CONSTRUCTION PLANS

FOR

SOUZA II

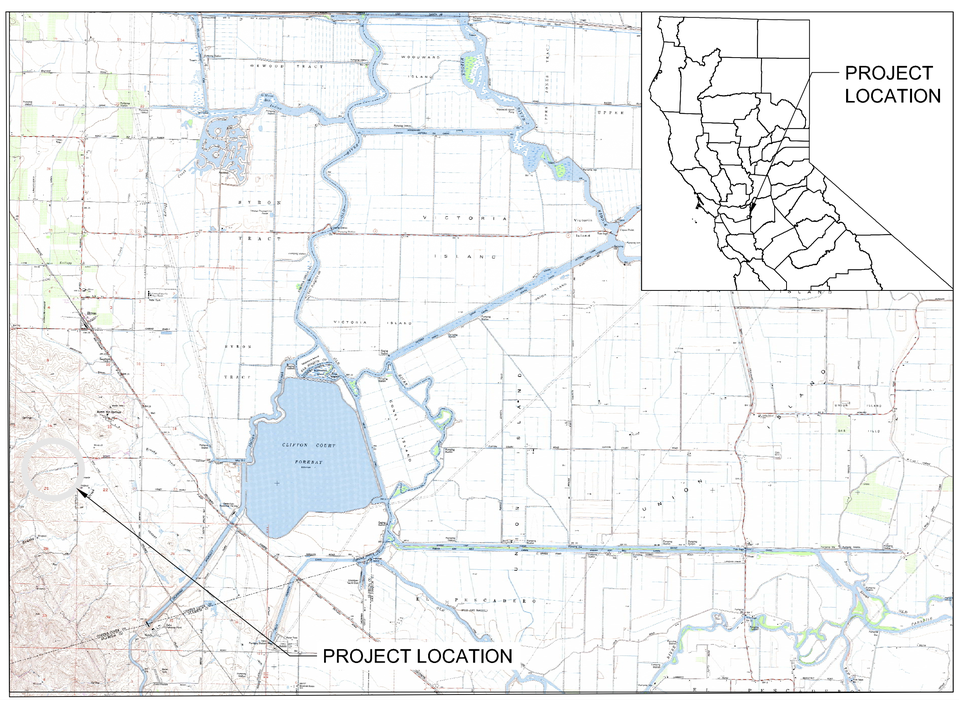
WETLAND RESTORATION PROJECT

FINAL - JUNE 8, 2009

Sheet Index

SHEET NAME	SHEET DESCRIPTION
C-1	COVER - PROJECT LOCATION AND SHEET INDEX
SA-1	SITE ACCESS
SI-1	SITE INDEX SHEET
SCD-1	SURVEY CONTROL DATA
EC-1	EROSION AND SEDIMENT CONTROL
SS-1	SOIL SALVAGE
G-1	GRADING PLAN
G-2	GRADING PLAN
G-3	GRADING PLAN
G-4	GRADING PLAN
G-5	GRADING PLAN
G-6	GRADING PLAN
XS-1	CROSS SECTIONS
PP-1	PLANTING PROGRAM
P-1	PLANTING PLAN
P-2	PLANTING PLAN
P-3	PLANTING PLAN
P-4	PLANTING PLAN
P-5	PLANTING PLAN
P-6	PLANTING PLAN
D-1	DETAIL SHEET
D-2	DETAIL SHEET
D-3	DETAIL SHEET

TOTAL 23 SHEETS



East Bay Regional Park District

PREPARED FOR:

EAST BAY REGIONAL PARK DISTRICT
2950 PERALTA OAKS COURT
OAKLAND, CA 94605

APPROVED BY:

DIANE ALTHOFF
CHIEF OF DESIGN AND CONSTRUCTION
EAST BAY REGIONAL PARK DISTRICT

DATE

JACK KENNY
CHIEF OF PARK OPERATIONS
EAST BAY REGIONAL PARK DISTRICT

DATE

REGISTERED PROFESSIONAL ENGINEER
STEVEN R. SEVILLE
No. 60513
EXP: 06/30/10
CIVIL
STATE OF CALIFORNIA

STEVE SEVILLE
ICF JONES & STOKES

CALIFORNIA REGISTERED PROFESSIONAL ENGINEER NO. 60513

DATE

LICENSED LANDSCAPE ARCHITECT
Kristin L. Teddy - Lic.# 5400
Signature
12/31/2010
Renewal Date
Date
STATE OF CALIFORNIA

KRISTIN TEDDY
ICF JONES & STOKES

CALIFORNIA LICENSED LANDSCAPE ARCHITECT NO. 5400

DATE

DESIGNED BY: KM/KB
CAD BY: AA
CHECKED BY: KM/JS/SS
DATE: 6/8/09
JOB NO. 00011.09

REV.	DATE	DESCRIPTION	BY	APP'D

ICF Jones & Stokes
an ICF International Company
630 K Street, Suite 400, Sacramento, CA 95814

Souza II
Wetlands Restoration Project
100% FINAL SUBMITTAL

EAST CONTRA COSTA COUNTY
HABITAT CONSERVANCY

COVER SHEET
C-1

DESIGNED BY: KB, KM
CAD BY: AA
CHECKED BY: KB,KM

DATE: 6/8/09
JOB NO. 00011.09

REV.	DATE	DESCRIPTION	BY	APPD

ICF Jones & Stokes
an ICF International Company
630 K Street, Suite 400, Sacramento, CA 95814

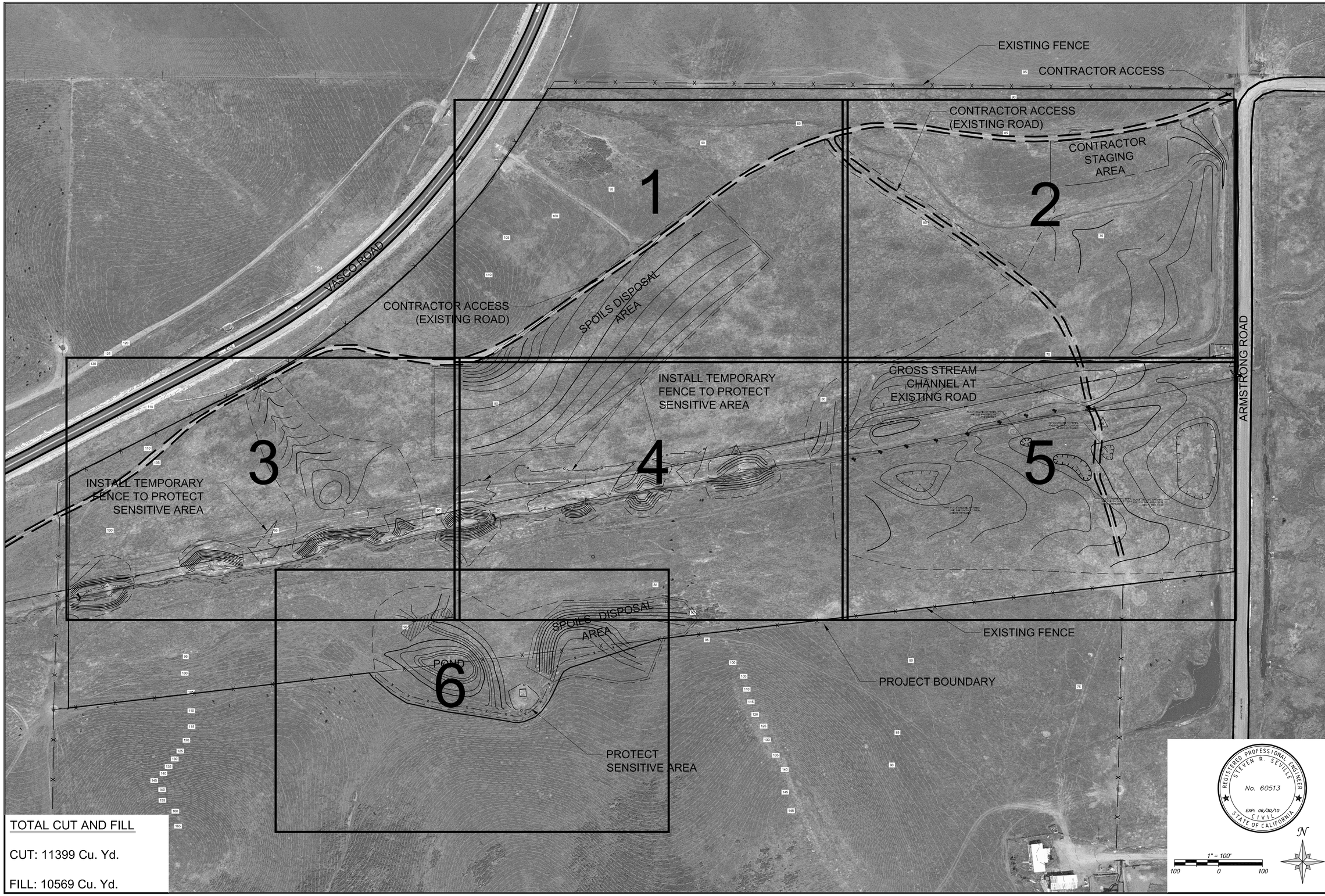
Souza II Wetlands Restoration Project

100% FINAL SUBMITTAL

EAST CONTRA COSTA COUNTY
HABITAT CONSERVANCY

Site Access

SA-1



DESIGNED BY: KB, KM
CAD BY: AA
CHECKED BY: KB,KM

DATE: 6/8/09
JOB NO. 00011.09

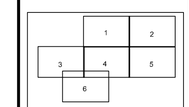
REV.	DATE	DESCRIPTION	BY	APP'D

ICF Jones & Stokes
an ICF International Company
630 K Street, Suite 400, Sacramento, CA 95814

