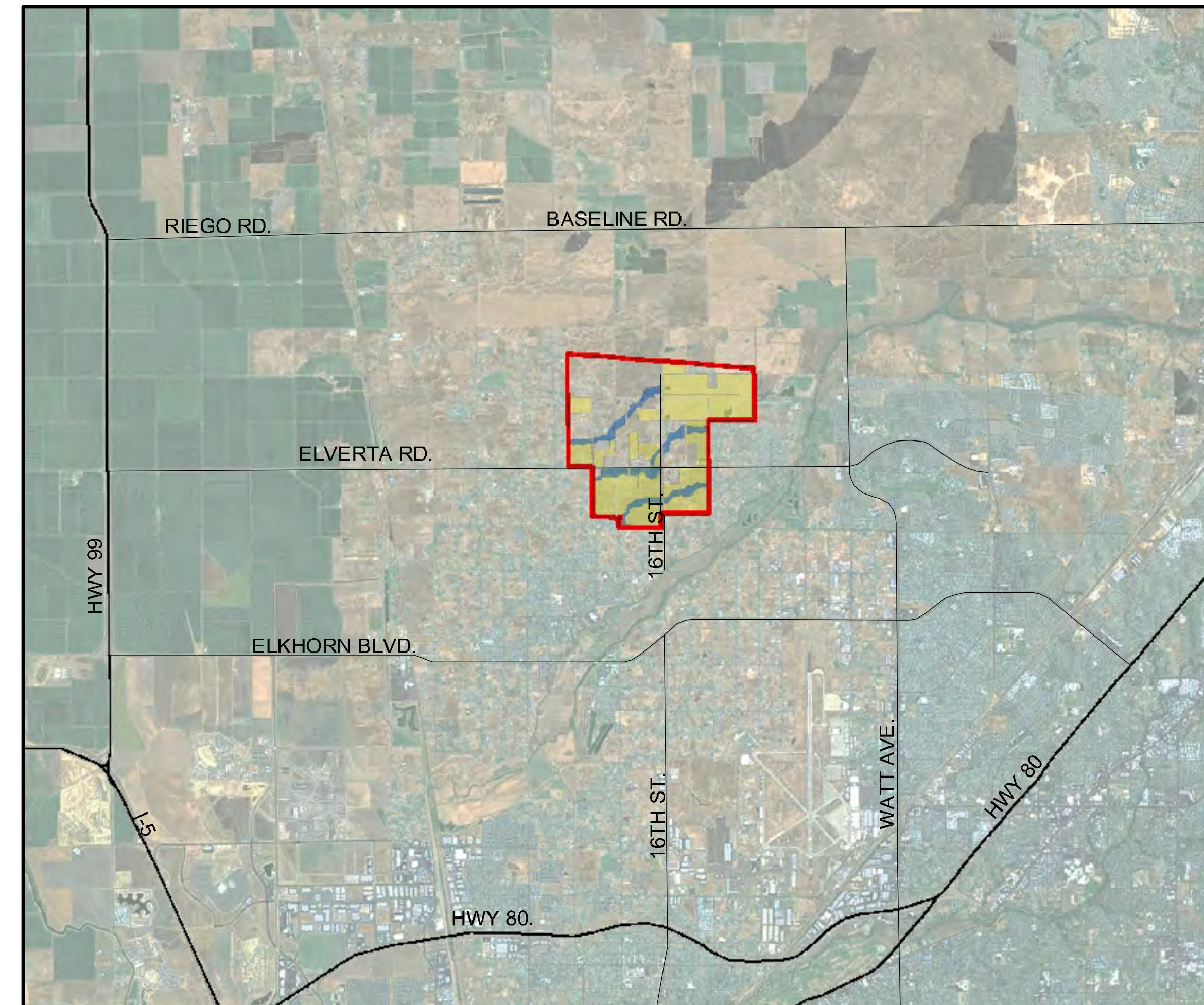
CLIENT:  
**The RCH Group**  
 Ardie Zahedani, Project Manager  
 1640 Lead Hill Blvd., Suite 220  
 Roseville, CA 95661  
 (916) 782-4427

#### INDEX TO DRAWINGS

REVISED: 1.14.11

#### SITE LOCATION

- SHEET L0.1 COVER SHEET
- SHEET L0.2 OVERALL HABITAT DEVELOPMENT PLAN: CORRIDORS B, C, & D
  
- SHEET L1.1 CORRIDOR B HABITAT DEVELOPMENT PLAN (STATION 60+55 - 76+43)
- SHEET L1.2 CORRIDOR B HABITAT DEVELOPMENT PLAN (STATION 43+39 - 60+55)
- SHEET L1.3 CORRIDOR B HABITAT DEVELOPMENT PLAN (STATION 26+58 - 43+39)
- SHEET L1.4 CORRIDOR B HABITAT DEVELOPMENT PLAN (STATION 10+00 - 26+58)
  
- SHEET L2.1 CORRIDOR C HABITAT DEVELOPMENT PLAN (STATION 113+58 - 132+17)
- SHEET L2.2 CORRIDOR C HABITAT DEVELOPMENT PLAN (STATION 100+31 - 113+58)
- SHEET L2.3 CORRIDOR C HABITAT DEVELOPMENT PLAN (STATION 84+79 - 100+31)
- SHEET L2.4 CORRIDOR C HABITAT DEVELOPMENT PLAN (STATION 65+33 - 82+96)
- SHEET L2.5 CORRIDOR C HABITAT DEVELOPMENT PLAN (STATION 47+30 - 65+33)
  
- SHEET L3.1 CORRIDOR D HABITAT DEVELOPMENT PLAN (STATION 62+18 - 78+55)
- SHEET L3.2 CORRIDOR D HABITAT DEVELOPMENT PLAN (STATION 44+47 - 62+18)
- SHEET L3.3 CORRIDOR D HABITAT DEVELOPMENT PLAN (STATION 28+20 - 44+47)
- SHEET L3.4 CORRIDOR D HABITAT DEVELOPMENT PLAN (STATION 12+00 - 28+20)
  
- SHEET L4.1 CORRIDORS B, C, & D PLANT PALETTES
- SHEET L4.2 CONSTRUCTION NOTES
- SHEET L4.3 CONCEPTUAL SECTIONS AND DETAILS
- SHEET L4.4 CONCEPTUAL SECTIONS AND DETAILS CONT.



VICINITY MAP  
N.T.S.



PREPARED BY:  
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 Roseville, CA 95661  
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SHEET TITLE:  
**ELVERTA DRAINAGE CORRIDORS B, C, & D  
 CONCEPTUAL HABITAT DEVELOPMENT PLAN**  
 Elverta, California  
**COVER SHEET**

NORTH  
 SCALE

CHECKED BY:	DATE:	DESIGNED BY:	DATE:
REVISIONS:	DATE:	REVISIONS:	DATE:

SHEET NO:  
**L0.1**  
 1 of 19



WATER QUALITY BASINS AND GRASSY SWALE/OUTFALL STRUCTURES SHALL BE REQUIRED FOR EACH STORM WATER SYSTEM OUTFALL. BASINS AND SWALES SHALL BE LAYED OUT IN THE FIELD AND APPROVED BY THE PROJECT ENGINEER PRIOR TO CONSTRUCTION.

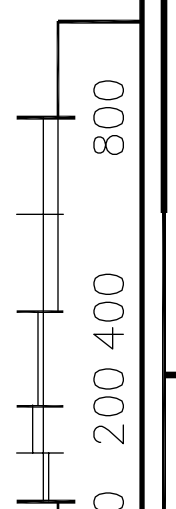
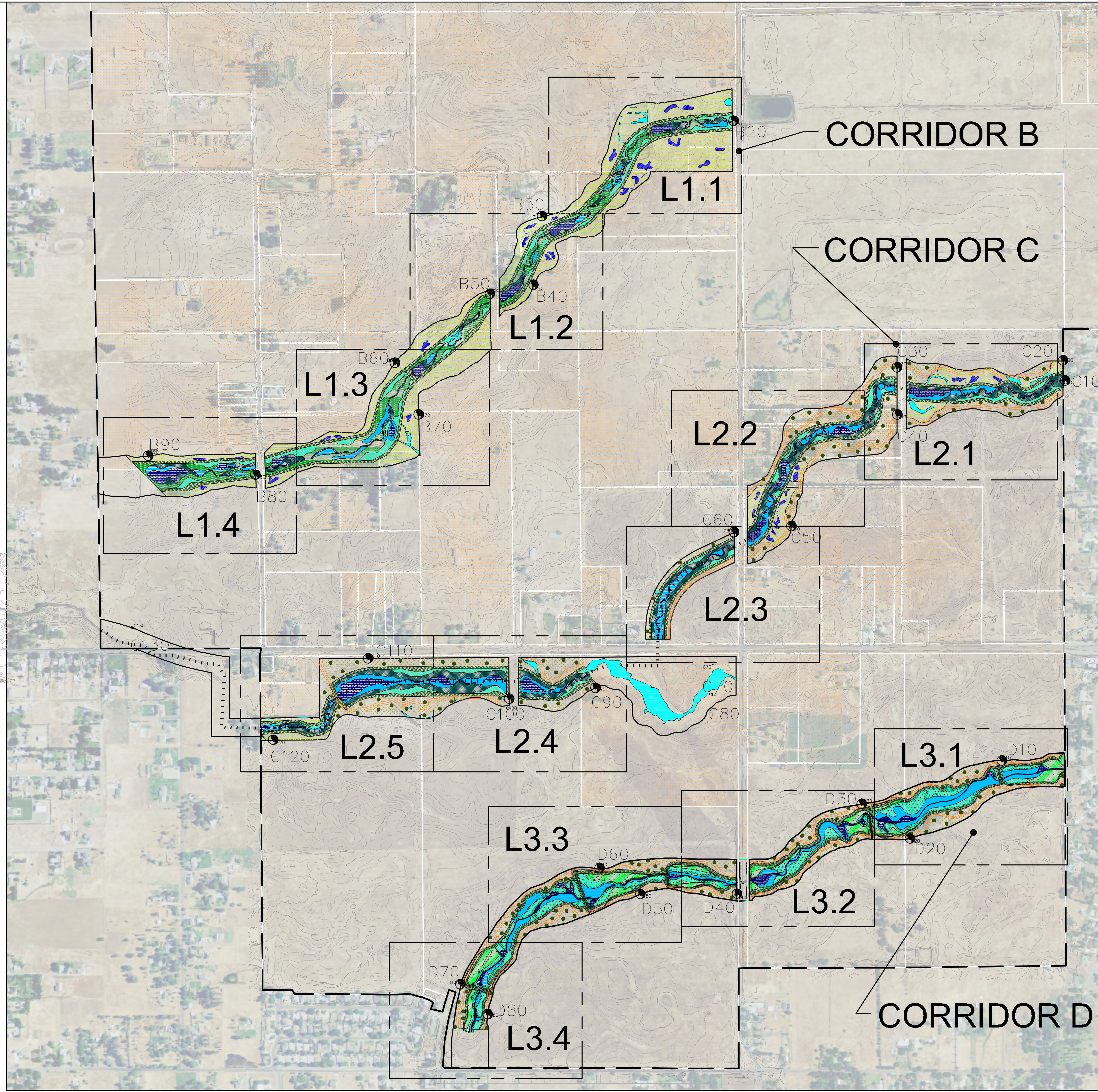
ELVERTA - PRELIMINARY WATER QUALITY BASIN SIZING

SHED	AREA	VOL. (AC.FT)		WQF (CFS)	Inflow Pipe (IN.)
		DRY	WQF		
B10	45	0.00	0.39	12	
B20	105.67	1.90	3.90	21	
B30	41.5	0.71	1.37	12	
B40	43.2	1.51	3.01	18	
B50	15.1	0.21	0.42	12	
B60	38.9	1.21	2.38	15	
B70	28.5	0.88	1.77	15	
B80	26.1	0.76	1.50	12	
B90	36.1	1.12	2.25	15	
C10	24.2	0.75	1.48	12	
C20	105.6	1.90	3.77	21	
C30	111.5	2.68	5.30	24	
C40	41.9	1.26	2.44	15	
C50	21.5	0.82	1.68	15	
C60	89.6	3.14	6.32	24	
C70	45.5	1.96	3.86	21	
C75	111	1.11	2.21	15	
C80	22.7	0.89	1.77	15	
C90	17.3	0.40	0.80	12	
C100	58.3	2.04	3.98	21	
C110	104.4	4.18	8.38	30	
C120	51.1	1.33	2.59	18	
C130	52	1.82	3.69	21	
C140	28.1	0.28	0.56	12	
D10	12.7	0.34	0.69	12	
D20	48	1.15	2.25	15	
D30	38.4	0.92	1.80	15	
D40	24.8	0.50	1.01	12	
D50	18.3	0.42	0.83	12	
D60	14.9	0.48	0.94	12	
D70	22.8	0.57	1.12	12	
D80	41.3	1.20	2.38	15	

NOTE:  
 WATER QUALITY BASINS TO BE FIELD FITTED TO ACCOMMODATE DESIGNED VOLUMES OF STORM WATER AT EACH OUTFALL LOCATION. SEE DETAILS 058.06 SHEET L4.4 FOR TYPICAL BASIN AND GRASSY SWALE DESIGN.

CORRIDOR D HABITAT DEVELOPMENT FEATURES

SYM.	DESCRIPTION	DETAIL
---	SPECIFIC PLAN BOUNDARY	--
---	PARCEL BOUNDARIES	--
---	EXISTING CONTOUR (FT. INTERVAL)	--
---	NON-PARTICIPANT PROPERTIES	--
---	PAGE EXTENTS / MATCHLINES	--
---	PROPOSED CORRIDOR BOUNDARY	--
●	PROPOSED OUTFALL LOCATION (WATER QUALITY BASIN)	058.06 L4.4





# CORRIDOR B SHEETS L1.1 - L1.4

EXISTING CONTOURS

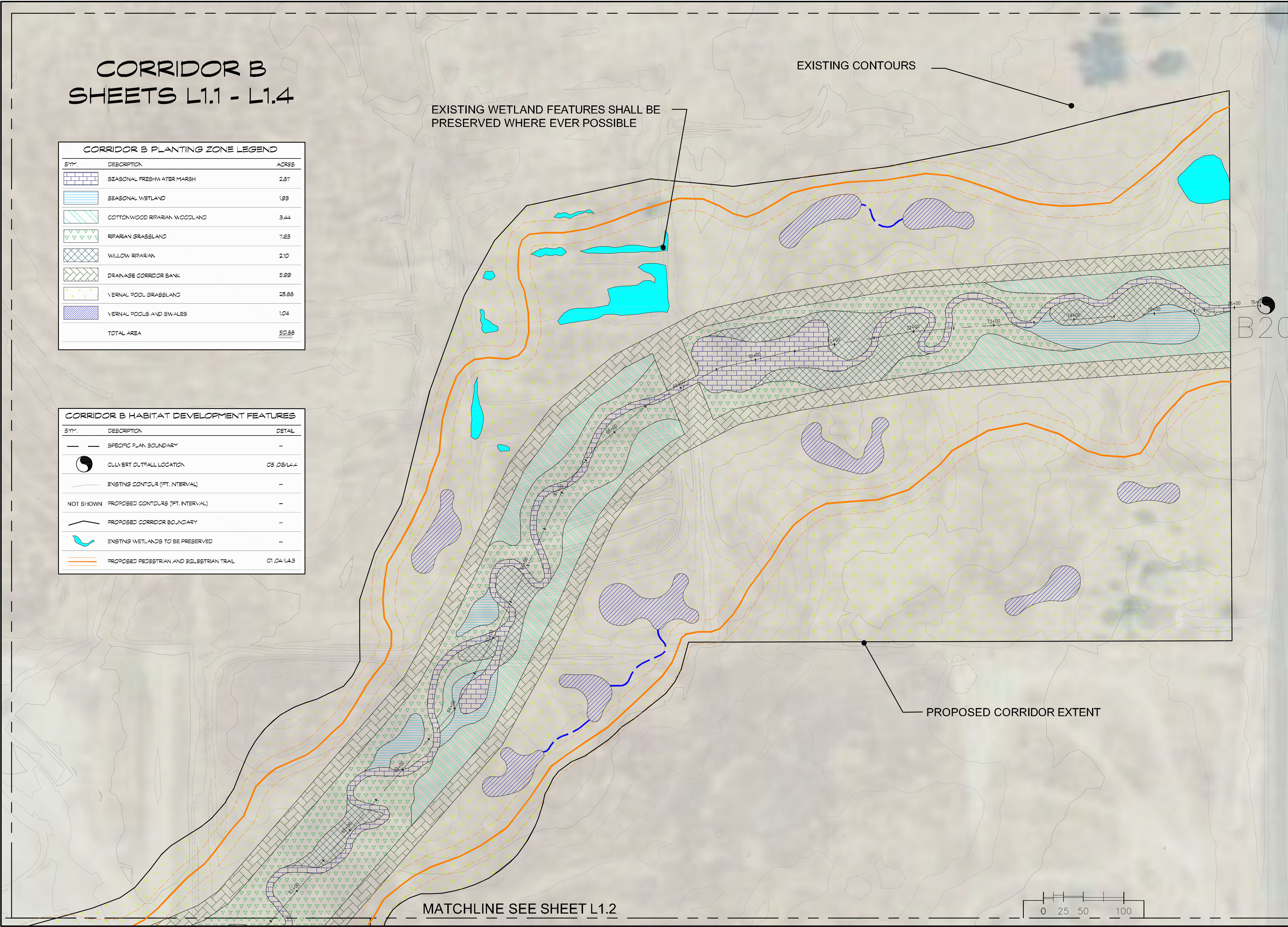
EXISTING WETLAND FEATURES SHALL BE PRESERVED WHERE EVER POSSIBLE

## CORRIDOR B PLANTING ZONE LEGEND

SYM.	DESCRIPTION	ACRES
	SEASONAL FRESHWATER MARSH	2.87
	SEASONAL WETLAND	1.93
	COTTONWOOD RIPARIAN WOODLAND	3.44
	RIPARIAN GRASSLAND	7.63
	WILLOW RIPARIAN	2.10
	DRAINAGE CORRIDOR BANK	5.99
	VERNAL POOL GRASSLAND	25.88
	VERNAL POOLS AND SWALES	10.4
	<b>TOTAL AREA</b>	<b>50.88</b>

## CORRIDOR B HABITAT DEVELOPMENT FEATURES

SYM.	DESCRIPTION	DETAIL
	SPECIFIC PLAN BOUNDARY	--
	CULVERT OUTFALL LOCATION	CS 08/L44
	EXISTING CONTOUR (FT. INTERVAL)	--
NOT SHOWN	PROPOSED CONTOURS (FT. INTERVAL)	--
	PROPOSED CORRIDOR BOUNDARY	--
	EXISTING WETLANDS TO BE PRESERVED	--
	PROPOSED PEDESTRIAN AND EQUESTRIAN TRAIL	C1, 04-L43



PROPOSED CORRIDOR EXTENT

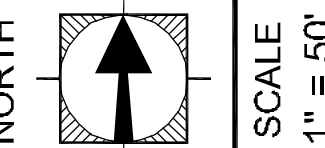
MATCHLINE SEE SHEET L1.2



PREPARED BY:  
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3885 CINCINNATI AVENUE  
FAYETTEVILLE, CA 95750  
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FAX: 916.408.2999  
www.restorationresources.net  
CA LIC. #428282

CLIENT:  
**The RCH Group**  
Archie Zahrestni, Project Manager  
1640 Leased Hill Blvd., Suite 220  
Roseville, CA 95661  
TEL: 916.782.4427

SHEET TITLE:  
**ELVERTA DRAINAGE CORRIDORS B, C, & D**  
CONCEPTUAL HABITAT DEVELOPMENT PLAN  
Elverta, California  
**CORRIDOR B HABITAT DEVELOPMENT PLAN**  
(STA. 60+55 - 76+43)



SCALE  
1" = 50'

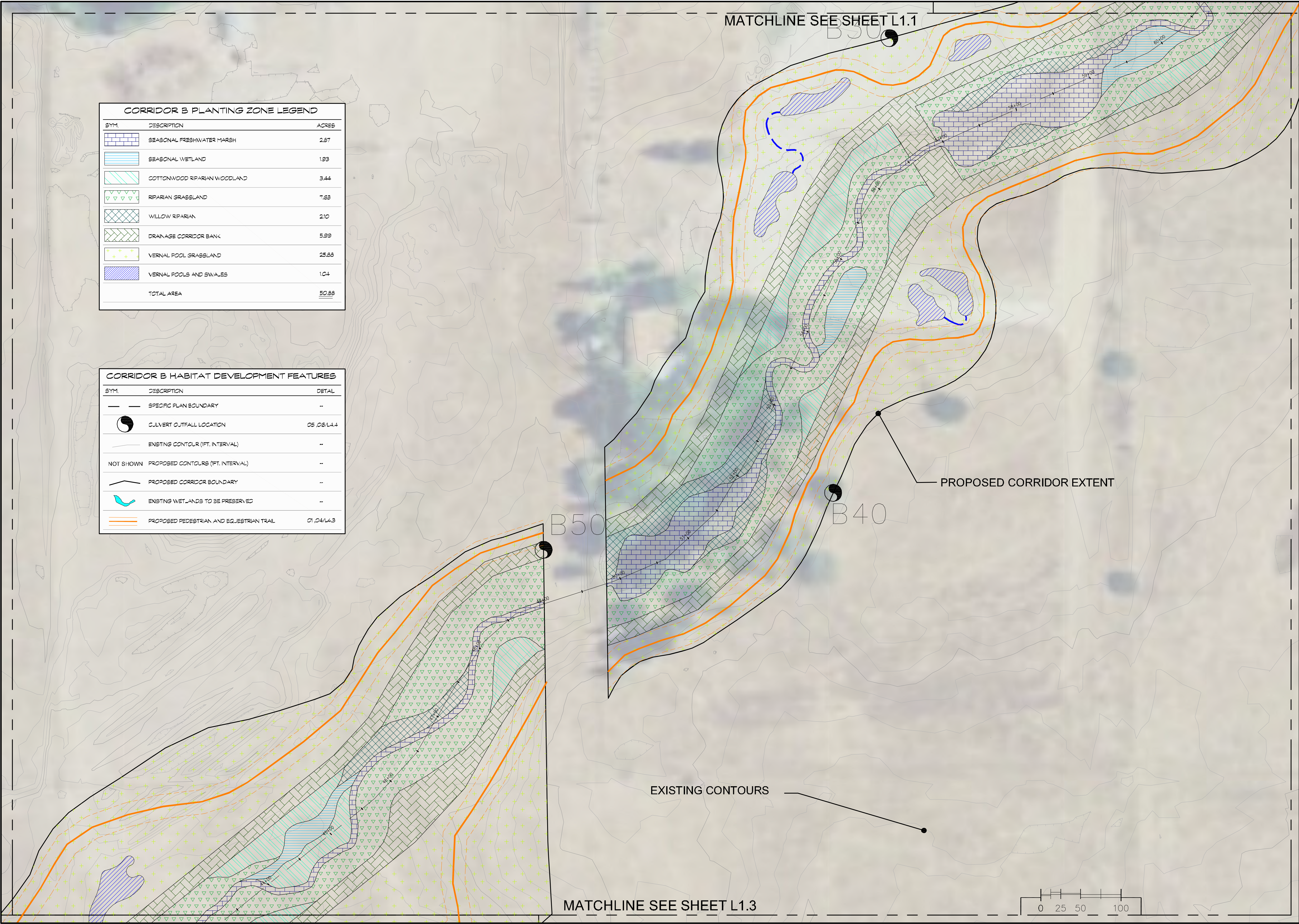
CHECKED BY:	DATE:	DESIGNED BY:	DATE:	REVISIONS

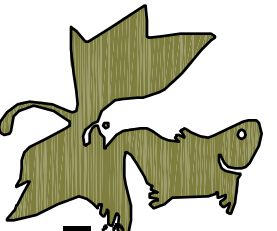
SHEET NO:  
**L1.1**  
3 of 19



CORRIDOR B PLANTING ZONE LEGEND		
SYM.	DESCRIPTION	ACRES
	SEASONAL FRESHWATER MARSH	2.57
	SEASONAL WETLAND	1.93
	COTTONWOOD RIPARIAN WOODLAND	3.44
	RIPIARIAN GRASSLAND	7.63
	WILLOW RIPARIAN	2.10
	DRAINAGE CORRIDOR BANK	5.39
	VERNAL POOL GRASSLAND	25.88
	VERNAL POOLS AND SWALES	1.04
	<b>TOTAL AREA</b>	<b>50.88</b>

CORRIDOR B HABITAT DEVELOPMENT FEATURES		
SYM.	DESCRIPTION	DETAIL
	SPECIFIC PLAN BOUNDARY	--
	CULVERT OUTFALL LOCATION	05, 08/L4.4
	EXISTING CONTOUR (FT. INTERVAL)	--
NOT SHOWN	PROPOSED CONTOURS (FT. INTERVAL)	--
	PROPOSED CORRIDOR BOUNDARY	--
	EXISTING WETLANDS TO BE PRESERVED	--
	PROPOSED PEDESTRIAN AND EQUESTRIAN TRAIL	01, 04/L4.3

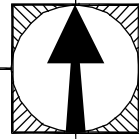


  
**RESTORATION RESOURCES**  
 3888 CINCINNATI AVENUE  
 FAYETTEVILLE, CA 95750  
 TEL: 916.408.2980  
 FAX: 916.408.2989  
 www.restorationresources.net  
 CA LIC. #428282

PREPARED BY:  
**RESTORATION RESOURCES**  
 3888 CINCINNATI AVENUE  
 FAYETTEVILLE, CA 95750  
 TEL: 916.408.2980  
 FAX: 916.408.2989  
 www.restorationresources.net  
 CA LIC. #428282

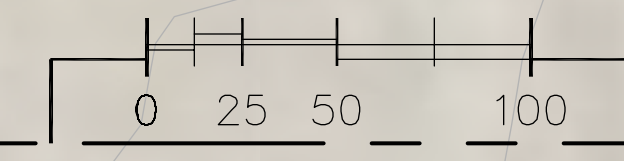
CLIENT:  
**The RCH Group**  
 Ardis Zahrestani, Project Manager  
 1640 Leased Hill Blvd., Suite 220  
 Roseville, CA 95661  
 TEL: 916.782.4427

SHEET TITLE:  
**ELVERTA DRAINAGE CORRIDORS B, C, & D**  
 CONCEPTUAL HABITAT DEVELOPMENT PLAN  
 Elverta, California  
**CORRIDOR B HABITAT DEVELOPMENT PLAN**  
 (STA. 43+39 - 60+55)

NORTH  
  
 SCALE  
 1" = 50'

CHECKED BY:	DATE:	DESIGNED BY:	DATE:
APPROVED BY:	DATE:	PROJECT MANAGER:	DATE:
REVISION:	DATE:	DATE:	DATE:

SHEET NO:  
**L1.2**  
 4 of 19



MATCHLINE SEE SHEET L1.3

MATCHLINE SEE SHEET L1.1

EXISTING CONTOURS

PROPOSED CORRIDOR EXTENT

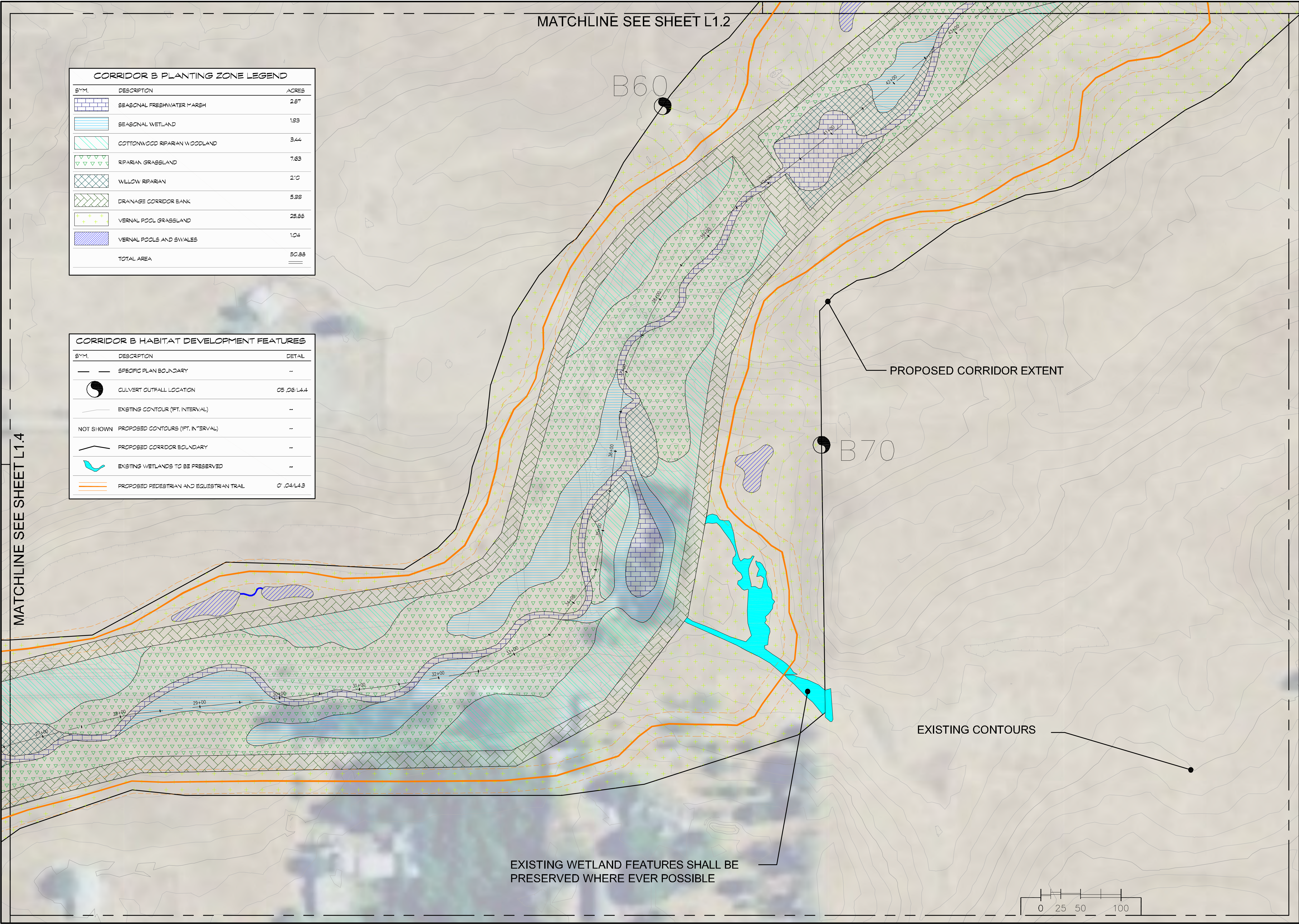


MATCHLINE SEE SHEET L1.2

CORRIDOR B PLANTING ZONE LEGEND		
SYM.	DESCRIPTION	ACRES
	SEASONAL FRESHWATER MARSH	2.87
	SEASONAL WETLAND	1.93
	COTTONWOOD RIPARIAN WOODLAND	3.44
	RIPIARIAN GRASSLAND	7.63
	WILLOW RIPARIAN	2.10
	DRAINAGE CORRIDOR BANK	5.39
	VERNAL POOL GRASSLAND	25.85
	VERNAL POOLS AND SWALES	1.04
	<b>TOTAL AREA</b>	<b>50.88</b>

CORRIDOR B HABITAT DEVELOPMENT FEATURES		
SYM.	DESCRIPTION	DETAIL
	SPECIFIC PLAN BOUNDARY	--
	CULVERT OUTFALL LOCATION	05.06 L1.4
	EXISTING CONTOUR (1 FT. INTERVAL)	--
NOT SHOWN	PROPOSED CONTOURS (1 FT. INTERVAL)	--
	PROPOSED CORRIDOR BOUNDARY	--
	EXISTING WETLANDS TO BE PRESERVED	--
	PROPOSED PEDESTRIAN AND EQUESTRIAN TRAIL	01.04/L1.3

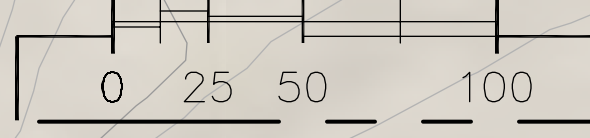
MATCHLINE SEE SHEET L1.4



PROPOSED CORRIDOR EXTENT

EXISTING CONTOURS

EXISTING WETLAND FEATURES SHALL BE PRESERVED WHERE EVER POSSIBLE



PREPARED BY:  
**RESTORATION RESOURCES**  
 3885 CINCINNATI AVENUE  
 #1  
 TEL 916-408-2960  
 FAX 916-408-2969  
 www.restorationresources.net  
 CA LIC. #426262

