GENERAL NOTES

1. PREPARED AT THE REQUEST OF:
   USDA FOREST SERVICE
   LAKE TAHOE BASIN MANAGEMENT UNIT
   35 COLLEGE DRIVE
   SOUTH LAKE TAHOE, CA 96150-4500
   (530) 543 2600

2. GROUND-BASED CHANNEL SURVEY BY:
   SH+G ENGINEERING
   500 SEABRIGHT AVENUE, SUITE 202
   SANTA CRUZ, CA 95062
   (831) 427 0288
   SURVEY DATES:
   10/05/04-10/08/04, 09/21/05-09/22/05, 07/03/06-07/07/06, 07/17/06-07/21/06, 09/11/06-09/15/06, 10/02/06-10/06/06.

3. CONTOUR INTERVAL: TWO FOOT

4. BASIS OF BEARINGS:
   S56°52'02"W BETWEEN FOUND GROUND CONTROL SURVEY MONUMENTS #68 (AZ2) AND #891 (AZ6). COORDINATE SYSTEM = CALIFORNIA STATE PLANE, ZONE 2, NAD83.

5. PROJECT BENCHMARK:
   MONUMENT #684 (AZ2), ELEVATION = 7753.88 FEET. TOP OF 1/2" IRON PIPE, MARKED "LS 4029". VERTICAL DATUM = NGVD 29.

6. AERIAL SURVEY BY:
   AERIAL DATA, INC.
   670 JOY WAY, SUITE C
   YUBA CITY, CA 95993
   (530) 673 5000
   PHOTOGRAPHY DATE: 10/05/04
   PHOTOGRAPHY SCALE: 1"=450'
   MAP SCALE: 1"=50'
   JOB NO.: 04-447

7. GROUND CONTROL SURVEY BY:
   TURNER AND ASSOCIATES, INC.
   160 PINERIDGE DRIVE
   STATELINE, NV 89449
   (702) 588 5658
   JOB NO.: 04377

8. INDIVIDUAL TREES WERE NOT LOCATED DURING THIS SURVEY, EXCEPT WHERE LOCATED IN THE LOWER MEADOW. IN THIS CASE, ONLY TREES LARGER THAN 22" DBH (DIAMETER AT BREAST HEIGHT) WERE LOCATED.

9. GPS MAPPING OF DIVERSION CHANNELS AND EPHEMERAL STREAMS (OUTSIDE THE GROUND-BASED TOPOGRAPHIC CHANNEL SURVEY) PERFORMED BY:
   SWANSON HYDROLOGY + GEOMORPHOLOGY
   SURVEY DATES: SEPTEMBER 2005

10. GEOTECHNICAL ENGINEERING REPORT PREPARED BY:
    HOLDREGE AND KULL
    10775 PIONEER TRAIL, SUITE 213
    TRUCKEE, CA 96161
    (530) 587 5156

ABBREVIATIONS

C	COTTONWOOD TREE
D	DESCRIPTION
DBL	DOUBLE TRUNK
(E)	EXISTING
E	EASTING
F	FIR TREE
FD	FOUND
GPS	GLOBAL POSITIONING SYSTEM
MW	MONITORING WELL
N	NORTHING
NIC	NOT IN CONTRACT
NO	NUMBER
NTS	NOT TO SCALE
OHE	OVER-HEAD ELECTRIC UTILITIES
P	PINE TREE
QUAD	QUADRUPLE TRUNK
TBD	TO BE DETERMINED
TP	TEST PIT
TRI	TRIPLE TRUCK
TW	TOP OF WALL ELEVATION
TYP	TYPICAL
W	WILLOW TREE
XS	MONITORING CROSS SECTION
Z	ELEVATION
30"C	30" DIAMETER AT BREAST HEIGHT COTTONWOOD (TYP)

MATERIALS NOTES

MATERIALS NOTES TBD.

SURVEY CONTROL POINT LIST

NUMBER	NORTHING	EASTING	ELEV.	DESC.	NUMBER	NORTHING	EASTING	ELEV.	DESC.
1	2097065.90	7157808.66	7745.59	REBAR	7883	2093940.09	7157697.21	7807.24	STSPK
2	2096928.88	7158002.35	7747.01	REBAR	7884	2093956.06	7157864.89	7806.22	FD*
191	2096756.14	7157971.91	7749.18	FD*	7885	2094477.32	7157787.55	7786.97	FD*
321	2096515.49	7158254.24	7750.66	REBAR	7886	2094164.70	7158120.19	7793.42	STSPK
469	2096130.54	7158001.71	7753.93	REBAR	8234	2094182.72	7158269.06	7792.35	STSPK
684	2096021.60	7158147.22	7753.88	FD*	8369	2094312.05	7158343.33	7793.77	STSPK
685	2095906.86	7157861.09	7756.23	REBAR	8427	2094168.95	7158443.09	7794.63	STSPK
890	2095899.19	7157625.75	7759.57	REBAR	8498	2094268.74	7158513.64	7797.08	STSPK
891	2095704.28	7157661.05	7761.50	FD*	8499	2094121.77	7158538.26	7798.27	STSPK
1068	2095447.96	7157723.49	7765.50	SPK	9001	2093946.10	7158317.83	7797.93	FD*
5083	2096304.78	7158370.04	7752.32	REBAR	9009	2094254.56	7158591.80	7798.08	SPK
5128	2095973.89	7158356.81	7757.55	REBAR	9039	2094204.02	7158770.11	7801.35	SPK
5157	2095760.57	7158332.88	7759.68	REBAR	9068	2094134.81	7158914.56	7804.42	SPK
5245	2095521.79	7158074.75	7761.47	REBAR	9145	2093934.18	7158956.59	7807.28	SPK
5413	2094772.26	7157872.15	7776.65	REBAR	9206	2094061.30	7158578.96	7800.03	SPK
6004	2095441.62	7157630.89	7765.38	STSPK	9243	2094075.08	7158667.13	7800.98	SPK
6005	2095293.53	7157547.54	7769.17	STSPK	9267	2093993.07	7158719.82	7800.87	SPK
6049	2095338.16	7157575.92	7768.25	STSPK	9301	2093896.30	7158778.19	7806.26	SPK
6129	2095190.54	7157484.15	7771.00	STSPK	9347	2093751.73	7158872.64	7810.60	SPK
6130	2095094.30	7157447.96	7772.82	STSPK	9421	2093653.28	7158790.97	7815.61	SPK
6196	2095031.70	7157340.37	7775.06	STSPK	9492	2093581.09	7158812.73	7817.51	SPK
6265	2094839.75	7157335.70	7778.58	STSPK	9526	2093483.37	7158823.10	7822.62	SPK
6266	2094958.85	7157397.12	7775.62	STSPK	9568	2093382.91	7158728.28	7823.03	SPK
6430	2094733.88	7157300.12	7780.66	STSPK	9569	2093440.11	7158577.92	7814.81	SPK
6431	2094701.02	7157254.09	7781.20	STSPK	9570	2093683.95	7158448.92	7804.71	SPK
6433	2094689.56	7157390.01	7783.11	STSPK	9571	2093838.78	7158367.36	7799.56	SPK
6517	2094570.96	7157182.73	7784.73	STSPK	9600	2093432.05	7158822.33	7828.49	SPK
6518	2094331.16	7157114.88	7792.23	STSPK	9665	2093417.38	7158873.09	7828.86	SPK
6636	2094160.42	7157097.87	7799.22	STSPK	9698	2093359.00	7158888.94	7832.33	SPK
6726	2094052.74	7157010.87	7802.57	STSPK	9720	2093309.69	7158933.28	7836.79	SPK
6815	2093895.52	7157038.44	7808.31	STSPK	9753	2093272.92	7158998.88	7842.99	SPK
6904	2093675.80	7156880.81	7816.88	STSPK	9829	2093183.84	7159045.53	7850.80	SPK
6966	2094580.18	7157402.39	7785.59	STSPK	9876	2093132.65	7159113.24	7860.29	SPK
7023	2094470.71	7157372.31	7787.02	STSPK	9920	2093046.18	7159124.76	7868.14	SPK
7069	2094319.04	7157429.03	7791.77	STSPK	9986	2092997.36	7159201.35	7875.27	SPK
7112	2094179.63	7157354.64	7797.92	STSPK	10030	2092941.11	7159189.17	7878.86	SPK
7146	2094085.79	7157476.33	7802.96	STSPK	10114	2093022.47	7159089.62	7871.45	SPK
7237	2093914.04	7157473.9	7809.54	STSPK	10115	2093214.17	7158932.59	7843.25	SPK
7333	2093788.67	7157409.68	7814.21	STSPK	10142	2093588.82	7158455.5	7808.60	SPK
7422	2093725.14	7157473.75	7819.61	STSPK	10164	2093717.62	7158382.21	7801.97	SPK
7423	2093866.93	7157384.79	7810.91	STSPK	10211	2093839.73	7158318.25	7798.57	SPK
7491	2093641.95	7157466.63	7823.23	STSPK	10234	2094060.76	7158232.32	7795.86	SPK
7567	2093791.50	7157575.96	7816.37	STSPK	12002	2095663.43	7158222.97	7758.27	REBAR
7646	2093920.72	7157325.92	7808.26	STSPK	12003	2095751.41	7158493.10	7763.14	REBAR
7691	2094072.70	7157368.53	7802.51	STSPK	16543	2095570.77	7158452.29	7767.98	REBAR
7789	2094092.93	7157284.12	7800.39	STSPK	16546	2095410.71	7158568.87	7776.35	REBAR