Souza II Wetlands Restoration Project

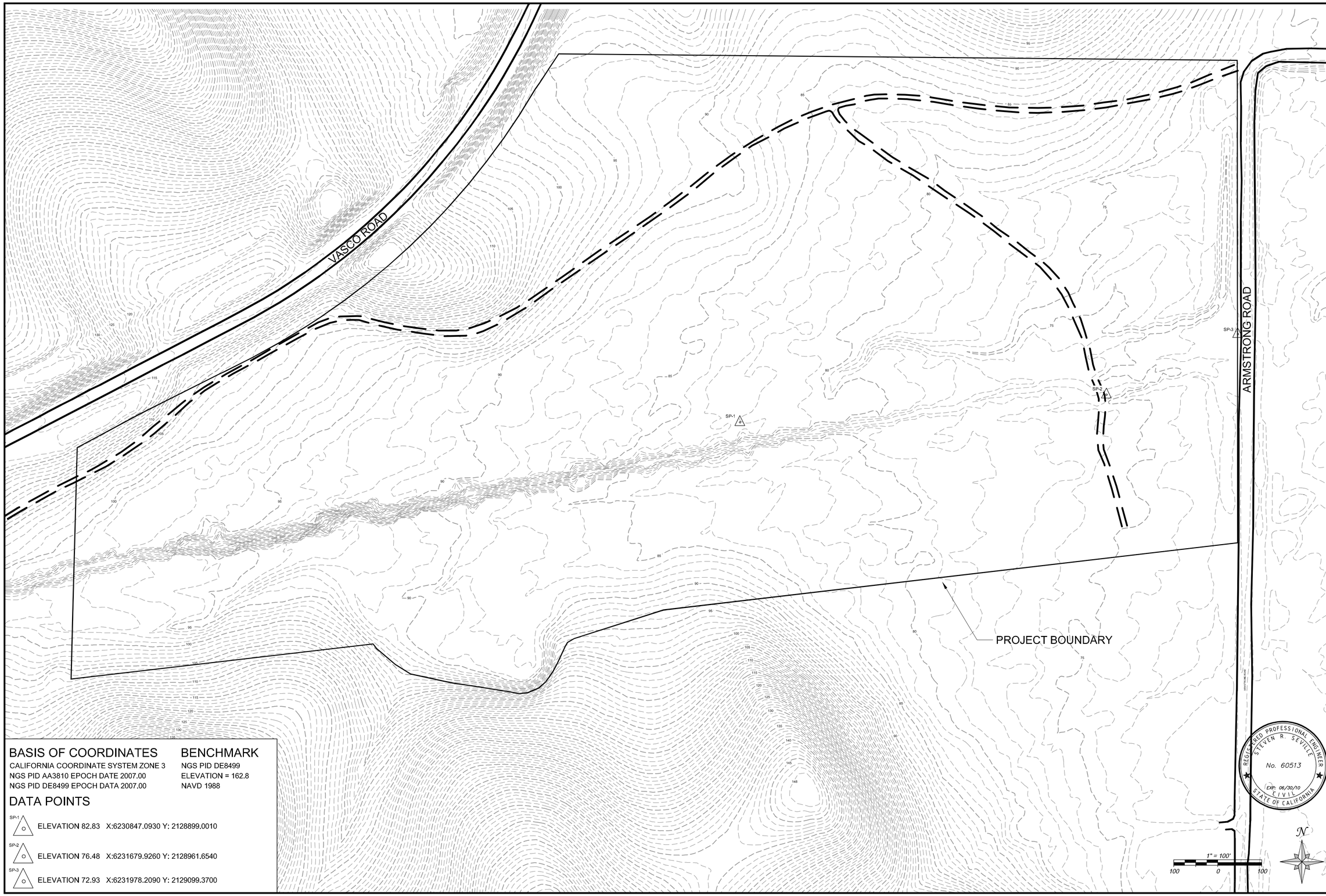
100% FINAL SUBMITTAL

EAST CONTRA COSTA COUNTY
HABITAT CONSERVANCY



SITE INDEX

SI-1



BASIS OF COORDINATES

CALIFORNIA COORDINATE SYSTEM ZONE 3
NGS PID AA3810 EPOCH DATE 2007.00
NGS PID DE8499 EPOCH DATA 2007.00

BENCHMARK

NGS PID DE8499
ELEVATION = 162.8
NAVD 1988

DATA POINTS

SP-1 ELEVATION 82.83 X:6230847.0930 Y: 2128899.0010

SP-2 ELEVATION 76.48 X:6231679.9260 Y: 2128961.6540

SP-3 ELEVATION 72.93 X:6231978.2090 Y: 2129099.3700

REGISTERED PROFESSIONAL ENGINEER
STEVEN R. SEVILLE
No. 60513
EXP: 06/30/10
CIVIL
STATE OF CALIFORNIA

DESIGNED BY: KB, KM
CAD BY: AA
CHECKED BY: KB,KM

DATE: 6/8/09
JOB NO. 00011.09

REV.	DATE	DESCRIPTION	BY	APP'D

ICF Jones & Stokes
an ICF International Company
630 K Street, Suite 400, Sacramento, CA 95814

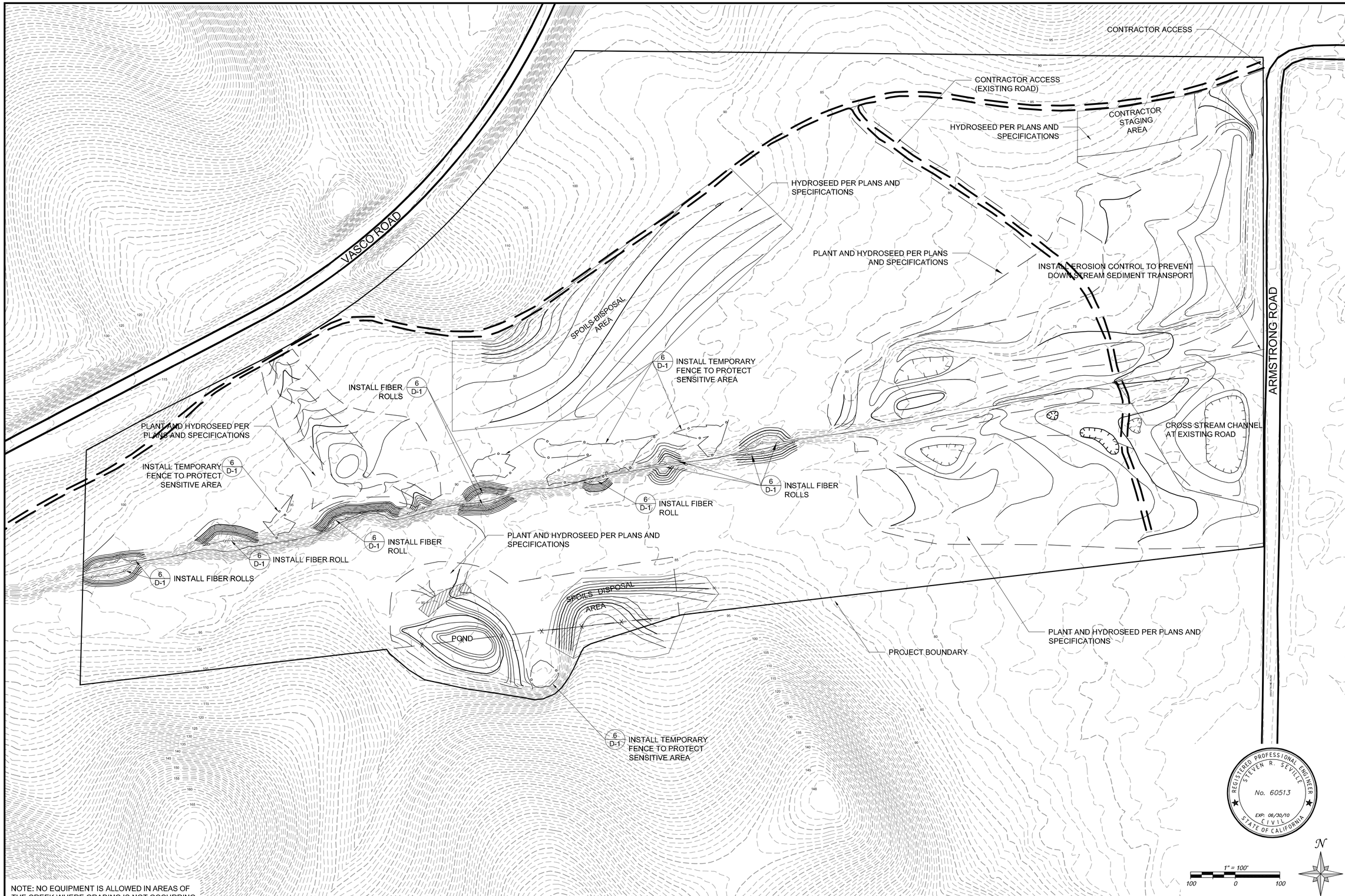
Souza II Wetlands Restoration Project

100% FINAL SUBMITTAL

EAST CONTRA COSTA COUNTY
HABITAT CONSERVANCY

SURVEY CONTROL DATA

SCD-1



NOTE: NO EQUIPMENT IS ALLOWED IN AREAS OF THE CREEK WHERE GRADING IS NOT OCCURRING.

DESIGNED BY: KB, KM
CAD BY: AA
CHECKED BY: KB, KM

DATE: 6/8/09
JOB NO. 00011.09

REV.	DATE	DESCRIPTION	BY	APP'D

ICF Jones & Stokes
an ICF International Company
630 K Street, Suite 400, Sacramento, CA 95814

Souza II Wetlands Restoration Project

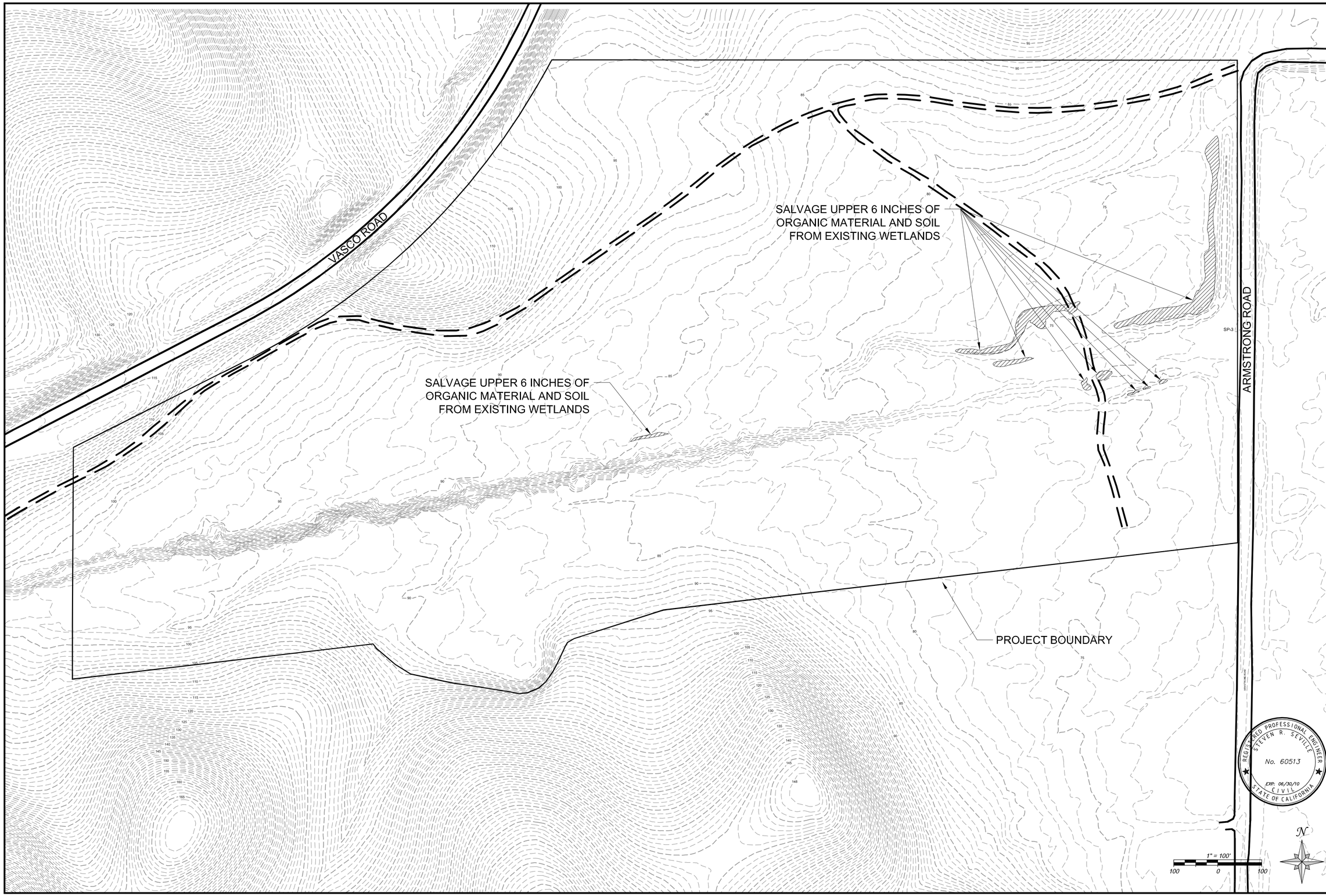
100% FINAL SUBMITTAL

EAST CONTRA COSTA COUNTY HABITAT CONSERVANCY

EROSION AND SEDIMENT CONTROL

EC-1

5 OF 23



DESIGNED BY: KB, KM
CAD BY: AA
CHECKED BY: KB,KM

DATE: 6/8/09
JOB NO. 00011.09

REV.	DATE	DESCRIPTION	BY	APP'D

ICF Jones & Stokes
an ICF International Company
630 K Street, Suite 400, Sacramento, CA 95814

REGISTERED PROFESSIONAL ENGINEER
STEVEN R. SEVILLE
No. 60513
EXP: 06/30/10
CIVIL
STATE OF CALIFORNIA

Souza II Wetlands Restoration Project

100% FINAL SUBMITTAL

EAST CONTRA COSTA COUNTY
HABITAT CONSERVANCY

SOIL SALVAGE

SS-1

VASCO ROAD

PROJECT BOUNDARY

85

90

95

100

105

110

DIRT ROAD

REMOVE EXISTING ROAD
(1235 LINEAR FEET, 0.36 ACRE)
(SEE SPECIFICATIONS)

EXISTING ROAD (TO REMAIN)

REMOVE EXISTING WATER
TROUGH (6' LONG, APPROX.)