CLIENT:  
**The RCH Group**  
 Ardis Zahrestani, Project Manager  
 1640 Leona Hill Blvd., Suite 220  
 Roseville, CA 95661  
 TEL 916-782-4427

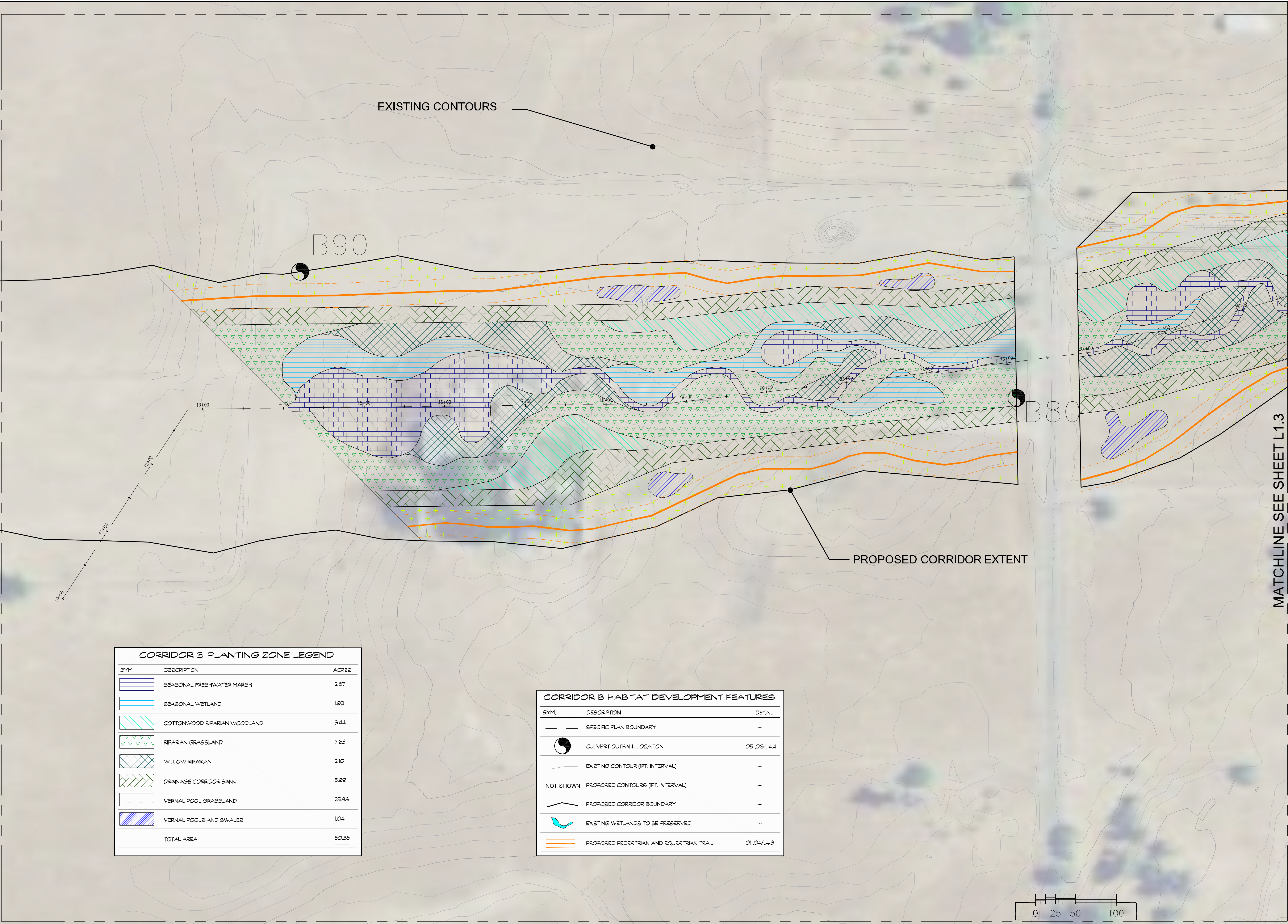
SHEET TITLE:  
**ELVERTA DRAINAGE CORRIDORS B, C, & D**  
 CONCEPTUAL HABITAT DEVELOPMENT PLAN  
 Elverta, California  
**CORRIDOR B HABITAT DEVELOPMENT PLAN**  
 (STA. 26.+58 - 43.39)

NORTH  
  
 SCALE  
 1" = 50'

CHECKED BY:	DATE:	DESIGNED BY:	DATE:
APPROVED BY:	DATE:	PROJECT NO.:	DATE:

SHEET NO:  
**L1.3**  
 5 of 19





EXISTING CONTOURS

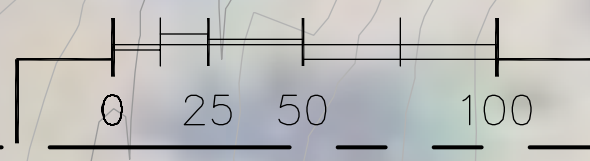
B90

PROPOSED CORRIDOR EXTENT

MATCHLINE SEE SHEET L1.3

CORRIDOR B PLANTING ZONE LEGEND		
SYM.	DESCRIPTION	ACRES
	SEASONAL FRESHWATER MARSH	2.87
	SEASONAL WETLAND	1.93
	COTTONWOOD RIPARIAN WOODLAND	3.44
	RIPIARIAN GRASSLAND	7.63
	WILLOW RIPARIAN	2.10
	DRAINAGE CORRIDOR BANK	5.39
	VERNAL POOL GRASSLAND	25.83
	VERNAL POOLS AND SWALES	1.04
	<b>TOTAL AREA</b>	<b>50.83</b>

CORRIDOR B HABITAT DEVELOPMENT FEATURES		
SYM.	DESCRIPTION	DETAIL
	SPECIFIC PLAN BOUNDARY	--
	CULVERT OUTFALL LOCATION	05.06.L4.4
	EXISTING CONTOUR (FT. INTERVAL)	--
NOT SHOWN	PROPOSED CONTOURS (FT. INTERVAL)	--
	PROPOSED CORRIDOR BOUNDARY	--
	EXISTING WETLANDS TO BE PRESERVED	--
	PROPOSED PEDESTRIAN AND EQUESTRIAN TRAIL	01.04.L4.3



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3885 CINCINNATI AVENUE  
ROSEVILLE, CA 95661  
TEL: 916.408.2990  
FAX: 916.408.2999  
www.restorationresources.net  
CA LIC. #426262

CLIENT:  
**The RCH Group**  
Archie Zahrestni, Project Manager  
1640 Leasa Hill Blvd., Suite 220  
Roseville, CA 95661  
TEL: 916.782.4427

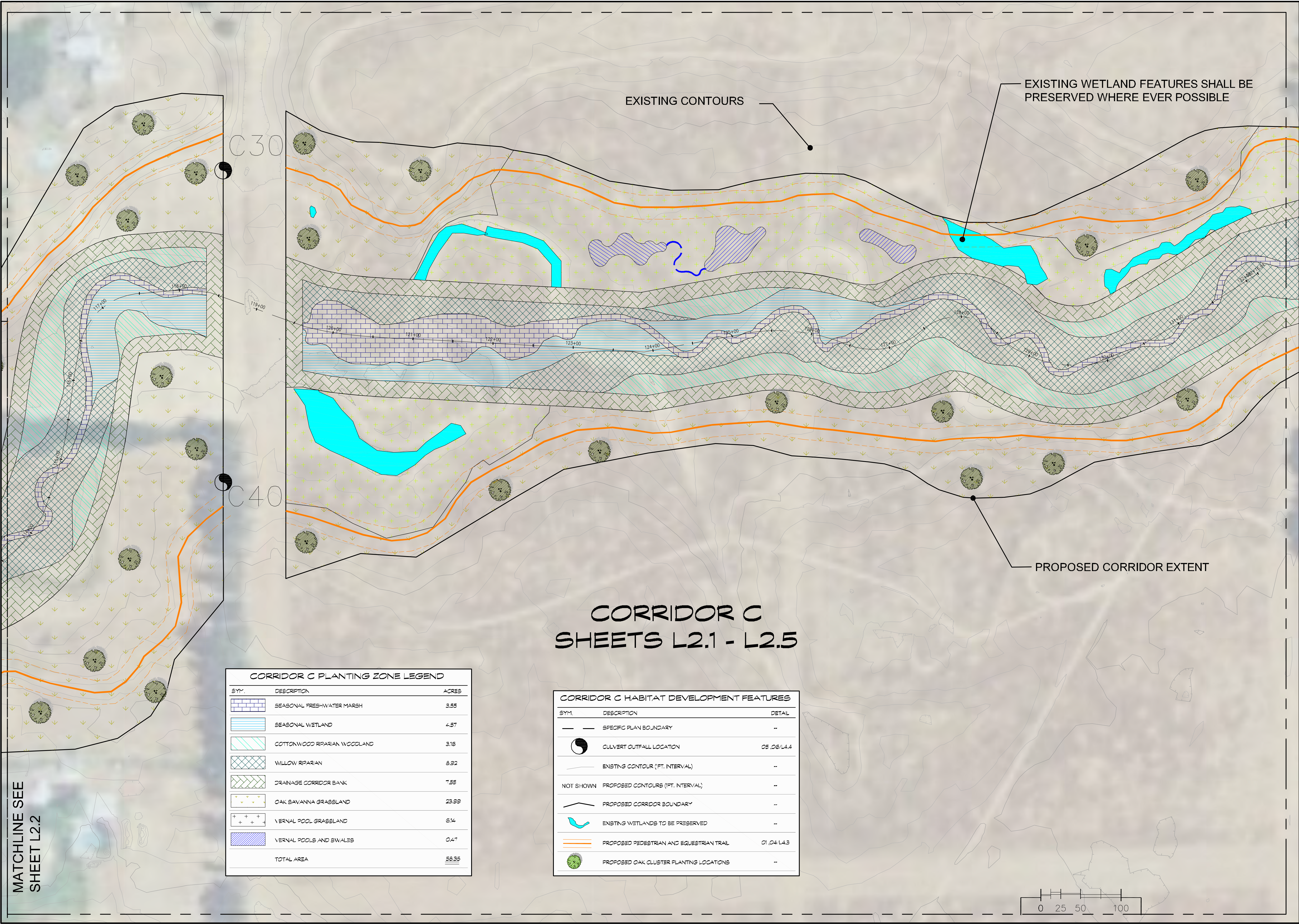
SHEET TITLE:  
**ELVERTA DRAINAGE CORRIDORS B, C, & D**  
CONCEPTUAL HABITAT DEVELOPMENT PLAN  
Elverta, California

SHEET NO.: **L1.4**

SCALE: 1" = 50'

6 of 19





EXISTING CONTOURS

EXISTING WETLAND FEATURES SHALL BE PRESERVED WHERE EVER POSSIBLE

PROPOSED CORRIDOR EXTENT

## CORRIDOR C SHEETS L2.1 - L2.5

CORRIDOR C PLANTING ZONE LEGEND		
SYM.	DESCRIPTION	ACRES
	SEASONAL FRESHWATER MARSH	3.55
	SEASONAL WETLAND	4.57
	COTTONWOOD RIPARIAN WOODLAND	3.16
	WILLOW RIPARIAN	8.92
	DRAINAGE CORRIDOR BANK	7.55
	OAK SAVANNA GRASSLAND	23.99
	VERNAL POOL GRASSLAND	6.14
	VERNAL POOLS AND SWALES	0.47
	<b>TOTAL AREA</b>	<b>58.35</b>

CORRIDOR C HABITAT DEVELOPMENT FEATURES		
SYM.	DESCRIPTION	DETAIL
	SPECIFIC PLAN BOUNDARY	--
	CULVERT OUTFALL LOCATION	05.06/L4.4
	EXISTING CONTOUR (FT. INTERVAL)	--
NOT SHOWN	PROPOSED CONTOURS (FT. INTERVAL)	--
	PROPOSED CORRIDOR BOUNDARY	--
	EXISTING WETLANDS TO BE PRESERVED	--
	PROPOSED PEDESTRIAN AND EQUESTRIAN TRAIL	01.04/L4.3
	PROPOSED OAK CLUSTER PLANTING LOCATIONS	--

MATCHLINE SEE SHEET L2.2

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**RESTORATION RESOURCES**  
3885 CINCINNATI AVENUE  
FAYETTEVILLE, CA 95750  
TEL: 916.408.2960  
FAX: 916.408.2969  
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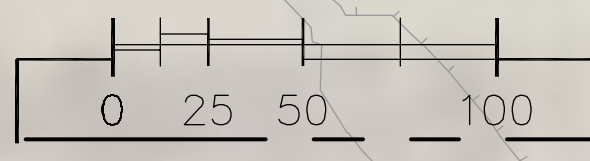
CLIENT:  
**The RCH Group**  
Archie Zahrestni, Project Manager  
1640 Laska Hill Blvd., Suite 220  
Roseville, CA 95661  
TEL: 916.762.4427

SHEET TITLE:  
**ELVERTA DRAINAGE CORRIDORS B, C, & D  
CONCEPTUAL HABITAT DEVELOPMENT PLAN  
Elverta, California**  
**CORRIDOR C HABITAT DEVELOPMENT PLAN  
(STA. 113+58 - 132+17)**

NORTH

CHECKED BY:	DATE:	ISSUED:	DATE:
REVISION:	DATE:	REVISION:	DATE:

SHEET NO:  
**L2.1**  
7 of 19





EXISTING CONTOURS

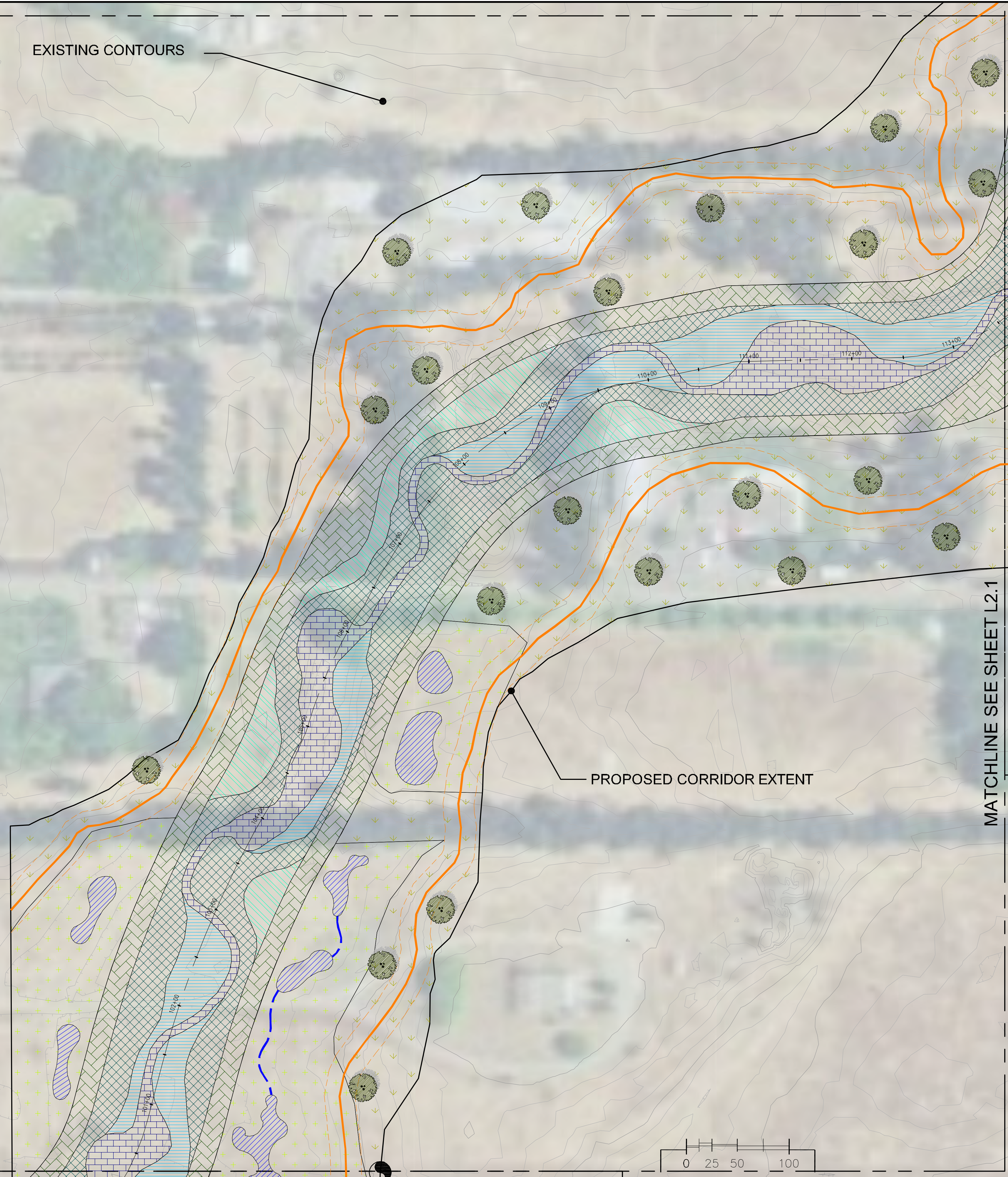
**CORRIDOR C PLANTING ZONE LEGEND**

SYM.	DESCRIPTION	ACRES
	SEASONAL FRESHWATER MARSH	3.55
	SEASONAL WETLAND	4.57
	COTTONWOOD RIPARIAN WOODLAND	3.16
	WILLOW RIPARIAN	6.92
	DRAINAGE CORRIDOR BANK	7.55
	OAK SAVANNA GRASSLAND	23.99
	VERNAL POOL GRASSLAND	6.14
	VERNAL POOLS AND SWALES	0.47
	<b>TOTAL AREA</b>	<b>59.35</b>

**CORRIDOR C HABITAT DEVELOPMENT FEATURES**

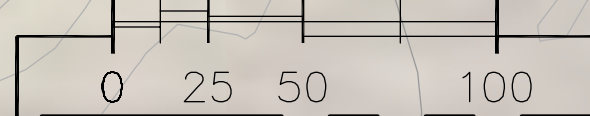
SYM.	DESCRIPTION	DETAIL
	SPECIFIC PLAN BOUNDARY	--
	CULVERT OUTFALL LOCATION	05.08/14.4
	EXISTING CONTOUR (FT. INTERVAL)	--
NOT SHOWN	PROPOSED CONTOURS (FT. INTERVAL)	--
	PROPOSED CORRIDOR BOUNDARY	--
	EXISTING WETLANDS TO BE PRESERVED	--
	PROPOSED PEDESTRIAN AND EQUESTRIAN TRAIL	01.04/14.3
	PROPOSED OAK CLUSTER PLANTING LOCATIONS	--

MATCHLINE SEE SHEET L2.3



PROPOSED CORRIDOR EXTENT

MATCHLINE SEE SHEET L2.1



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 3885 CINCINNATI AVENUE  
 FAYETTEVILLE, CA 95750  
 TEL: 916.408.2990  
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 Ardis Zahrestani, Project Manager  
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 Roseville, CA 95661  
 TEL: 916.782.4427

CLIENT:

**ELVERTA DRAINAGE CORRIDORS B, C, & D**  
 CONCEPTUAL HABITAT DEVELOPMENT PLAN  
 Elverta, California

**CORRIDOR C HABITAT DEVELOPMENT PLAN**  
 (STA. 100+31 - 113+58)

SHEET TITLE:

**NORTH**

SCALE: 1" = 50'

CHECKED BY:	DATE:	ISSUED:	DATE:
ORIGINAL DATE:	REVISION:	DATE:	DATE:
10.28.10	11.11.11		

**L2.2**

8 of 19



MATCHLINE SEE SHEET L2.2

C60

C50

EXISTING CONTOURS

EXISTING WETLAND  
FEATURES SHALL BE  
PRESERVED WHERE EVER  
POSSIBLE

PROPOSED CORRIDOR EXTENT

CORRIDOR C PLANTING ZONE LEGEND		
SYM.	DESCRIPTION	ACRES
	SEASONAL FRESHWATER MARSH	3.55
	SEASONAL WETLAND	4.57
	COTTONWOOD RIPARIAN WOODLAND	3.16
	WILLOW RIPARIAN	8.82
	DRAINAGE CORRIDOR BANK	7.55
	OAK SAVANNA GRASSLAND	23.93
	VERNAL POOL GRASSLAND	6.4
	VERNAL POOLS AND SWALES	0.47
	<b>TOTAL AREA</b>	<b>58.35</b>

CORRIDOR C HABITAT DEVELOPMENT FEATURES		
SYM.	DESCRIPTION	DETAIL
	SPECIFIC PLAN BOUNDARY	-
	CULVERT OUTFALL LOCATION	05.06/L4.4
	EXISTING CONTOUR (FT. INTERVAL)	-
NOT SHOWN	PROPOSED CONTOURS (FT. INTERVAL)	-
	PROPOSED CORRIDOR BOUNDARY	-
	EXISTING WETLANDS TO BE PRESERVED	-
	PROPOSED PEDESTRIAN AND EQUESTRIAN TRAIL	01.04/L4.3
	PROPOSED OAK CLUSTER PLANTING LOCATIONS	-

PREPARED BY:  
  
**RESTORATION RESOURCES**  
 3885 CINCINNATI AVENUE  
 FAYETTEVILLE, CA 95631  
 TEL: 916.408.2960  
 FAX: 916.408.2969  
 www.restorationresources.net  
 CA LIC. #42826

CLIENT:  
**The RCH Group**  
 Ardis Zahrestani, Project Manager  
 1640 Leona Hill Blvd., Suite 220  
 Roseville, CA 95661  
 TEL: 916.782.4427

SHEET TITLE:  
**ELVERTA DRAINAGE CORRIDORS B, C, & D**  
 CONCEPTUAL HABITAT DEVELOPMENT PLAN  
 Elverta, California  
**CORRIDOR C HABITAT DEVELOPMENT PLAN**  
 (STA. 84+79 - 100+31)

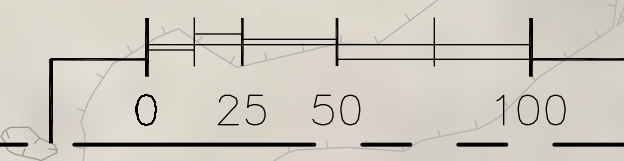
CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 ORIGINAL DATE: 10.28.10  
 DRAWN BY: L.Piper JOB NUMBER: 10070  
 REVISION: \_\_\_\_\_ DATE: 11.11.11 BY: L.Piper  
 (with Owner, Engineer or Architect)

**L2.3**

SCALE: 1" = 50'

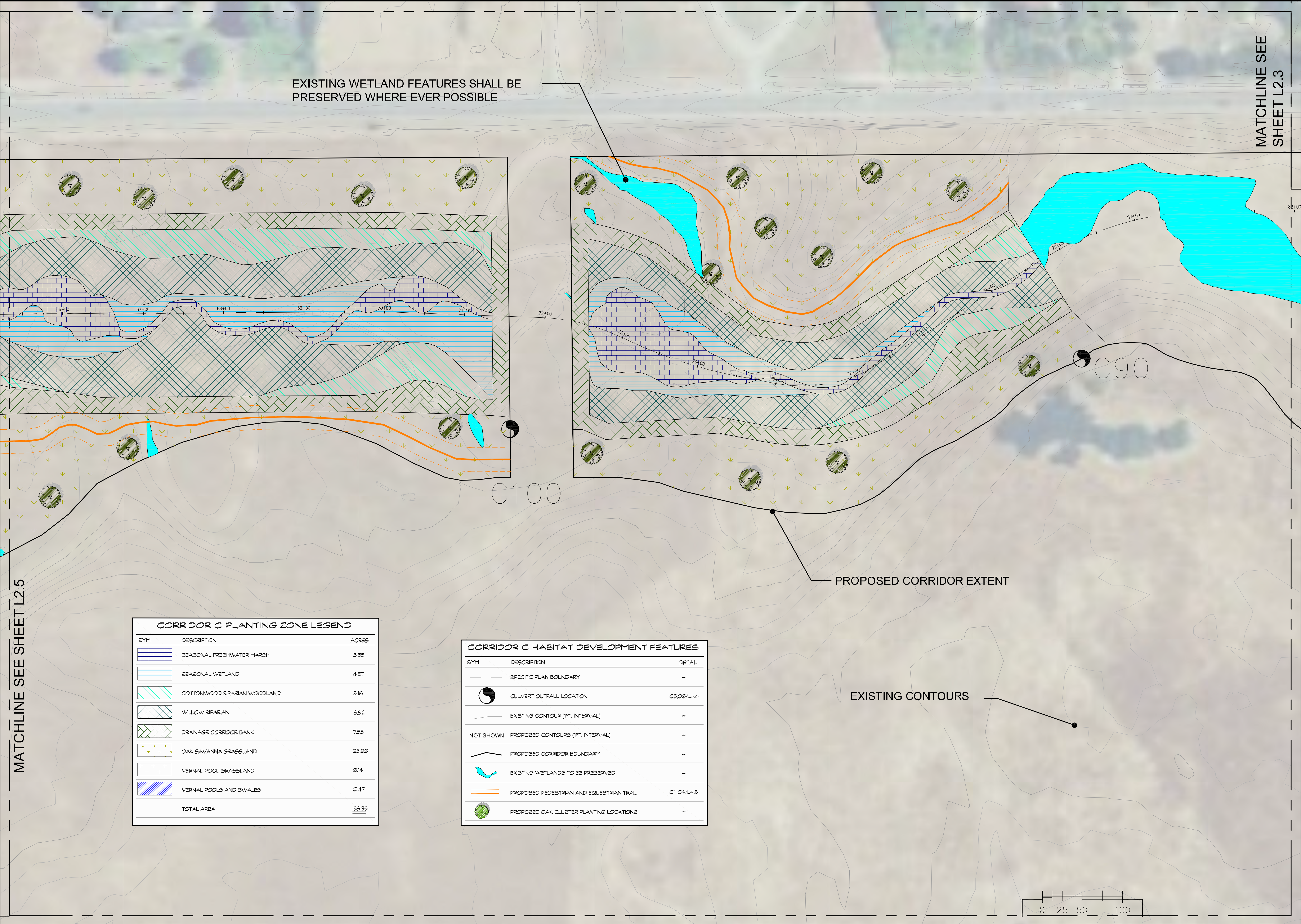
9 of 19

MATCHLINE SEE SHEET L2.4





MATCHLINE SEE SHEET L2.5



EXISTING WETLAND FEATURES SHALL BE PRESERVED WHERE EVER POSSIBLE

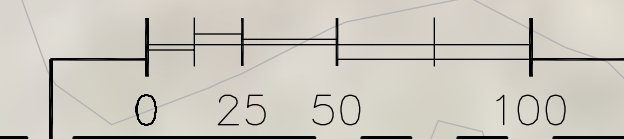
PROPOSED CORRIDOR EXTENT

EXISTING CONTOURS

MATCHLINE SEE SHEET L2.3

CORRIDOR C PLANTING ZONE LEGEND		
SYM.	DESCRIPTION	ACRES
[Symbol]	SEASONAL FRESHWATER MARSH	3.55
[Symbol]	SEASONAL WETLAND	4.57
[Symbol]	COTTONWOOD RIPARIAN WOODLAND	3.16
[Symbol]	WILLOW RIPARIAN	6.92
[Symbol]	DRAINAGE CORRIDOR BANK	7.55
[Symbol]	OAK SAVANNA GRASSLAND	23.99
[Symbol]	VERNAL POOL GRASSLAND	6.14
[Symbol]	VERNAL POOLS AND SWALES	0.47
	<b>TOTAL AREA</b>	<b>58.25</b>

CORRIDOR C HABITAT DEVELOPMENT FEATURES		
SYM.	DESCRIPTION	DETAIL
[Symbol]	SPECIFIC PLAN BOUNDARY	-
[Symbol]	CULVERT OUTFALL LOCATION	05,08,14
[Symbol]	EXISTING CONTOUR (FT. INTERVAL)	-
NOT SHOWN	PROPOSED CONTOURS (FT. INTERVAL)	-
[Symbol]	PROPOSED CORRIDOR BOUNDARY	-
[Symbol]	EXISTING WETLANDS TO BE PRESERVED	-
[Symbol]	PROPOSED PEDESTRIAN AND EQUESTRIAN TRAIL	C, 04, L4.3
[Symbol]	PROPOSED OAK CLUSTER PLANTING LOCATIONS	-



PREPARED BY:  
**RESTORATION RESOURCES**  
 3885 CINCINNATI AVENUE  
 FIDELITY  
 TEL: 916.408.2990  
 FAX: 916.408.2999  
 www.restorationresources.net  
 CA LIC: 442826

CLIENT:  
**The RCH Group**  
 Ardis Zahrestri, Project Manager  
 1640 Leona Hill Blvd., Suite 220  
 Roseville, CA 95661  
 TEL: 916.782.4427

SHEET TITLE:  
**ELVERTA DRAINAGE CORRIDORS B, C, & D**  
 CONCEPTUAL HABITAT DEVELOPMENT PLAN  
 Elverta, California  
**CORRIDOR C HABITAT DEVELOPMENT PLAN**  
 (STA. 65+33 - 82+96)

CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 ORIGINAL DATE: 10.28.10  
 DRAWN BY: L.Piper JOB NUMBER: 10070  
 REVIEWER: \_\_\_\_\_ DATE: 11.11.11 BY: \_\_\_\_\_  
 (Please Check, Initials and Date)

**L2.4**

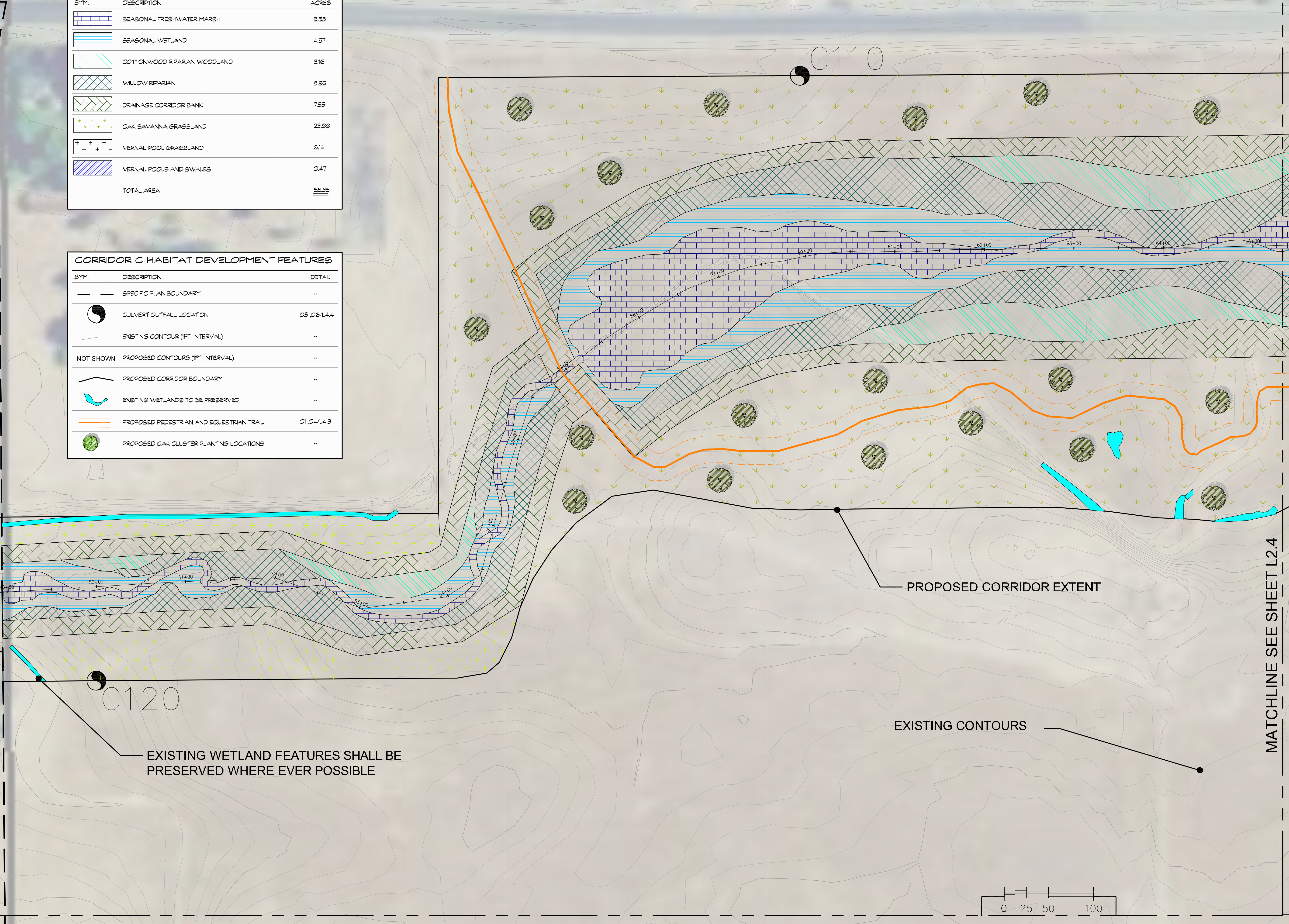
SCALE: 1" = 50'