LEGEND

- EXISTING ABANDONED CHANNEL FLOW LINE
- EXISTING DIVERSION CHANNEL FLOW LINE
- EXISTING DIRT ROAD (APPROXIMATE)
- EXISTING DRIPLINE OF SURROUNDING FOREST
- EXISTING EPHEMERAL STREAM
- EXISTING OVERFLOW CHANNEL
- EXISTING SURVEY CONTROL POINT
- ×7751.78 EXISTING THALWEG SPOT ELEVATION (GROUND-BASED SURVEY)
- EXISTING THALWEG
- EXISTING TREE
- EXISTING LIMITS OF GROUND-BASED SURVEY
- 7750 EXISTING MAJOR CONTOUR (GROUND-BASED SURVEY)
- 7748 EXISTING MINOR CONTOUR (GROUND-BASED SURVEY)
- 7750 EXISTING MAJOR CONTOUR (AERIAL SURVEY)
- 7748 EXISTING MINOR CONTOUR (AERIAL SURVEY)
- 7755.27 MW1 MONITORING WELL LOCATION AND RIM ELEVATION
- TP1 TEST PIT LOCATION

REV.	DATE	DESCRIPTION	BY

SH+G ENGINEERING
500 SEABRIGHT AVE., SUITE 202
SANTA CRUZ, CA 95062
(831)-427-0288
A Division of Swanson Hydrology + Geomorphology

DRAFT
NOT FOR CONSTRUCTION

PREPARED AT THE REQUEST OF:
USDA FOREST SERVICE
LAKE TAHOE BASIN
MANAGEMENT UNIT

GENERAL NOTES

HIGH MEADOW COMPLEX
RESTORATION PLAN
PHASE 1 60% SUBMITTAL

DESIGNED BY:	R.T.C.
DRAWN BY:	B.M.S.
CHECKED BY:	M.L.S.
DATE:	10/09/07
JOB NO.:	04-415

BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

C2

R:\LAND PROJECTS\04-415_COLD-CREEK\dwg\04-415 C1-C5_COVER.dwg 10/10/2007 11:01:04 AM PDT

SHEET INDEX PLAN

SCALE: 1"=200'

N

200 0 100 200 400

GRAPHIC SCALE: 1 INCH = 200 FEET

REV.	DATE	DESCRIPTION	BY

SH+G ENGINEERING
500 SEABRIGHT AVE., SUITE 202
SANTA CRUZ, CA 95062
(831)-427-0288
A Division of Swanson Hydrology + Geomorphology

DRAFT

NOT FOR CONSTRUCTION

PREPARED AT THE REQUEST OF:
USDA FOREST SERVICE
LAKE TAHOE BASIN
MANAGEMENT UNIT

SHEET INDEX PLAN

HIGH MEADOW COMPLEX
RESTORATION PLAN
PHASE 1 60% SUBMITTAL

DESIGNED BY:	R.T.C.
DRAWN BY:	B.M.S.
CHECKED BY:	M.L.S.
DATE:	10/09/07
JOB NO.:	04-415

BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

C3

3 OF 16

R:\LAND PROJECTS\04-415_COLD-CREEK\dwg\04-415 C1-C5_COVER.dwg 10/9/2007 2:03:03 PM PDT

N

200 0 100 200 400

GRAPHIC SCALE: 1 INCH = 200 FEET

PHASING AND ACCESS PLAN - YEAR ONE

SCALE: 1"=200'

TYPICAL CONSTRUCTION TASKS - YEAR ONE

ACTIVITIES SHALL INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING TASKS:

YEAR 1 (AUGUST 1ST TO OCTOBER 15TH)

1. TRANSPORT EQUIPMENT AND MATERIALS TO THE PROJECT SITE. IMPLEMENT NOXIOUS WEED CONTROL. PREPARE TEMPORARY STAGING AND STOCKPILE AREAS.
2. INSTALL TEMPORARY ACCESS ROADS.
3. INSTALL TEMPORARY SILT FENCE AND E.S.A. FENCE.
4. INSTALL TEMPORARY SANDBAG DAMS AND DIVERSION PIPES IN EXISTING CHANNEL.
5. SALVAGE TOPSOIL AND SOD FROM NEW CHANNEL, UPPER EAST FORK CHANNEL FILL, AND TERRACE AREAS.
5. EXCAVATE NEW CHANNELS AND TERRACES AND HAUL MATERIALS TO UPPER EAST FORK CHANNEL FILL AREA AND TEMPORARY STOCKPILE AREAS.
6. INSTALL CHANNEL SUBSTRATE, RIFFLES, BOULDER WEIRS, AND TEMPORARY RIFFLE PROTECTION.
7. INSTALL SOD.
8. LOCATE WILLOW CUTTINGS FROM NEARBY SOURCES AND INSTALL WILLOW STAKES AND LIVE FASCINES.
9. INSTALL TEMPORARY IRRIGATION.
10. INSTALL WINTER EROSION CONTROL AND PERPARE DIVERSION FOR WINTER SEASON.
11. REMOVE ACCESS ROADS, EQUIPMENT, FENCES, AND MATERIALS.
12. REVEGETATE DISTURBED AREAS.

LEGEND

	YEAR 1 DISTURBANCE AREA (ACRES)	SURFACE TREATMENT/REVEGETATION
WET MEADOW ACCESS ROAD (APPROX.)	0.7	REMOVE TEMPORARY ACCESS ROAD
DRY UPLAND ACCESS ROAD (APPROX.)	1.2	RIP AND MULCH
EXISTING DIRT ROAD (APPROX.)		
DIVERSION PIPE (APPROX.)		
STOCKPILE AREA WITH SILT FENCE (APPROX.)	1.6	RIP AND MULCH
SOD HARVEST AREA (APPROX.)	2.2 NEEDED (MORE AREA IS SHOWN TO ALLOW SELECTIVE HARVESTING)	PLUG AND SEED
TEMPORARY STREAM CROSSING (APPROX.)		
CHANNEL AND TERRACE CONSTRUCTION DISTURBANCE AREA (APPROX.)	6.9	TOPSOIL, PLUG, AND SEED
EXISTING CHANNEL FILL AREAS (APPROX.)	1.0	TOPSOIL, PLUG, AND SEED

REV.	DATE	DESCRIPTION	BY

SH+G ENGINEERING

500 SEABRIGHT AVE., SUITE 202
SANTA CRUZ, CA 95062
(831)-427-0288
A Division of Swanson Hydrology + Geomorphology

DRAFT

NOT FOR CONSTRUCTION

PREPARED AT THE REQUEST OF:

USDA FOREST SERVICE
LAKE TAHOE BASIN
MANAGEMENT UNIT

PHASING AND ACCESS PLAN YEAR ONE

HIGH MEADOW COMPLEX RESTORATION PLAN
PHASE 1 60% SUBMITTAL

DESIGNED BY: R.T.C.
DRAWN BY: B.M.S.
CHECKED BY: M.L.S.
DATE: 10/09/07
JOB NO.: 04-415

BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

C4

4 OF 16

R:\LAND PROJECTS\04-415_COLD-CREEK\dwg\04-415 C1-C5_COVER.dwg 10/10/2007 12:10:11 PM PDT

N

200 0 100 200 400

GRAPHIC SCALE: 1 INCH = 200 FEET

PHASING AND ACCESS PLAN - YEAR TWO

SCALE: 1"=200'

TYPICAL CONSTRUCTION TASKS - YEAR TWO

ACTIVITIES SHALL INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING TASKS:

YEAR 2 (PRIOR TO AUGUST 1ST)

1. INSTALL TEMPORARY FLOW DIVERSION STRUCTURES BETWEEN EXISTING CHANNELS AND NEW CHANNELS.
2. PERIODICALLY FLUSH NEW CHANNELS.
3. RELOCATE FISH AND AQUATIC WILDLIFE FROM OLD CHANNELS TO LOWER MAINSTEM CHANNEL.
4. DIVERT FLOW INTO NEW CHANNELS.
5. REMOVE TEMPORARY RIFFLE PROTECTION.

YEAR 2 (AUGUST 1ST TO OCTOBER 15TH)

1. TRANSPORT EQUIPMENT AND MATERIALS TO THE PROJECT SITE. IMPLEMENT NOXIOUS WEED CONTROL.
2. INSTALLTEMPORARY ACCESS ROADS.
3. INSTALL TEMPORARY SILT FENCE AND E.S.A. FENCE.
4. DIVERT FLOWS INTO NEW CHANNELS.
5. SALVAGE SOD, GRAVEL, AND TOPSOIL FROM CHANNEL FILL AREAS.
6. FILL EXISTING CHANNELS AND INSTALL SOD.
7. INSTALL WINTER EROSION CONTROL.
8. REMOVE ACCESS ROADS, EQUIPMENT, FENCES, AND MATERIALS.
9. REVEGETATE DISTURBED AREAS.

LEGEND

	YEAR 2 DISTURBANCE AREA (ACRES)	SURFACE TREATMENT/REVEGETATION
WET MEADOW ACCESS ROAD (APPROX.)	0.2	REMOVE TEMPORARY ACCESS ROAD
DRY UPLAND ACCESS ROAD (APPROX.)	0.9	RIP AND MULCH
EXISTING DIRT ROAD (APPROX.)		
DIVERSION PIPE (APPROX.)		
STOCKPILE AREA WITH SILT FENCE (APPRO	1.6	RIP AND MULCH
SOD HARVEST AREA (APPROX.)	0	PLUG AND SEED
TEMPORARY STREAM CROSSING (APPROX.)		
CHANNEL AND TERRACE CONSTRUCTION DISTURBANCE AREA (APPROX.)	0.6	TOPSOIL, PLUG, AND SEED
EXISTING CHANNEL FILL AREAS (APPROX.)	5.6	TOPSOIL, PLUG, AND SEED

REV.	DATE	DESCRIPTION	BY

SH+G ENGINEERING

500 SEABRIGHT AVE., SUITE 202
SANTA CRUZ, CA 95062
(831)-427-0288
A Division of Swanson Hydrology + Geomorphology

DRAFT

NOT FOR CONSTRUCTION

PREPARED AT THE REQUEST OF:

USDA FOREST SERVICE
LAKE TAHOE BASIN
MANAGEMENT UNIT

PHASING AND ACCESS PLAN YEAR TWO

HIGH MEADOW COMPLEX RESTORATION PLAN
PHASE 1 60% SUBMITTAL

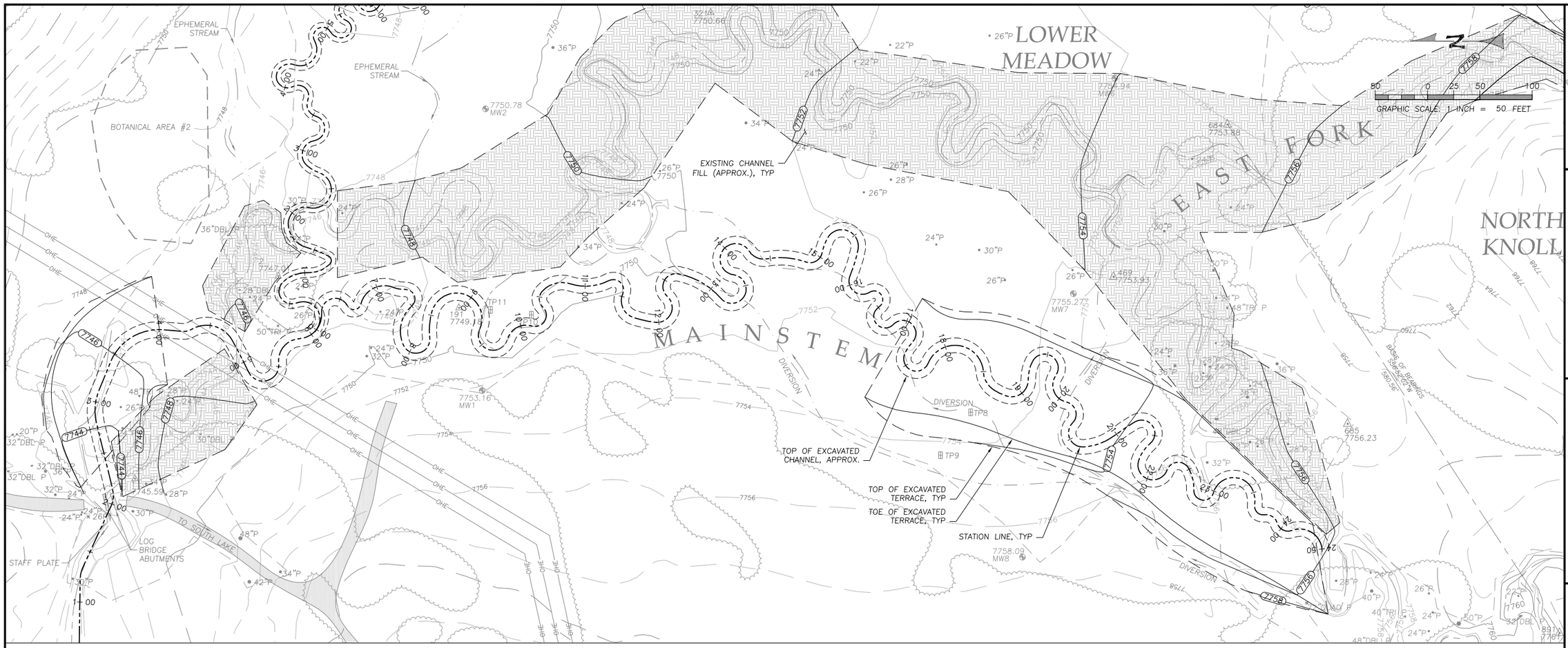
DESIGNED BY: R.T.C.
DRAWN BY: B.M.S.
CHECKED BY: M.L.S.
DATE: 10/09/07
JOB NO.: 04-415

BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

C5

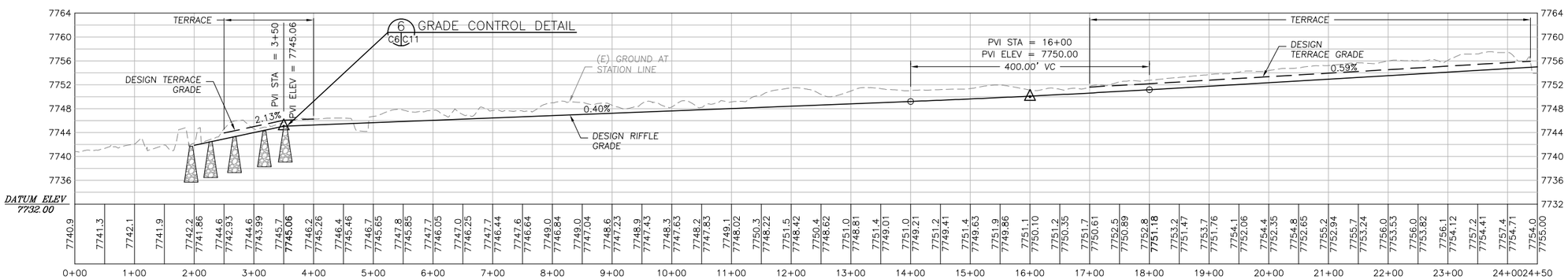
5 OF 16

R:\LAND PROJECTS\04-415_COLD-CREEK\dwg\04-415 C1-C5_COVER.dwg 10/10/2007 12:10:11 PM PDT



PLAN: POWERLINE AND MAINSTEM

SCALE: 1"=50'



PROFILE: POWERLINE AND MAINSTEM

SCALE H:1"=100' V:1"=10'

REV.	DATE	DESCRIPTION	BY

SH+G ENGINEERING
500 SEABRIGHT AVE., SUITE 202
SANTA CRUZ, CA 95062
(831)-427-0288
A Division of Swanson Hydrology + Geomorphology

DRAFT
NOT FOR CONSTRUCTION

PREPARED AT THE REQUEST OF:
USDA FOREST SERVICE
LAKE TAHOE BASIN
MANAGEMENT UNIT

PLAN AND PROFILE: POWERLINE AND MAINSTEM

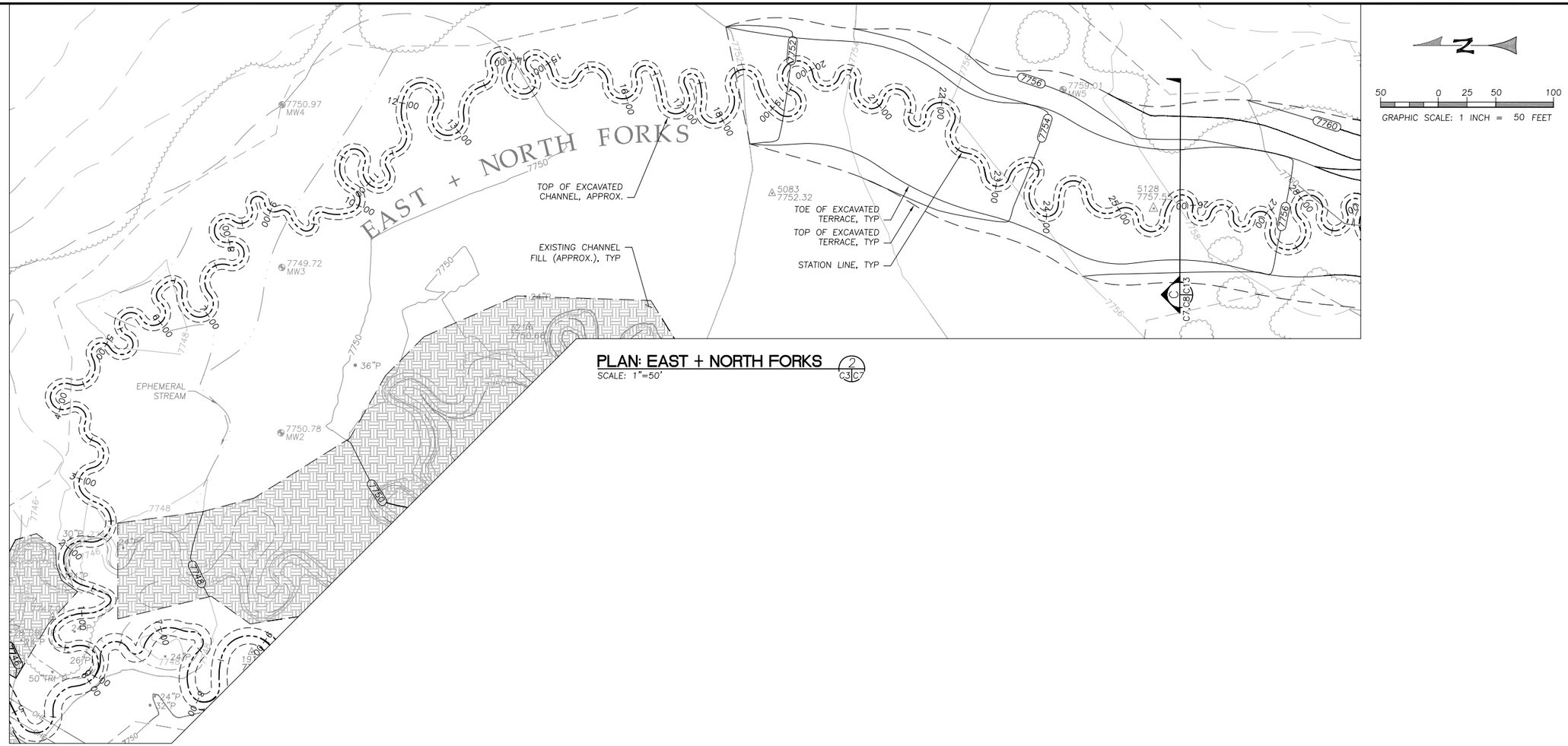
HIGH MEADOW COMPLEX
RESTORATION PLAN
PHASE 1 60% SUBMITTAL

DESIGNED BY: R.T.C.
DRAWN BY: C.M.H.
CHECKED BY: M.L.S.
DATE: 10/09/07
JOB NO.: 04-415

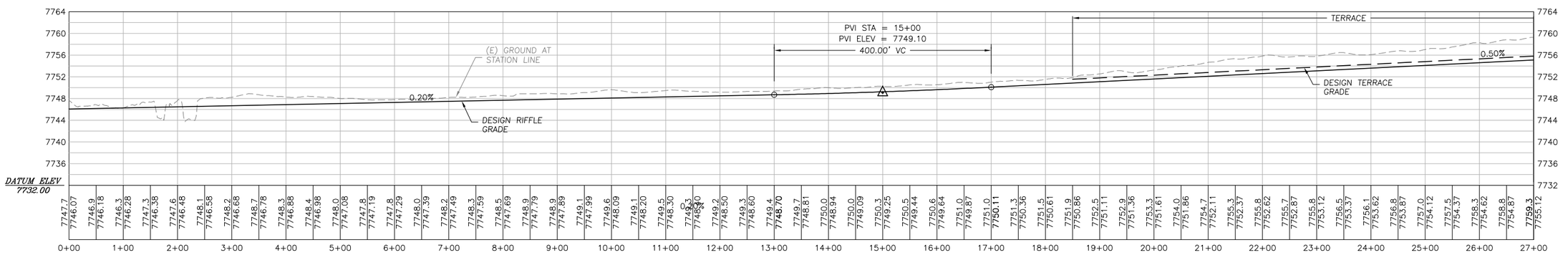
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

C6 | 6 OF 16

R:\LAND PROJECTS\04-415_COLD-CREEK\dwg\04-415 C6-C10-GRADING.dwg 10/9/2007 4:42:22 PM PDT



PLAN: EAST + NORTH FORKS (2 / C3 C7)
SCALE: 1"=50'



PROFILE: EAST + NORTH FORKS (2 / C3 C7)
SCALE H:1"=100' V:1"=10'

REV.	DATE	DESCRIPTION	BY

SH+G ENGINEERING
500 SEABRIGHT AVE., SUITE 202
SANTA CRUZ, CA 95062
(831)-427-0288
A Division of Swanson Hydrology + Geomorphology