LIMIT OF WORK

OUTSIDE GRADING LIMIT

SPOILS DISPOSAL AREA
(4.33 ACRES)

DIRT ROAD

90

95

REGISTERED PROFESSIONAL ENGINEER
STEVEN R. SEVILLE
No. 60513
EXP: 08/30/10
CIVIL
STATE OF CALIFORNIA

1" = 30'

30 0 30

N

DESIGNED BY: KB, KM
CAD BY: AA
CHECKED BY: KB,KM

DATE: 6/8/09
JOB NO. 00011.09

REV.	DATE	DESCRIPTION	BY	APP'D

ICF Jones & Stokes
an ICF International Company
630 K Street, Suite 400, Sacramento, CA 95814

Souza II Wetlands Restoration Project

100% FINAL SUBMITTAL

EAST CONTRA COSTA COUNTY
HABITAT CONSERVANCY

G-1 G-2 G-3 G-4 G-5 G-6

GRADING PLAN

SHEET 1

G-1

7 OF 23

1" = 30'

30 0 30

N

REGISTERED PROFESSIONAL ENGINEER
STEVEN R. SEVILLE
No. 60513
EXP: 06/30/10
CIVIL
STATE OF CALIFORNIA

EXISTING ROAD (TO REMAIN)

REMOVE DOWNED UTILITY POLES (TYP)
(APPROX 7)

PROJECT BOUNDARY

DIRT ROAD

85

75

74

73

CONTRACTOR STAGING
AREA
(0.6 ACRE)

72

OUTSIDE GRADING LIMIT

REMOVE EXISTING DIRT ROAD
(1235 LINEAR FEET, 0.36 ACRE)
(SEE SPECIFICATIONS)

LIMIT OF WORK

80

LIMIT OF WORK

76

OUTSIDE GRADING LIMIT

LIMIT OF WORK

PROTECT EXISTING UTILITIES
(EXISTING FENCE TO REMIAN)

PROTECT EXISTING UTILITY
POLE

74.2

REMOVE EXISTING DIRT ROAD
(1235 LINEAR FEET, 0.36 ACRES)
(SEE SPECIFICATIONS)

OHW

UP

SP-3

DESIGNED BY: KB, KM
CAD BY: AA
CHECKED BY: KB,KM

DATE: 6/8/09
JOB NO. 00011.09

REV.	DATE	DESCRIPTION	BY	APP'D

ICF Jones & Stokes
an ICF International Company
630 K Street, Suite 400, Sacramento, CA 95814

Souza II Wetlands Restoration Project

100% FINAL SUBMITTAL

EAST CONTRA COSTA COUNTY
HABITAT CONSERVANCY

G-1 G-2 G-3 G-4 G-5 G-6

GRADING PLAN

SHEET 2

G-2

8 OF 23

1" = 30'
30 0 30

N

REGISTERED PROFESSIONAL ENGINEER
STEVEN R. SEVILLE
No. 60513
EXP: 06/30/10
CIVIL
STATE OF CALIFORNIA

VASCO ROAD

EXISTING FENCE
(TO REMAIN)

PROTECT EXISTING
36" RCP

REMOVE EXISTING 18" CMP
(12' LONG APPROX.)

1
D-2
INSTALL ARTICULATED CONCRETE MAT AS SHOWN
(240 SF)

OUTSIDE GRADING LIMIT

115

100

PROJECT
BOUNDARY

110

105

EXISTING ROAD TO REMAIN

95

CROSS SECTION A (SHEET XS-1)

92

92.5

91.5

90.5

90

4:1 SLOPE

LIMIT OF WORK

LIMIT OF WORK

OUTSIDE GRADING LIMIT

3:1 SLOPE

INSTALL TEMPORARY PROTECTIVE
FENCING (APPROX 295 LF)

LIMIT OF WORK

3:1 SLOPE

100

95

3:1 SLOPE

90

85

LIMIT OF WORK

1
D-3
INSTALL J-HOOK BOULDER
WEIR

PROTECT EXISTING UTILITY POLE

95

90

6
D-1
INSTALL FIBER ROLL AND
PROTECTION FENCE

6
D-1
INSTALL FIBER ROLL AND
PROTECTION FENCE

PROTECT EXISTING
UTILITY POLE

3:1 SLOPE

LIMIT OF WORK

95

6
D-1
INSTALL FIBER ROLL AND
PROTECTION FENCE

INSTALL TURF REINFORCEMENT
MAT (3000 SQUARE FEET)

3
D-3

OUTSIDE GRADING LIMIT

INSTALL GEOMEMBRANE
BARRIER (50 LINEAR FEET)

OVERHEAD UTILITY LINE

PROTECT EXISTING
UTILITY POLE

LIMIT OF WORK

95

OVERHEAD
UTILITY LINE

LIMIT OF WORK

3:1 SLOPE

91

91

90.5

LEGEND

FIBER ROLL

DESIGNED BY: KB, KM	DATE: 6/8/09
CAD BY: AA	JOB NO. 00011.09
CHECKED BY: KB,KM	

REV.	DATE	DESCRIPTION	BY	APP'D

ICF Jones & Stokes
an ICF International Company
630 K Street, Suite 400, Sacramento, CA 95814

Souza II Wetlands Restoration Project

100% FINAL SUBMITTAL

EAST CONTRA COSTA COUNTY
HABITAT CONSERVANCY

G-1 G-2 G-3 G-4 G-5 G-6

GRADING PLAN

SHEET 3

G-3

9 OF 23

95
SPOILS DISPOSAL AREA
(3.98 ACRES)
90
90
LIMIT OF WORK
85
PROTECT EXISTING
SURVEY CONTROL
POINT
OVERHEAD UTILITY LINE
LIMIT OF
WORK
80
77
PROTECT EXISTING
UTILITY POLE
INSTALL TEMPORARY PROTECTIVE
FENCING (APPROX 380 LF)
4:1 SLOPE
SP-1
6
D-1
INSTALL FIBER ROLL AND
PROTECTION FENCE
80
79
78
INSTALL TEMPORARY PROTECTIVE
FENCING (APPROX 880 LF)
LIMIT OF WORK
INSTALL TEMPORARY PROTECTIVE
FENCING (APPROX 270 LF)
4:1 SLOPE
OHW
PROTECT EXISTING
UTILITY POLE
LIMIT OF WORK
80
3:1 SLOPE
INSTALL FIBER ROLL AND
PROTECTION FENCE
6
D-1
80
INSTALL FIBER ROLL AND
PROTECTION FENCE
6
D-1
80
LIMIT OF WORK
1
D-3
INSTALL J-HOOK BOULDER WEIR
80
LIMIT OF WORK
85
80
85
6
D-1
INSTALL FIBER ROLL AND
PROTECTION FENCE
LIMIT OF WORK
4:1 SLOPE
LIMIT OF WORK
3:1 SLOPE
4:1 SLOPE
85
LIMIT OF WORK
REMOVE ABANDONED WELL (9" DIAM,
APPROX.)
3:1 SLOPE
LIMIT OF WORK
85
90
90
90
6:1 SLOPE
2
INSTALL GEOMEMBRANE

LEGEND

FIBER ROLL

REGISTERED PROFESSIONAL ENGINEER
STEVEN R. SEVILLE
No. 60513
EXP: 06/30/10
CIVIL
STATE OF CALIFORNIA

1" = 30'
30 0 30

N

DESIGNED BY: KB, KM
CAD BY: AA
CHECKED BY: KB,KM
DATE: 6/8/09
JOB NO. 00011.09

REV.	DATE	DESCRIPTION	BY	APP'D

ICF Jones & Stokes
an ICF International Company
630 K Street, Suite 400, Sacramento, CA 95814

Souza II Wetlands Restoration Project

100% FINAL SUBMITTAL

EAST CONTRA COSTA COUNTY
HABITAT CONSERVANCY

G-1 G-2 G-3 G-4 G-5 G-6

GRADING PLAN

SHEET 4
G-4
10 OF 22

LIMIT OF WORK
OVERHEAD UTILITY LINE
PROTECT EXISTING UTILITY POLE
PROTECT EXISTING UTILITY POLE
PROTECT EXISTING UTILITY POLE
REMOVE EXISTING 18" CMP (12' LONG APPROX.)
PROTECT EXISTING SURVEY CONTROL POINT
OVER EXCAVATE BY 6" TO ALLOW FOR PLACEMENT OF SALVAGED MATERIAL
OVER EXCAVATE BY 6" TO ALLOW FOR PLACEMENT OF SALVAGED MATERIAL
5 D-3 INSTALL BOULDER CROSS WEIR (1)
SP-2
PROTECT EXISTING SURVEY CONTROL POINT
CROSS SECTION C (SHEET XS-1)
2 D-3 INSTALL BOULDER CLUSTERS (8) ON ALTERNATE BANKS 3 TO 4 CHANNEL WIDTHS APART (45-60')
CROSS SECTION B (SHEET XS-1)
OVER EXCAVATE BY 6" TO ALLOW FOR PLACEMENT OF SALVAGED MATERIAL
OVER EXCAVATE BY 6" TO ALLOW FOR PLACEMENT OF SALVAGED MATERIAL
REMOVE EXISTING DIRT ROAD (1235 LINEAR FEET, 0.36 ACRE) (SEE SPECIFICATIONS)
OVER EXCAVATE BY 6" TO ALLOW FOR PLACEMENT OF SALVAGED MATERIAL
LIMIT OF WORK
EXISTING FENCE (TO REMAIN)
PROJECT BOUNDARY
4 D-3 INSTALL VEHICLE GATE

76.5 76.5 76.5 75.6 77 77.5 80.4 80.2 80 75.5 75.7 75.3 75 74.8 74.4 74.2 75 75.5 78.2 78.1 78.7 78.5 77.2 77.2 77.2 77.5 77.5 77.5 75.2 75.2 75.2 75.6 75.6 75.6 80 75

REGISTERED PROFESSIONAL ENGINEER
STEVEN R. SEVILLE
No. 60513
EXP. 06/30/10
CIVIL
STATE OF CALIFORNIA

1" = 30'
30 0 30

N

DESIGNED BY: KB, KM
CAD BY: AA
CHECKED BY: KB,KM
DATE: 6/8/09
JOB NO. 00011.09

REV.	DATE	DESCRIPTION	BY	APP'D

ICF Jones & Stokes
an ICF International Company
630 K Street, Suite 400, Sacramento, CA 95814