10 of 19



SYM.	DESCRIPTION	ACRES
[Pattern]	SEASONAL FRESHWATER MARSH	3.55
[Pattern]	SEASONAL WETLAND	4.57
[Pattern]	COTTONWOOD RIPARIAN WOODLAND	3.16
[Pattern]	WILLOW RIPARIAN	5.92
[Pattern]	DRAINAGE CORRIDOR BANK	7.55
[Pattern]	OAK SAVANNA GRASSLAND	23.99
[Pattern]	VERNAL POOL GRASSLAND	6.14
[Pattern]	VERNAL POOLS AND SWALES	0.47
	<b>TOTAL AREA</b>	<b>58.35</b>

SYM.	DESCRIPTION	DETAIL
[Symbol]	SPECIFIC PLAN BOUNDARY	--
[Symbol]	CULVERT OUTFALL LOCATION	C5, C6, L44
[Symbol]	EXISTING CONTOUR (FT. INTERVAL)	--
[Symbol]	PROPOSED CONTOURS (FT. INTERVAL)	--
[Symbol]	PROPOSED CORRIDOR BOUNDARY	--
[Symbol]	EXISTING WETLANDS TO BE PRESERVED	--
[Symbol]	PROPOSED PEDESTRIAN AND EQUESTRIAN TRAIL	C1, C4, L43
[Symbol]	PROPOSED OAK CLUSTER PLANTING LOCATIONS	--



EXISTING WETLAND FEATURES SHALL BE PRESERVED WHERE EVER POSSIBLE

PROPOSED CORRIDOR EXTENT

EXISTING CONTOURS

MATCHLINE SEE SHEET L2.4



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 3885 CINCINNATI AVENUE  
 FOLSOM, CA 95630  
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 FAX: 916.408.2969  
 www.restorationresources.net  
 CA LIC. #426262

CLIENT:  
**The RCH Group**  
 Ardis Zahrestani, Project Manager  
 1640 Leona Hill Blvd., Suite 220  
 Roseville, CA 95661  
 TEL: 916.782.4427

SHEET TITLE:  
**ELVERTA DRAINAGE CORRIDORS B, C, & D**  
 CONCEPTUAL HABITAT DEVELOPMENT PLAN  
 Elverta, California  
**CORRIDOR C HABITAT DEVELOPMENT PLAN**  
 (STA. 47+30 - 65+33)

SHEET NO. **L2.5** 11 of 19

CHECKED BY:	DATE:	DESIGNED BY:	DATE:
APPROVED BY:	DATE:	PROJECT NO.:	DATE:

NORTH [North Arrow] SCALE 1" = 50'



MATCHLINE SEE SHEET L3.2

EXISTING CONTOURS

PROPOSED CORRIDOR EXTENT

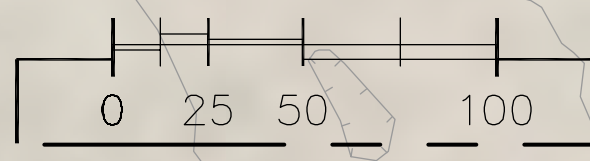
D10

AA

# CORRIDOR D SHEETS L3.1 - L3.4

CORRIDOR D PLANTING ZONE LEGEND		
SYM.	DESCRIPTION	ACRES
	SEASONAL FRESHWATER MARSH	1.97
	SEASONAL WETLAND	5.17
	COTTONWOOD RIPARIAN WOODLAND	7.66
	OAK RIPARIAN WOODLAND	4.35
	DRAINAGE CORRIDOR BANK	5.46
	OAK SAVANNA GRASSLAND	15.14
	<b>TOTAL AREA</b>	<b>39.74</b>

CORRIDOR D HABITAT DEVELOPMENT FEATURES		
SYM.	DESCRIPTION	DETAIL
	SPECIFIC PLAN BOUNDARY	-
	2 YEAR FLOOD WATER SURFACE ELEVATION	-
	EXISTING CONTOUR (1FT. INTERVAL)	-
	PROPOSED CONTOURS (1FT. INTERVAL)	-
	PROPOSED CORRIDOR BOUNDARY	-
	CULVERT OUTFALL LOCATION	05, 06, L4.4
	PROPOSED PEDESTRIAN AND EQUESTRIAN TRAIL	0, 04, L4.3
	PROPOSED OAK CLUSTER PLANTING LOCATIONS	-



PREPARED BY:  
**RESTORATION  
RESOURCES**  
3885 CINCINNATI AVENUE  
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TEL: 916.408.2960  
FAX: 916.408.2969  
www.restorationresources.net  
CA LIC. #426262

CLIENT:  
**The RCH Group**  
Archie Zahrestni, Project Manager  
1640 Leona Hill Blvd., Suite 220  
Roseville, CA 95661  
TEL: 916.782.4427

SHEET TITLE:  
**ELVERTA DRAINAGE CORRIDORS B, C, & D  
CONCEPTUAL HABITAT DEVELOPMENT PLAN**  
Elverta, California  
**CORRIDOR D HABITAT DEVELOPMENT PLAN**  
(STA. 62+18 - 78+55)

NORTH

CHECKED BY:	DATE:	DESIGNED BY:	DATE:
APPROVED BY:	DATE:	PROJECT NO.:	DATE:
		JOB NUMBER:	DATE:
		10070	11/11

SHEET NO.: **L3.1**  
12 of 19

SCALE  
1" = 50'

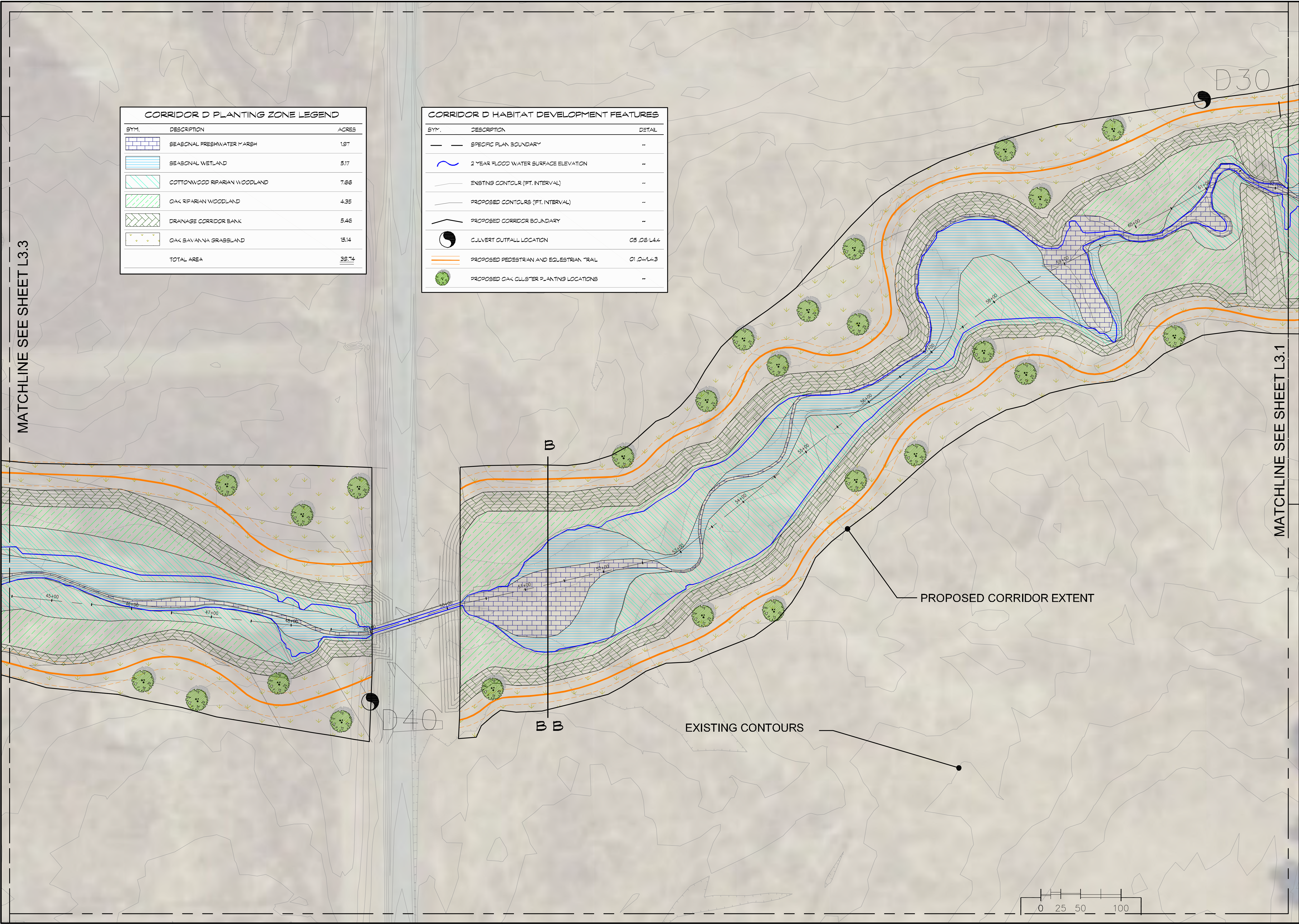


MATCHLINE SEE SHEET L3.3

MATCHLINE SEE SHEET L3.1

CORRIDOR D PLANTING ZONE LEGEND		
SYM.	DESCRIPTION	ACRES
	SEASONAL FRESHWATER MARSH	1.97
	SEASONAL WETLAND	5.17
	COTTONWOOD RIPARIAN WOODLAND	7.86
	OAK RIPARIAN WOODLAND	4.35
	DRAINAGE CORRIDOR BANK	5.46
	OAK SAVANNA GRASSLAND	13.14
	<b>TOTAL AREA</b>	<b>39.74</b>

CORRIDOR D HABITAT DEVELOPMENT FEATURES		
SYM.	DESCRIPTION	DETAIL
	SPECIFIC PLAN BOUNDARY	--
	2 YEAR FLOOD WATER SURFACE ELEVATION	--
	EXISTING CONTOUR (FT. INTERVAL)	--
	PROPOSED CONTOURS (FT. INTERVAL)	--
	PROPOSED CORRIDOR BOUNDARY	--
	CULVERT OUTFALL LOCATION	05, 06, L44
	PROPOSED PEDESTRIAN AND EQUESTRIAN TRAIL	01, 04, L43
	PROPOSED OAK CLUSTER PLANTING LOCATIONS	--



PREPARED BY:  
**RESTORATION RESOURCES**  
 3888 CINCINNATI AVENUE  
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 www.restorationresources.net  
 CA LIC. #462652

CLIENT:  
**The RCH Group**  
 Ardis Zahrestani, Project Manager  
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 Roseville, CA 95661  
 TEL: 916.782.4427

SHEET TITLE:  
**ELVERTA DRAINAGE CORRIDORS B, C, & D**  
 CONCEPTUAL HABITAT DEVELOPMENT PLAN  
 Elverta, California  
**CORRIDOR D HABITAT DEVELOPMENT PLAN**  
 (STA. 44+47 - 62+18)

DATE: 10/28/10  
 DRAWN BY: L.Piper  
 CHECKED BY: [Signature]  
 DATE: 11/11  
 REVISION: [Signature]  
 DATE: 11/11  
 REVISION: [Signature]

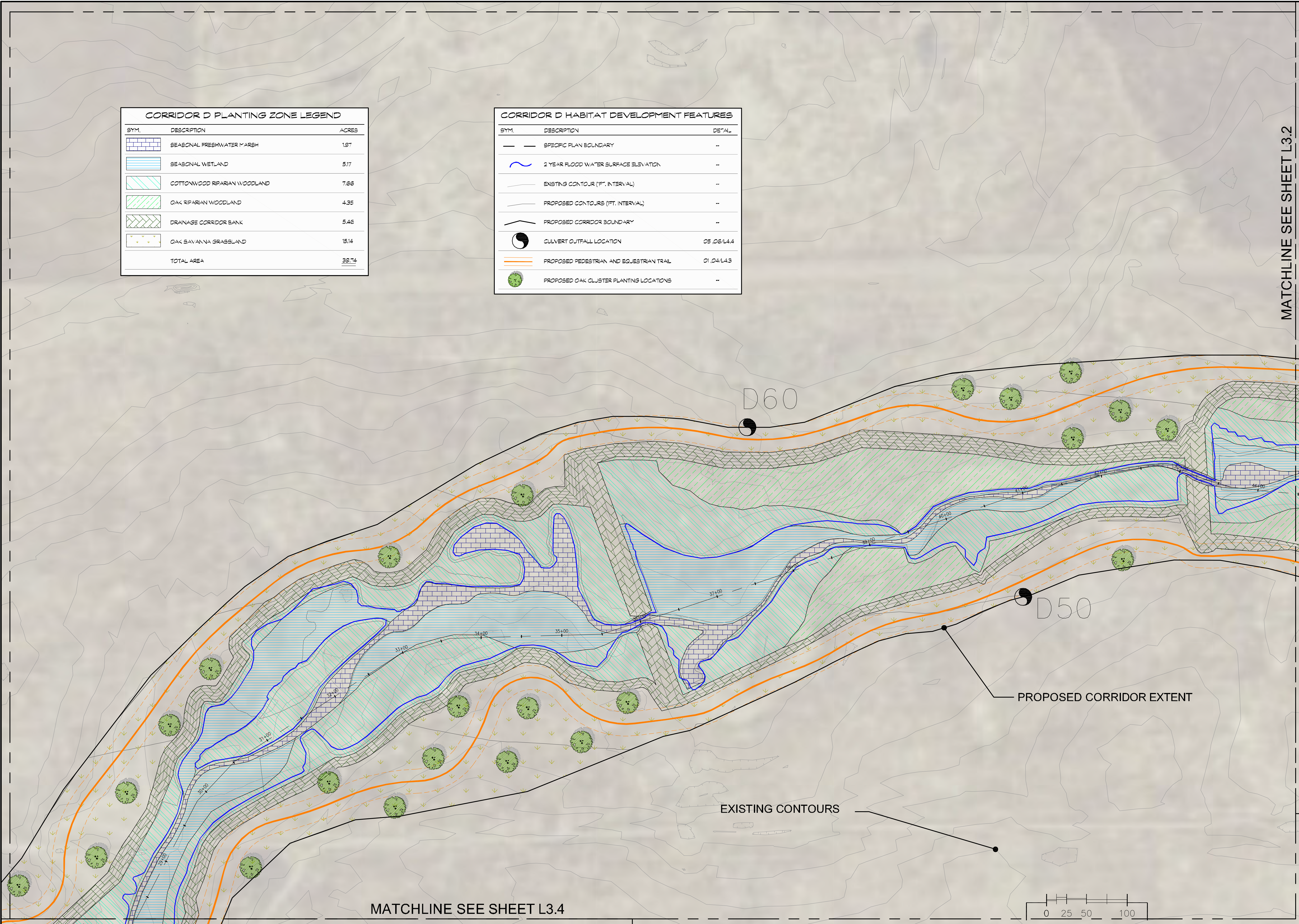
ORIENTED TO NORTH  
  
 SCALE  
 1" = 50'

SHEET NO. **L3.2**  
 13 of 19



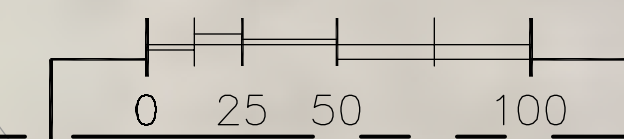
CORRIDOR D PLANTING ZONE LEGEND		
SYM.	DESCRIPTION	ACRES
	SEASONAL FRESHWATER MARSH	1.97
	SEASONAL WETLAND	5.17
	COTTONWOOD RIPARIAN WOODLAND	7.66
	OAK RIPARIAN WOODLAND	4.35
	DRAINAGE CORRIDOR BANK	5.46
	OAK SAVANNA GRASSLAND	15.14
	<b>TOTAL AREA</b>	<b>39.74</b>

CORRIDOR D HABITAT DEVELOPMENT FEATURES		
SYM.	DESCRIPTION	DETAIL
	SPECIFIC PLAN BOUNDARY	--
	2 YEAR FLOOD WATER SURFACE ELEVATION	--
	EXISTING CONTOUR (FT. INTERVAL)	--
	PROPOSED CONTOURS (FT. INTERVAL)	--
	PROPOSED CORRIDOR BOUNDARY	--
	CULVERT OUTFALL LOCATION	05.06/L4.4
	PROPOSED PEDESTRIAN AND EQUESTRIAN TRAIL	01.04/L4.3
	PROPOSED OAK CLUSTER PLANTING LOCATIONS	--



MATCHLINE SEE SHEET L3.2

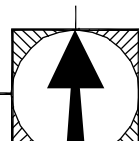
MATCHLINE SEE SHEET L3.4



  
**RESTORATION RESOURCES**  
 3885 CINCINNATI AVENUE  
 FAYETTEVILLE, CA 95750  
 TEL: 916.408.2990  
 FAX: 916.408.2999  
 www.restorationresources.net  
 CA LIC. #428262

**CLIENT:**  
 The RCH Group  
 Ardis Zahrestni, Project Manager  
 1640 Leona Hill Blvd., Suite 220  
 Roseville, CA 95661  
 TEL: 916.782.4427

**SHEET TITLE:**  
 ELVERTA DRAINAGE CORRIDORS B, C, & D  
 CONCEPTUAL HABITAT DEVELOPMENT PLAN  
 Elverta, California  
**CORRIDOR D HABITAT DEVELOPMENT PLAN**  
 (STA. 28+20 - 44+47)

**NORTH**  
  
**SCALE**  
 1" = 50'

CHECKED BY:	DATE:	DESIGNED BY:	DATE:
ORIGINAL DATE:	REVISION:	DATE:	DATE:
10.28.10	L.P.P.	10.07.10	11.11.11
11.11.11	11.11.11	11.11.11	11.11.11

**SHEET NO. L3.3**  
**14 of 19**



MATCHLINE SEE SHEET L3.3



PROPOSED CORRIDOR EXTENT

EXISTING CONTOURS

D70

D80

**CORRIDOR D PLANTING ZONE LEGEND**

SYM.	DESCRIPTION	ACRES
	SEASONAL FRESHWATER MARSH	1.97
	SEASONAL WETLAND	3.17
	COTTONWOOD RIPARIAN WOODLAND	7.68
	OAK RIPARIAN WOODLAND	4.35
	DRAINAGE CORRIDOR BANK	3.48
	OAK SAVANNA GRASSLAND	5.14
	<b>TOTAL AREA</b>	<b>30.75</b>

**CORRIDOR D HABITAT DEVELOPMENT FEATURES**

SYM.	DESCRIPTION	DETAIL
	SPECIFIC PLAN BOUNDARY	--
	2 YEAR FLOOD WATER SURFACE ELEVATION	--
	EXISTING CONTOUR (FT. INTERVAL)	--
	PROPOSED CONTOURS (FT. INTERVAL)	--
	PROPOSED CORRIDOR BOUNDARY	--
	CULVERT OUTFALL LOCATION	05.06/14.4
	PROPOSED PEDESTRIAN AND EQUESTRIAN TRAIL	01.04/14.3
	PROPOSED OAK CLUSTER PLANTING LOCATIONS	--

PREPARED BY:  
**RESTORATION RESOURCES**  
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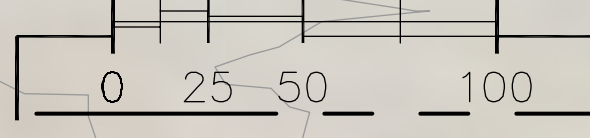
CLIENT:  
**The RCH Group**  
 Ardis Zahrestani, Project Manager  
 1640 Leasing Hill Blvd., Suite 220  
 Roseville, CA 95661  
 TEL: 916.782.4427

SHEET TITLE:  
**ELVERTA DRAINAGE CORRIDORS B, C, & D**  
 CONCEPTUAL HABITAT DEVELOPMENT PLAN  
 Elverta, California  
**CORRIDOR D HABITAT DEVELOPMENT PLAN**  
 (STA. 12+00 - 28+20)

NORTH  
  
 SCALE  
 1" = 50'

CHECKED BY:	DATE:	DESIGNED BY:	DATE:	REVIEWED BY:	DATE:

SHEET NO:  
**L3.4**  
 15 of 19





PLANT PALETTES

CORRIDOR B

HERBACEOUS SEED AND PLUG PLANTING

Table for HERBACEOUS SEED AND PLUG PLANTING in CORRIDOR B. Habitat: Vernal Pool Grassland / Drainage Corridor Bank. Includes rows for botanical names like Bromus carinatus and Melica californica, along with drill and hydro seed rates.

Table for HERBACEOUS SEED AND PLUG PLANTING in CORRIDOR B. Habitat: Riparian Grassland / Cottonwood Riparian Woodland. Includes rows for botanical names like Agrostis exarata and Elymus trachycallus.

Table for HERBACEOUS SEED AND PLUG PLANTING in CORRIDOR B. Habitat: Willow Riparian / Seasonal Wetland. Includes rows for botanical names like Asrostis exarata and Elymus trachycallus.

Table for HERBACEOUS SEED AND PLUG PLANTING in CORRIDOR B. Habitat: Willow Riparian / Seasonal Wetland. Includes rows for plug plants like Carex barbarae and Elymus trachycallus.

Table for HERBACEOUS SEED AND PLUG PLANTING in CORRIDOR B. Habitat: Seasonal Freshwater Marsh. Includes rows for botanical names like Juncus effusus and Typha latifolia.

TREE AND SHRUB PLANTING

Table for TREE AND SHRUB PLANTING in CORRIDOR B. Habitat: Vernal Pools and Swales. No seedlings or plantings.

Table for TREE AND SHRUB PLANTING in CORRIDOR B. Habitat: Willow Riparian. Includes rows for botanical names like Alnus rhombifolia and Salix nigra.

Table for TREE AND SHRUB PLANTING in CORRIDOR B. Habitat: Cottonwood Riparian Woodland. Includes rows for botanical names like Populus fremontii and Salix nigra.

Table for TREE AND SHRUB PLANTING in CORRIDOR B. Habitat: Seasonal Freshwater Marsh. Includes rows for botanical names like Juncus effusus and Typha latifolia.

HERBACEOUS SEED AND PLUG PLANTING

Table for HERBACEOUS SEED AND PLUG PLANTING in CORRIDOR C. Habitat: Vernal Pool Grassland / Oak Savanna Grassland. Includes rows for botanical names like Bromus carinatus and Melica californica.

Table for HERBACEOUS SEED AND PLUG PLANTING in CORRIDOR C. Habitat: Cottonwood Riparian Woodland. Includes rows for botanical names like Agrostis exarata and Elymus trachycallus.

Table for HERBACEOUS SEED AND PLUG PLANTING in CORRIDOR C. Habitat: Willow Riparian / Seasonal Wetland. Includes rows for botanical names like Asrostis exarata and Elymus trachycallus.

Table for HERBACEOUS SEED AND PLUG PLANTING in CORRIDOR C. Habitat: Willow Riparian / Seasonal Wetland. Includes rows for plug plants like Carex barbarae and Elymus trachycallus.

Table for HERBACEOUS SEED AND PLUG PLANTING in CORRIDOR C. Habitat: Seasonal Freshwater Marsh. Includes rows for botanical names like Juncus effusus and Typha latifolia.

TREE AND SHRUB PLANTING

Table for TREE AND SHRUB PLANTING in CORRIDOR C. Habitat: Vernal Pools and Swales. No seedlings or plantings.

Table for TREE AND SHRUB PLANTING in CORRIDOR C. Habitat: Willow Riparian. Includes rows for botanical names like Alnus rhombifolia and Salix nigra.

Table for TREE AND SHRUB PLANTING in CORRIDOR C. Habitat: Cottonwood Riparian Woodland. Includes rows for botanical names like Populus fremontii and Salix nigra.

Table for TREE AND SHRUB PLANTING in CORRIDOR C. Habitat: Seasonal Freshwater Marsh. Includes rows for botanical names like Juncus effusus and Typha latifolia.

HERBACEOUS SEED AND PLUG PLANTING

Table for HERBACEOUS SEED AND PLUG PLANTING in CORRIDOR D. Habitat: Oak Savanna Grassland / Drainage Corridor Bank. Includes rows for botanical names like Bromus carinatus and Melica californica.

Table for HERBACEOUS SEED AND PLUG PLANTING in CORRIDOR D. Habitat: Oak Riparian Woodland. Includes rows for botanical names like Agrostis exarata and Elymus trachycallus.

Table for HERBACEOUS SEED AND PLUG PLANTING in CORRIDOR D. Habitat: Cottonwood Riparian Woodland. Includes rows for botanical names like Agrostis exarata and Elymus trachycallus.

Table for HERBACEOUS SEED AND PLUG PLANTING in CORRIDOR D. Habitat: Seasonal Wetland. Includes rows for botanical names like Agrostis exarata and Elymus trachycallus.

Table for HERBACEOUS SEED AND PLUG PLANTING in CORRIDOR D. Habitat: Seasonal Freshwater Marsh. Includes rows for botanical names like Juncus effusus and Typha latifolia.

TREE AND SHRUB PLANTING

Table for TREE AND SHRUB PLANTING in CORRIDOR D. Habitat: Oak Savanna Grassland. No seedlings or plantings.

Table for TREE AND SHRUB PLANTING in CORRIDOR D. Habitat: Oak Riparian Woodland. Includes rows for botanical names like Alnus rhombifolia and Salix nigra.

Table for TREE AND SHRUB PLANTING in CORRIDOR D. Habitat: Cottonwood Riparian Woodland. Includes rows for botanical names like Populus fremontii and Salix nigra.

Table for TREE AND SHRUB PLANTING in CORRIDOR D. Habitat: Seasonal Freshwater Marsh. Includes rows for botanical names like Juncus effusus and Typha latifolia.



PREPARED BY: Restoration Resources. The RCH Group. Ardis Zehnert, Project Manager. 1640 Lewis Hill Blvd., Ste. 220, Roseville, CA 95661. TEL 916.762.4427.

CLIENT: Elverta Drainage Corridors B, C, & D. CONCEPTUAL HABITAT DEVELOPMENT PLAN. Elverta, California. CORRIDOR B, C, & D PLANT PALETTES.

Table with columns: SHEET NO., DATE, DRAWN, L.P.P., REVIEWER, DATE, L.P.M., L.P.M.

SHEET NO. L4.1. 16 OF 19.



GENERAL NOTES

- 1. STANDARDS: REFER TO SACRAMENTO COUNTY STANDARDS AND SPECIFICATIONS WHERE APPLICABLE.
2. FIELD VERIFICATION: FIELD VERIFY EXISTING SITE INFORMATION, INCLUDING PROPERTY LINES, TOP AND BOTTOM OF SLOPES, ROADWAY CURB AND GUTTERS, UTILITIES AND OTHER INFORMATION AFFECTING THE SCOPE OF WORK INCLUDED ON THESE DRAWINGS.
3. UNDERGROUND UTILITIES: CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (USA 1-800-227-2600) 48 HOURS PRIOR TO ANY EXCAVATION.
4. UTILITY COORDINATION: CONTRACTOR SHALL BE RESPONSIBLE TO CONSULT WITH APPROPRIATE AGENCIES AND PLANS FOR THE LOCATIONS OF ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES.
5. EXCAVATION NEAR UTILITIES: EXCAVATION IN THE VICINITY OF UTILITIES AND EXISTING MATERIALS SHALL BE UNDERTAKEN WITH CARE.
6. UTILITY COORDINATION: CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION REQUIRED TO ACCOMPLISH ALL CONSTRUCTION OPERATIONS.
7. DUE DILIGENCE: CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS, AREA DISCREPANCIES AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN.
8. MATERIAL DAMAGE: CONTRACTOR IS RESPONSIBLE FOR REPLACEMENT OF ANY EXISTING MATERIALS THAT ARE DAMAGED DURING CONSTRUCTION.
9. STANDARDS: CONTRACTOR SHALL FURNISH WORK AND MATERIALS MEETING THE REQUIREMENTS OF THE SPECIFICATIONS AND INDUSTRY STANDARDS.
10. AGENCY COMPLIANCE: THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, CITY, AND COUNTY LAWS AND REGULATIONS AND PROJECT PERMITS NECESSARY TO COMPLETE THE WORK.
11. ADHERENCE: THE CONTRACTOR SHALL REFER TO AND ADHERE TO ALL REQUIREMENTS OF THE PLAN.
12. SUPERVISION: AN APPROVED RESTORATION ECOLOGIST SHALL OVERSEE GRADING AND HABITAT CREATION ACTIVITIES ASSOCIATED WITH THIS PROJECT.
13. FIELD MODIFICATIONS: FIELD MODIFICATIONS TO THE HABITAT RESTORATION DESIGN MAY BE ALLOWED AS SITE CONDITIONS WARRANT AND ONLY AT THE DISCRETION OF THE PROJECT RESTORATION ECOLOGIST AND THE OWNER'S REPRESENTATIVE.
14. AS-BUILT RECORDS: THE CONTRACTOR SHALL SUBMIT TO THE OWNER'S REPRESENTATIVE AND RESTORATION ECOLOGIST "AS-BUILT" DRAWINGS IN PAPER (3 COPIES) AND REPRODUCIBLE FORM (EITHER PLOTTED OR PDF FORM) THAT SHALL SHOW ALL DEVIATIONS FROM THE BID DOCUMENTS MADE DURING CONSTRUCTION.

CONSTRUCTION BMPs

- SWPPP
1. A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE PREPARED BY A STATE CERTIFIED SUB-CONSULTANT TO THE CONTRACTOR.
2. A NOTICE OF INTENT (NOI) TO OBTAIN COVERAGE UNDER THE GENERAL PERMIT WILL BE OBTAINED BY THE CONTRACTOR AND THE RECEIPT OF THE NOI AND THE WASTE DISCHARGE ID (WDID) NUMBER WILL BE AVAILABLE PRIOR TO THE START OF CONSTRUCTION.
3. CHANGES IN THE PROJECT, WHICH MAY AFFECT THE SWPPP OR INCREASE THE RISK OF STORMWATER POLLUTION REQUIRE A NEW SWPPP AMENDMENT.
4. THE SWPPP SHALL BE AVAILABLE AT THE CONSTRUCTION SITE WHILE THE SITE IS UNDER CONSTRUCTION DURING WORKING HOURS.
5. THE DISCHARGER IS REQUIRED TO CONDUCT MONITORING AND MAINTENANCE OF THE SITE DURING CONSTRUCTION AND AFTER CONSTRUCTION DURING THE RAINY SEASON.
6. BEST MANAGEMENT PRACTICES (BMPs) MEASURES SHALL BE IN PLACE PRIOR TO THE ONSET OF THE FALL RAINY SEASON (OCTOBER 15) OR ANY ANTICIPATED STORM EVENT.
BMPs
1. THE STAGING AREA SHALL BE DEFINED, AND HAUL ROUTES ESTABLISHED, WITH A ROCK ENTRANCE AT THE MAIN ACCESS LOCATION.
2. MANDATORY HOUSEKEEPING BMPs INVOLVE THE NEED FOR A TIRE WASH AREA, PERIODIC CLEANING OF ACCESS ROADS TO THE SITE ENTRANCES AND EXITS, ADDITIONAL PROTECTION OF NEARBY STORM DRAIN INLETS, AND/OR HAVING A CONCRETE WASHOUT AREA.
3. GENERALLY, SEDIMENTATION CONTROL BMPs SHALL CONSIST OF FILTRATION AND BARRIER DEVICES AT THE DOWNSTREAM SITE PERIMETER AND AT ALL INLETS TO ANY STORMWATER DRAIN SYSTEM.

CONSTRUCTION BMPs CONT.