DRAFT
NOT FOR CONSTRUCTION

PREPARED AT THE REQUEST OF:
USDA FOREST SERVICE
LAKE TAHOE BASIN
MANAGEMENT UNIT

PLAN AND PROFILE: EAST + NORTH FORKS

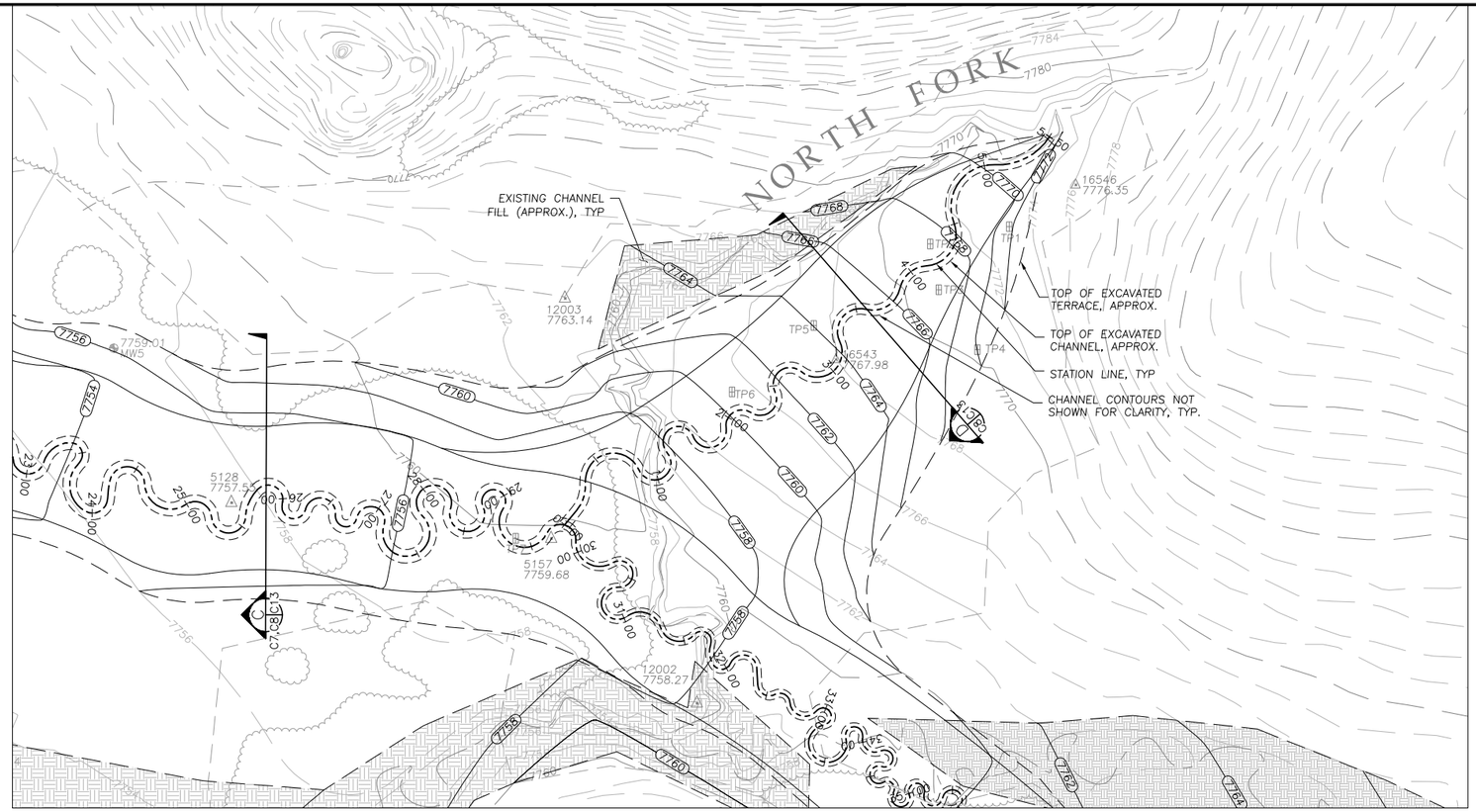
HIGH MEADOW COMPLEX
RESTORATION PLAN
PHASE 1 60% SUBMITTAL

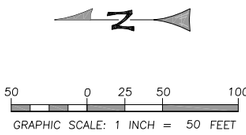
DESIGNED BY:	R.T.C.
DRAWN BY:	C.M.H.
CHECKED BY:	M.L.S.
DATE:	10/09/07
JOB NO.:	04-415

BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

C7 | 7 OF 16

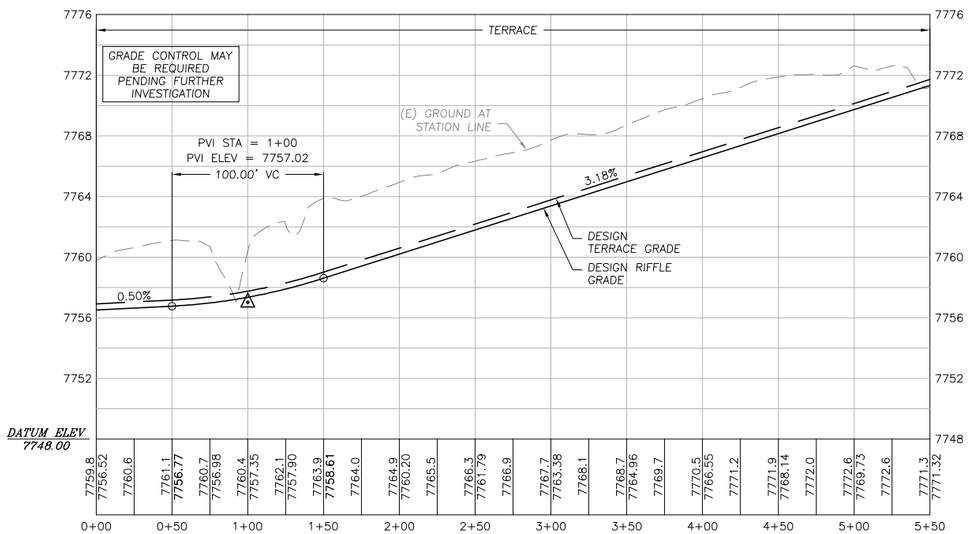
R:\LAND PROJECTS\04-415_COLD-CREEK\dwg\04-415 C6-C10-GRADING.dwg 10/9/2007 2:47:14 PM PDT





PLAN: NORTH FORK

SCALE: 1"=50'



PROFILE: NORTH FORK

SCALE H;1"=50' V;1"=5'

REV.	DATE	DESCRIPTION	BY

SH+G ENGINEERING
500 SEABRIGHT AVE., SUITE 202
SANTA CRUZ, CA 95062
(831)-427-0288
A Division of Swanson Hydrology + Geomorphology