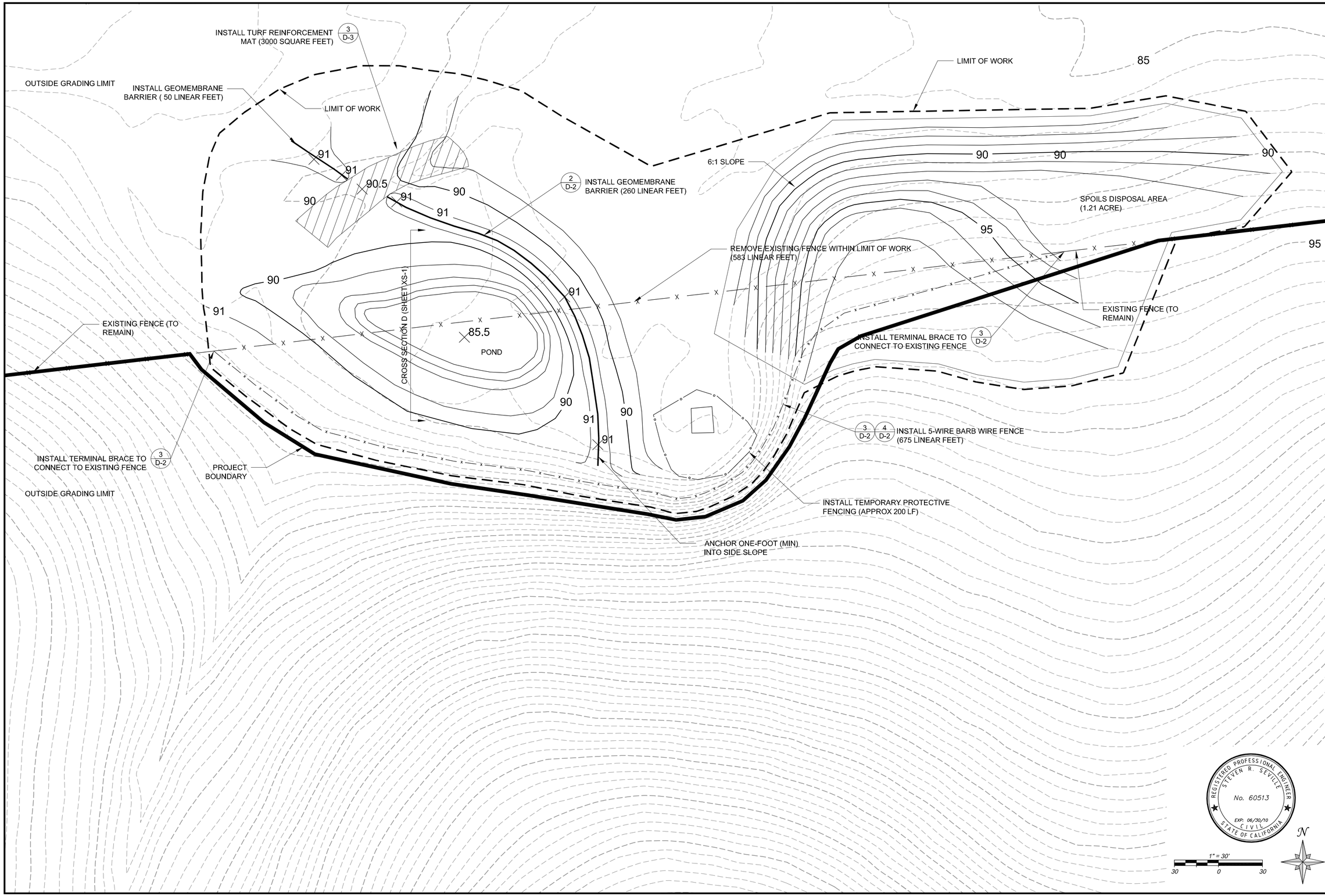
Souza II Wetlands Restoration Project
100% FINAL SUBMITTAL

EAST CONTRA COSTA COUNTY HABITAT CONSERVANCY

G-1 G-2 G-3 G-4 G-5 G-6

GRADING PLAN

SHEET 5
G-5
11 OF 23



DESIGNED BY: KB, KM
CAD BY: AA
CHECKED BY: KB,KM
DATE: 6/8/09
JOB NO. 00011.09

REV.	DATE	DESCRIPTION	BY	APP'D

ICF Jones & Stokes
an ICF International Company
630 K Street, Suite 400, Sacramento, CA 95814

Souza II Wetlands Restoration Project

100% FINAL SUBMITTAL

EAST CONTRA COSTA COUNTY
HABITAT CONSERVANCY

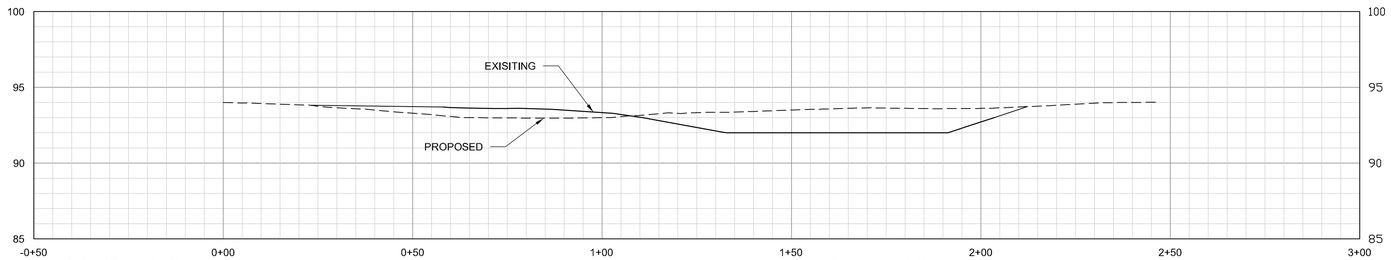
G-1 G-2 G-3 G-4 G-5 G-6

GRADING PLAN

SHEET 6

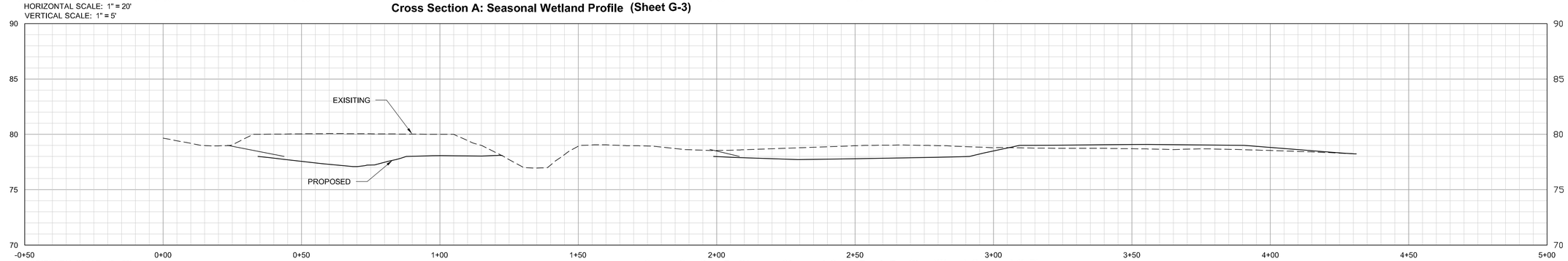
G-6

12 OF 23



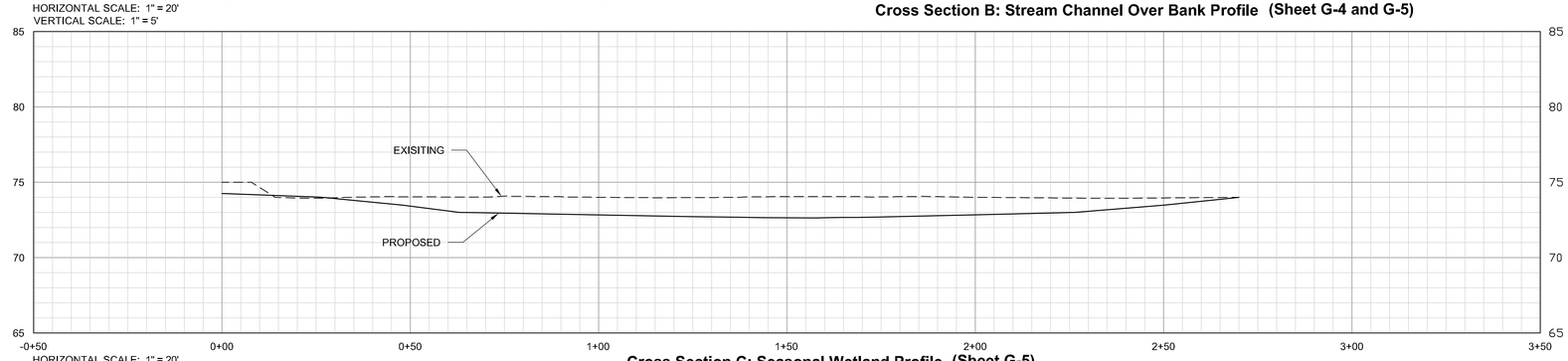
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 5'

Cross Section A: Seasonal Wetland Profile (Sheet G-3)



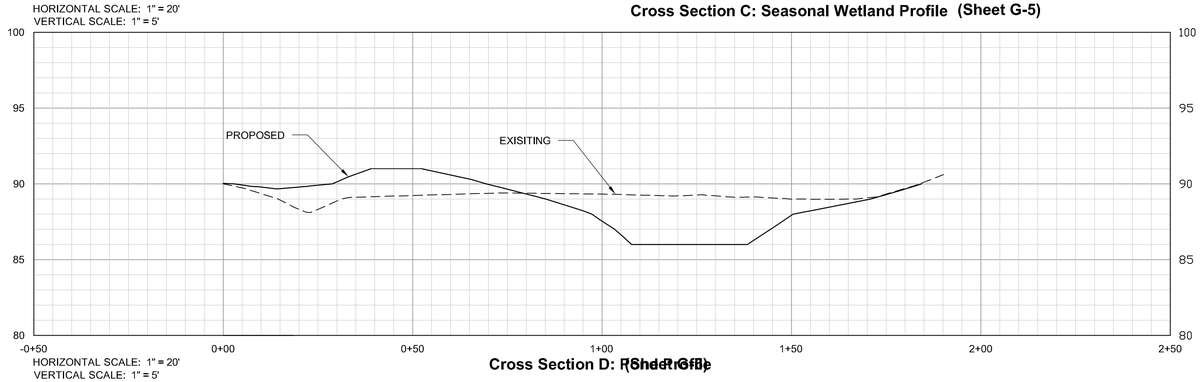
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 5'

Cross Section B: Stream Channel Over Bank Profile (Sheet G-4 and G-5)



HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 5'

Cross Section C: Seasonal Wetland Profile (Sheet G-5)



HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 5'

Cross Section D: Riparian Profile (Sheet G-5)

REGISTERED PROFESSIONAL ENGINEER
STEVEN R. SEVILLE
No. 60513
EXP: 06/30/10
CIVIL
STATE OF CALIFORNIA

DESIGNED BY: KB,KM
CAD BY: AA
CHECKED BY: KB,KM
DATE: 6/8/09
JOB NO. 00011.09

REV.	DATE	DESCRIPTION	BY	APP'D

ICF Jones & Stokes
an ICF International Company
630 K Street, Suite 400, Sacramento, CA 95814

Souza II Wetlands Restoration Project

100% FINAL SUBMITTAL

EAST CONTRA COSTA COUNTY
HABITAT CONSERVANCY

Cross Sections

XS-1

PLANTING PROGRAM: OVERVIEW

PLAN VIEW SYMBOL	PLANTING ZONE	AREA (ACRES)	DETAIL REFERENCE	PLANT ABBREVIATION	SPECIES NAME BOTANICAL	SPECIES NAME COMMON	AVERAGE PLANT SPACING (FEET ON-CENTER)	PROPAGULE TYPE/ CONTAINER SIZE	QUANTITY
	SEASONAL WETLAND	3.6165	2/D-1, 4/D-1	DISP	DISTICHLIS SPICATA	SALTGRASS	CLUSTERS OF 6, 2' ON CENTER	PLUG	1890
			1/D-1, 3/D-1	ELMA	ELEOCHARIS MACROSTACHYA	SPIKERUSH	CLUSTERS OF 3, 18" ON CENTER	2"	945
				HECU	HELIOTROPIUM CURASSAVICUM	HELIOTROPE	CLUSTERS OF 3, 2' ON CENTER	4"	95
				JUBA	JUNCUS BALTICUS	BALTIC RUSH	CLUSTERS OF 3, 1' ON CENTER	2"	1182
				JUSP	JUNCUS SP.	RUSH	CLUSTERS OF 3, 1' ON CENTER	2"	945
				JUXI	JUNCUS XIPHIOIDES	IRIS-LEAVED RUSH	CLUSTERS OF 3, 1' ON CENTER	2"	473
				STAL	STACHYS ALBENS	WHITE HEDGE NETTLE	CLUSTERS OF 3, 2' ON CENTER	4"	142
			N/A		WETLAND SEED MIX	-	-	SEED	-
	WETLAND TRANSITION	4.7769	1/D-1, 3/D-1	ASFA	ASCLEPIAS FASCICULARIS	NARROW-LEAVED MILKWEED	CLUSTERS OF 3, 3' ON CENTER	2"	187
			2/D-1, 4/D-1	DISP	DISTICHLIS SPICATA	SALTGRASS	CLUSTERS OF 6, 2' ON CENTER	PLUG	3745
			1/D-1, 3/D-1	FRSA	FRANKENIA SALINA	ALKALI HEATH	CLUSTERS OF 3, 2' ON CENTER	2"	2497
				HECU	HELIOTROPIUM CURASSAVICUM	HELIOTROPE	CLUSTERS OF 3, 2' ON CENTER	4"	125
				JUBA	JUNCUS BALTICUS	BALTIC RUSH	CLUSTERS OF 3, 1' ON CENTER	2"	936
				JUSP	JUNCUS SP.	RUSH	CLUSTERS OF 3, 1' ON CENTER	2"	936
				JUXI	JUNCUS XIPHIOIDES	IRIS-LEAVED RUSH	CLUSTERS OF 3, 1' ON CENTER	2"	312
				MALE	MALVELLA LEPROSA	ALKALI MALLOW	CLUSTERS OF 3, 2' ON CENTER	4"	187
					WETLAND SEED MIX	-	-	SEED	-
	EMERGENT WETLAND MARGIN	0.1598	1/D-1, 3/D-1	ELMA	ELEOCHARIS MACROSTACHYA	SPIKERUSH	CLUSTERS OF 3, 18" ON CENTER	2"	73
				JUBA	JUNCUS BALTICUS	BALTIC RUSH	CLUSTERS OF 3, 1' ON CENTER	2"	73
				JUXI	JUNCUS XIPHIOIDES	IRIS-LEAVED RUSH	CLUSTERS OF 3, 1' ON CENTER	2"	63
			N/A		WETLAND SEED MIX	-	-	SEED	-
	UPLAND / GRASSLAND	11.6045	N/A		NATIVE GRASS MIX	-	-	SEED	-
	DISTURBED AREAS	6.8578	N/A		EROSION CONTROL MIX	-	-	SEED	-
	BOULDER CLUSTER	N/A	2/D-3	JUBA	JUNCUS BALTICUS	BALTIC RUSH	1' ON CENTER	2"	24
	J-HOOK BOULDER WEIR	N/A	1/D-3	JUBA	JUNCUS BALTICUS	BALTIC RUSH	1' ON CENTER	2"	6
	BOULDER CROSS WEIR	N/A	3/D-3	JUBA	JUNCUS BALTICUS	BALTIC RUSH	1' ON CENTER	2"	6