- BMPs CONT.
B. STRAW WATTLE OR COIR ROLL SEDIMENTATION CONTROL SHALL BE PLACED ALONG THE BASE OF GRADED SLOPES AND ANY AREAS DRAINING AWAY FROM THE CONSTRUCTION AREA.
C. STRAW WATTLES SHALL BE PLACED AROUND THREE SIDES OF THE STAGING AREA AND AT THE BASE OF SLOPES, SECURED WITH WOODEN STAKES EVERY FOUR FEET.
D. SILT FENCING, SUPPLEMENTED WITH STRAW WATTLES WILL BE INSTALLED AROUND THE PERIMETER OF THE WORK AREA SO THAT ANY EROSION WILL NOT IMPACT ANY STREAM CHANNELS OR SURROUNDING AREAS.
4. EXPOSED DISTURBED SOIL SHALL BE STABILIZED BY APPROPRIATE SEED MIXES AND STABILIZED WITH CERTIFIED WEED FREE STRAW AS SPECIFIED.
5. IMPLEMENT GENERAL SITE AND MATERIAL MANAGEMENT BMPs FOR MATERIAL AND EQUIPMENT THAT ARE IMPORTED TO THE SITE.
6. DOCUMENT ALL MATERIALS BEING IMPORTED TO THE SITE TO DETERMINE APPLICABLE GENERAL SITE AND MATERIAL MANAGEMENT BMPs.
EROSION CONTROL
1. CONSTRUCTION AND GRADING SHALL BE SCHEDULED FOR THE DRY SEASON.
2. EROSION CONTROL (SOIL STABILIZATION SHALL BE USED TO PREVENT THE INITIAL MOBILIZATION OF SOIL PARTICLES DURING A RAIN EVENT).
3. A WATER TRUCK SHALL BE USED ON-SITE DURING CONSTRUCTION IN ORDER TO TOP DAMPEN THE SOIL TO PREVENT WIND EROSION AND FOR DUST CONTROL.
4. DISTURBED AREAS SHALL RECEIVE EROSION CONTROL SEEDING OR SEEDING AS SPECIFIED ON THE PLANTING PLANS PRIOR TO THE ONSET OF THE FALL RAINY SEASON (OCTOBER 15TH).
TOXIC MATERIALS
1. THE CONTRACTOR SHALL PROVIDE A LIST OF ANY HAZARDOUS SUBSTANCES.
2. THE CONTRACTOR SHALL PROVIDE A DESCRIPTION OF ANY TOXIC MATERIAL.
3. EXAMPLES OF BMPs INCLUDE: WATERPROOF COVER OR STORAGE AREA; IDENTIFICATION OF EMPLOYEE RESPONSIBILITIES BEFORE, DURING, AFTER USE OF ANY TOXIC MATERIAL.
4. CONTRACTOR SHALL ALSO DESCRIBE ANY NON-TOXIC CONSTRUCTION MATERIAL (I.E. SAND, CONCRETE, AGGREGATE, SOIL AMENDMENTS, WASHING SOAP, AND WASTEWATER, ETC) AND ANY EQUIPMENT THAT MAY POTENTIALLY CAUSE A DISCHARGE OF MATERIAL INTO RECEIVING WATER.

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POST-CONSTRUCTION STORMWATER MANAGEMENT

- 1. THE GOAL OF THIS PROJECT IS TO CREATE A FULLY VEGETATED LANDSCAPE, INCLUDING NATIVE VEGETATION COVER IN THE WETLANDS AND SURROUNDING UPLANDS.
2. SILT FENCES WILL BE REMOVED AFTER CONSTRUCTION AND STRAW WATTLES WILL REMAIN IN PLACE UNTIL APRIL 15 OF THE FOLLOWING YEAR.
3. IN ADDITION TO THE VEGETATION INSPECTION AND RECORD KEEPING, THE CONTRACTOR SHALL ALSO INSPECT FOR ANY POTENTIAL RISK FOR DOWNSTREAM POLLUTION.

GRADING & CONSTRUCTION NOTES

- 1. VARIABLE SITE CONDITIONS: REFER TO GRADING AND DRAINAGE PLANS FOR SITE GRADING AND DRAINAGE INFORMATION.
2. FIELD VERIFICATION: FIELD VERIFY EXISTING UNDERGROUND UTILITIES.
3. THE CONSTRUCTION ENTRANCE WILL BE EQUIPPED WITH A STABILIZED CONSTRUCTION ENTRANCE TO PREVENT TRACK-OUT.

GRADING & CONST. NOTES CONT.

- 3. TOP SOIL STRIPPING & SALVAGE: PRIOR TO SITE EXCAVATION THE CONTRACTOR SHALL DISK THE SITE TILLING IN SOIL AND GRASS.
4. TOP SOIL REAPPLICATION: ALL EXCAVATED AREAS SHALL BE OVER-EXCAVATED BY 6 INCHES AND ALL STOCKPILED TOPSOIL SHALL BE RE-APPLIED TO MEET FINISH GRADES AS SHOWN ON THE GRADING PLANS.
5. CLAY SOIL SALVAGING & STOCKPILING: STRIP SUITABLE CLAY SOILS UNCOVERED BENEATH TOPSOIL LAYER TO ESTIMATED QUANTITIES NEEDED (ON PLAN) FOR APPLICATION THICKNESSES FOR VERNAL POOL (2 INCHES) AND WETLAND (6-INCHES) AS DETAILED, AND STOCKPILE SEPARATELY FOR FUTURE USE.
6. VERNAL POOL INOCULUM STRIPPING & STOCKPILING: STRIP AND STOCK PILE TOP 2 INCHES OF EXISTING WETLAND FEATURES SCHEDULED FOR EXCAVATION OR FILL IN QUANTITIES SUFFICIENT TO PROVIDE A 2-INCH LAYER.
7. VERNAL POOL EXCAVATION: VERNAL POOL HABITATS WILL BE OVER-EXCAVATED BY 8 INCHES AS NECESSARY DEPENDING ON THE POTENTIAL FOR EXISTING CLAY LAYERS.
8. PROPOSED GRADES: ALL PROPOSED GRADES ARE TO MEET AND BLEND IN WITH EXISTING GRADES AT PROJECT LIMIT AND EXISTING CONTOURS.
9. TOP OF BANK AND CORRIDOR SIDE SLOPES: CORRIDOR SIDE SLOPES MAY BE SOFTENED BY LAYING BACK THE TOP OF SLOPE IN SPECIFIC LOCATIONS AND UPON APPROVAL BY THE PROJECT ENGINEER.
10. FINISH GRADES: FINISH GRADES AND FINAL PRE-PLANTING GRADING SHALL BE REVIEWED BY THE PROJECT RESTORATION ECOLOGIST IN THE FIELD PRIOR TO SEEDING AND INSTALLATION OF PLANTS.
11. DEBRIS DISPOSAL: THE DEBRIS CREATED BY LANDSCAPE GRADING OPERATIONS SHALL BE REMOVED BY THE CONTRACTOR AND LEGALLY DISPOSED OF OFF-SITE AT NO COST TO THE OWNER.
12. FILTER FABRIC: PLASTIC FILTER FABRIC SHALL BE A PERVIOUS SHEET OF PLASTIC YARN, EITHER WOVEN OR NON-WOVEN CONSTRUCTION AND CONSIST OF A LONG-CHAIN SYNTHETIC POLYMER COMPOSED OF AT LEAST 85 PERCENT BY WEIGHT OF PROPYLENE, ETHYLENE, ESTER, AMIDE OR VINYLIDENE-CHLORIDE, AND SHALL CONTAIN STABILIZERS AND/OR INHIBITORS ADDED TO THE BASE PLASTIC IF NECESSARY TO MAKE THE FILAMENTS RESISTANT TO DEGRADATION DUE TO ULTRA-VIOLET AND HEAT EXPOSURE.
13. RIP-RAP: SHALL BE DURABLE AND OF SUITABLE QUALITY TO ENSURE ITS PERMANENCE.
14. WATER QUALITY BASINS AND GRASSY SWALES: WATER QUALITY BASINS AND GRASSY SWALES/OUTFALL STRUCTURES SHALL BE REQUIRED FOR EACH STORM WATER SYSTEM OUTFALL.

IRRIGATION NOTES

- 1. SCOPE: THE CONTRACTOR SHALL FURNISH ALL LABOR MATERIALS AND EQUIPMENT FOR THE PROPER INSTALLATION OF THE IRRIGATION SYSTEM.
2. GUARANTEE: THE IRRIGATION SYSTEM SHALL BE GUARANTEED AGAINST ALL DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE YEAR.
3. WATER SUPPLY: IRRIGATION WATER IS TO BE SUPPLIED BY CONTRACT BETWEEN THE OWNER, WATER SHOULD BE AVAILABLE CONTINUOUSLY FROM APRIL 15TH TO OCTOBER 15TH EACH YEAR OF THE PLANT ESTABLISHMENT PERIOD TO PLANTINGS WHERE IRRIGATION IS PROVIDED.
4. PERMITS AND FEES: THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND PAY THE REQUIRED FEES TO ANY GOVERNMENTAL AGENCY HAVING JURISDICTION OVER THE WORK.
5. COMPLIANCE: THE CONTRACTOR SHALL CARRY OUT ALL WORK IN COMPLIANCE WITH ALL APPLICABLE LOCAL, MUNICIPAL, STATE AND FEDERAL LAWS, RULES AND REGULATIONS.
6. ACCURACY OF INFORMATION: THE CONTRACTOR SHALL VERIFY, PRIOR TO CONSTRUCTION, THAT HIS CONTRACT DOCUMENTS REFLECT THE LATEST REVISIONS AND/OR PLAN CHECKS.
7. SITE INSPECTION: THE CONTRACTOR SHALL BE ACQUAINTED WITH ALL SITE CONDITIONS.
8. SUBSTITUTION: ONLY UNDER APPROVAL FROM THE PROJECT ENGINEER AND RESTORATION ECOLOGIST MAY EQUIPMENT OR MATERIALS BE SUBSTITUTED.
9. FINAL ACCEPTANCE: FINAL ACCEPTANCE OF THE IRRIGATION CONSTRUCTION WORK IS TO BE OBTAINED FROM THE OWNER AND THE RESTORATION ECOLOGIST.

IRRIGATION NOTES CONT.

- 10. EXCAVATION: THE CONTRACTOR SHALL PERFORM ALL EXCAVATIONS AS REQUIRED FOR THE INSTALLATION OF THE WORK INCLUDED UNDER THIS SECTION.
11. UNDERGROUND PIPELINES: WHERE SPECIFIED, PIPELINES SHALL BE BURIED IN TRENCHES AND SHALL BE COMPACTED TO 90% AFTER BACKFILL.
12. MAINLINES: SHALL BE SCHEDULED 40 PVC PIPE UNLESS OTHERWISE NOTED, LOCATED AT A MINIMUM OF 18" BELOW GRADE.
13. LATERAL LINES: SHALL BE SCHEDULED 40 PVC PIPE UNLESS OTHERWISE NOTED.
14. ROAD CROSSINGS: AT ROAD AND PATHWAY UNDERCROSSINGS, PIPELINES SHALL BE PLACED IN PVC SLEEVES AT LEAST TWO TIMES THE SIZE OF PIPE AND HAVE A MINIMUM OF 24" OF COVER.

PLANTING NOTES

- 1. FIELD VERIFY: CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL PERTINENT SITE IMPROVEMENTS.
2. SOIL TESTING: CONTRACTOR SHALL OBTAIN AGRICULTURAL SUITABILITY AND FERTILITY SOILS TESTING.
3. SOILS TESTING REPORT: A COPY OF THE SOILS REPORT SHALL BE PROVIDED TO THE PROJECT RESTORATION ECOLOGIST.
4. SOIL AMENDMENTS: CONTRACTOR SHALL CONDUCT SOIL AMENDMENT PREPARATION AND PREPARE PLANTING BACKFILL MIX TO CONFORM TO THE SOILS REPORT RECOMMENDATIONS.
5. PLANTING PITS: IF PLANTING PITS ARE EXCAVATED USING A POWER AUGER, BREAK VERTICAL SIDES WITH A BALLIN BAR OR SPADE TO INTERRUPT CONTINUOUS CURVE INFLUENCE.
6. COMPLIANCE: CONTRACTOR SHALL COMPLY WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS PERTAINING TO THE INSPECTION FOR PLANT DISEASES AND INSECT INFESTATION.
7. IDENTIFICATION: CONTRACTOR SHALL VERIFY CORRECT SPECIES OF ALL PLANT MATERIAL.
8. INSPECTION: PLANTS ARE SUBJECT TO PROJECT RESTORATION ECOLOGIST INSPECTION FOR SIZE, VARIETY, CONDITION, ROOT DEVELOPMENT DEFECTS, AND INJURY ON DELIVERY.
9. REJECTION: CONTRACTOR SHALL REMOVE REJECTED PLANTS FROM THE SITE IMMEDIATELY.
10. SUBSTITUTION: PLANT SIZE OR SPECIES SUBSTITUTIONS WILL NOT BE PERMITTED WITHOUT THE OWNER'S REPRESENTATIVE OR THE RESTORATION ECOLOGIST'S PRIOR WRITTEN APPROVAL.
11. QUANTITIES: CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL PLANT COUNTS AND AREA (SQ. FT.) OF PLANTING LOCATIONS.
12. SELECTION: PROVIDE MATCHING FORMS AND SIZES FOR ALL PLANT MATERIALS WITHIN EACH SPECIES AND SIZE DESIGNATED ON THE DRAWINGS.
13. LOCATION: EXACT LOCATIONS OF PLANT MATERIALS SHALL BE REVIEWED BY THE PROJECT RESTORATION ECOLOGIST.
14. SPACING: ALL CONTAINER PLANTS ARE TO BE ADJUNED AND SPACED IN ALL DIRECTIONS AS DESIGNATED PER THESE NOTES AND DRAWINGS.
15. SEEDED AREAS: SEEDING SLOPES STEEPER THAN 10:1 SHALL BE STRAW-MULCHED, RICE OR NATIVE GRASS STRAW SHALL BE APPLIED AT THE RATE OF 1.5 TONS PER ACRE TO SEEDED AREAS.
16. TAG REMOVAL: CONTRACTOR SHALL REMOVE TAGS, LABELS, NURSERY STAKES AND TIES FROM ALL PLANTS AFTER INSPECTION AND APPROVAL BY THE RESTORATION ECOLOGIST.
17. TIMING: PLANTING SHALL ONLY OCCUR AFTER THE INSPECTION APPROVAL OF FINAL FINISH GRADES HAS BEEN MADE.
18. PREPARATION: THE ENTIRE AREA TO BE PLANTED SHALL BE REASONABLY SMOOTH AND CONFORM TO THE DESIRED GRADING PLAN.
19. STAKING: THE CONTRACTOR SHALL STAKE THE BOUNDARIES OF SEEDING AND PLANTING ZONES.
20. INSTALLATION: IF CONTAINER PLANTS ARE USED, THE CONTRACTOR SHALL EXCAVATE PLANT HOLES TO A MINIMUM OF ONE AND ONE-HALF TIMES THE DEPTH AND TWO TIMES THE WIDTH OF THE CONTAINER SIZE.
21. SHALL BE BACKFILLED AND IRRIGATED TO SETTLE LOOSE SOIL BEFORE THE PLANTS ARE SET IN.
CROWN: CONTAINER PLANTS SHALL BE PLACED SO THAT THE CROWN IS SET ABOVE EXISTING GRADE TO ENSURE POSITIVE DRAINAGE FROM THE CROWN TO THE WATERING BASIN.
SCREENS: PLANT PROTECTION DEVICES FOR EXCLUSION OF SMALL ANIMALS SHALL BE INSTALLED AROUND THE WOODY PLANTS AFTER PLANTING.

PLANTING NOTES

- 23. OAK SAVANNA TREE PLANTING: AUGUR MIN. 12" DIAMETER HOLES BY 60" DEEP.
24. CROSS-CHANNEL BERMS: NO WOODY PLANT CONTAINER SHALL BE PLANTED ALONG CROSS-CHANNEL BERMS.

SEEDING NOTES

- 1. FIELD VERIFY: CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL PERTINENT SITE IMPROVEMENTS.
2. SEED SPECIES AND QUANTITIES: CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL SEED SPECIES AND QUANTITIES IN POUNDS PER ACRE PER PLANTING ZONES.
3. SUBSTITUTIONS: CONTRACTOR SHALL REPORT SUBSTITUTIONS TO SEED SPECIES AND QUANTITIES AND RECEIVE APPROVAL BY THE PROJECT RESTORATION ECOLOGIST.
4. LOCATION: EXACT LOCATIONS OF SEEDED PLANTING ZONES SHALL BE REVIEWED BY THE PROJECT RESTORATION ECOLOGIST.
5. SEEDED AREAS: ALL DESIGNED WETLAND, UPLAND, AND DISTURBED AREAS SHALL BE SEEDED WITH SPECIFIED SEED MIX AT REQUIRED RATES.
6. TIMING: SEEDING WILL BE COMPLETED BETWEEN SEPTEMBER 1 AND OCTOBER 1 PRIOR TO ANY RAIN STORM EVENT.
7. PREPARATION: THE ENTIRE AREA TO BE SEEDED SHALL BE REASONABLY SMOOTH AND CONFORM TO THE DESIRED GRADING PLAN.
8. STAKING: THE CONTRACTOR SHALL STAKE THE BOUNDARIES OF SEEDING ZONES.

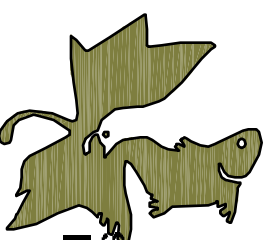
MAINTENANCE AND MONITORING

THREE YEAR MAINTENANCE & ESTABLISHMENT PERIOD

- 1. THE PLANT ESTABLISHMENT PERIOD SHALL BEGIN AT THE COMPLETION OF PLANT INSTALLATION.
2. THE HABITAT MAINTENANCE CONTRACTOR SHALL KEEP A LOG BOOK SPECIFIC TO THIS JOB.
3. THE FOLLOWING MAINTENANCE ACTIVITIES SHALL BE PERFORMED ON A REGULAR BASIS.
A. OPERATION AND MAINTENANCE OF THE DRIP IRRIGATION SYSTEM.
B. WEED MANAGEMENT.
C. FIRE PREVENTION-FIREBREAKS.
D. PROTECTIVE FENCING, SIGNAGE, CAGES, OR OTHER MEASURES.
4. ADAPTIVE MAINTENANCE: ANALYSIS OF THE CAUSE OF FAILURES SHALL BE MADE.
5. GENERAL CLEANUP SHALL INCLUDE MISCELLANEOUS LITTER OR DEBRIS THAT MAY COLLECT ON OR ABOUT THE SITE.
6. PHOTO DOCUMENTATION AS PART OF EITHER THE MAINTENANCE OR MONITORING SHALL BE KEPT IN THE LOGBOOK.
7. ANY SWPPS PREVENTATIVE BEST MANAGEMENT PRACTICES WHICH BECOME NECESSARY DURING THE OCTOBER TO APRIL SEASON SHALL BE CARRIED OUT BY THE CONTRACTOR AS NECESSARY TO ENSURE THAT THE PLANTING AREAS REMAIN RELATIVELY STABLE AND LESS PRONE TO WASHOUTS.

MAINTENANCE MONITORING AND REPORTING

- 1. HABITAT MANAGEMENT CREWS SHALL KEEP DAILY MAINTENANCE LOGS WITH WRITTEN NOTATION RECORDS OF DATE, PERSONNEL, IRRIGATION SYSTEM OPERATION, PERFORMANCE, REPAIRS MODIFICATIONS, ETC.
2. A SUMMARY OF THESE LOGS SHALL BE INCLUDED AND SUPPLIED WHEN REQUESTED.
3. CONTRACTOR SHALL EVALUATE THE HEALTH AND VIGOR OF ALL CONTAINER PLANTS INSTALLED IN SEPTEMBER OF EACH MONITORING YEAR.
4. ANNUAL MONITORING REPORTS WILL BE SENT TO THE OWNER AND PROJECT ECOLOGIST AND BY DECEMBER 31 OF EACH YEAR OF THE ESTABLISHING PERIOD.
5. THE MONITORING REPORT SHALL INCLUDE PHOTOS FROM PRE-ESTABLISHED PERMANENT PHOTO STATIONS.



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CLIENT:

ELVERTA DRAINAGE CORRIDORS B, C, & D
CONCEPTUAL HABITAT DEVELOPMENT PLAN
Elverta, California

SHEET TITLE:

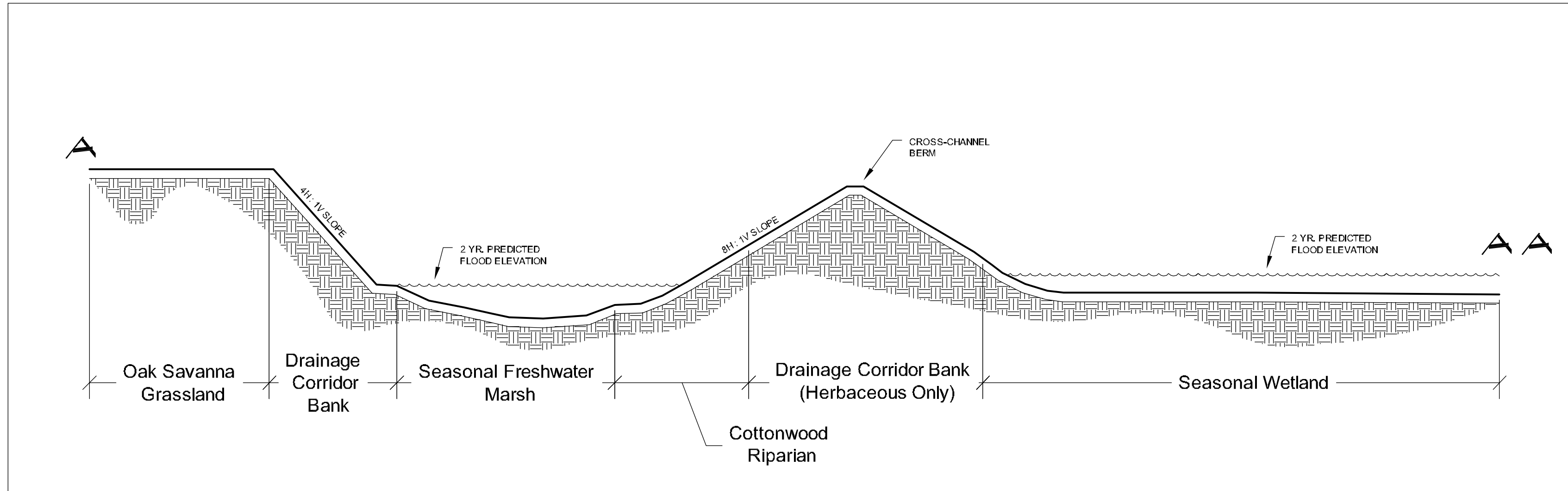
NORTH

SCALE

Table with columns: CHECKED BY, DATE, ORIGINAL DATE, REVISION, JOB NUMBER, DATE, L. No.

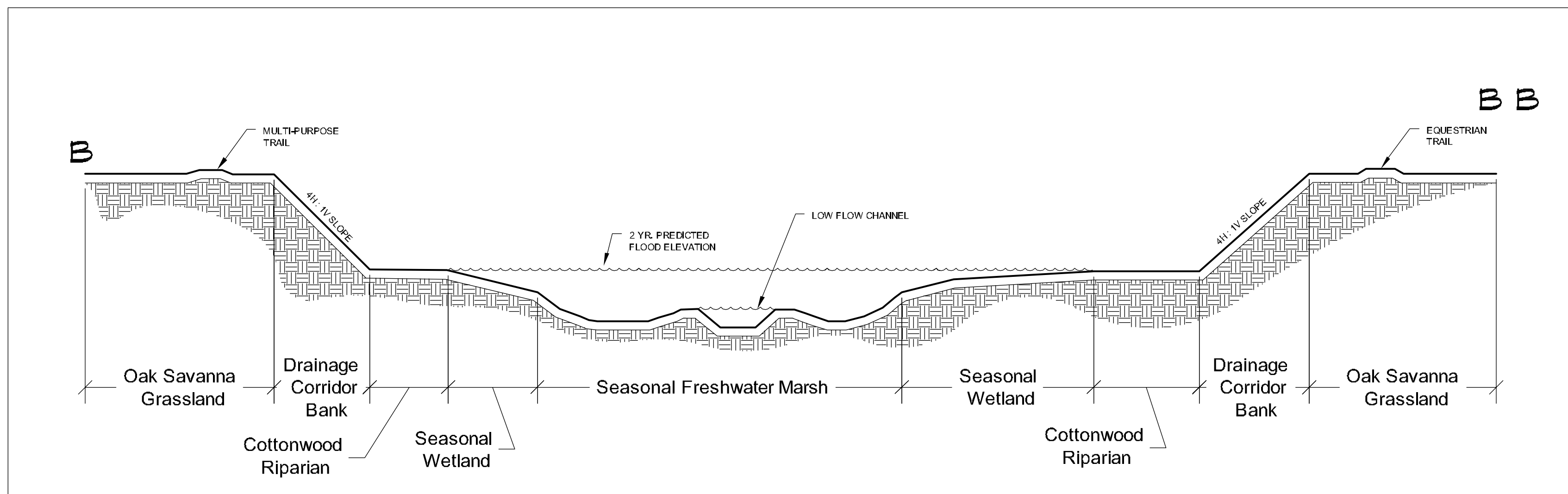
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17 of 19





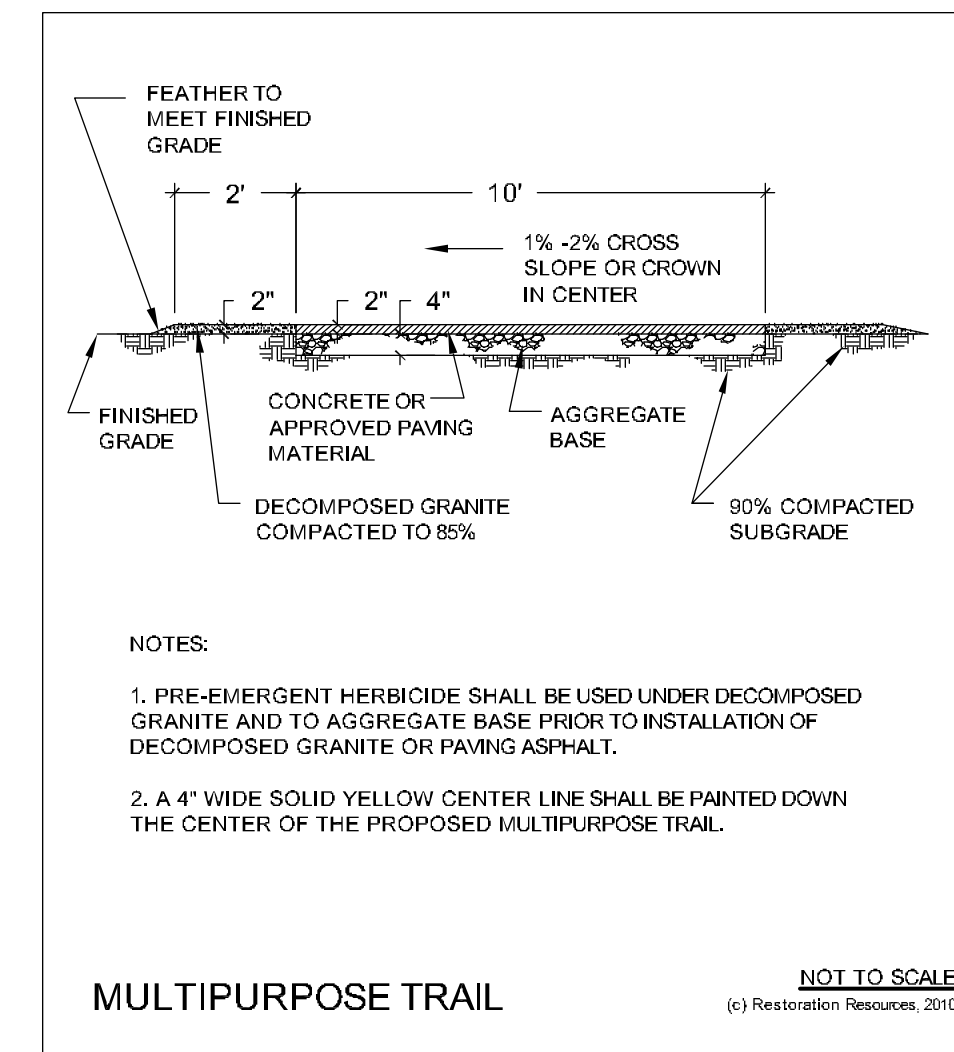
# SECTION A

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# SECTION B

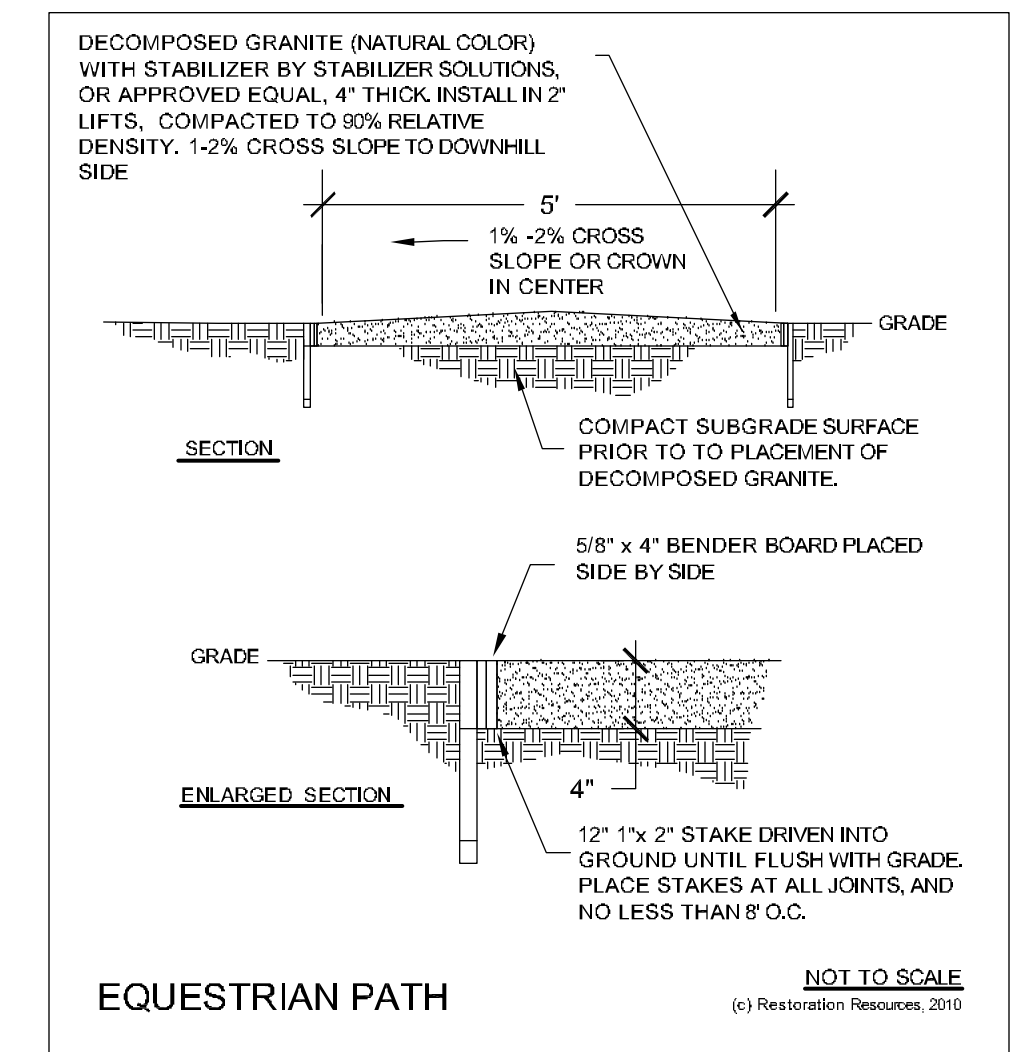
NOT TO SCALE



MULTIPURPOSE TRAIL

NOT TO SCALE  
(c) Restoration Resources, 2010

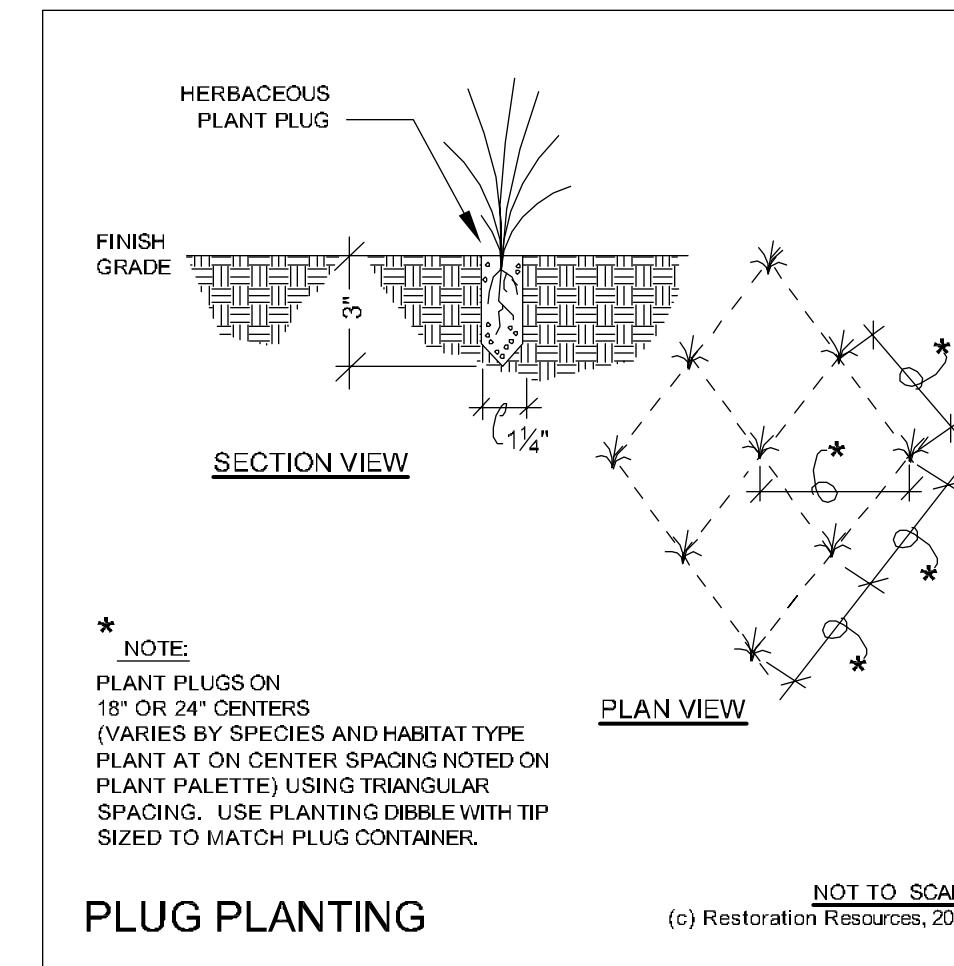
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EQUESTRIAN PATH