DRAFT
NOT FOR CONSTRUCTION

PREPARED AT THE REQUEST OF:
USDA FOREST SERVICE
LAKE TAHOE BASIN
MANAGEMENT UNIT

PLAN AND PROFILE: NORTH FORK

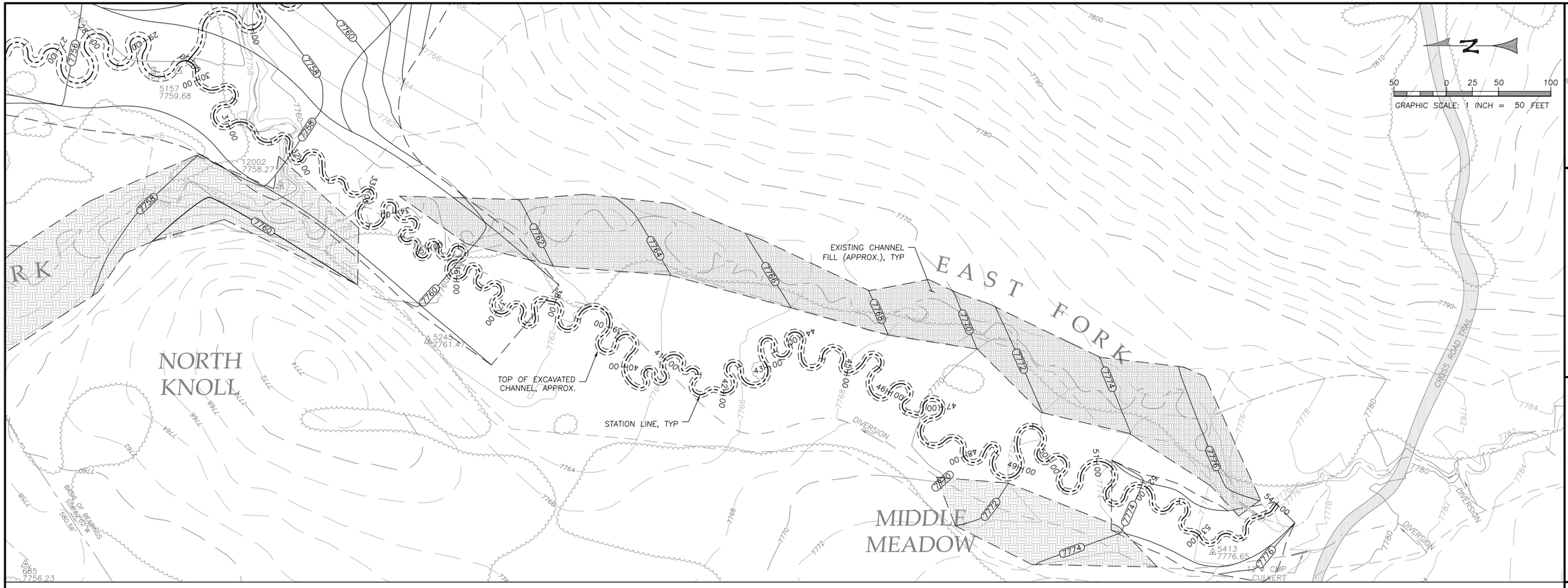
HIGH MEADOW COMPLEX RESTORATION PLAN
PHASE 1 60% SUBMITTAL

DESIGNED BY: R.T.C.
DRAWN BY: C.M.H.
CHECKED BY: M.L.S.
DATE: 10/09/07
JOB NO.: 04-415

BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

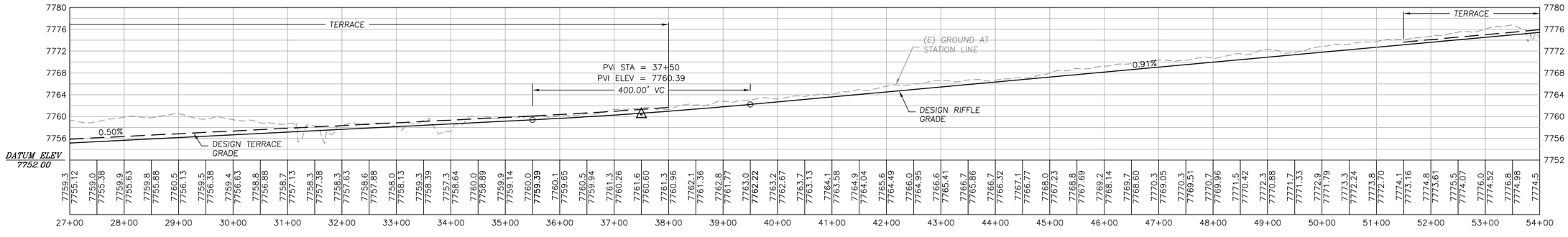
C8

R:\LAND PROJECTS\04-415_COLD-CREEK\dwg\04-415 C6-C10-GRADING.dwg 10/9/2007 2:52:01 PM PDT



PLAN: EAST FORK

SCALE: 1"=50'



PROFILE: EAST FORK

SCALE H:1"=100' V:1"=10'

REV.	DATE	DESCRIPTION	BY

SH+G ENGINEERING

500 SEABRIGHT AVE., SUITE 202
SANTA CRUZ, CA 95062
(831)-427-0288
A Division of Swanson Hydrology + Geomorphology

DRAFT

NOT FOR CONSTRUCTION

PREPARED AT THE REQUEST OF:

USDA FOREST SERVICE
LAKE TAHOE BASIN
MANAGEMENT UNIT

PLAN AND PROFILE: EAST FORK

HIGH MEADOW COMPLEX
RESTORATION PLAN
PHASE 1 60% SUBMITTAL

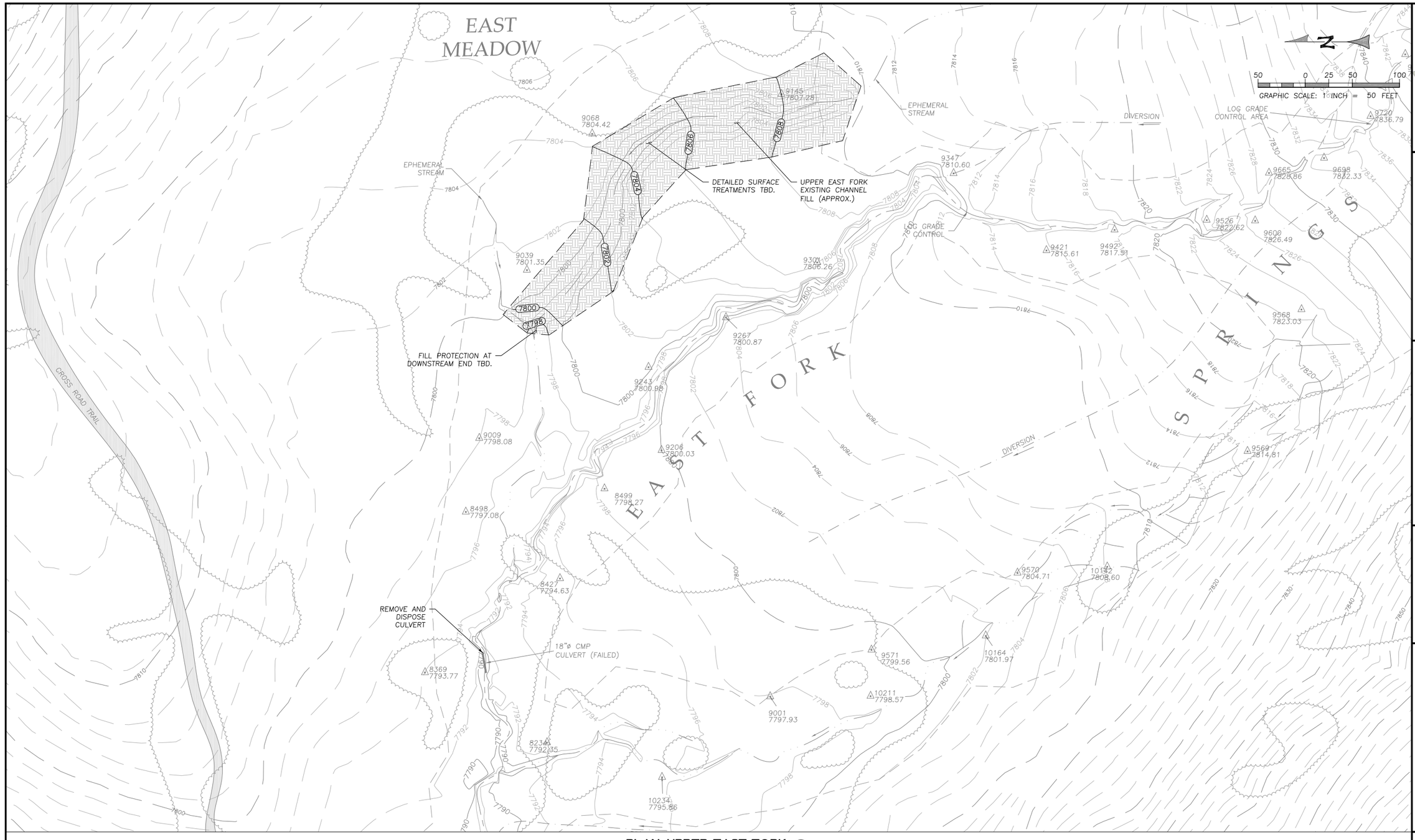
DESIGNED BY: R.T.C.
DRAWN BY: C.M.H.
CHECKED BY: M.L.S.
DATE: 10/09/07
JOB NO.: 04-415

BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

C9

9 OF 16

R:\LAND PROJECTS\04-415_COLD-CREEK\dwg\04-415 C6-C10-GRADING.dwg 10/9/2007 2:52:01 PM PDT



PLAN: UPPER EAST FORK (5 / C3|C10)
SCALE: 1"=50'