NOTE:
1. ALL PLANT MATERIAL AND SEED MIXES WILL BE PROVIDED BY THE DISTRICT EXCEPT THE EROSION CONTROL SEED MIX WHICH SHALL BE PROVIDED BY THE CONTRACTOR.
2. THE RELATIVE PERCENTAGE AND NUMBER OF CONTAINER PLANT MATERIAL MAY VERY BY SPECIES DEPENDING UPON AVAILABILITY. THE TOTAL NUMBER OF CONTAINER PLANTS WILL NOT CHANGE.
3. SALT GRASS PLUGS CONSIST OF ⅛TH OF A ONE GALLON CONTAINER.

LICENSED LANDSCAPE ARCHITECT
Kristin L. Teddy - Lic.# 5402
Signature
12/31/2010
Renewal Date
Date
STATE OF CALIFORNIA

DESIGNED BY: KB, KM
CAD BY: AA
CHECKED BY: KB,KM
DATE: 6/8/09
JOB NO. 00142.08

REV.	DATE	DESCRIPTION	BY	APP'D

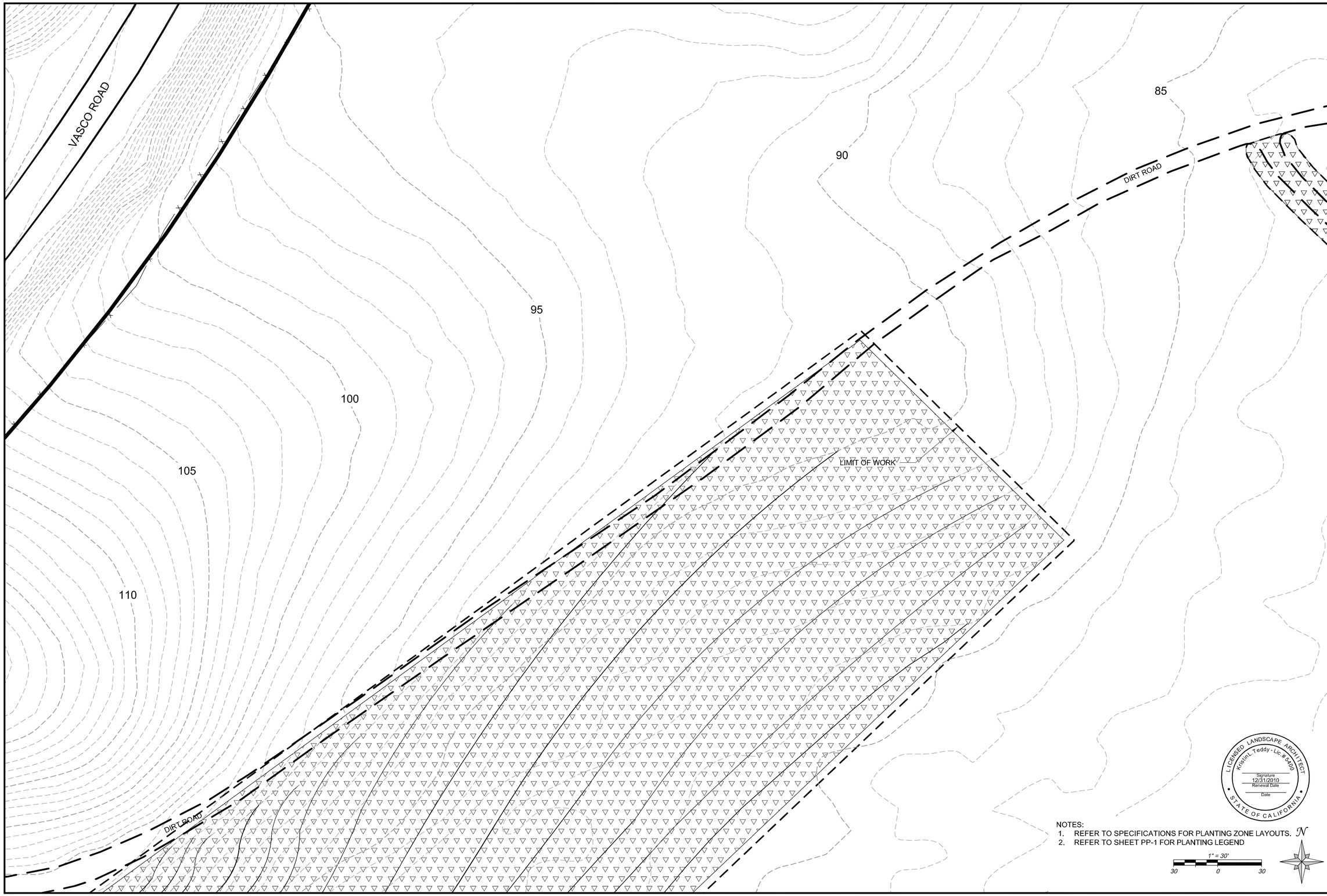
ICF Jones & Stokes
an ICF International Company
630 K Street, Suite 400, Sacramento, CA 95814

Souza II Wetlands Restoration Project
100% FINAL SUBMITTAL

EAST CONTRA COSTA COUNTY
HABITAT CONSERVANCY

PLANTING PROGRAM

PP-1



NOTES:
1. REFER TO SPECIFICATIONS FOR PLANTING ZONE LAYOUTS.
2. REFER TO SHEET PP-1 FOR PLANTING LEGEND

N

1" = 30'

30 0 30

LICENSED LANDSCAPE ARCHITECT
Kristin L. Teddy - Lic. # 4400
Signature
12/31/2010
Renewal Date
Date
STATE OF CALIFORNIA

DESIGNED BY: KB, KM
CAD BY: AA
CHECKED BY: KB,KM
DATE: 6/8/09
JOB NO. 00011.09

REV.	DATE	DESCRIPTION	BY	APP'D

ICF Jones & Stokes
an ICF International Company
630 K Street, Suite 400, Sacramento, CA 95814

Souza II Wetlands Restoration Project

100% FINAL SUBMITTAL

EAST CONTRA COSTA COUNTY
HABITAT CONSERVANCY

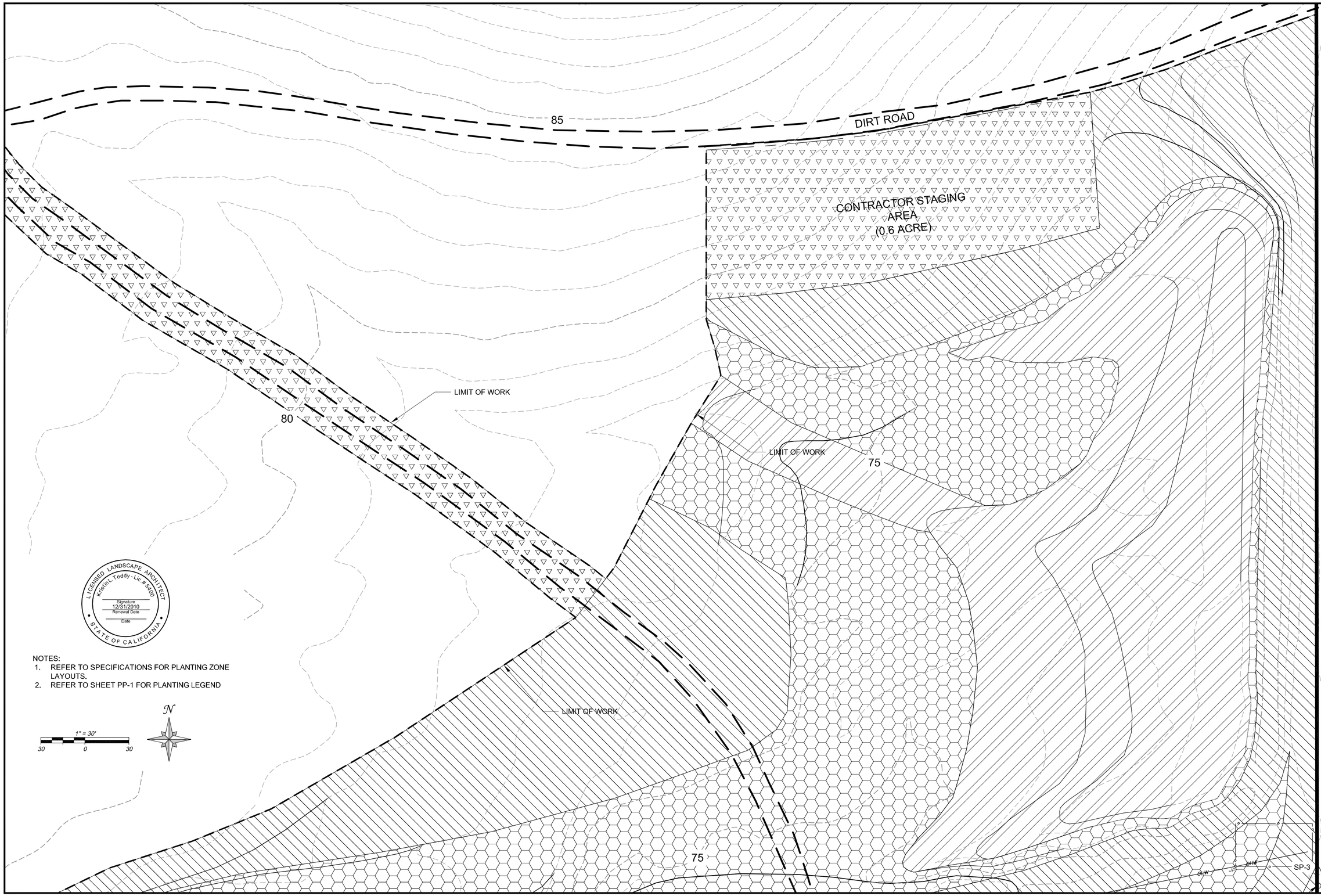
P-1 P-2 P-3 P-4 P-5 P-6

PLANTING PLAN

SHEET 1

P-1

15 OF 23



NOTES:
1. REFER TO SPECIFICATIONS FOR PLANTING ZONE LAYOUTS.
2. REFER TO SHEET PP-1 FOR PLANTING LEGEND

DESIGNED BY: KB, KM
CAD BY: AA
CHECKED BY: KB,KM
DATE: 6/8/09
JOB NO. 00011.09

REV.	DATE	DESCRIPTION	BY	APP'D

ICF Jones & Stokes
an ICF International Company
630 K Street, Suite 400, Sacramento, CA 95814