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(c) Restoration Resources, 2010

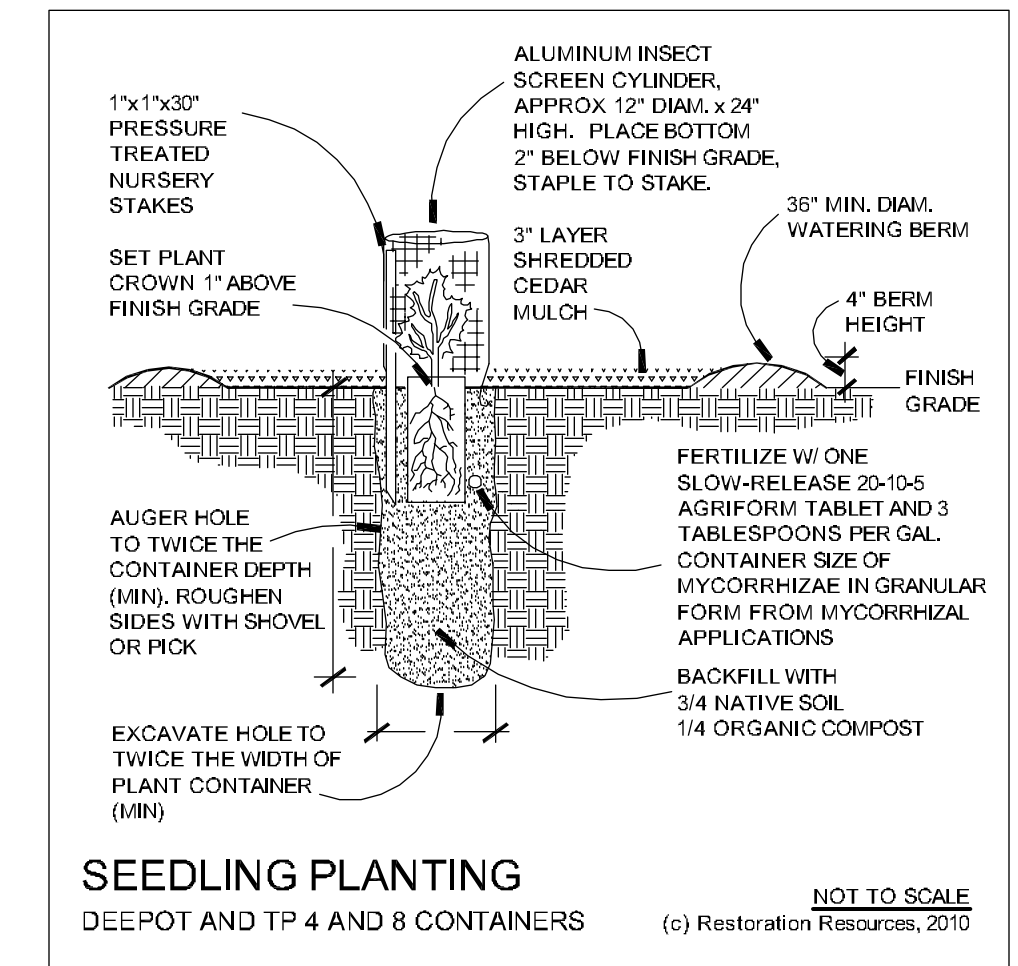
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PLUG PLANTING

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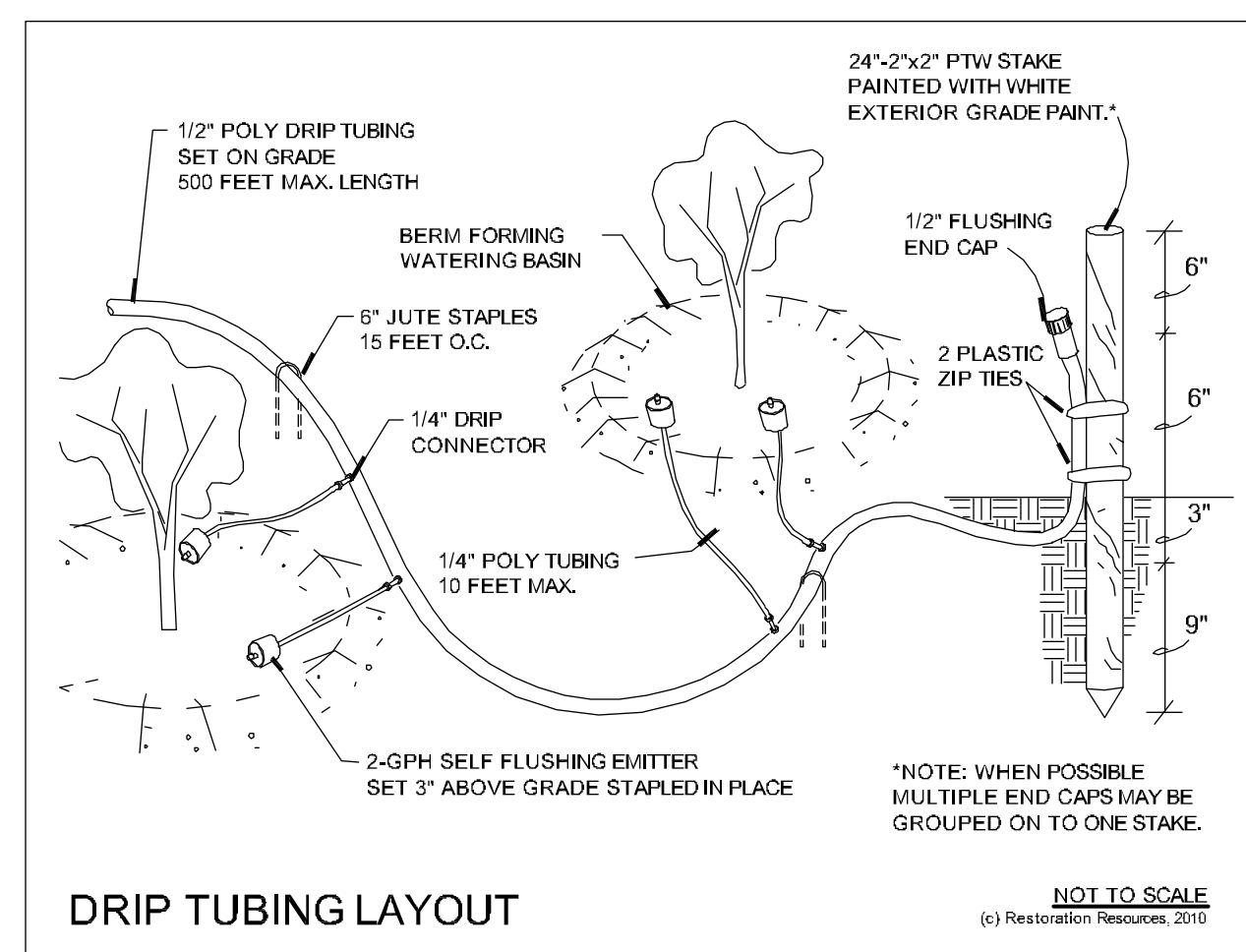
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L4.3



SEEDLING PLANTING

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(c) Restoration Resources, 2010

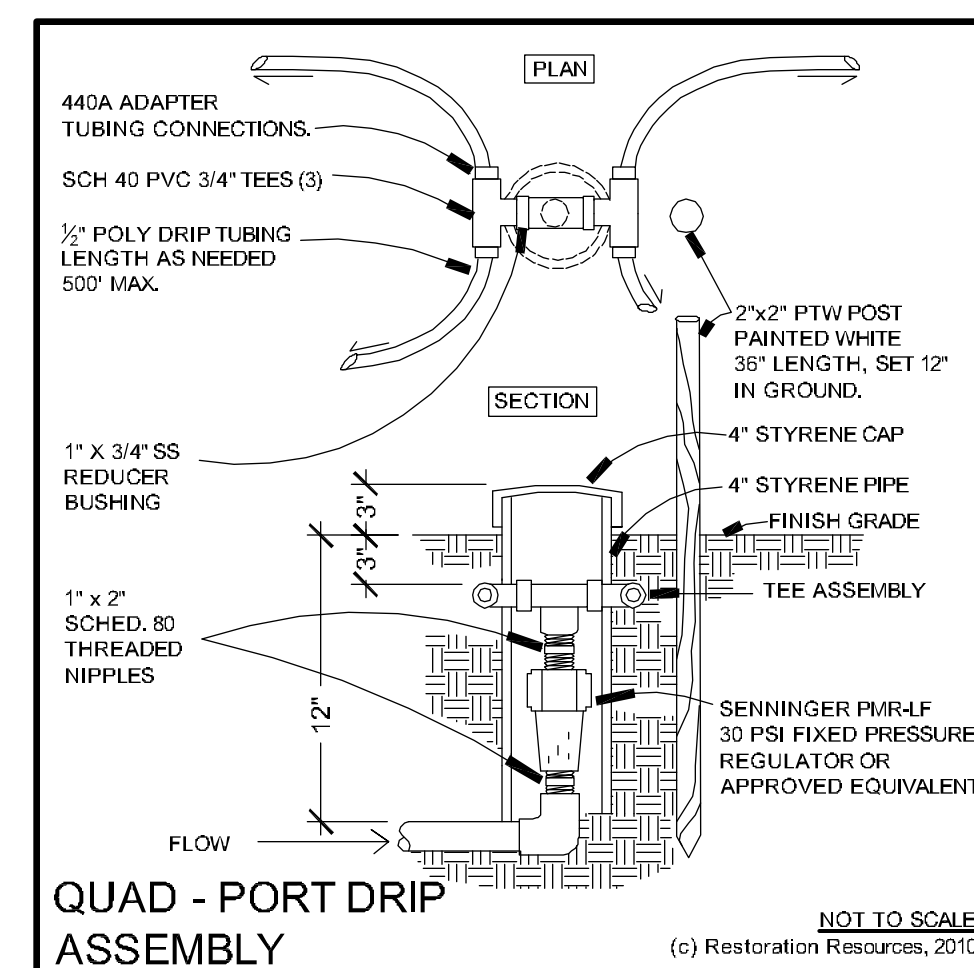
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DRIP TUBING LAYOUT

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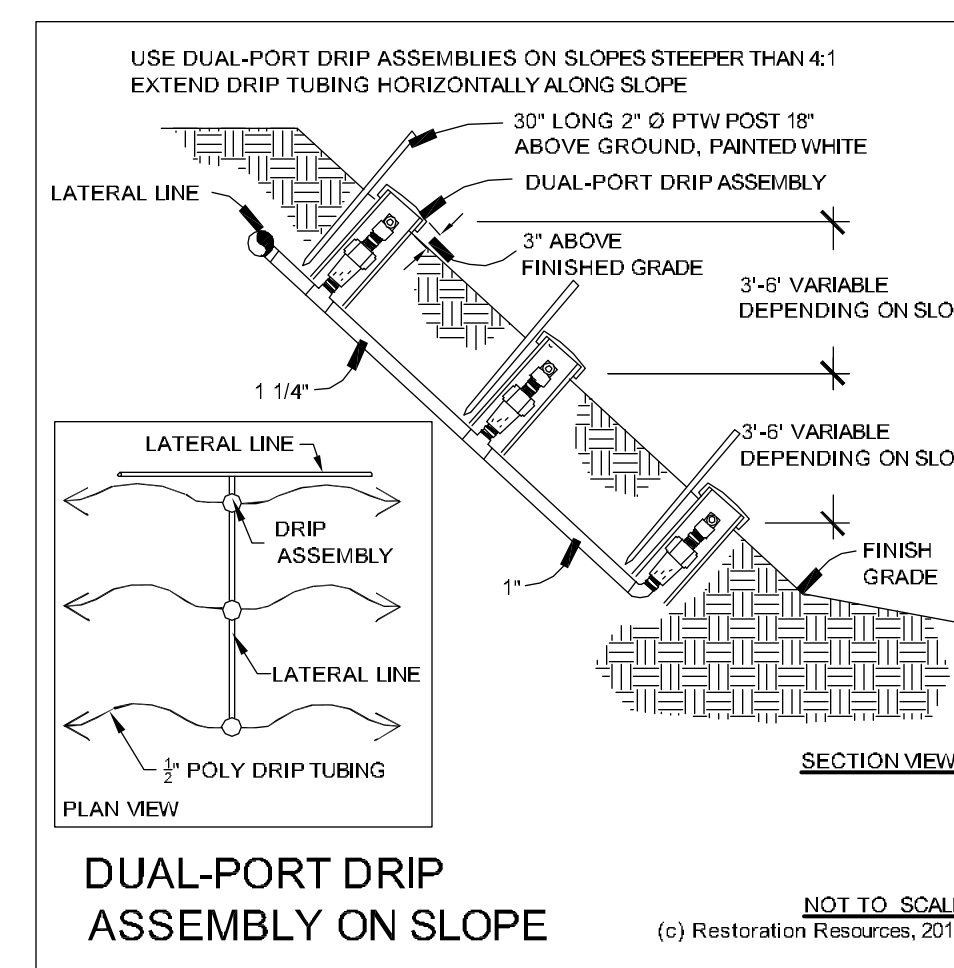
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QUAD - PORT DRIP ASSEMBLY

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(c) Restoration Resources, 2010

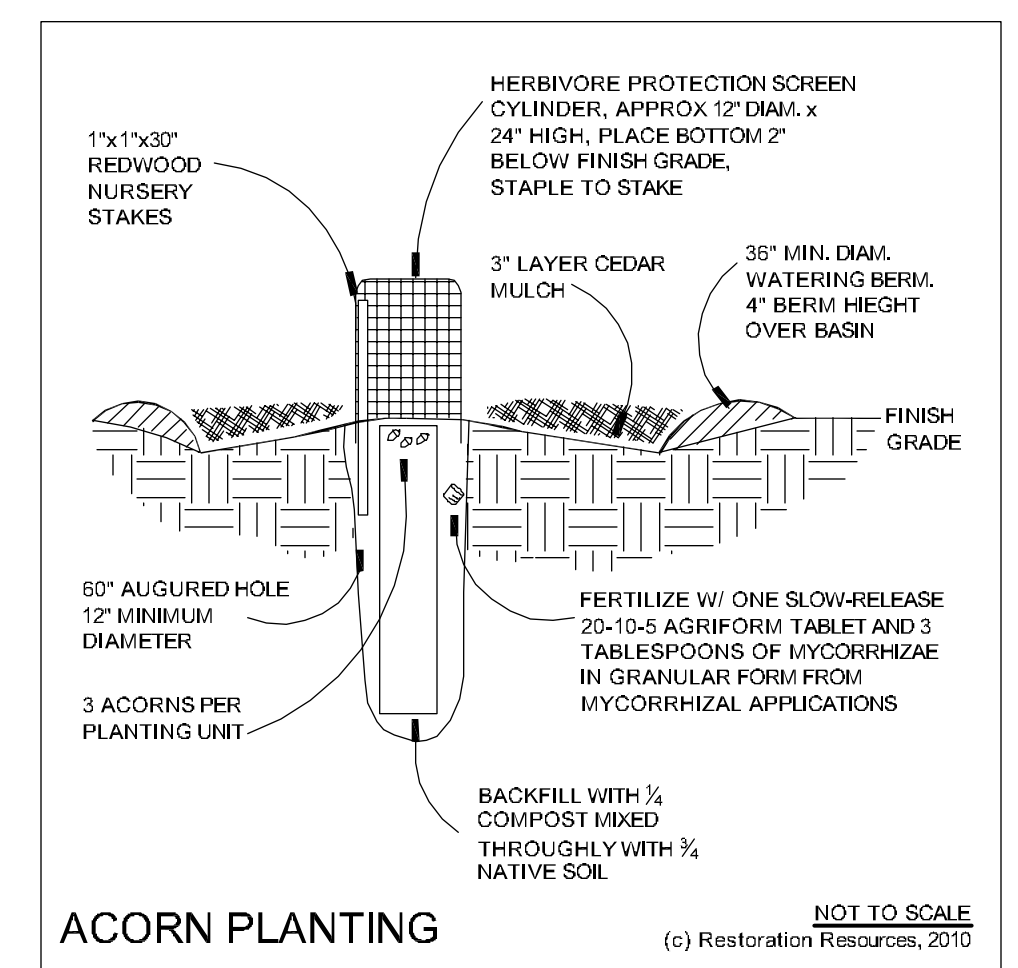
07  
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DUAL-PORT DRIP ASSEMBLY ON SLOPE

NOT TO SCALE  
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06  
L4.3



ACORN PLANTING

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03  
L4.3



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SHEET TITLE:  
**ELVERTA DRAINAGE CORRIDORS B, C, & D**  
CONCEPTUAL HABITAT DEVELOPMENT PLAN  
Elverta, California

NORTH

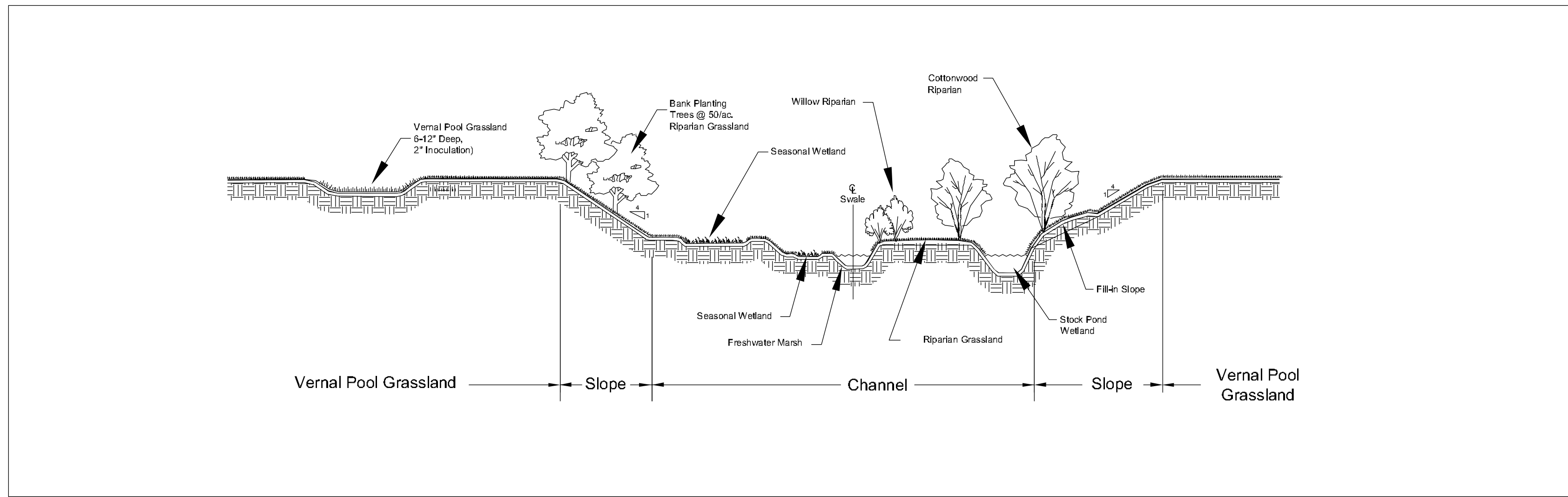
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REVIEWED BY:	DATE:	PROJECT NO.:	DATE:
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SHEET NO. **L4.3**

SCALE

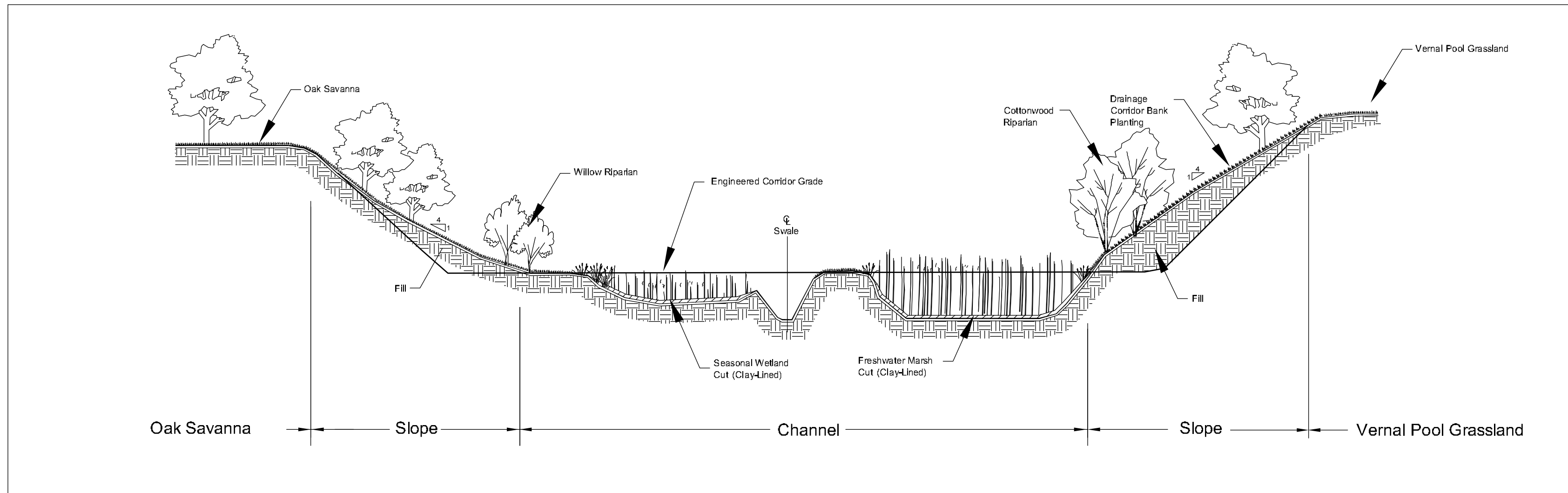
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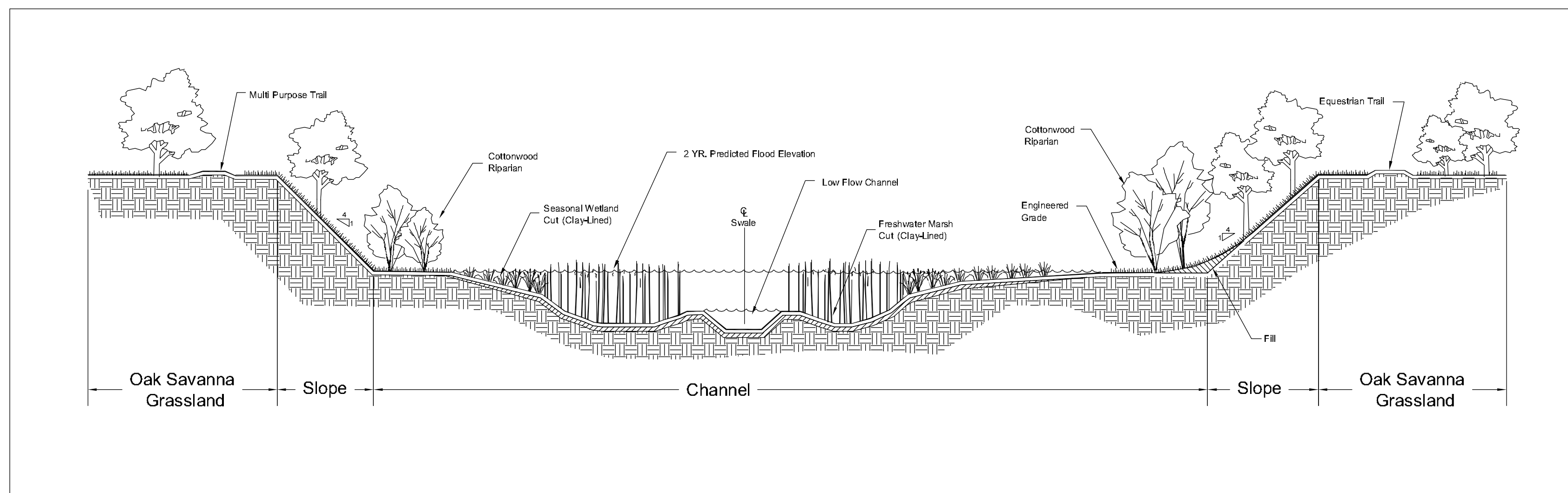
Cross-Section Corridor B

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L4.4



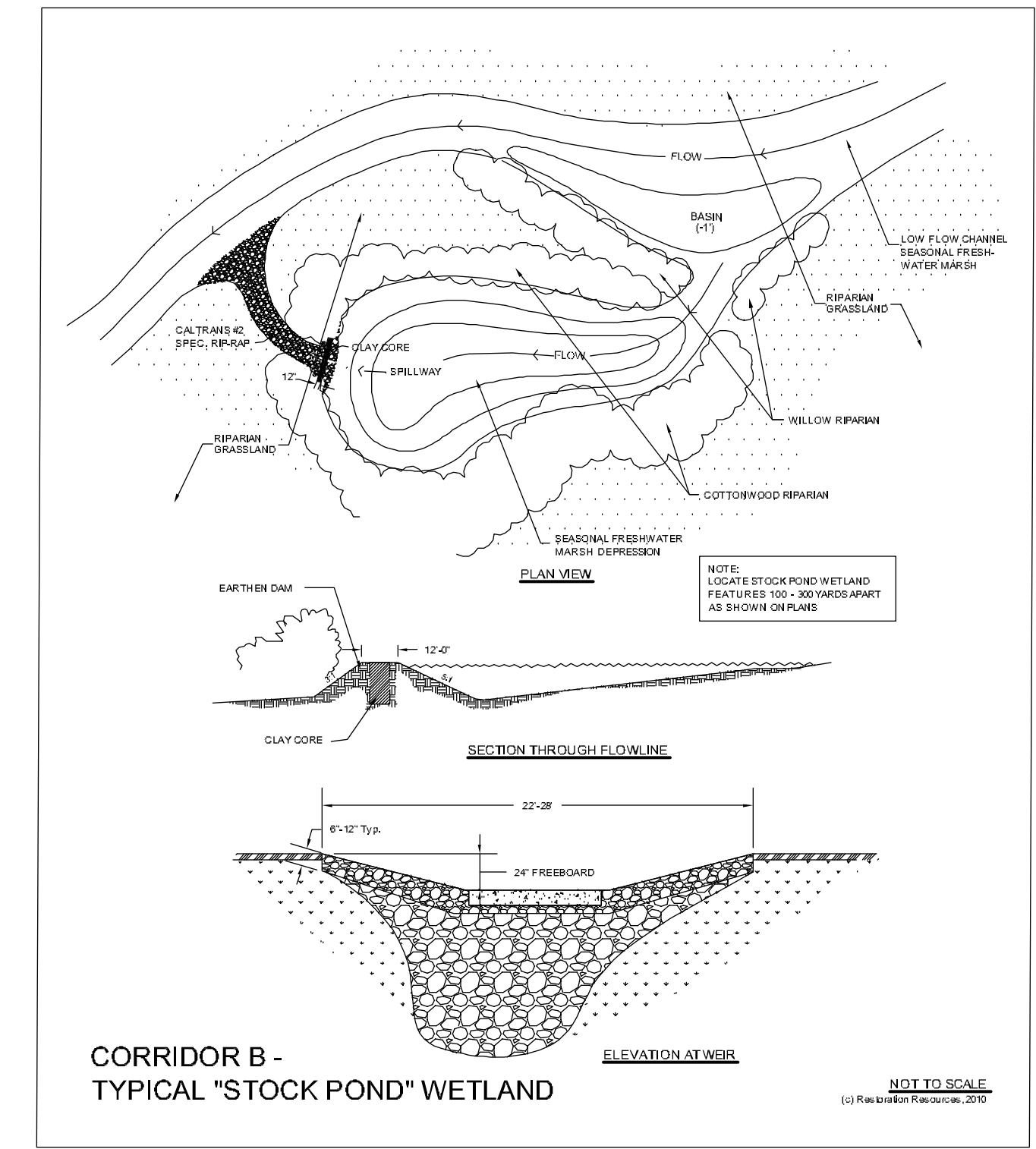
Cross-Section Corridor C

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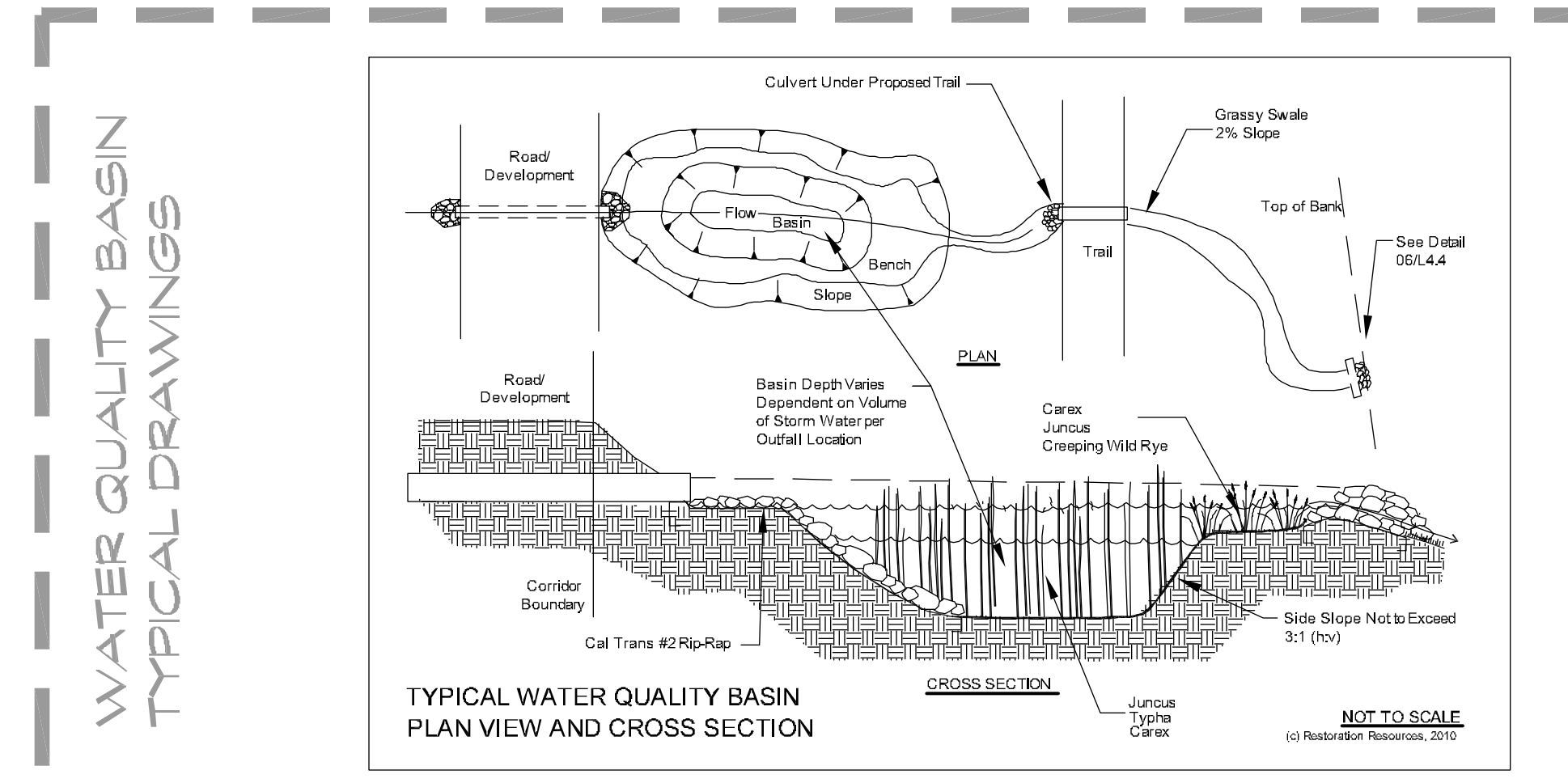
Cross-Section Corridor D