SH+G ENGINEERING
500 SEABRIGHT AVE., SUITE 202
SANTA CRUZ, CA 95062
(831)-427-0288
A Division of Swanson Hydrology + Geomorphology

DRAFT
NOT FOR CONSTRUCTION

PREPARED AT THE REQUEST OF:
USDA FOREST SERVICE
LAKE TAHOE BASIN
MANAGEMENT UNIT

PLAN
UPPER
EAST FORK

HIGH MEADOW COMPLEX
RESTORATION PLAN
PHASE 1 60% SUBMITTAL

DESIGNED BY:	R.T.C.
DRAWN BY:	C.M.H.
CHECKED BY:	M.L.S.
DATE:	10/09/07
JOB NO.:	04-415

BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

REV.	DATE	DESCRIPTION	BY

C10 — 10 OF 16

R:\LAND PROJECTS\04-415_COLD-CREEK\dwg\04-415 C6-C10-GRADING.dwg 10/9/2007 2:52:01 PM PDT

NOTE:
CONTOURS INDICATE TERRACE GRADES. CONTOURS INDICATING THE CHANNEL GRADES ARE NOT SHOWN FOR CLARITY, REFER TO THE PROFILE AND CROSS SECTION SHT.S FOR CHANNEL GRADING DETAILS.

(N) LIMITS OF TERRACE EXCAVATION (APPROX.)

OVERHEAD UTILITIES

(N) GRADE CONTROL SILL, TYP.

(N) GRADE CONTROL WEIR, TYP.

(N) TOP OF BANK OF BANKFULL CHANNEL (APPROX.)

HIGH MEADOWS TRAIL (DIRT ROAD)

REMOVE (E) LOG BRIDGE ABUTMENTS

TO SOUTH

(N) CHANNEL STATION LINE

(N) LIMITS OF FILL (APPROX.)

(E) CHANNEL TO BE FILLED

N

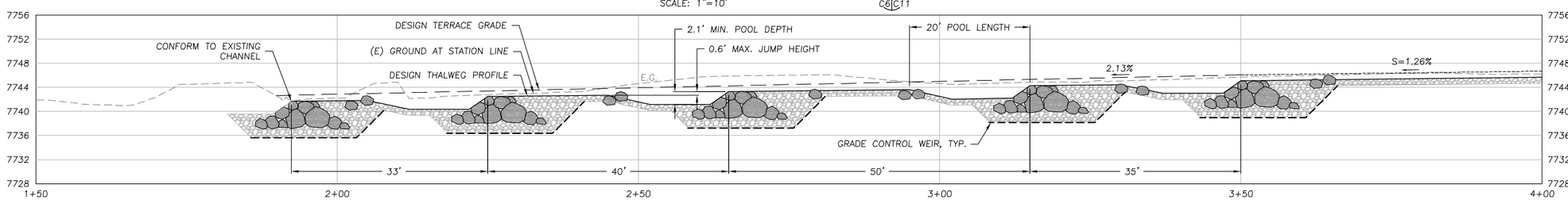
10 0 5 10 20

GRAPHIC SCALE: 1 INCH = 10 FEET

PLAN: GRADE CONTROL

SCALE: 1"=10'

6 C6|C11



PROFILE: GRADE CONTROL

SCALE H; 1"=10' V;1"=10'

6 C6|C11

REV.	DATE	DESCRIPTION	BY

SH+G ENGINEERING
500 SEABRIGHT AVE., SUITE 202
SANTA CRUZ, CA 95062
(831)-427-0288
A Division of Swanson Hydrology + Geomorphology

DRAFT

NOT FOR CONSTRUCTION

PREPARED AT THE REQUEST OF:
USDA FOREST SERVICE
LAKE TAHOE BASIN
MANAGEMENT UNIT

PLAN AND PROFILE: GRADE CONTROL

HIGH MEADOW COMPLEX RESTORATION PLAN
PHASE 1 60% SUBMITTAL

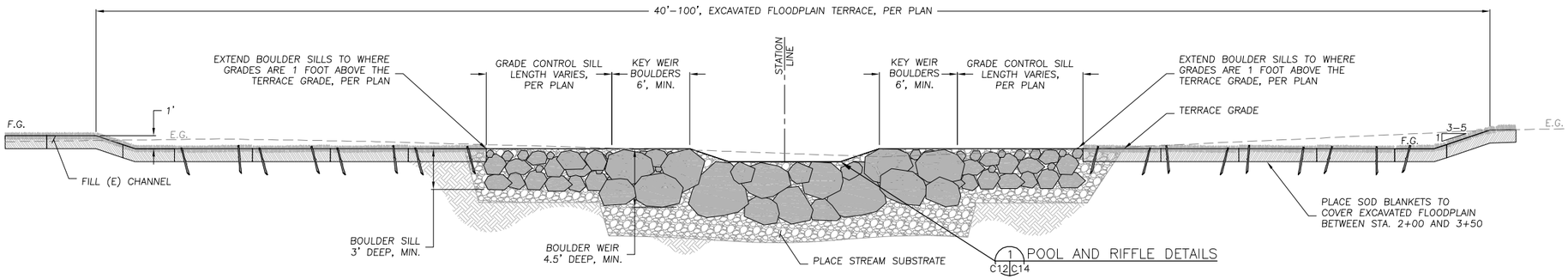
DESIGNED BY: R.T.C.
DRAWN BY: B.M.S.
CHECKED BY: M.L.S.
DATE: 10/09/07
JOB NO.: 04-415

BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

C11

11 OF 16

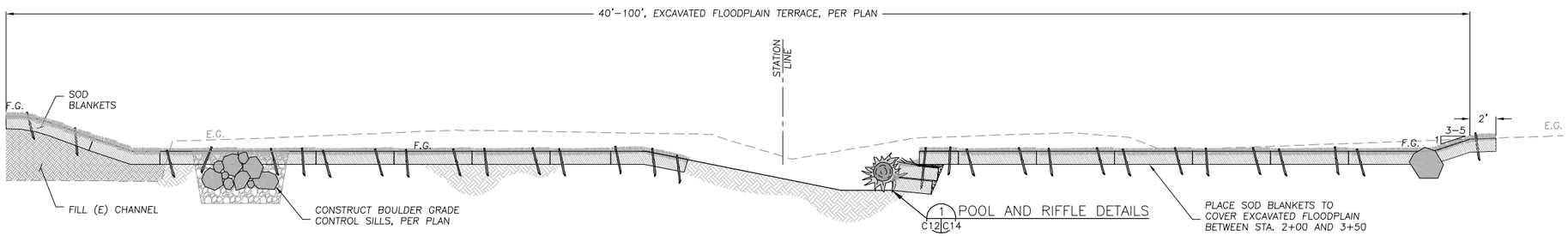
R:\LAND PROJECTS\04-415_COLD-CREEK\dwg\04-415 C11-C14_SECTIONS.dwg 10/9/2007 4:53:13 PM PDT



TYPICAL GRADE CONTROL WEIR SECTION

SCALE: 1"=5'

A C11 C12



TYPICAL GRADE CONTROL POOL SECTION

SCALE: 1"=5'

B C11 C12

NOTES:

1. EXCAVATED TERRACES TO BE FINISH GRADED WITH AN IRREGULAR SURFACE TO PROVIDE HABITAT COMPLEXITY AND VARIABILITY. GRADES SHALL VARY, BUT REMAIN WITHIN (+/–) 0.25 FEET OF THE GRADES SHOWN HEREON.