Souza II Wetlands Restoration Project

100% FINAL SUBMITTAL

EAST CONTRA COSTA COUNTY
HABITAT CONSERVANCY

P-1 P-2 P-3 P-4 P-5 P-6

PLANTING PLAN

SHEET 2

P-2

16 OF 23

NOTES:
1. REFER TO SPECIFICATIONS FOR PLANTING ZONE LAYOUTS.
2. REFER TO SHEET PP-1 FOR PLANTING LEGEND

LICENSED LANDSCAPE ARCHITECT
Kristin L. Teddy - Lic. # 5400
Signature
12/31/2010
Renewal Date
Date
STATE OF CALIFORNIA

1" = 30'
30 0 30

N

DESIGNED BY: KB, KM
CAD BY: AA
CHECKED BY: KB,KM

DATE: 6/8/09
JOB NO. 00011.09

REV.	DATE	DESCRIPTION	BY	APP'D

ICF Jones & Stokes
an ICF International Company
630 K Street, Suite 400, Sacramento, CA 95814

Souza II Wetlands Restoration Project

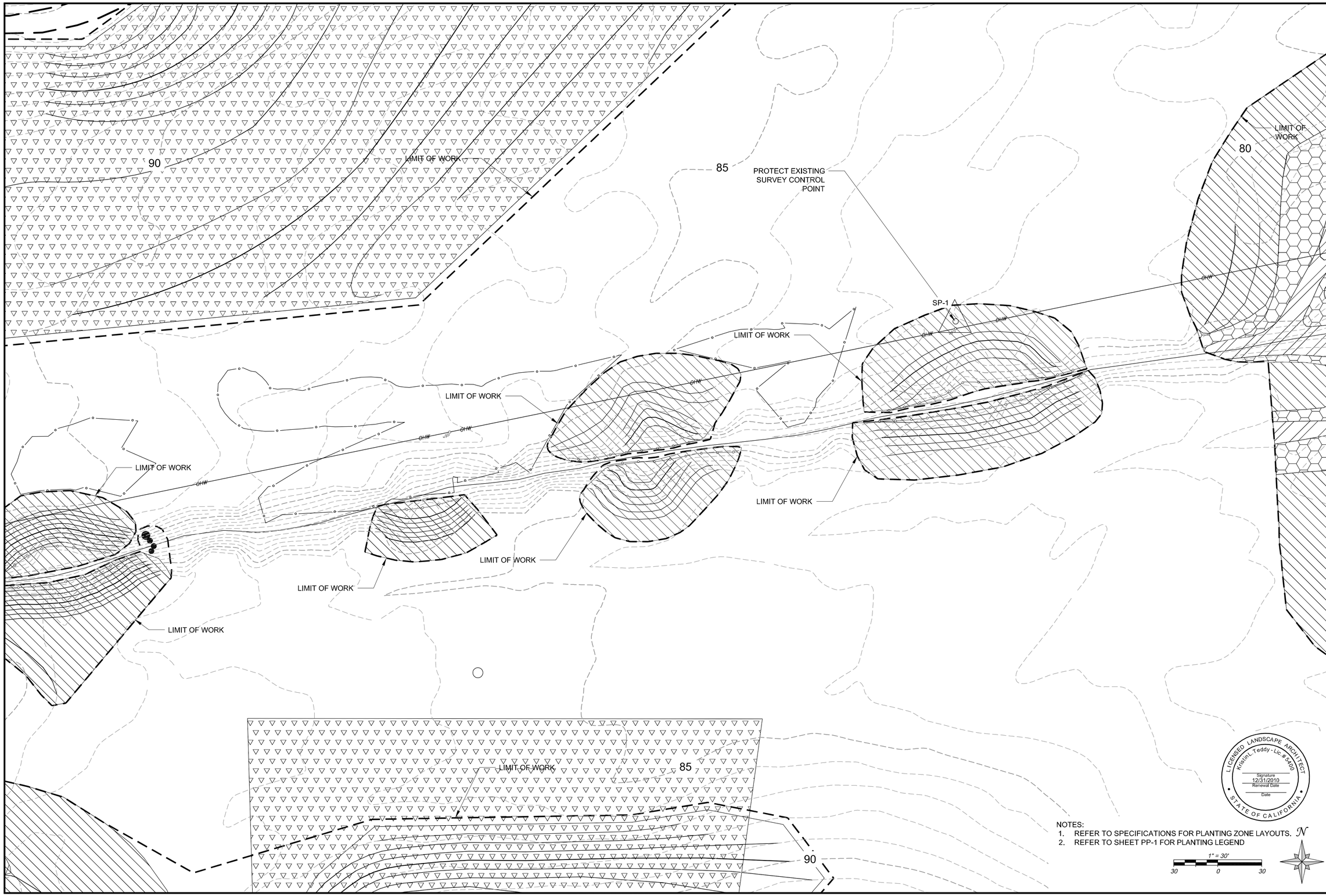
100% FINAL SUBMITTAL

EAST CONTRA COSTA COUNTY
HABITAT CONSERVANCY

P-1 P-2 P-3 P-4 P-5 P-6

PLANTING PLAN

SHEET 3
P-3
17 OF 23



NOTES:
1. REFER TO SPECIFICATIONS FOR PLANTING ZONE LAYOUTS.
2. REFER TO SHEET PP-1 FOR PLANTING LEGEND

LICENSED LANDSCAPE ARCHITECT
Kristin L. Teddy - Lic. # 5400
Signature
12/31/2010
Renewal Date
Date
STATE OF CALIFORNIA

DESIGNED BY: KB, KM
CAD BY: AA
CHECKED BY: KB,KM
DATE: 6/8/09
JOB NO. 00011.09

REV.	DATE	DESCRIPTION	BY	APP'D

ICF Jones & Stokes
an ICF International Company
630 K Street, Suite 400, Sacramento, CA 95814

Souza II Wetlands Restoration Project
100% FINAL SUBMITTAL

EAST CONTRA COSTA COUNTY
HABITAT CONSERVANCY

P-1 P-2 P-3 P-4 P-5 P-6

PLANTING PLAN

SHEET 4
P-4
18 OF 23

LIMIT OF WORK

PLACE ORGANIC MATERIAL AND SOIL PROVIDED BY THE DISTRICT

PLACE ORGANIC MATERIAL AND SOIL SALVAGED FROM ONSITE WETLANDS

SP-2

SP-3

PROTECT EXISTING SURVEY CONTROL POINT

PROTECT EXISTING SURVEY CONTROL POINT

PLACE ORGANIC MATERIAL AND SOIL SALVAGED FROM ONSITE WETLANDS

PLACE ORGANIC MATERIAL AND SOIL SALVAGED FROM ONSITE WETLANDS

PLACE ORGANIC MATERIAL AND SOIL SALVAGED FROM ONSITE WETLANDS

LIMIT OF WORK

EXISTING FENCE

LICENSED LANDSCAPE ARCHITECT
Kristin L Teddy - Lic # 5400
Signature
12/31/2010
Renewal Date
Date
STATE OF CALIFORNIA

NOTES:
1. REFER TO SPECIFICATIONS FOR PLANTING ZONE LAYOUTS.
2. REFER TO SHEET PP-1 FOR PLANTING LEGEND

1" = 30'
30 0 30

DESIGNED BY: KB, KM
CAD BY: AA
CHECKED BY: KB,KM
DATE: 6/8/09
JOB NO. 00011.09

REV.	DATE	DESCRIPTION	BY	APP'D

ICF Jones & Stokes
an ICF International Company
630 K Street, Suite 400, Sacramento, CA 95814

Souza II Wetlands Restoration Project

100% FINAL SUBMITTAL

EAST CONTRA COSTA COUNTY HABITAT CONSERVANCY

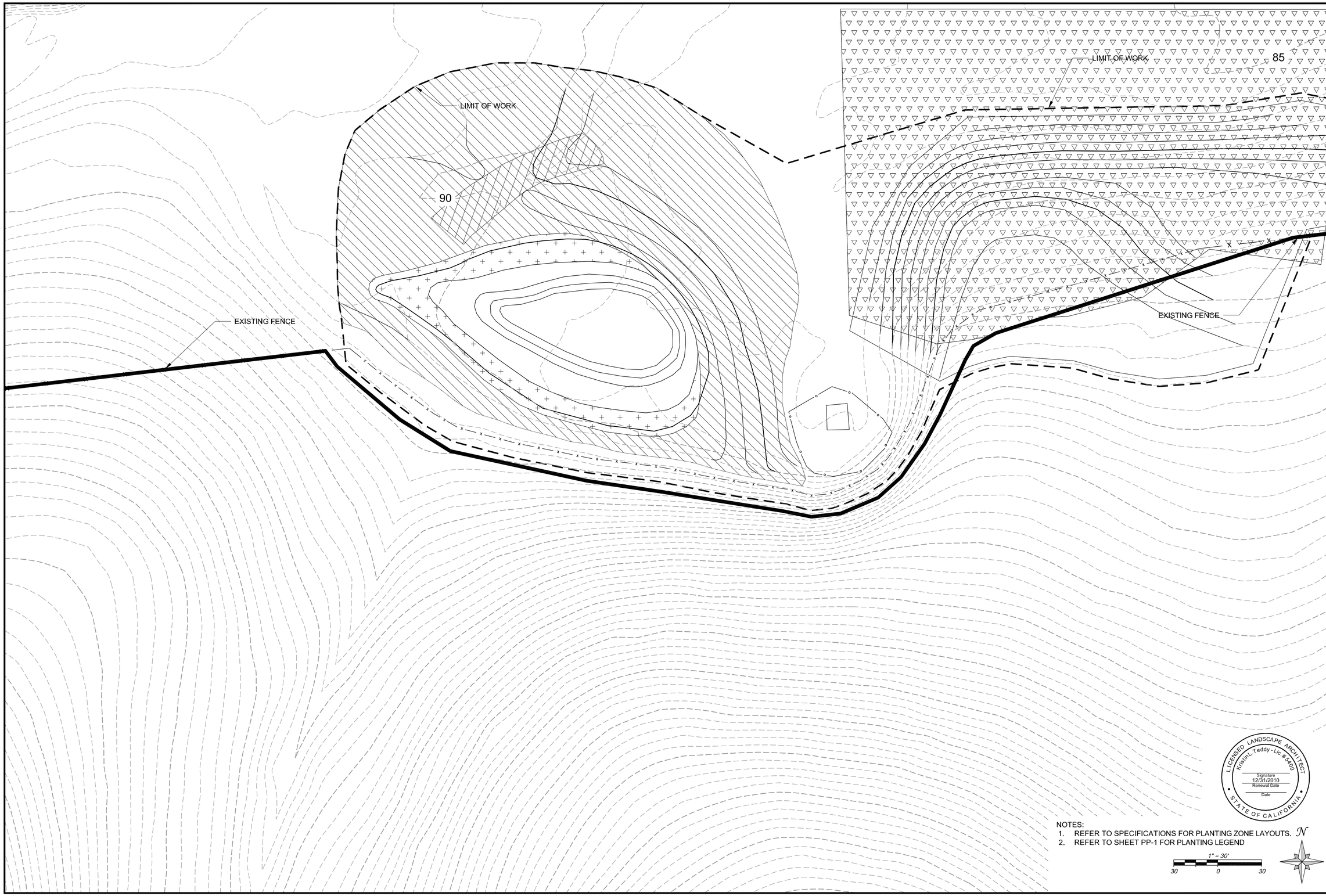
P-1 P-2 P-3 P-4 P-5 P-6

PLANTING PLAN

SHEET 5

P-5

19 OF 23



NOTES:
1. REFER TO SPECIFICATIONS FOR PLANTING ZONE LAYOUTS.
2. REFER TO SHEET PP-1 FOR PLANTING LEGEND

1" = 30'
30 0 30

N

LICENSED LANDSCAPE ARCHITECT
Kristin L. Teddy - Lic. #5400
Signature
12/31/2010
Renewal Date
Date
STATE OF CALIFORNIA

DESIGNED BY: KB, KM
CAD BY: AA
CHECKED BY: KB,KM

DATE: 6/8/09
JOB NO. 00011.09

REV.	DATE	DESCRIPTION	BY	APP'D

ICF Jones & Stokes
an ICF International Company
630 K Street, Suite 400, Sacramento, CA 95814