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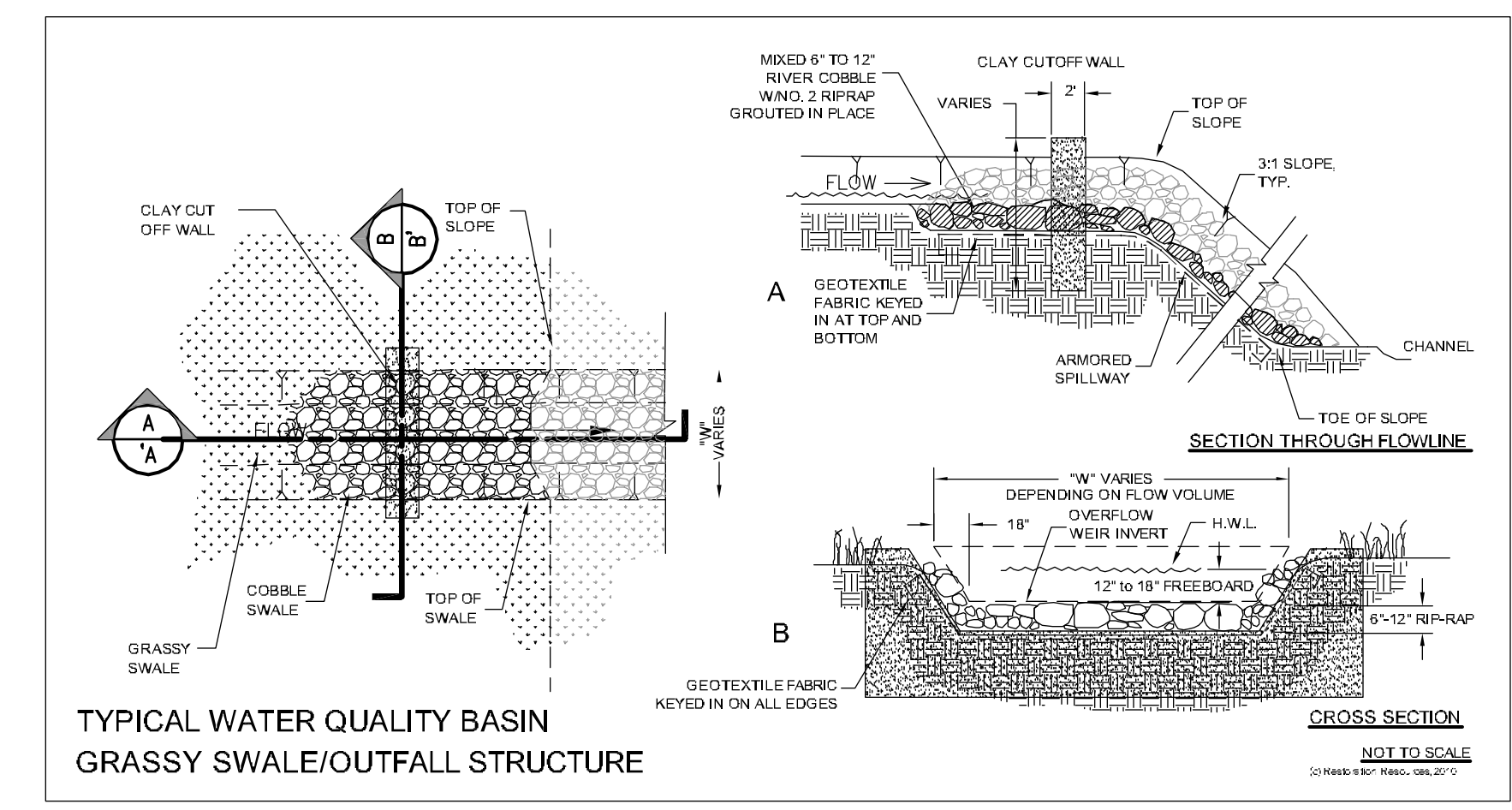
CORRIDOR B - TYPICAL "STOCK POND" WETLAND

04  
L4.4



TYPICAL WATER QUALITY BASIN PLAN VIEW AND CROSS SECTION

05  
L4.4



TYPICAL WATER QUALITY BASIN GRASSY SWALE/OUTFALL STRUCTURE

06  
L4.4

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SHEET TITLE:  
ELVERTA DRAINAGE CORRIDORS B, C, & D  
CONCEPTUAL HABITAT DEVELOPMENT PLAN  
Elverta, California  
CONCEPTUAL SECTIONS & DETAILS

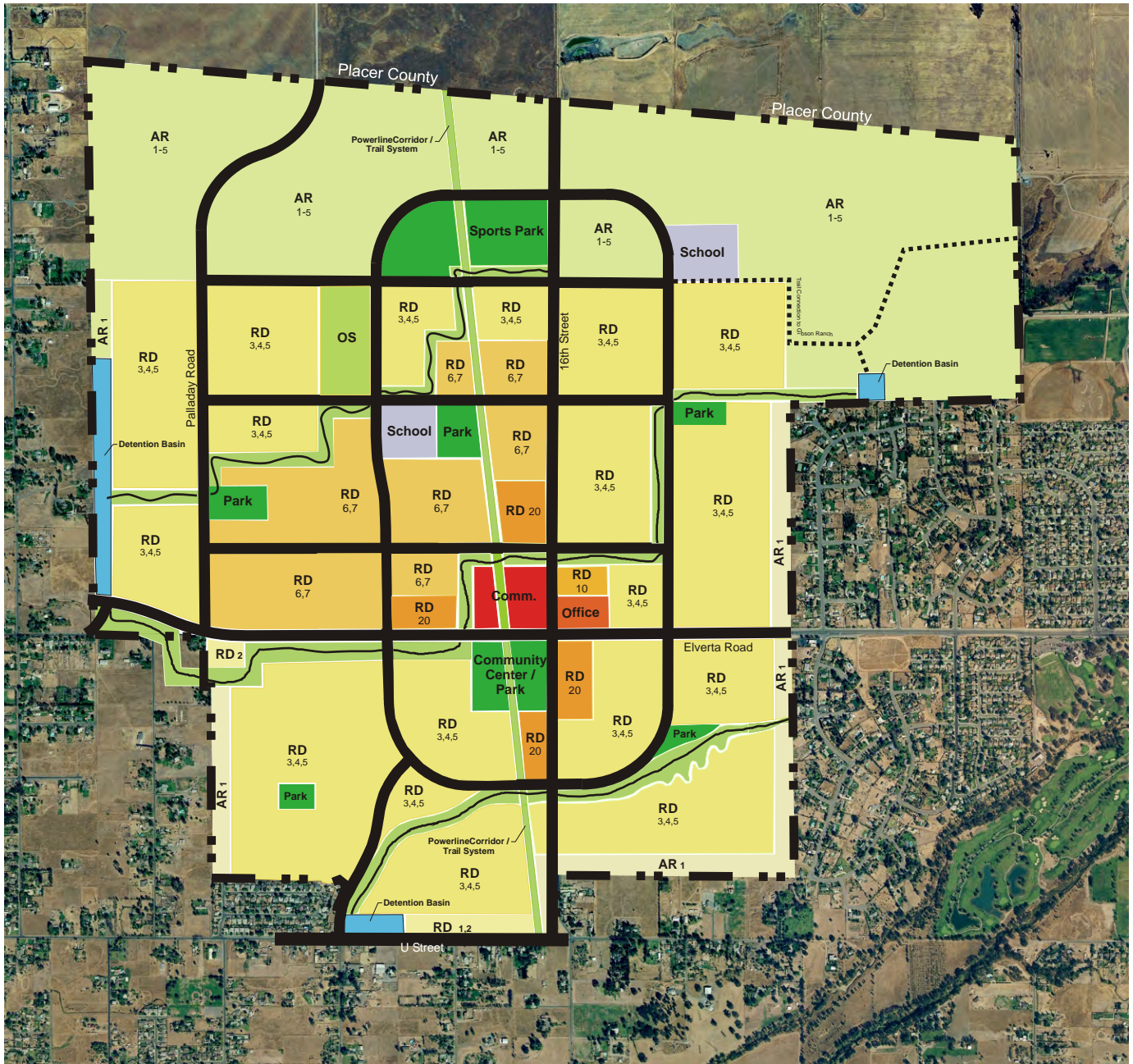
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DATE:	DATE:	DATE:	DATE:

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19 of 19

## **9.6 Large-Scale Exhibits**





Land Use	Acres	Land Use	Acres
Agricultural Residential (AR) 1-5	502.3	Office / Professional	4.4
Agricultural Residential (AR) 1	49.5	Commercial	15.0
Residential Development (RD) 2	3.2	Community / Sports / Neighborhood Parks	73.3
Residential Development (RD) 1, 2	6.9	Elementary School	20.2
Residential Development (RD) 3, 4, 5	662.7	Drainage / Trails	101.3
Residential Development (RD) 6,7	161.7	Detention / Joint Use	
Residential Development (RD) 10	7.0	Powerline Corridor*, and Trail System	16.3
Residential Development (RD) 20	38.8	Open Space	18.4
		Major Roads - Other	74.3
			<b>Total 1,744.6</b>

\*Includes 10.68 acres of powerline corridor acreage in park, RD 20 and Commercial landuse statistics where corridor is adjacent to or within said landuse designations. (Total acreage nets out these 10.68 acres)

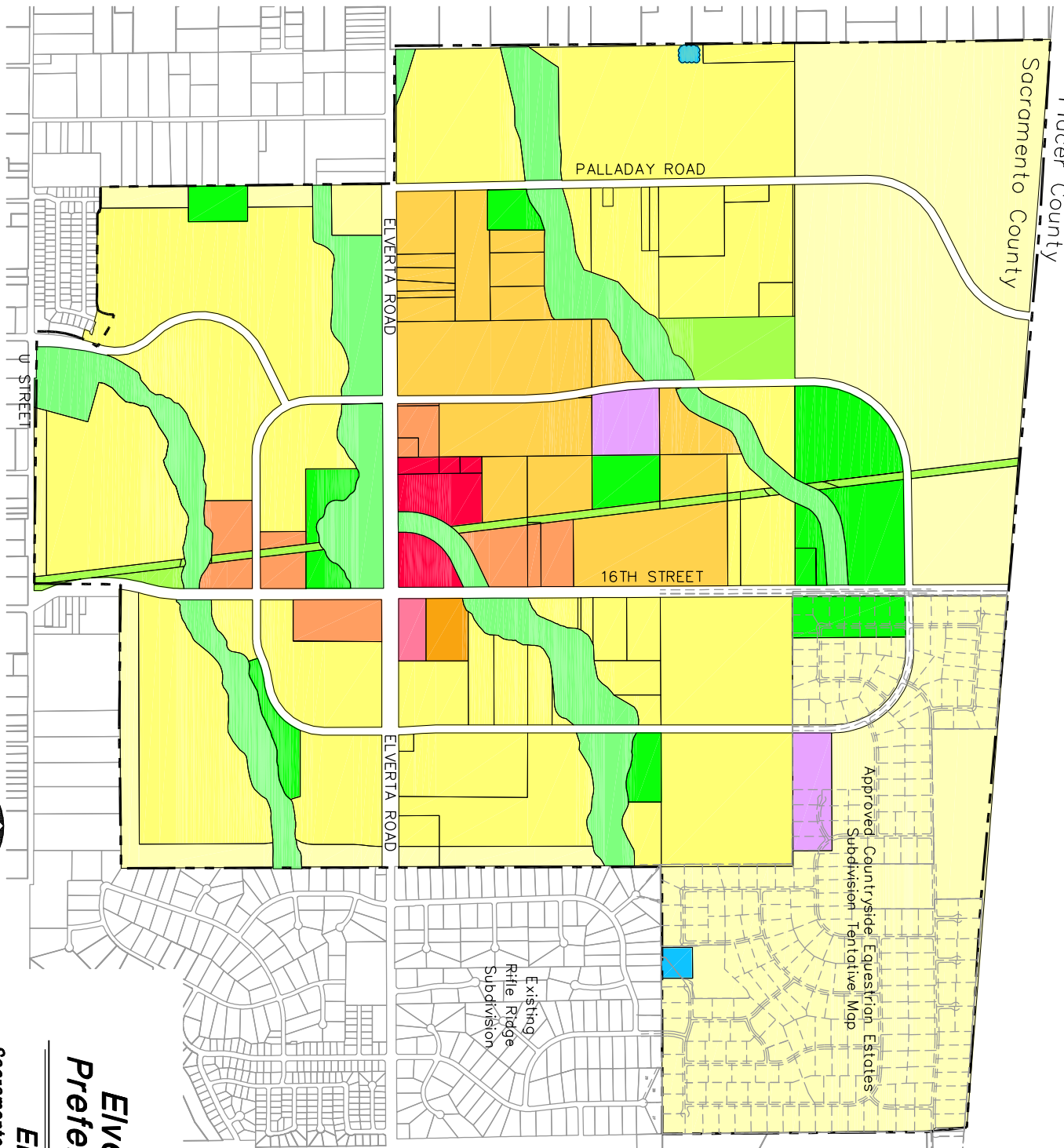
**Total Plan Holding Capacity of 4,950 Dwelling Units**

④ 1-30-04

# ELVERTA SPECIFIC PLAN (PLAN 4, AS REVISED)



Placer County  
Sacramento County

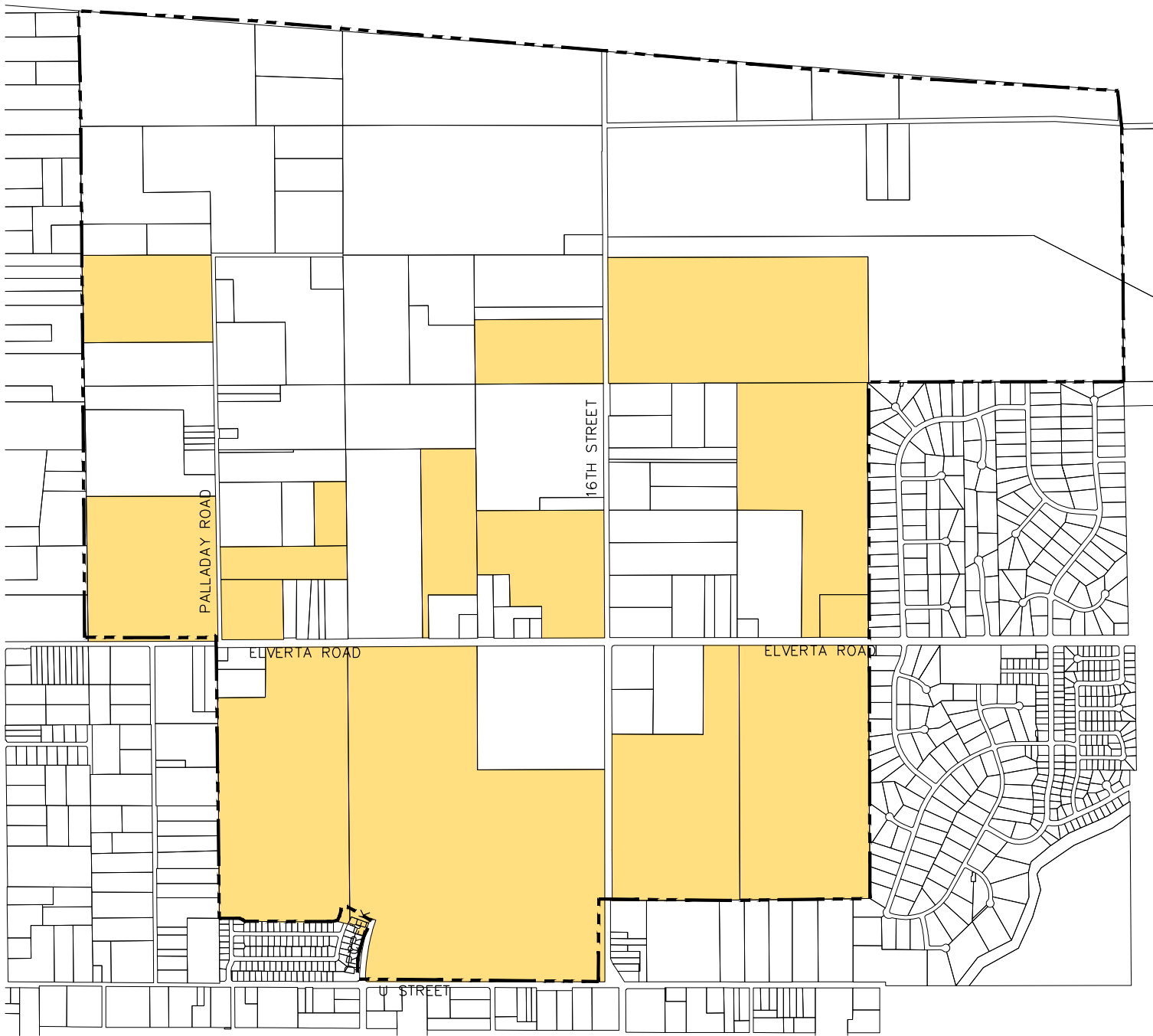


SCALE: 1" = 1500'



Land Use Summary Table

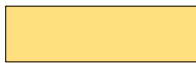
LAND USE TYPE	APPROX. SPECIFIC	APPROX. TOTAL	APPROX. PERCENT
AR 1	419	10000	4.2
AR 1-5	693	10580	4.7
RD 1	829	13200	8
RD 2	552	20000	11.5
RD 3	1425	24000	29
RD 4	1425	38500	12.8
RD 5	1149	55600	20.5
RD 6	258	30000	10
RD 7	313	100000	6.1
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RD 292	0	0	0
RD 293	0	0	0
RD 294	0	0	0
RD 295	0	0	0
RD 296	0	0	0
RD 297	0	0	0
RD 298	0	0	0
RD 299	0	0	0
RD 300	0	0	0
RD 301	0	0	0
RD 302	0	0	0
RD 303	0	0	0
RD 304	0	0	0
RD 305	0	0	0
RD 306	0	0	0



**LEGEND:**



PROJECT BNDY.



PARTICIPATING PARCELS



SCALE: 1" = 1500'



**Exhibit 3**  
**Elverta Owners Group**  
**(Participants, Phase 1 Development)**

**Elverta Specific Plan**

Sacramento County,

California

Scale: 1"=1500'

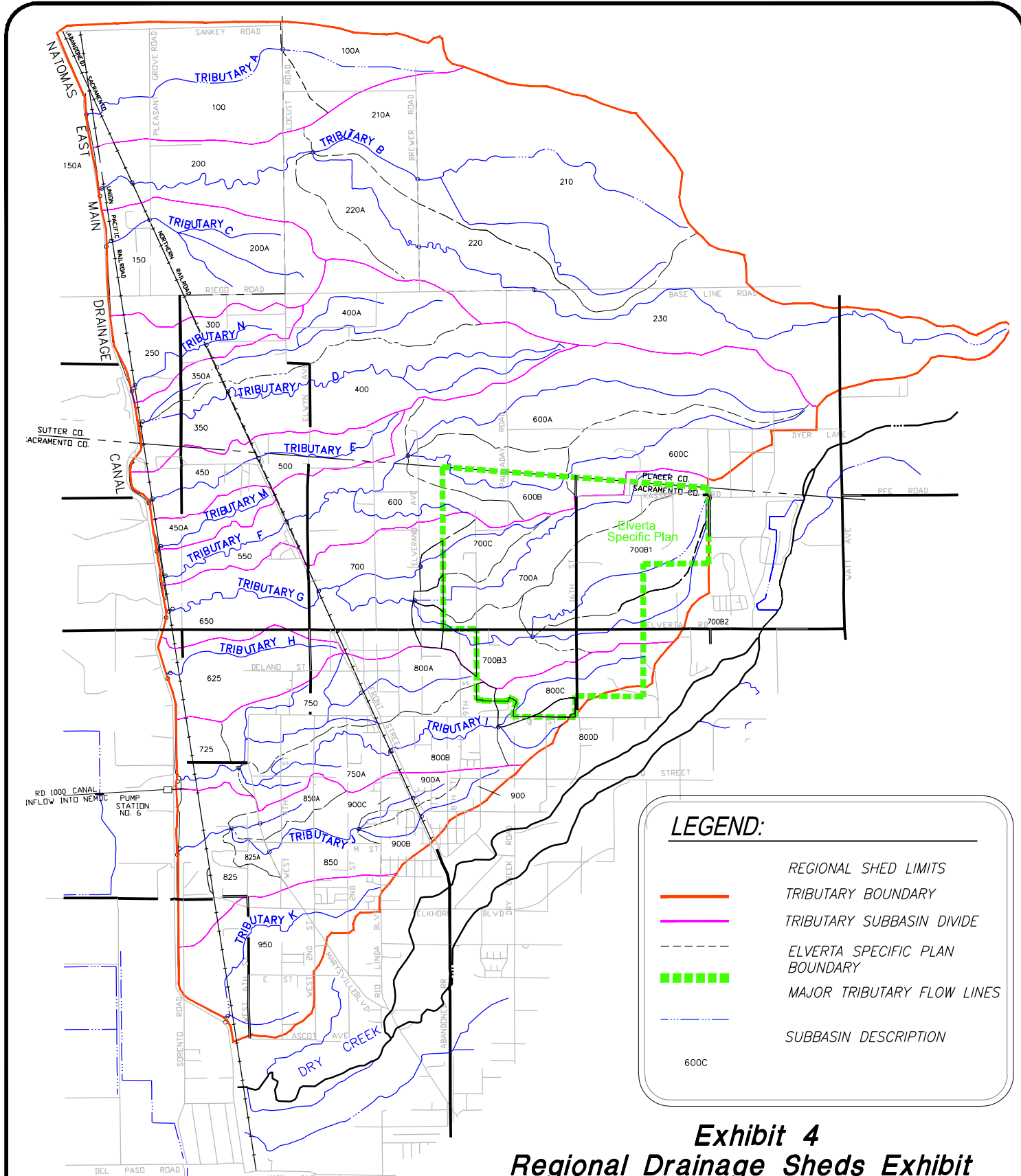
January, 2011









1552 Eureka Road, Suite 100, Roseville, CA 95661 (916) 773-1189

7501-30





**LEGEND:**

-  REGIONAL SHED LIMITS
-  TRIBUTARY BOUNDARY
-  TRIBUTARY SUBBASIN DIVIDE
-  ELVERTA SPECIFIC PLAN BOUNDARY
-  MAJOR TRIBUTARY FLOW LINES
-  SUBBASIN DESCRIPTION

**Exhibit 4  
Regional Drainage Sheds Exhibit**

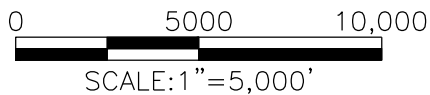
**Elverta Specific Plan**

Sacramento County,

California

Scale: 1"=5000'

January, 2011



7501-30





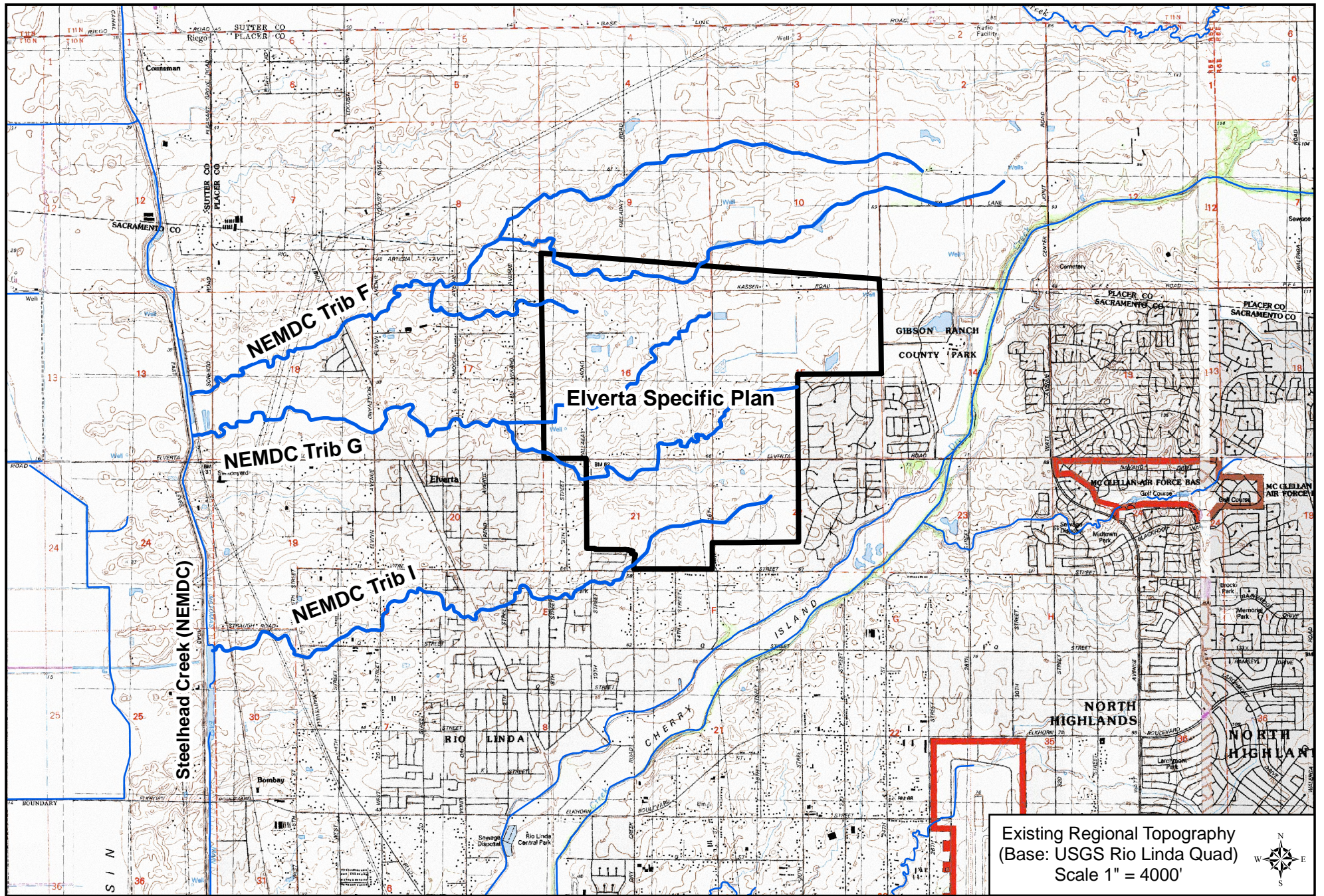
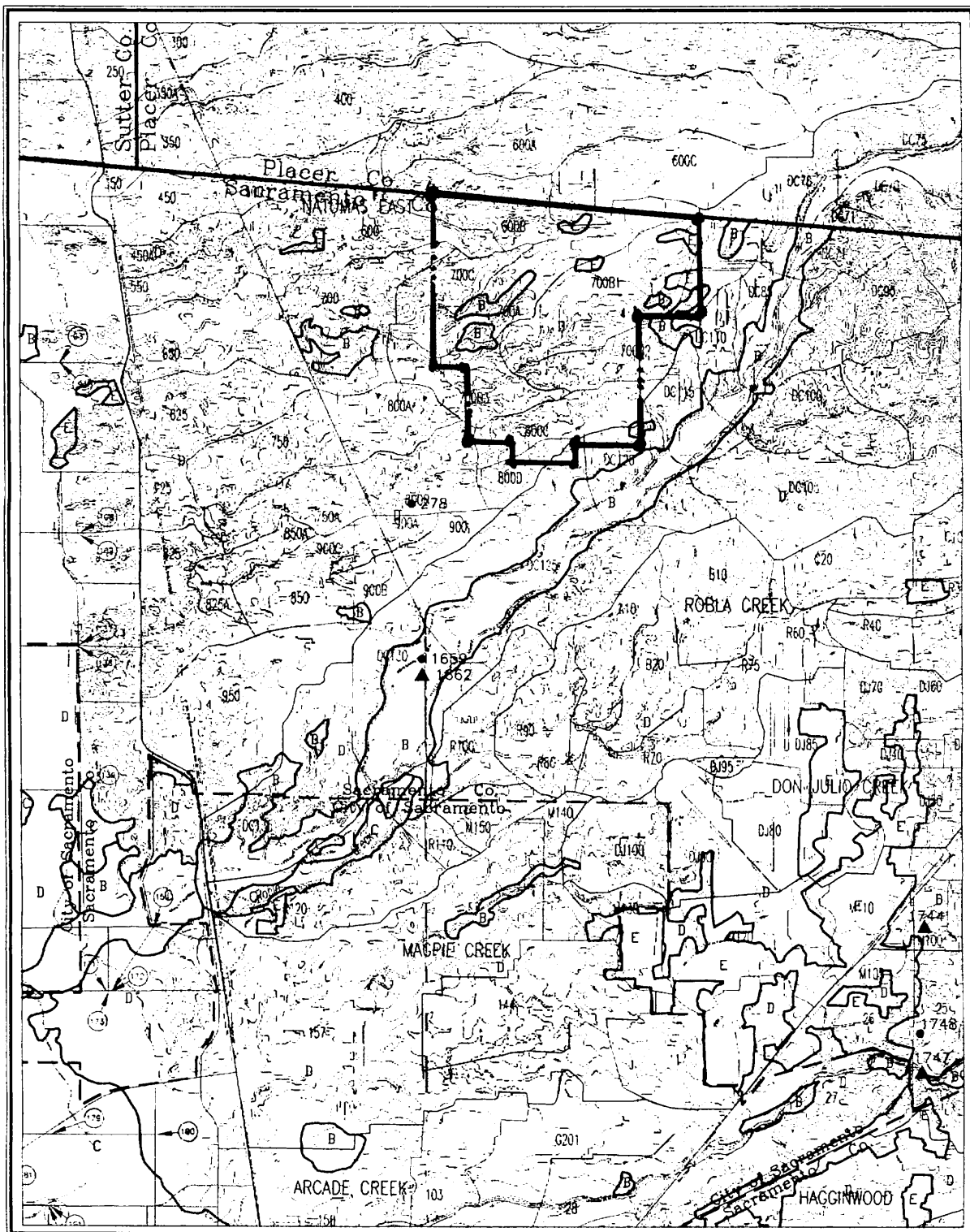
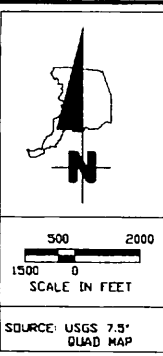


Exhibit 5 : Existing Regional Topography





MAP 3



Legend	
	SOIL TYPE
	WATERSHED BOUNDARY
	TOPOGRAPHIC CONTOURS
	RAIN GAGE
	STREAM GAGE

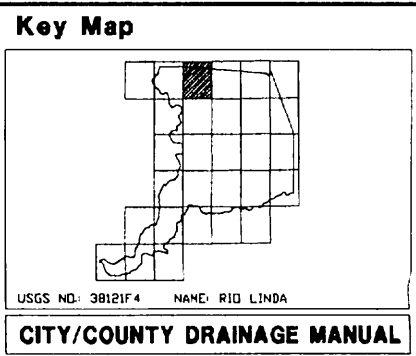
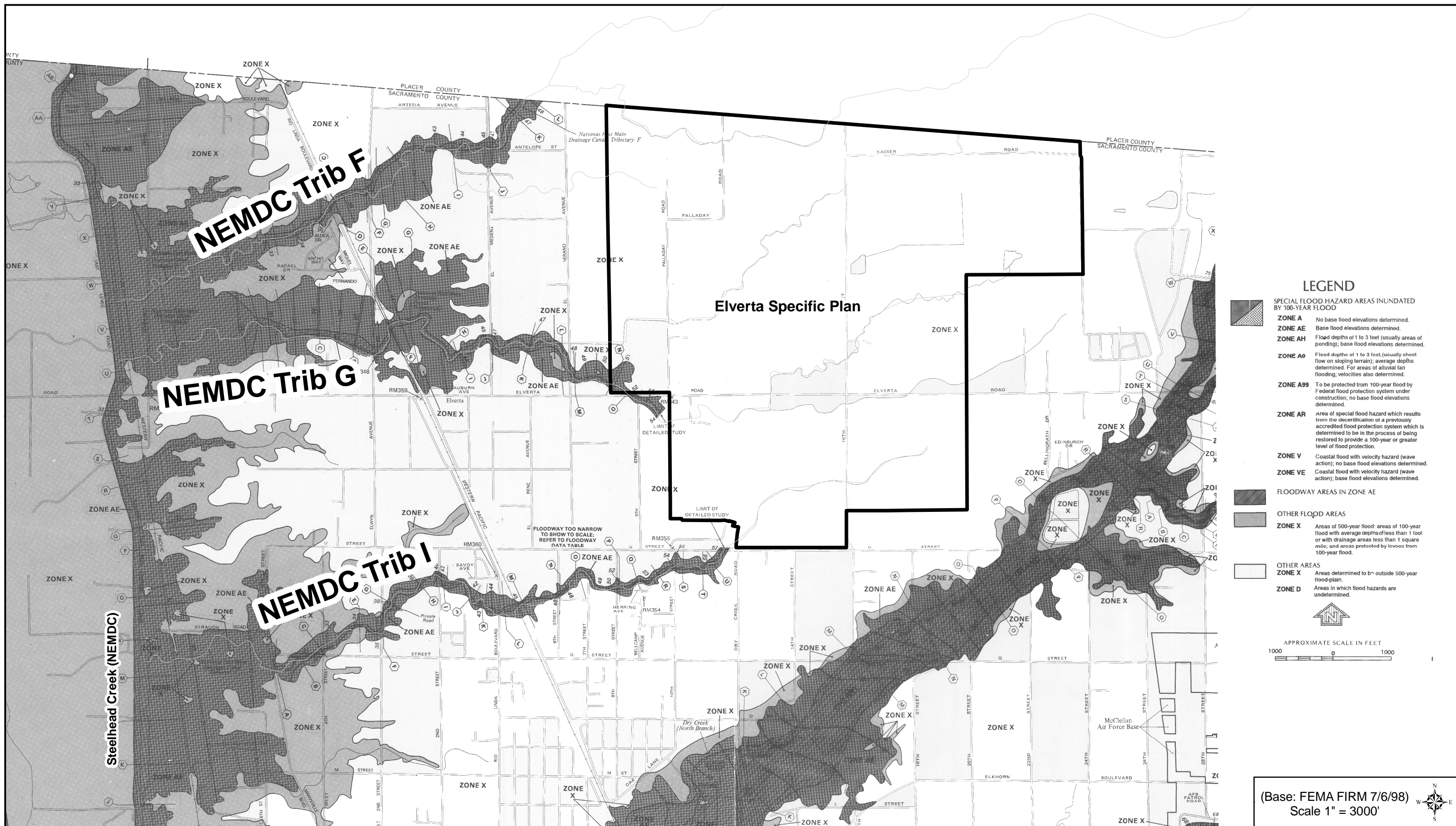


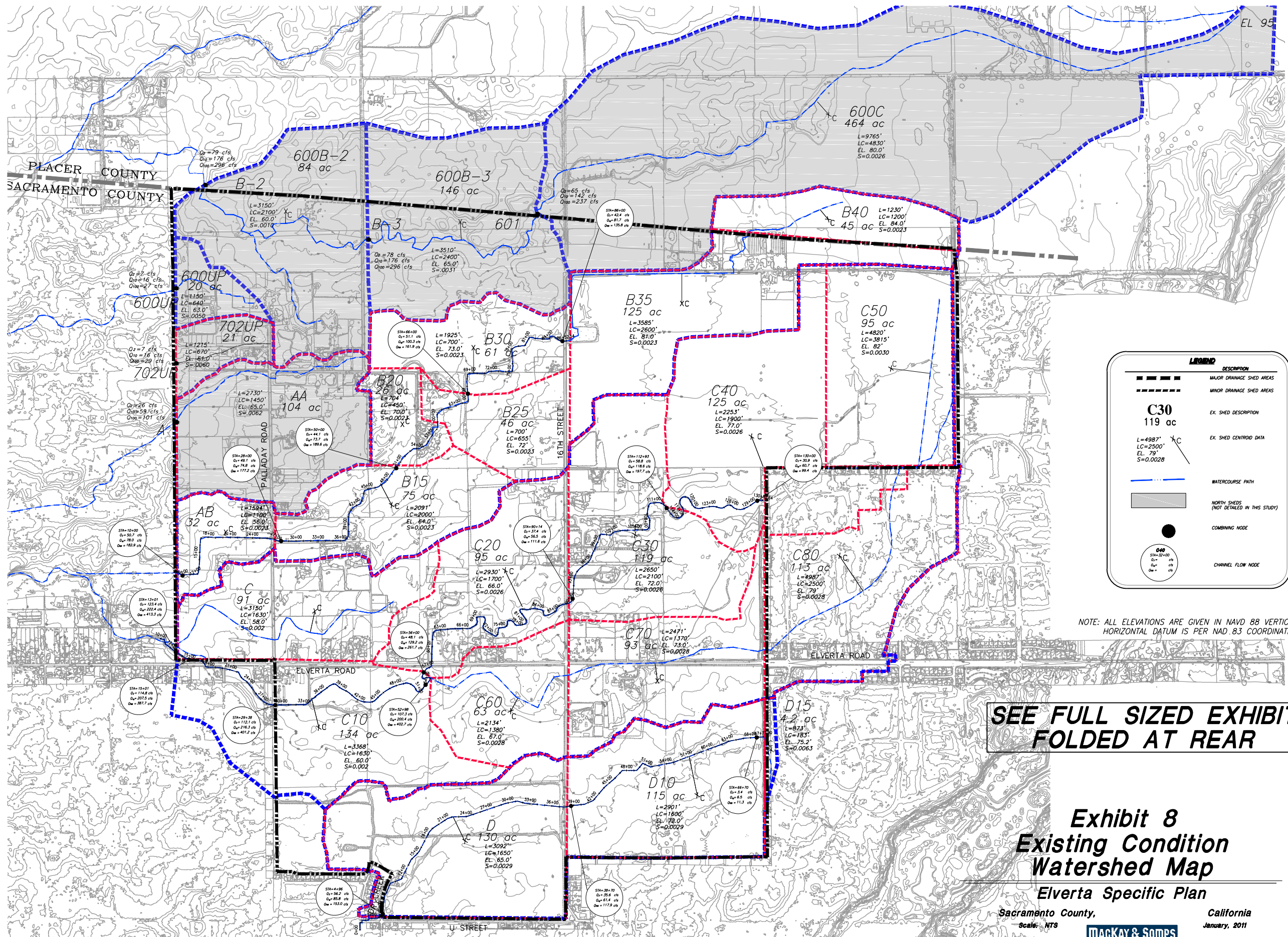
EXHIBIT 6 - ELVERTA SOILS MAP





**Exhibit 7 : FEMA Regional Floodplain Delineation  
(Datum : NGVD29)**





PLACER COUNTY  
SACRAMENTO COUNTY

LEGEND	
SYMBOL	DESCRIPTION
--- (thick dashed)	MAJOR DRAINAGE SHED AREAS
--- (thin dashed)	MINOR DRAINAGE SHED AREAS
C30 119 ac	EX. SHED DESCRIPTION
L=4987' LC=2500' EL. 79.0' S=0.0028	EX. SHED CENTROID DATA
---	WATERCOURSE PATH
---	NORTH SHEDS (NOT DETAILED IN THIS STUDY)
●	COMBINING NODE
○ (with data)	CHANNEL FLOW NODE

NOTE: ALL ELEVATIONS ARE GIVEN IN NAVD 88 VERTICAL DATUM. HORIZONTAL DATUM IS PER NAD 83 COORDINATES.

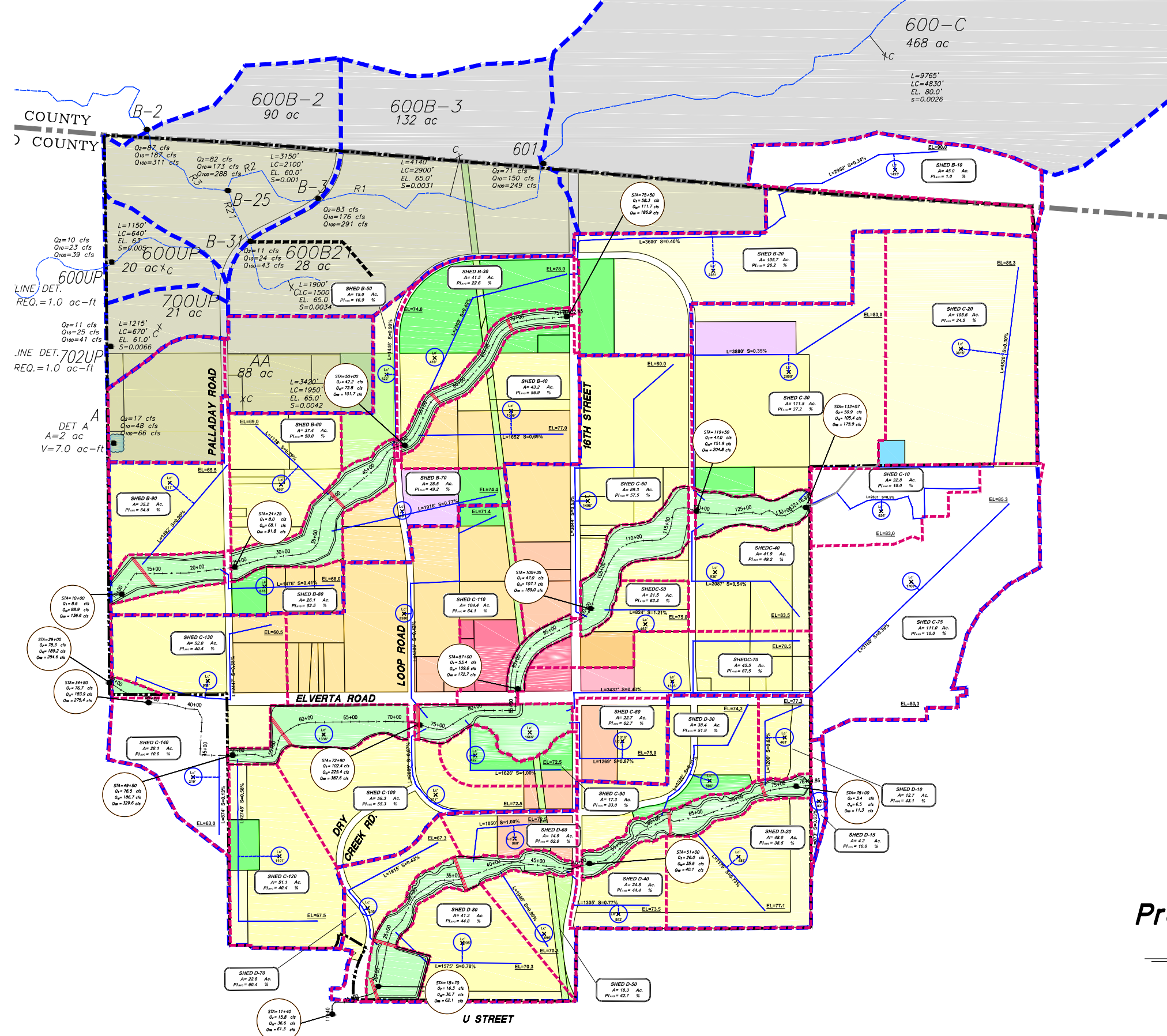
**SEE FULL SIZED EXHIBIT FOLDED AT REAR**

**Exhibit 8  
Existing Condition  
Watershed Map  
Elverta Specific Plan**

Sacramento County, California  
Scale: NTS  
January, 2011







PROPOSED	DESCRIPTION
	MAJOR DRAINAGE SHED AREAS
	MINOR DRAINAGE SHED AREAS
	PROPOSED SHED DESCRIPTION
	PROPOSED SHED CENTROID DATA
	PROPOSED WATERCOURSE PATH
	NORTH SHEDS (NOT DETAILED IN THIS STUDY - REFER TO NOV. 2002 DMP IN FEIR)
	IMPROVED DRAINAGE CHANNEL (TOPS/TOES AND CORRIDOR AREA)
	PROPOSED WEIR LOCATION
	CHANNEL FLOW NODE
	AGRICULTURAL RESIDENTIAL(1-5)
	AGRICULTURAL RESIDENTIAL(1)
	RD(3,4,5)
	RD(6,7)
	RD(20)
	OFFICE
	COMMERCIAL
	PARK
	SCHOOL
	DETENTION BASIN

NOTE: ALL ELEVATIONS ARE GIVEN IN NAVD 88 VERTICAL DATUM. HORIZONTAL DATUM IS PER NAD 83 COORDINATES.

**SEE FULL SIZED EXHIBIT FOLDED AT REAR**

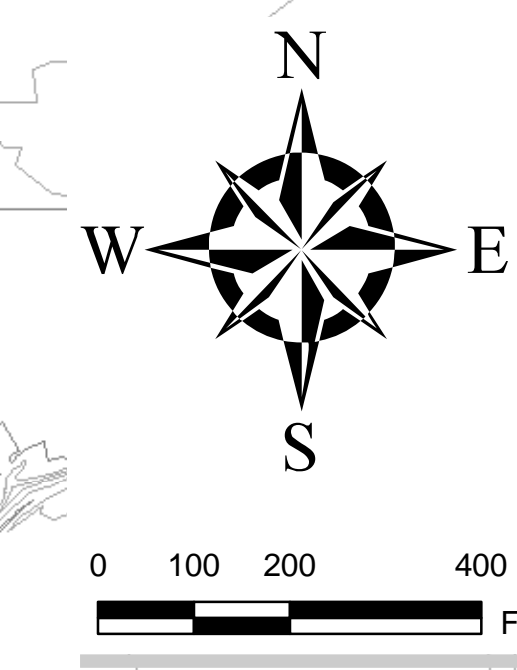
**Exhibit 9  
Proposed Ultimate Condition  
Watershed Map  
Elverta Specific Plan**

Sacramento County, California  
Scale: NTS  
January, 2011





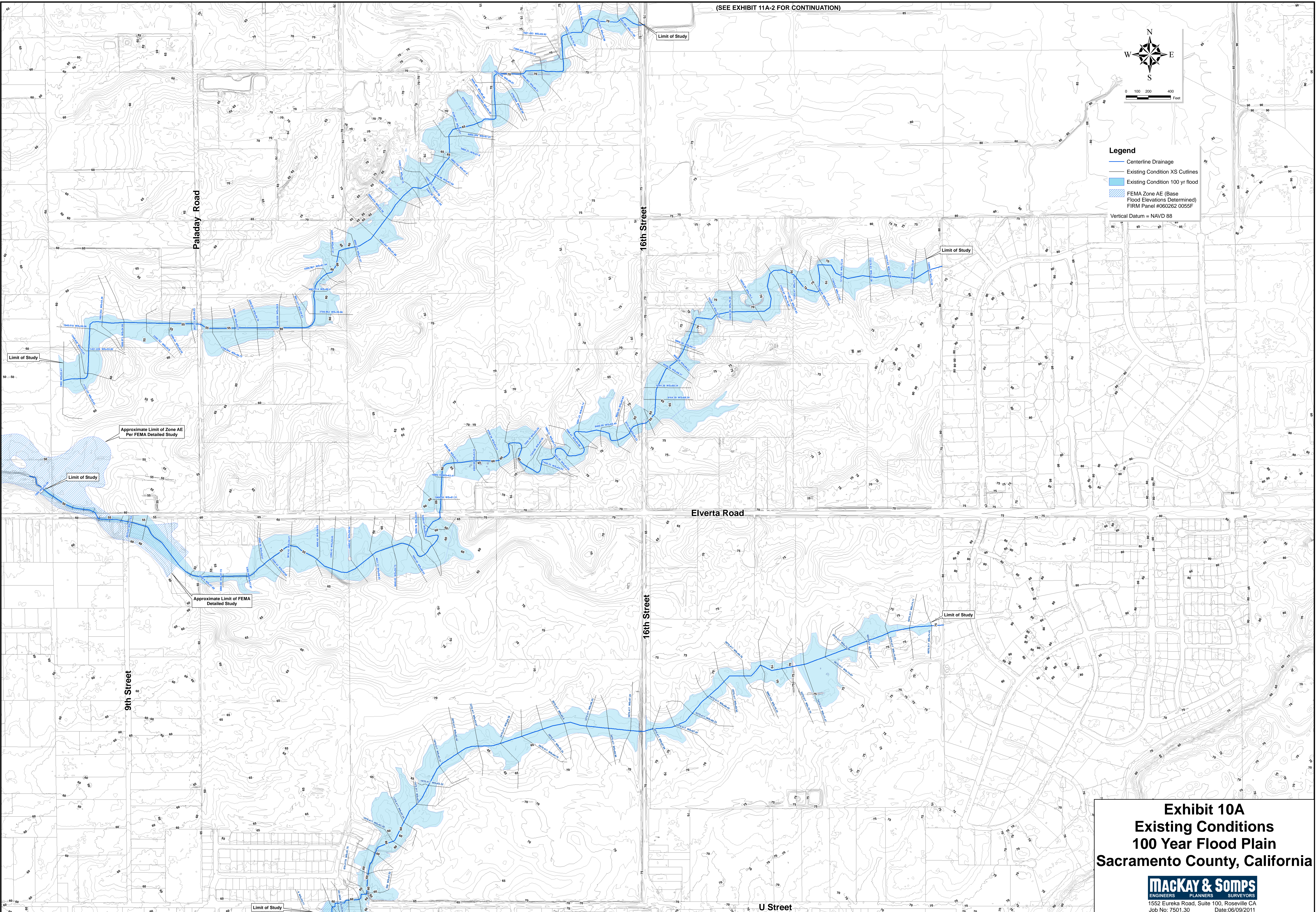
(SEE EXHIBIT 11A-2 FOR CONTINUATION)



**Legend**

- Centerline Drainage
- Existing Condition XS Cutlines
- Existing Condition 100 yr flood
- FEMA Zone AE (Base Flood Elevations Determined) FIRM Panel #060262 0055F

Vertical Datum = NAVD 88



Limit of Study

Limit of Study

Limit of Study

Approximate Limit of Zone AE Per FEMA Detailed Study

Limit of Study

Approximate Limit of FEMA Detailed Study

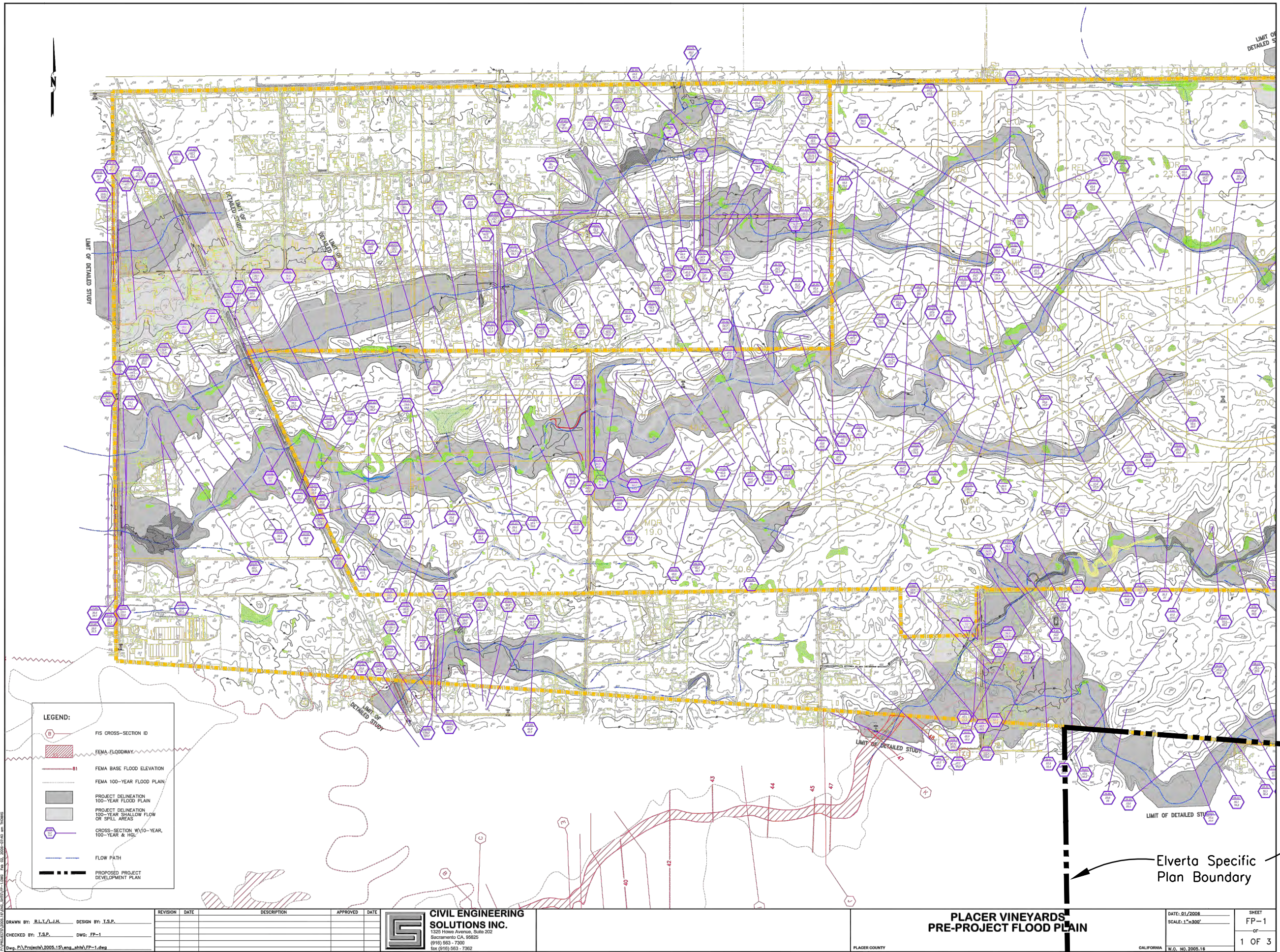
Limit of Study

Limit of Study

**Exhibit 10A**  
**Existing Conditions**  
**100 Year Flood Plan**  
**Sacramento County, California**

**MACKAY & SOMPS**  
 ENGINEERS PLANNERS SURVEYORS  
 1552 Eureka Road, Suite 100, Roseville CA  
 Job No: 7501.30 Date: 06/09/2011





**LEGEND:**

- FIS CROSS-SECTION ID
- FEMA FLOODWAY
- FEMA BASE FLOOD ELEVATION
- FEMA 100-YEAR FLOOD PLAIN
- PROJECT DELIMITATION 100-YEAR FLOOD PLAIN
- PROJECT DELIMITATION 100-YEAR SHALLOW FLOW OR SPILL AREAS
- CROSS-SECTION W/10-YEAR, 100-YEAR, & HGT.
- FLOW PATH
- PROPOSED PROJECT DEVELOPMENT PLAN

DRAWN BY: R.L.T./J.H. DESIGN BY: J.S.P.  
 CHECKED BY: J.S.P. DWG: FP-1  
 Dwg\_P\Projects\2005.15\eng\_shta\FP-1.dwg

REVISION	DATE	DESCRIPTION	APPROVED	DATE

**CIVIL ENGINEERING SOLUTIONS INC.**  
 1325 Howe Avenue, Suite 202  
 Sacramento CA, 95825  
 (916) 563-7300  
 fax (916) 563-7362

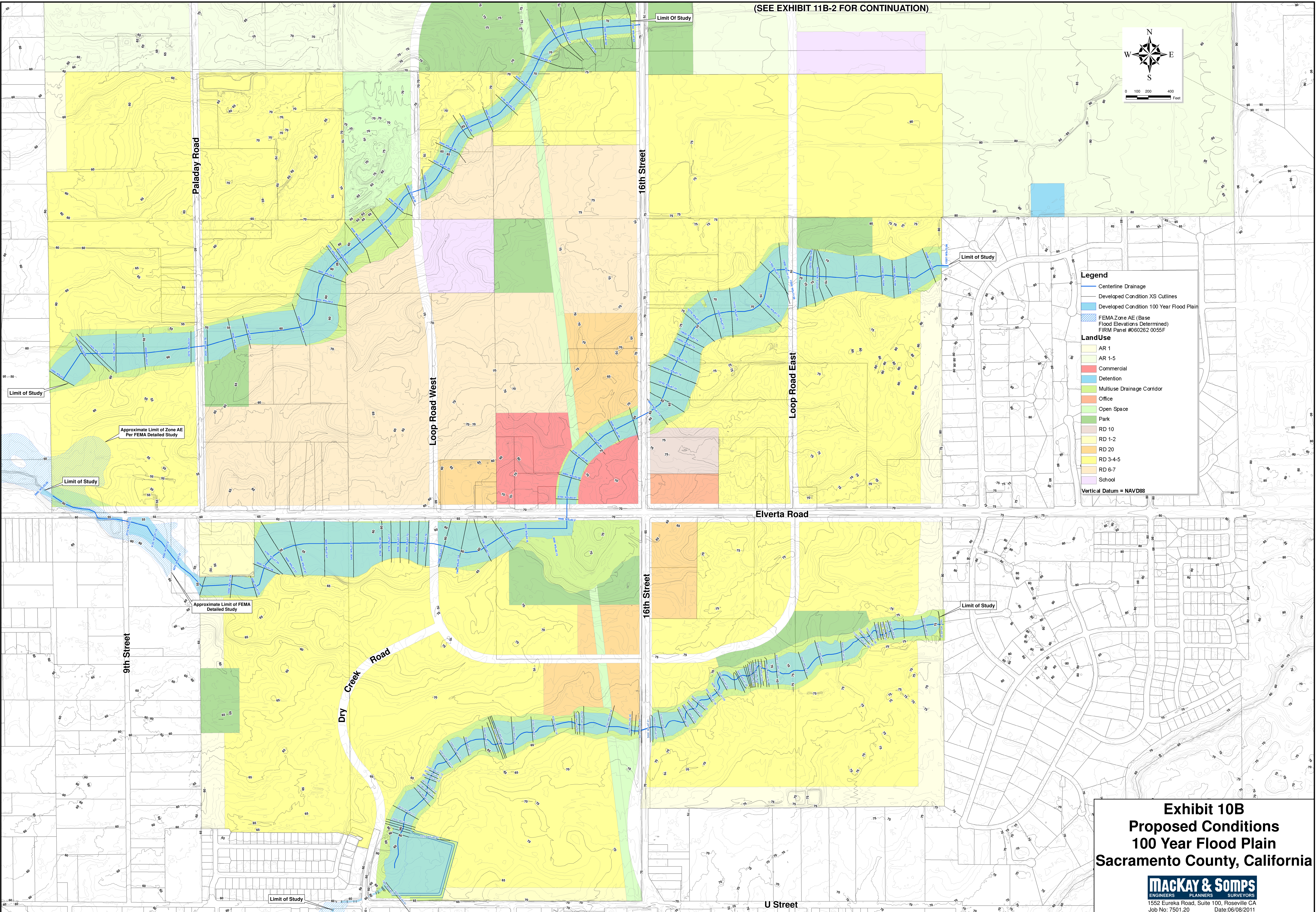
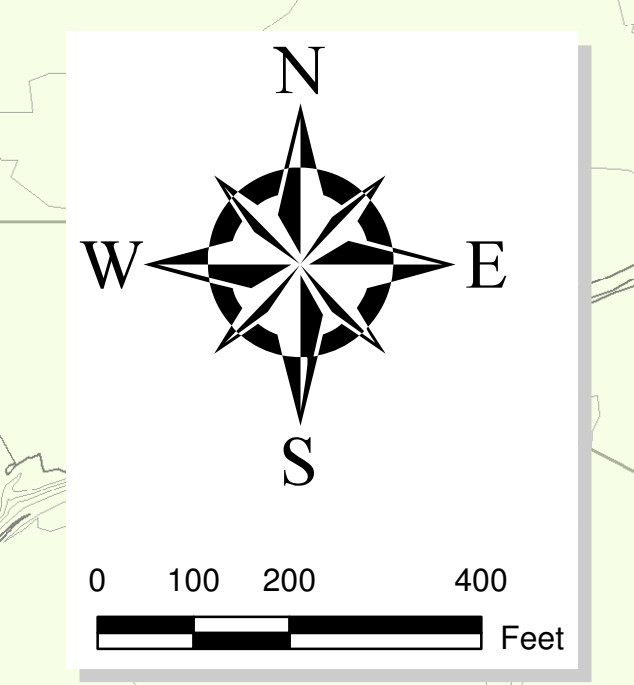
**PLACER VINEYARDS  
 PRE-PROJECT FLOOD PLAN**

DATE: 01/2008  
 SCALE: 1"=300'  
 SHEET FP-1  
 OF 3  
 1 OF 3

Elverta Specific Plan Boundary



(SEE EXHIBIT 11B-2 FOR CONTINUATION)



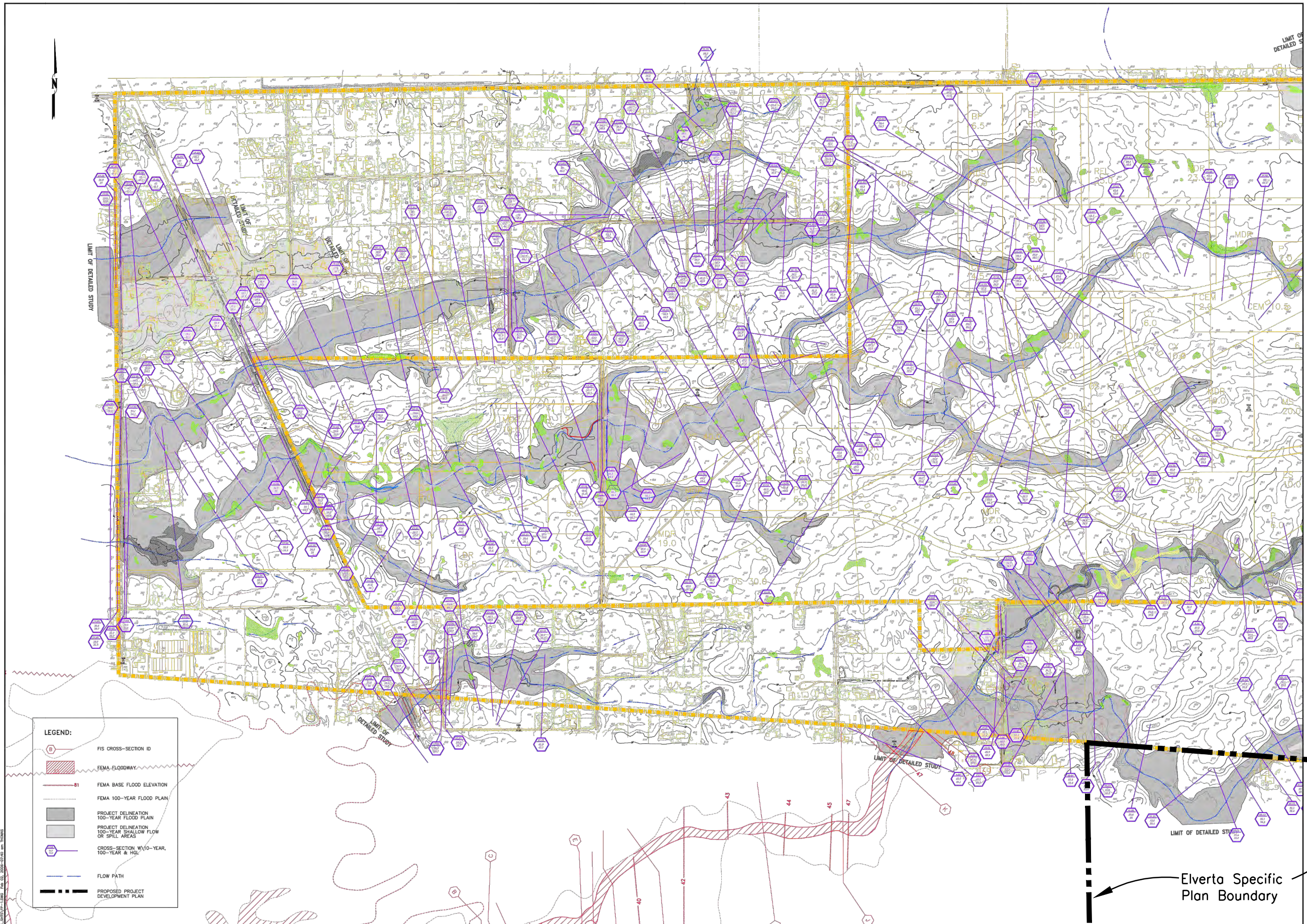
**Legend**

- Centerline Drainage
  - Developed Condition XS Outlines
  - Developed Condition 100 Year Flood Plain
  - FEMA Zone AE (Base Flood Elevations Determined) FIRM Panel #060262 0055F
- Land Use**
- AR 1
  - AR 1-5
  - Commercial
  - Detention
  - Multiuse Drainage Corridor
  - Office
  - Open Space
  - Park
  - RD 10
  - RD 1-2
  - RD 20
  - RD 3-4-5
  - RD 6-7
  - School
- Vertical Datum = NAVD88