Souza II Wetlands Restoration Project

100% FIANL SUBMITTAL

EAST CONTRA COSTA COUNTY
HABITAT CONSERVANCY

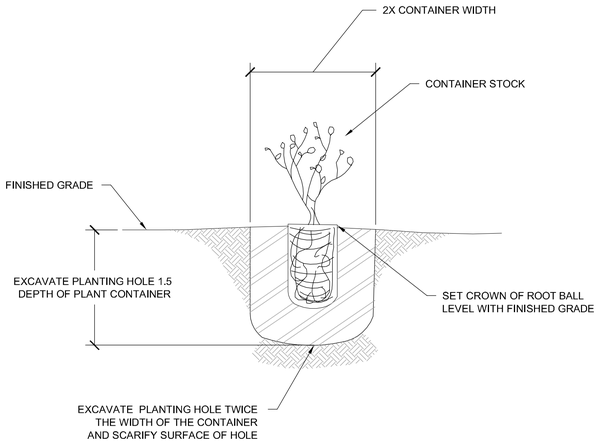
P-1 P-2 P-3 P-4 P-5 P-6

PLANTING PLAN

SHEET 6

P-6

20 OF 23

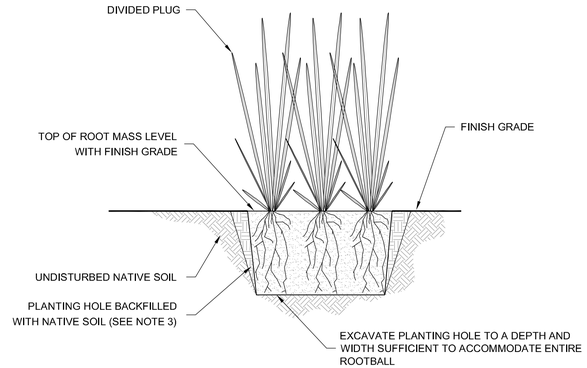


NOTES:

1. THOROUGHLY WATER EACH PLUG IMMEDIATELY FOLLOWING PLANT INSTALLATION
2. REFER TO PLANTING SPECIFICATIONS FOR ADDITIONAL INFORMATION.

CONTAINER PLANTING
NOT TO SCALE

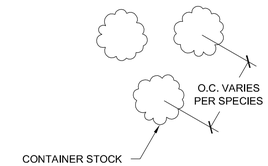
1
D-1



NOTES:

1. DIVIDE 1- GAL CONTAINER INTO EIGHTHS BY HAND OR BY USING A SPADE. EACH EIGHTH CONSTITUTES I PLUG PLANTING
2. PLANTING HOLES FOR PLUGS SHALL BE DEEP ENOUGH TO ACCOMMODATE ROOTS WITHOUT BENDING ROOTS. PLANTING HOLE SHALL ONLY BE LARGE ENOUGH TO ACCOMMODATE ROOT MASS. DO NOT OVER-EXCAVATE.
3. INSTALL DIVIDED PLUG, BACKFILL PLANTING HOLE WITH NATIVE SOIL, AND TAMP WITHOUT DAMAGING OR CRUSHING ROOTS OR PLANT.

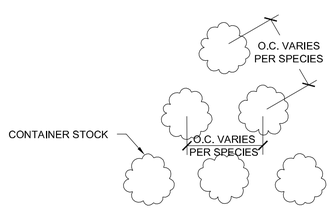
2 D-1 PLUG PLANTING
NOT TO SCALE



NOTES:

1. REFER TO SHEET PP-1 FOR ON-CENTER SPACING.
2. REFER TO THE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
3. PLANT QUANTITIES AND SPACING VARIES BY SPECIES. REFER TO SHEET PP-1 FOR SPACING REQUIREMENTS.
4. SEE DETAILS 1/D1 AND 2/D1 FOR SPECIFIC PLANTING PROCEDURES.

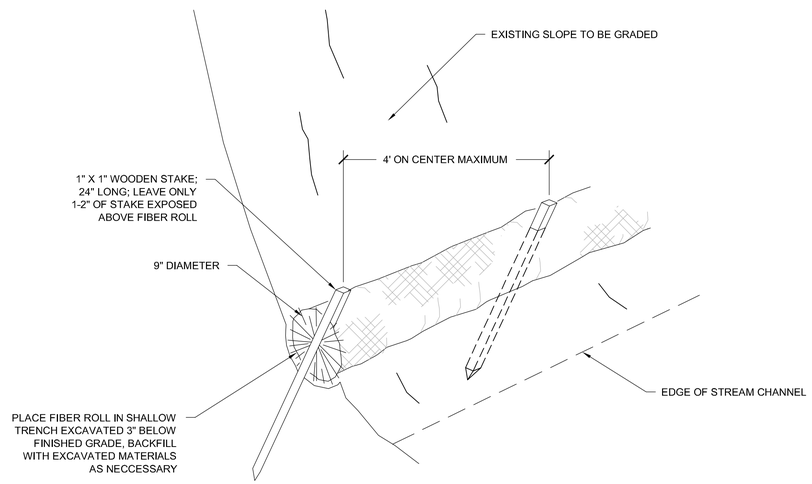
3 D-1 3 CLUSTER PLANTING LAYOUT
NOT TO SCALE



NOTES:

1. REFER TO SHEET PP-1 FOR ON-CENTER SPACING.
2. REFER TO THE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
3. PLANT QUANTITIES AND SPACING VARIES BY SPECIES. REFER TO SHEET PP-1 FOR SPACING REQUIREMENTS.
4. SEE DETAILS 1/D1 AND 2/D1 FOR SPECIFIC PLANTING PROCEDURES.

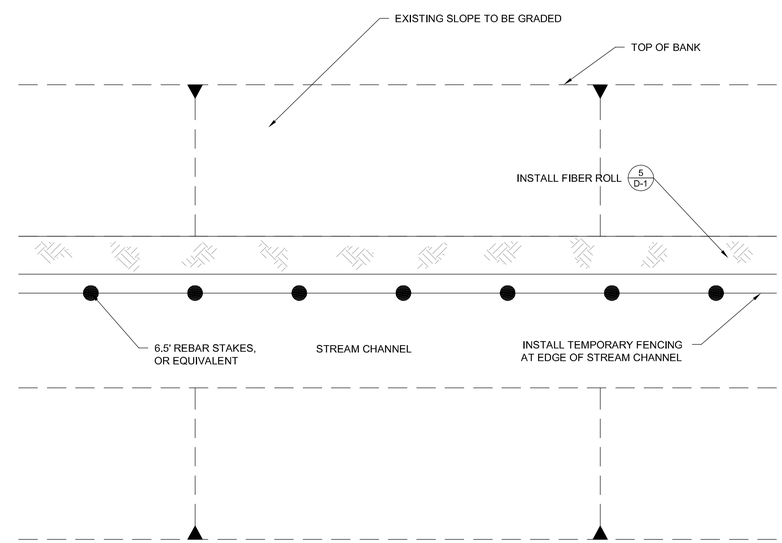
4 D-1 6 CLUSTER PLANTING LAYOUT
NOT TO SCALE



NOTES:

1. INSTALL FIBER ROLLS AT TOE OF STREAMBANK PARALLEL TO EDGE OF THE STREAM CHANNEL FOR LENGTH OF CHANNEL BANK GRADING.
2. EXTEND FIBER ROLLS 5' ON EITHER SIDE OF EXTENT OF CHANNEL BANK GRADING.
3. ABUT ENDS OF ADJOINING ROLLS TIGHTLY. STAKE EACH ROLL TO SECURE ENDS.

5 D-1 FIBER ROLL
NOT TO SCALE



PLAN

6 D-1 FIBER ROLL AND TEMPORARY PROTECTION FENCING
NOT TO SCALE

LICENSED LANDSCAPE ARCHITECT
Kristin L. Teddy - Lic. # 5400
Signature
12/31/2010
Renewal Date
Date
STATE OF CALIFORNIA

DESIGNED BY: KB, KM
CAD BY: AA
CHECKED BY: KB,KM
DATE: 6/8/09
JOB NO. 00011.09

REV.	DATE	DESCRIPTION	BY	APP'D

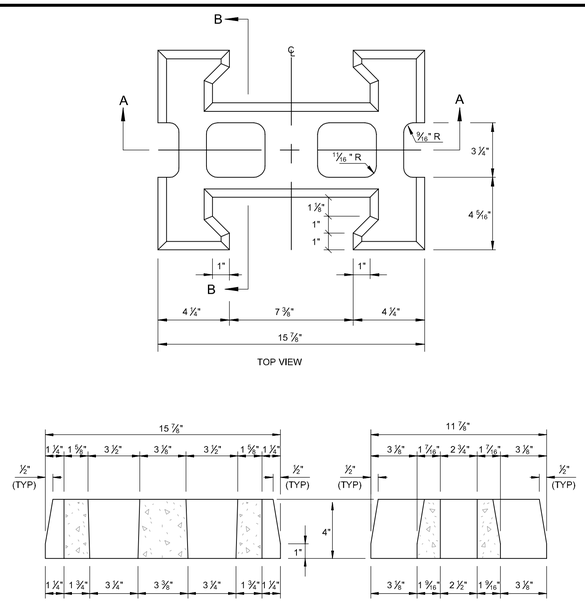
ICF Jones & Stokes
an ICF International Company
630 K Street, Suite 400, Sacramento, CA 95814

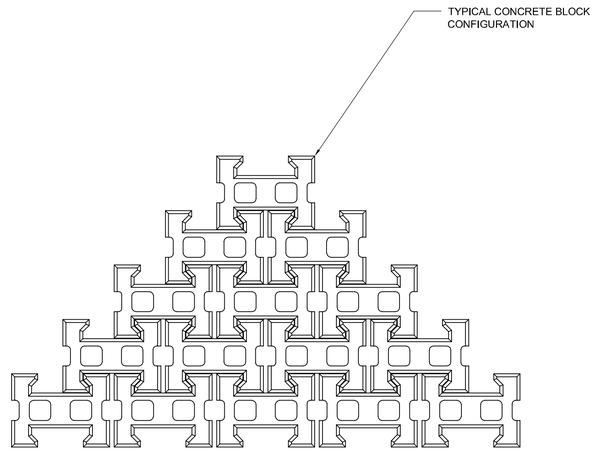
Souza II Wetlands Restoration Project
100% FINAL SUBMITTAL

EAST CONTRA COSTA COUNTY
HABITAT CONSERVANCY

DETAIL SHEET

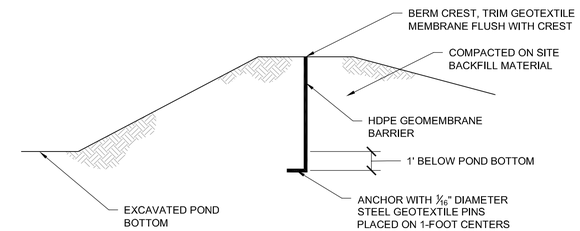
D-1





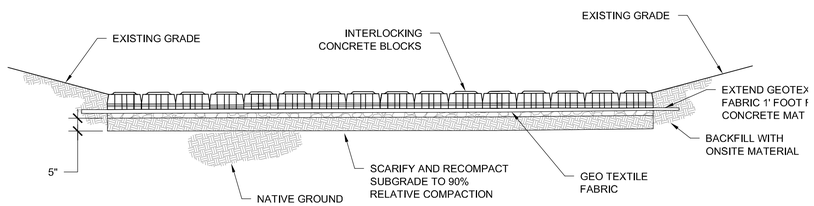
NOTE:
1. BLOCK CONFIGURATION AND ORIENTATION IS NOT DEPENDANT ON FLOW DIRECTION.