**Exhibit 10B**  
**Proposed Conditions**  
**100 Year Flood Plain**  
**Sacramento County, California**

**MACKAY & SOMPS**  
 ENGINEERS PLANNERS SURVEYORS  
 1552 Eureka Road, Suite 100, Roseville CA  
 Job No: 7501.20 Date: 06/08/2011





DRAWN BY: R.L.T./J.H. DESIGN BY: J.S.P.  
 CHECKED BY: J.S.P. DWG: FP-1  
 Dwg\_P\Projects\2005.15\eng\_shta\FP-1.dwg

REVISION	DATE	DESCRIPTION	APPROVED	DATE

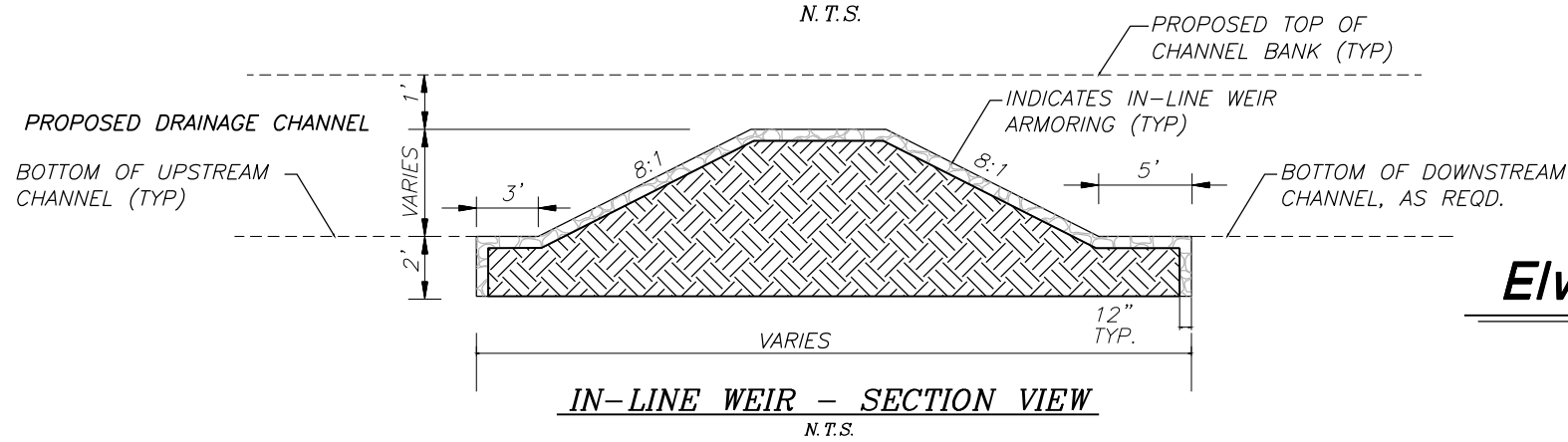
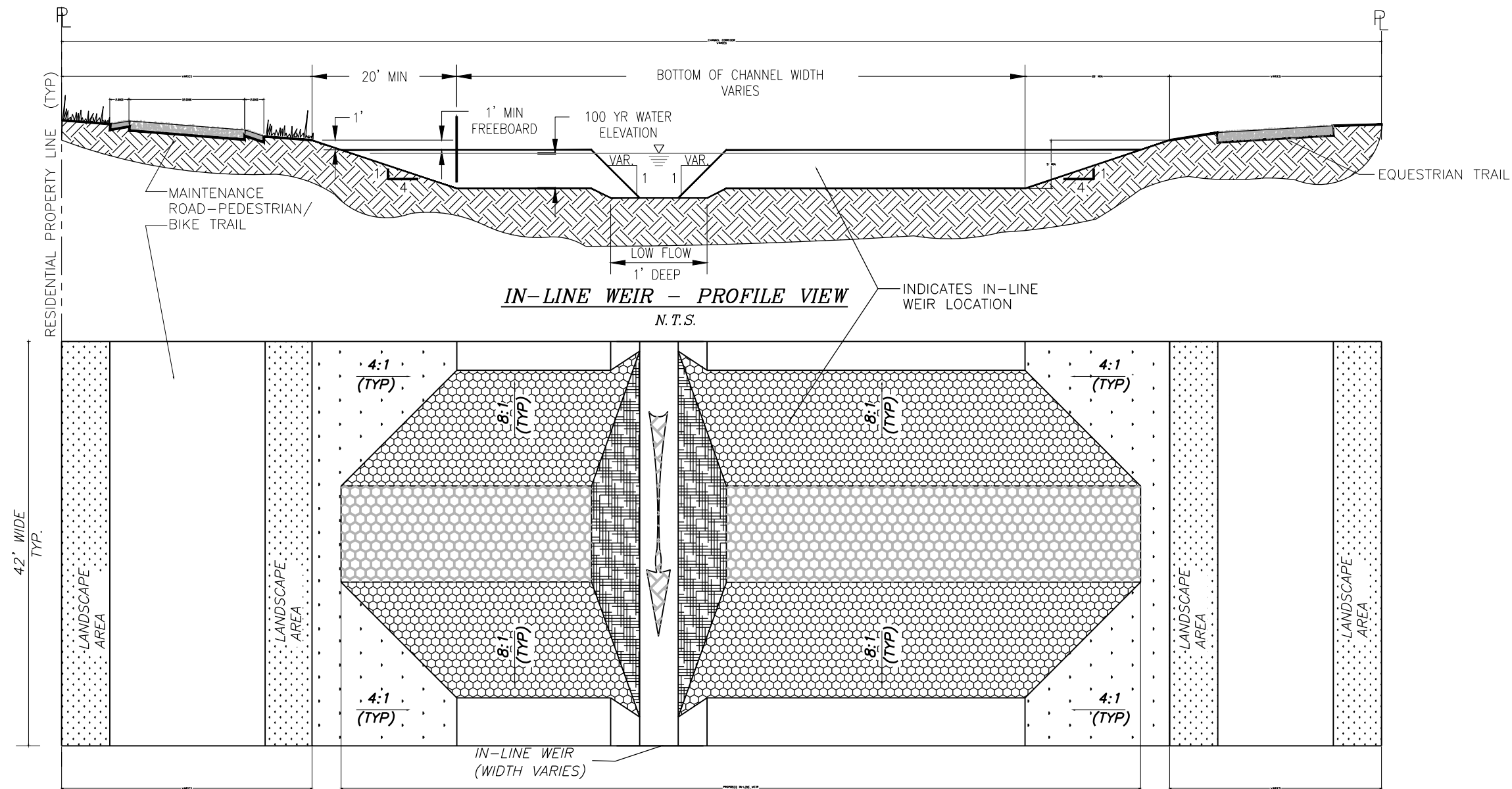
**CIVIL ENGINEERING SOLUTIONS INC.**  
 1325 Howe Avenue, Suite 202  
 Sacramento CA, 95825  
 (916) 563-7300  
 fax (916) 563-7362

**PLACER VINEYARDS PRE-PROJECT FLOOD PLAN**  
 PLACER COUNTY

DATE: 01/2008  
 SCALE: 1"=300'  
 SHEET FP-1  
 OF 3  
 1 OF 3  
 CALIFORNIA W.G. NO. 2005.16

Elverta Specific Plan Boundary





**Exhibit 11**  
**Elverta Cross-Channel Berm Detail**

**Elverta Specific Plan**

Sacramento County,  
Scale: 1"=NTS

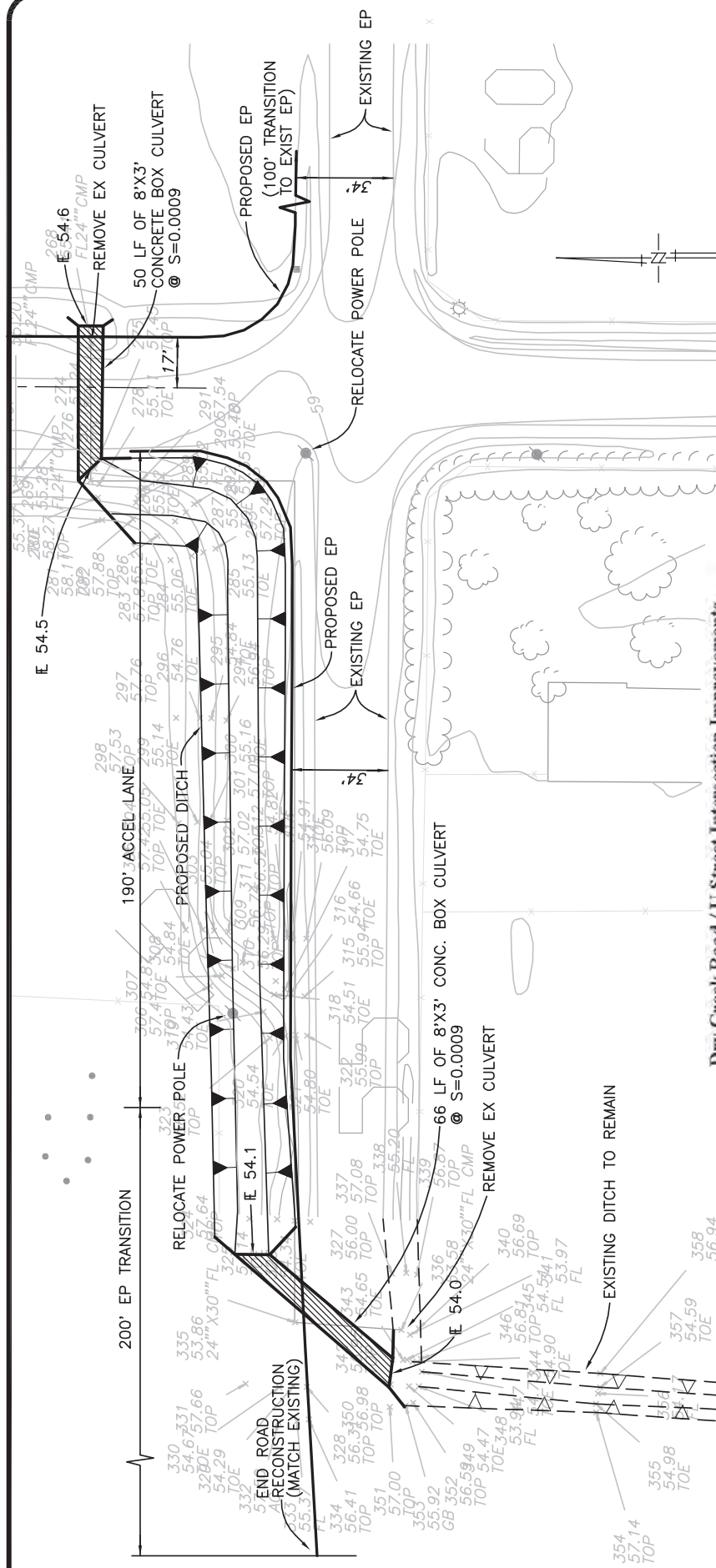
California  
January, 2011



1552 Eureka Road, Suite 100, Roseville, CA 95661 (916) 773-1189

7501-30





**Dry Creek Road / U Street Intersection Improvements**

Pavement Removal	10,000 SF	\$1.50	\$15,000
Class II A.B. (148.15 #/cf)	1,020 Tons	\$30	\$30,600
A.C. (155.55# / cf)	360 Tons	\$65	\$23,400
8'x3' Box Culvert	116 LF	\$380	\$44,080
Headwalls	4 Ea	\$6,000	\$24,000
Channel Grading (10' BW; 2:1 SS)	670 CY	\$5	\$3,350
Roadside Ditch Regrading	1 LS	\$500	\$500
Power Pole Relocation	2 Ea	\$5,000	\$10,000
Erosion Control	1 LS	\$4,000	\$4,000
	Sub-Total		\$167,930
	35% Contingency		\$58,776
	Grand Total		\$226,706
	Use		\$227,000

**Project Description:**  
 Improvements entail placement of 50 lf of 8'x3' box culvert across Dry Creek Road, placement of 66 lf of 8'x3' box culvert at an angle across U Street and interconnection of these culverts with 300 lf of trapezoidal ditch. The west leg of the intersection on U Street will need to be raised 1' to 1.5' to accommodate the culvert; the north leg (Dry Creek Road) by about 6" for the same purpose. Additionally, east and west bound intersection legs will be widened to 34' to allow for 5' shoulders each way. Dry Creek Road widening is part of the proposed Dry Creek Road project identified elsewhere in the C.I.P. Road project elsewhere in the C.I.P.

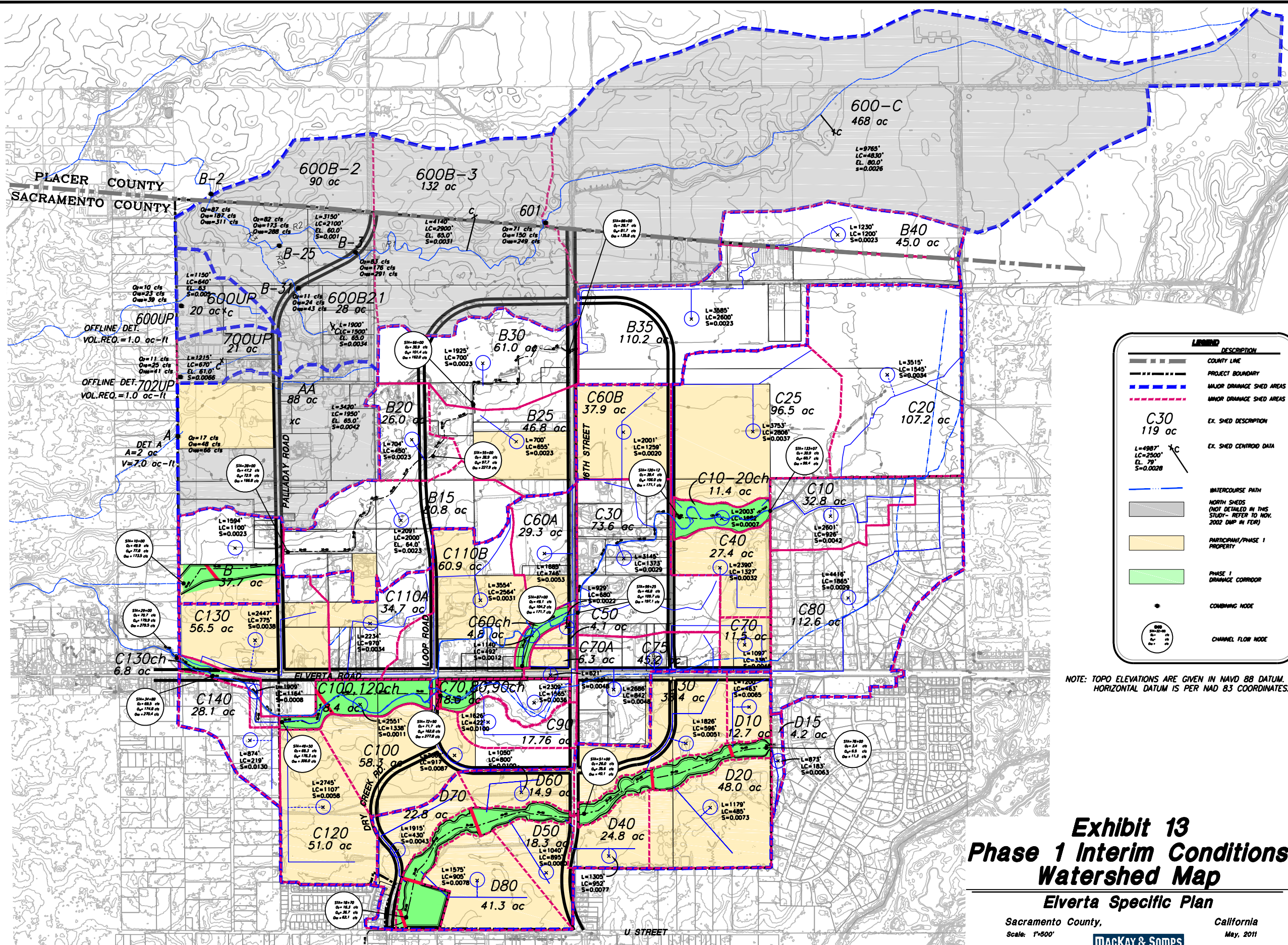
EXHIBIT 12



**DRY CREEK ROAD  
 U STREET  
 INTERSECTION IMPROVEMENTS**

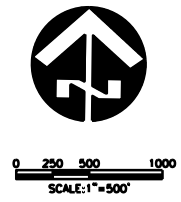
**MACKAY & SOMPS**  
 CIVIL ENGINEERS, INC.  
 SACRAMENTO, CALIFORNIA  
 JOB NUMBER: 7501-10  
 DATE: 01/03/03





LEGEND	
DESCRIPTION	
	COUNTY LINE
	PROJECT BOUNDARY
	MAJOR DRAINAGE SHED AREAS
	MINOR DRAINAGE SHED AREAS
	EX. SHED DESCRIPTION
	EX. SHED CENTROID DATA
	WATERCOURSE PATH
	NORTH SHEDS (NOT DETAILED IN THIS STUDY - REFER TO NOV. 2002 DMP IN FERR)
	PARTICIPANT/PHASE 1 PROPERTY
	PHASE 1 DRAINAGE CORRIDOR
	COMBINING NODE
	CHANNEL FLOW NODE

NOTE: TOPO ELEVATIONS ARE GIVEN IN NAVD 88 DATUM. HORIZONTAL DATUM IS PER NAD 83 COORDINATES.



## Exhibit 13 Phase 1 Interim Conditions Watershed Map

### Elverta Specific Plan

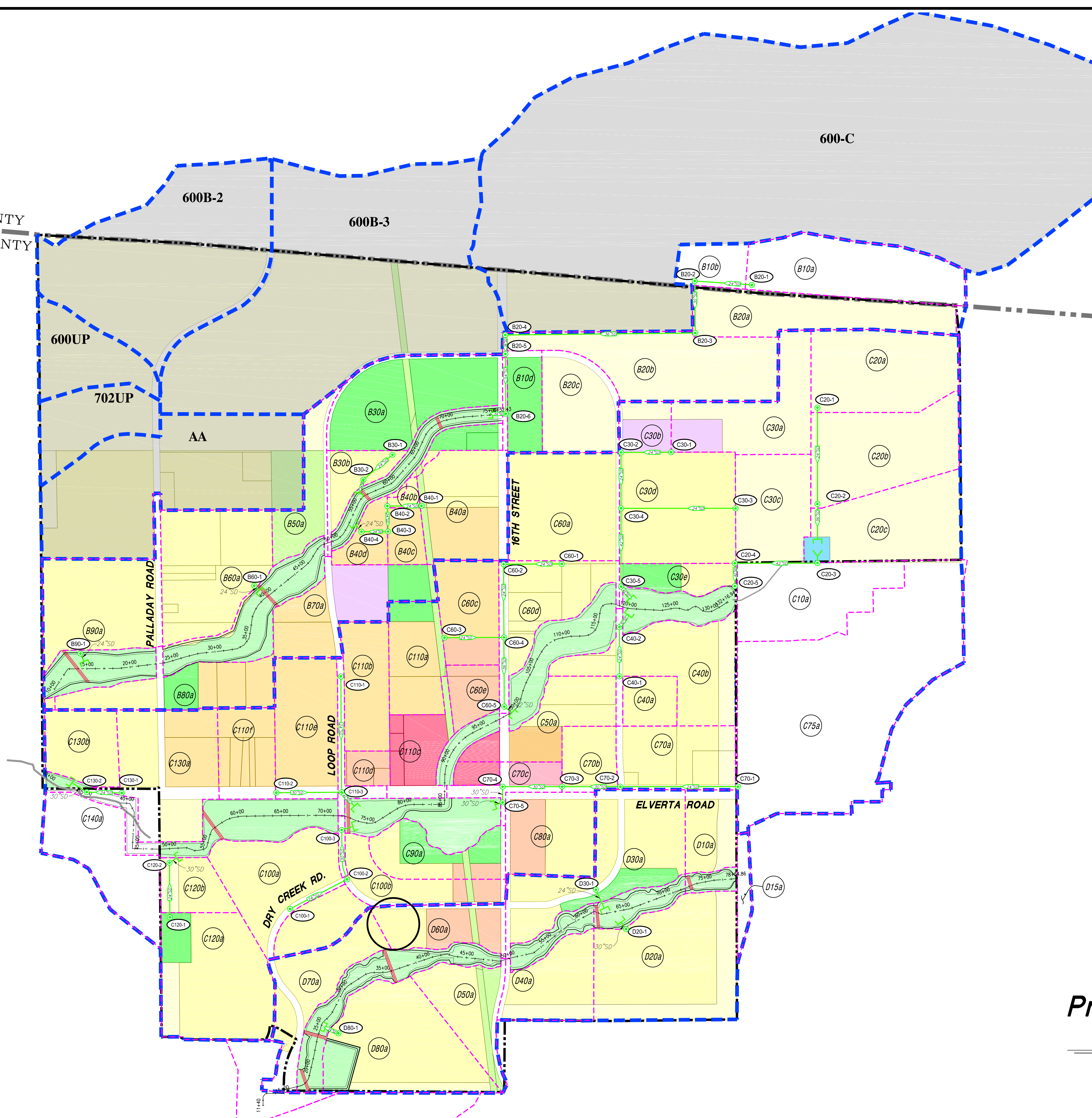
Sacramento County,  
Scale: 1"=500'

California  
May, 2011

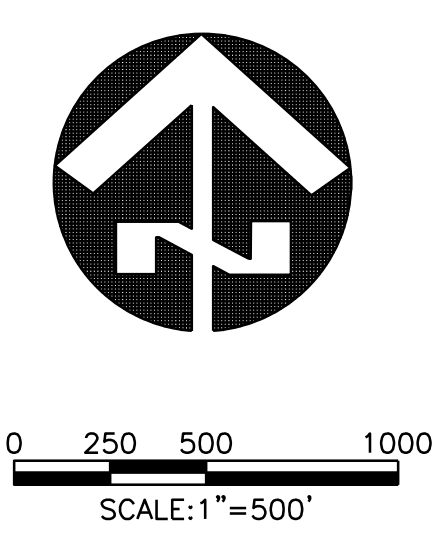




PLACER COUNTY  
SACRAMENTO COUNTY



PROPOSED	LEGEND	DESCRIPTION
---	COUNTY LINE	COUNTY LINE
---	PROJECT BOUNDARY	PROJECT BOUNDARY
---	MAJOR DRAINAGE SHED AREAS	MAJOR DRAINAGE SHED AREAS
---	TRUNK DRAINAGE SHED AREAS	TRUNK DRAINAGE SHED AREAS
---	STORM DRAIN PIPE AND NODE	STORM DRAIN PIPE AND NODE
---	TRUNK DRAINAGE SHED AREAS	TRUNK DRAINAGE SHED AREAS
---	NORTH SHEDS (NOT DETAILED IN THIS STUDY- REFER TO NOV. 2002 DMP IN FEIR)	NORTH SHEDS (NOT DETAILED IN THIS STUDY- REFER TO NOV. 2002 DMP IN FEIR)
---	IMPROVED DRAINAGE CHANNEL (TOPS/TOES AND CORRIDOR AREA)	IMPROVED DRAINAGE CHANNEL (TOPS/TOES AND CORRIDOR AREA)
---	PROPOSED WEIR LOCATION	PROPOSED WEIR LOCATION
---	AGRICULTURAL RESIDENTIAL(1-5)	AGRICULTURAL RESIDENTIAL(1-5)
---	AGRICULTURAL RESIDENTIAL(1)	AGRICULTURAL RESIDENTIAL(1)
---	RD(3,4,5)	RD(3,4,5)
---	RD(6,7)	RD(6,7)
---	RD(20)	RD(20)
---	OFFICE	OFFICE
---	COMMERCIAL	COMMERCIAL
---	PARK	PARK
---	SCHOOL	SCHOOL
---	DETENTION BASIN	DETENTION BASIN



## Exhibit 14 Proposed Trunk Drainage Pipe Schematics

Elverta Specific Plan

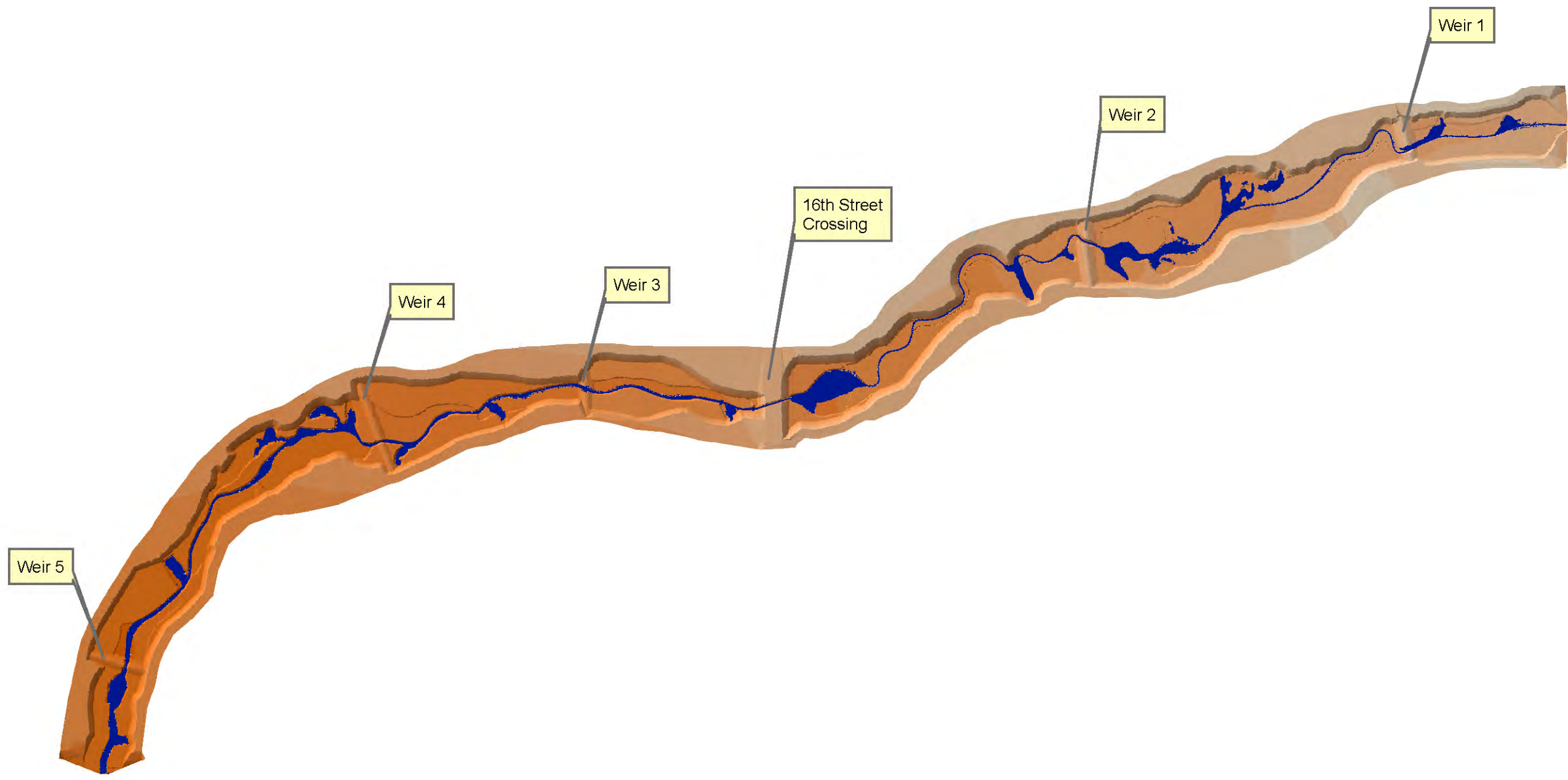
Sacramento County,  
Scale: 1"=500'

California  
April, 2011



5-17-2011 10:43 AM Revise F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg  
 1) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 2) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 3) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 4) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 5) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 6) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 7) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 8) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 9) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 10) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 11) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - 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Proposed Drainage Pipe Schematics.dwg 45) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 46) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 47) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 48) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 49) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 50) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 51) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 52) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 53) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 54) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 55) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 56) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 57) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 58) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 59) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 60) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 61) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 62) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 63) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 64) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 65) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 66) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 67) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 68) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 69) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 70) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 71) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 72) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 73) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 74) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 75) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 76) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 77) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - 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Proposed Drainage Pipe Schematics.dwg 89) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 90) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 91) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 92) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 93) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 94) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 95) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 96) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 97) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 98) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 99) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg 100) F:\1701\master plans\Elverta DMP\Elverta\Elverta 14 - Proposed Drainage Pipe Schematics.dwg





Notes:



*Elverta Specific Plan*

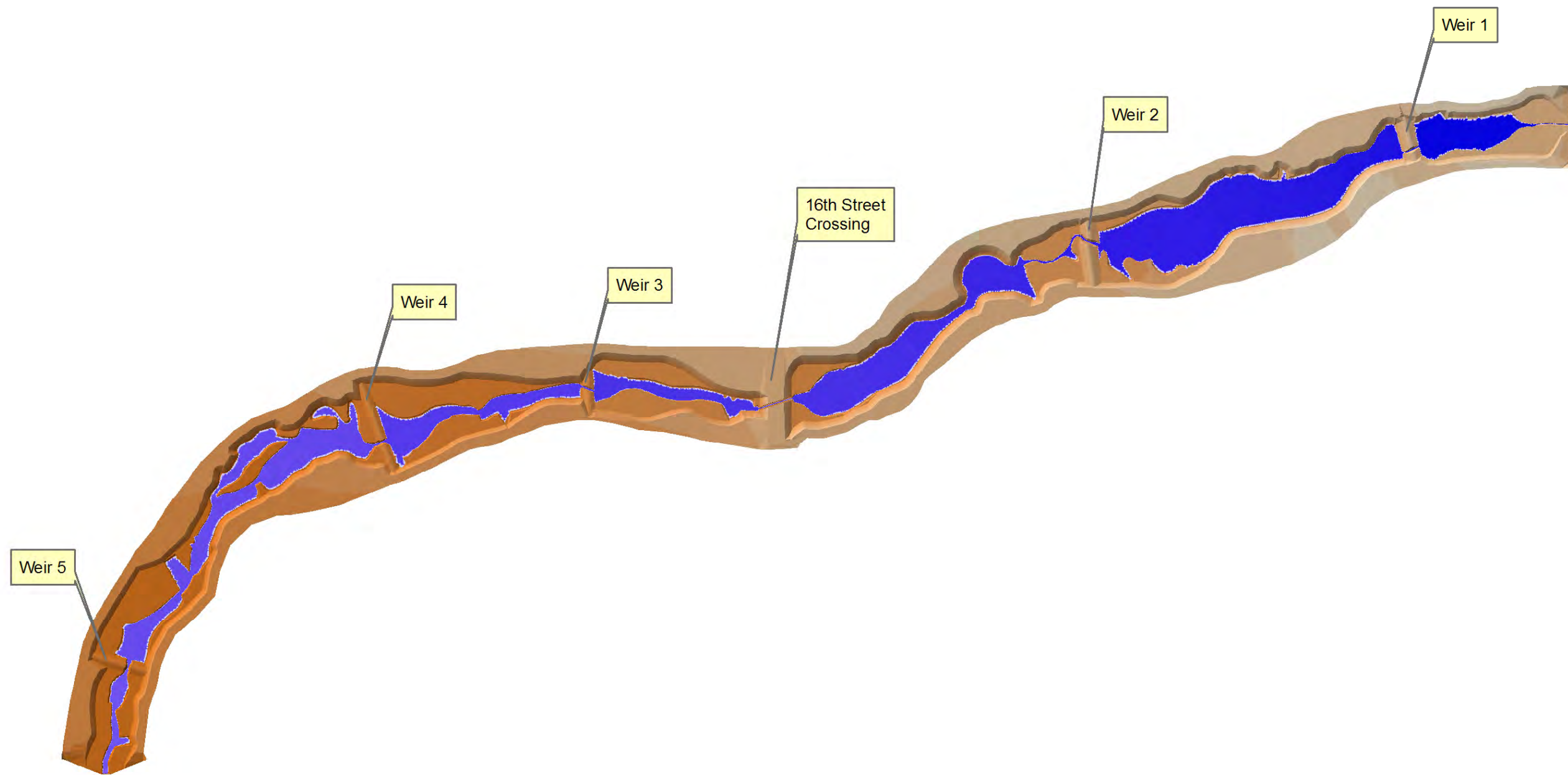
**D Corridor Summer Flows Maximum Inundation**

Project No. 09-1036

Created By: SLD

**Exhibit 15**





Notes:



*Elverta Specific Plan*

**D Corridor 2-Year Maximum Inundation**

Project No. 09-1036

Created By: SLD

**Exhibit 16**



## **9.7 ELECTRONIC FILES**