PLAN



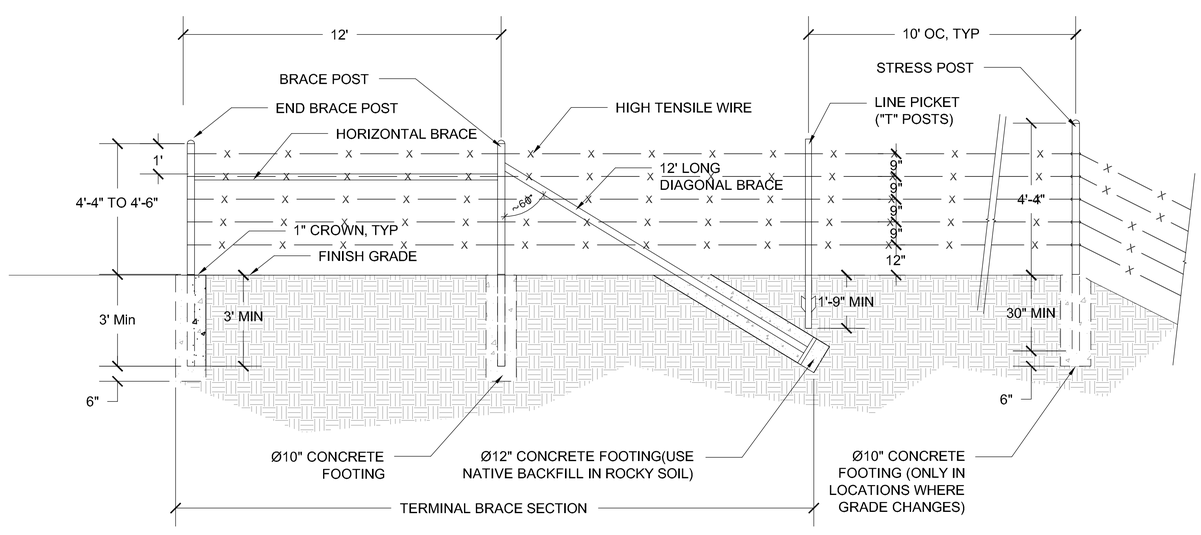
NOTES:
1. OVERLAP GEOMEMBRANE SHEETS BY A MINIMUM OF ONE FOOT.

2 / D-2 GEOMEMBRANE BARRIER
NOT TO SCALE

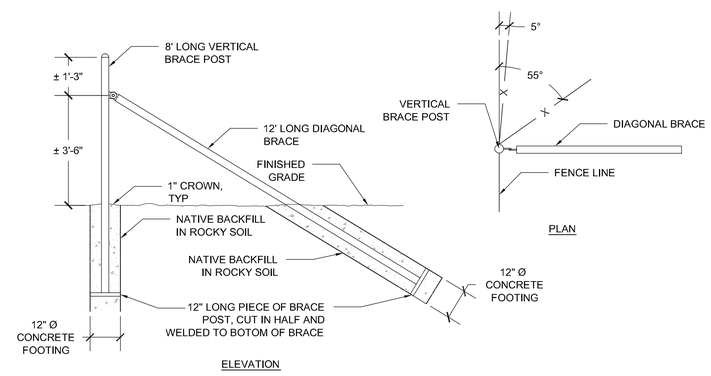


SECTION

1 / D-2 ARTICULATED CONCRETE MAT
NOT TO SCALE



3 / D-2 5-WIRE BARB WIRE FENCE
NOT TO SCALE



NOTES:
1. ALL WELDS TO BE GROUND SMOOTH AND PAINTED WITH ZINC METAL PAINT.
2. INTERMEDIATE ANGLE BRACE -TO BE USED WHERE LINE ALIGNMENT DEFLECTS FROM 5-55° (FOR DEFLECTIONS > 55° USE CORNER BRACING)

4 / D-2 INTERMEDIATE ANGLE BRACE
NOT TO SCALE

REGISTERED PROFESSIONAL ENGINEER
STEVEN R. SEVILLE
No. 60513
EXP: 06/30/10
CIVIL
STATE OF CALIFORNIA

DESIGNED BY: KB, KM
CAD BY: AA
CHECKED BY: KB,KM
DATE: 6/8/09
JOB NO. 00011.09

REV.	DATE	DESCRIPTION	BY	APP'D

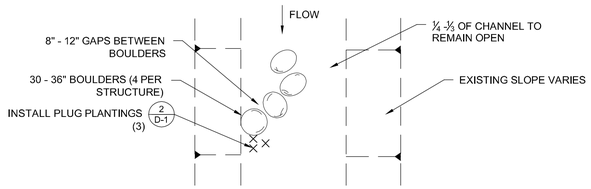
ICF Jones & Stokes
an ICF International Company
630 K Street, Suite 400, Sacramento, CA 95814

Souza II Wetlands Restoration Project
100% FINAL SUBMITTAL

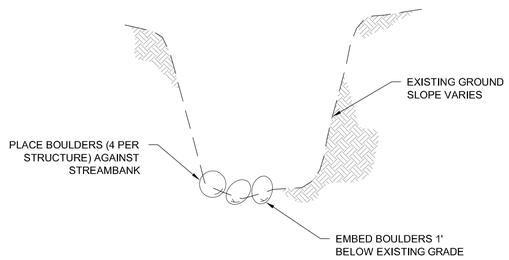
EAST CONTRA COSTA COUNTY
HABITAT CONSERVANCY

DETAIL SHEET

D-2



PLAN

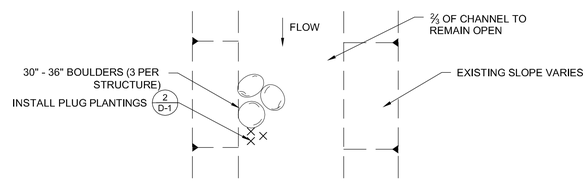


SECTION

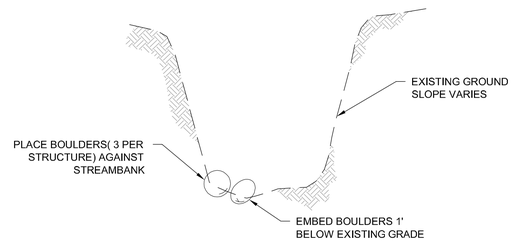
NOTES:
1. BOULDERS TO BE PLACED AT DIRECTION OF THE DISTRICT

SCALE 1" = 10'

1 D-3 J-HOOK BOULDER WEIR



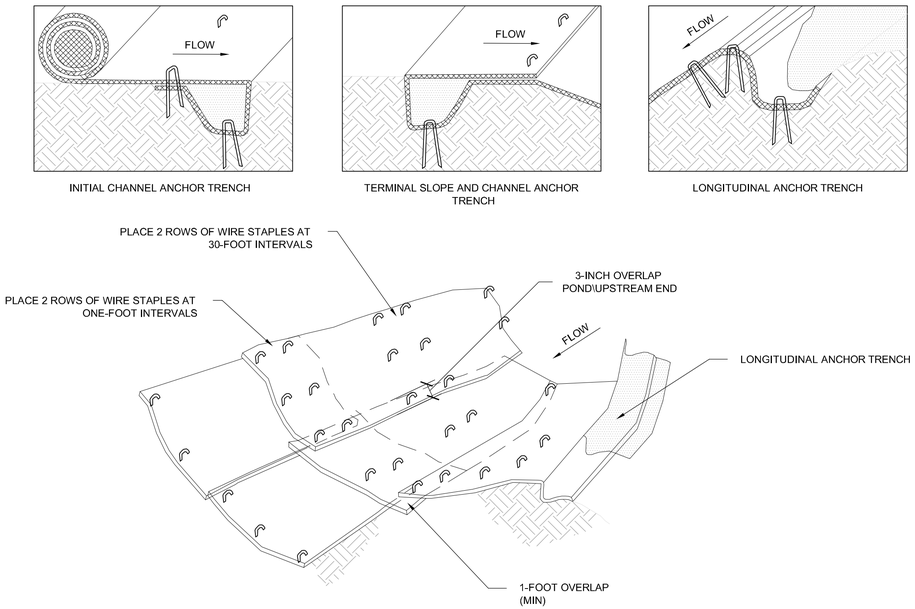
PLAN



SECTION

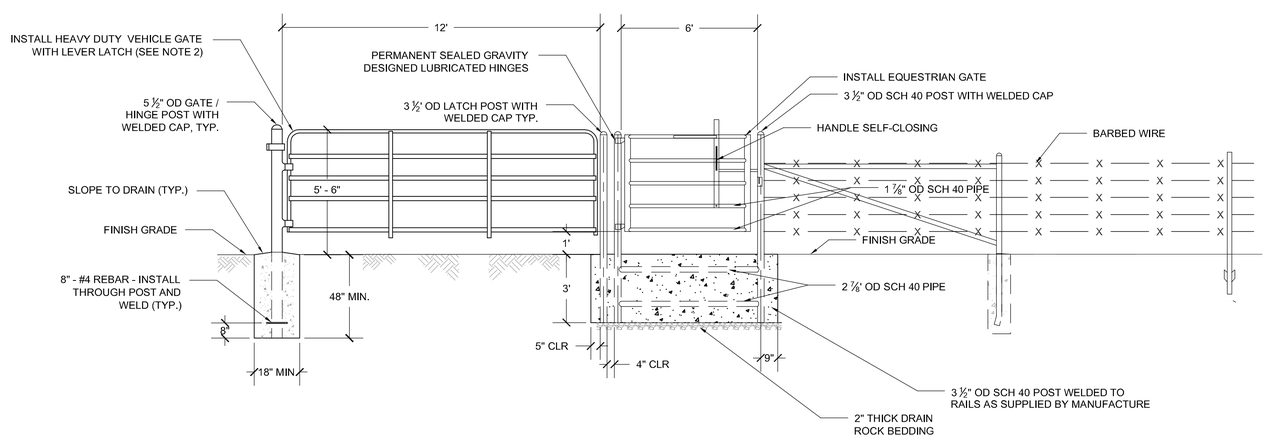
NOTES:
1. BOULDERS TO BE PLACED AT DIRECTION OF THE DISTRICT

2 D-3 BOULDER CLUSTER
SCALE 1" = 10'



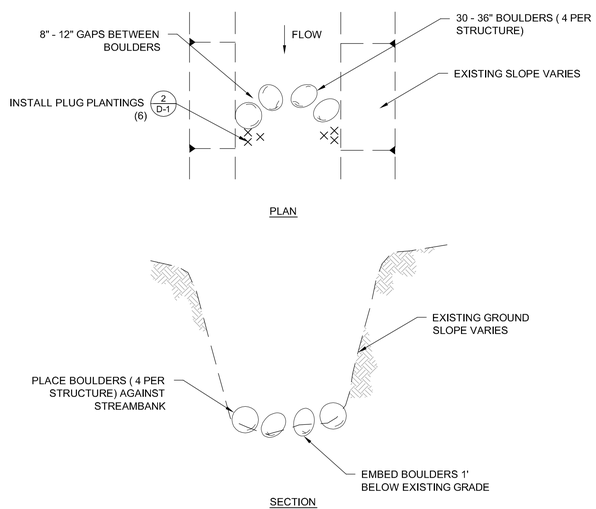
NOTES: 1. EXCAVATE 6-INCH WIDE BY 12 INCH DEEP KEY TRENCHES AT THE UPPER AND LOWER ENDS OF THE SPILLWAY.
2. EXCAVATE LONGITUDINAL TRENCHES 4-INCHES WIDE BY 4-INCHES DEEP ALONG THE SIDES OF THE SPILLWAY .

3 D-3 TURF REINFORCMENT MAT
NOT TO SCALE



NOTES:
1. SEE PLANS TO DETERMINE GATE LOCATION. EQUESTRIAN / PEDESTRIAN GATE TO OPEN TOWARDS DOWNHILL SIDE OF GATE.

4 D-3 VEHICLE GATE
NOT TO SCALE



NOTES:
1. BOULDERS TO BE PLACED AT DRIECTION OF THE DISTRICT

5 D-3 BOULDER CROSS WEIR
SCALE 1" = 10'

REGISTERED PROFESSIONAL ENGINEER
STEVEN R. SEVILLE
No. 60513
EXP. 06/30/10
CIVIL
STATE OF CALIFORNIA

DESIGNED BY: KB, KM
CAD BY: AA
CHECKED BY: KB,KM
DATE: 6/8/09
JOB NO. 00011.09

REV.	DATE	DESCRIPTION	BY	APP'D

ICF Jones & Stokes
an ICF International Company
630 K Street, Suite 400, Sacramento, CA 95814

Souza II
Wetlands Restoration Project
100% FINAL SUBMITTAL

EAST CONTRA COSTA COUNTY
HABITAT CONSERVANCY

DETAIL SHEET

D-3

23 OF 23