REV.	DATE	DESCRIPTION	BY

SH+G ENGINEERING
500 SEABRIGHT AVE., SUITE 202
SANTA CRUZ, CA 95062
(831)–427–0288
A Division of Swanson Hydrology + Geomorphology

DRAFT
NOT FOR CONSTRUCTION

PREPARED AT THE REQUEST OF:
USDA FOREST SERVICE
LAKE TAHOE BASIN
MANAGEMENT UNIT

GRADE CONTROL SECTIONS

HIGH MEADOW COMPLEX
RESTORATION PLAN
PHASE 1 60% SUBMITTAL

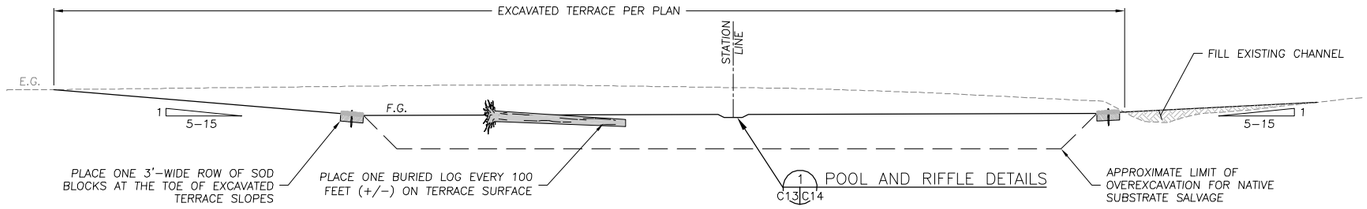
DESIGNED BY:	R.T.C.
DRAWN BY:	B.M.S.
CHECKED BY:	M.L.S.
DATE:	10/09/07
JOB NO.:	04–415

BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

C12

12 OF 16

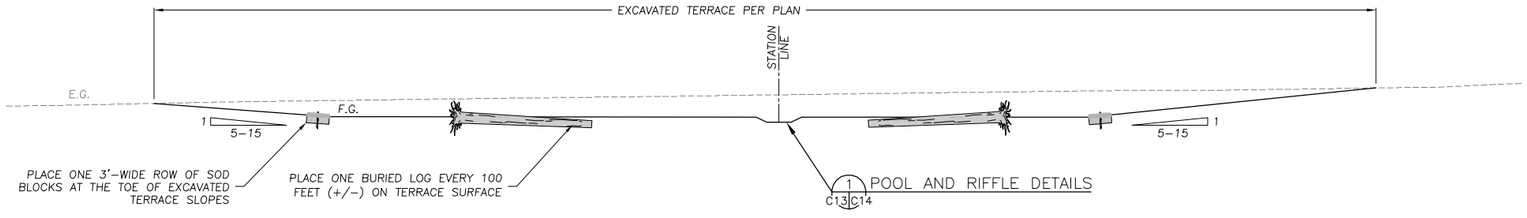
R:\LAND PROJECTS\04-415_COLD-CREEK\dwg\04-415 C11-C14_SECTIONS.dwg 10/9/2007 5:04:14 PM PDT



TYPICAL NORTH FORK TERRACE SECTION

SCALE: 1"=10'

C
C8 C13



TYPICAL NORTH + EAST FORK TERRACE SECTION

SCALE: 1"=10'

D
C7,C8 C13

TERRACE TREATMENT NOTES:

TERRACE SURFACE TREATMENT SHALL INCLUDE THE FOLLOWING TREATMENTS, PER THE REVEGETATION DETAILS:

1) *REAPPLICATION OF SALVAGED NATIVE TOPSOIL*
2) *INSTALLATION OF SOD PLUGS*
3) *APPLICATION OF SEED MIX*
4) *INSTALLATION OF SOD BLOCKS AT TOE*

PLACE SOD BLANKETS ON ENTIRE SLOPE IF SLOPE IS STEEPER THAN 3H:1V

REV.	DATE	DESCRIPTION	BY

SH+G ENGINEERING
500 SEABRIGHT AVE., SUITE 202
SANTA CRUZ, CA 95062
(831)–427–0288
A Division of Swanson Hydrology + Geomorphology

DRAFT
NOT FOR CONSTRUCTION

PREPARED AT THE REQUEST OF:
USDA FOREST SERVICE
LAKE TAHOE BASIN
MANAGEMENT UNIT

TYPICAL TERRACE SECTIONS

HIGH MEADOW COMPLEX RESTORATION PLAN
PHASE 1 60% SUBMITTAL

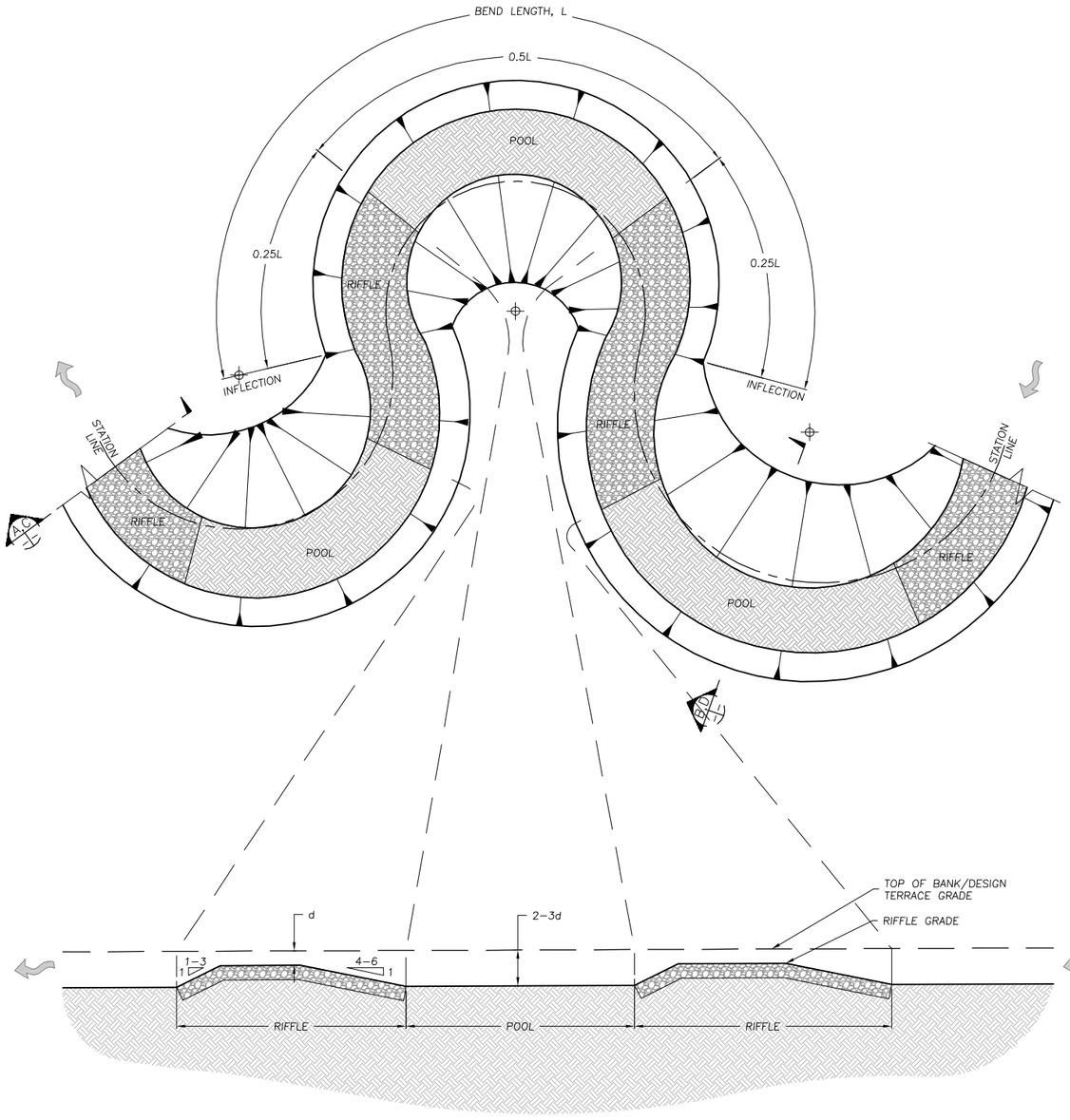
DESIGNED BY:	R.T.C.
DRAWN BY:	B.M.S.
CHECKED BY:	M.L.S.
DATE:	10/09/07
JOB NO.:	04–415

BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

C13

13 OF 16

R:\LAND PROJECTS\04-415_COLD-CREEK\dwg\04-415 C11-C14_SECTIONS.dwg 10/9/2007 5:16:24 PM PDT



TYPICAL POOL/RIFFLE PLAN AND PROFILE

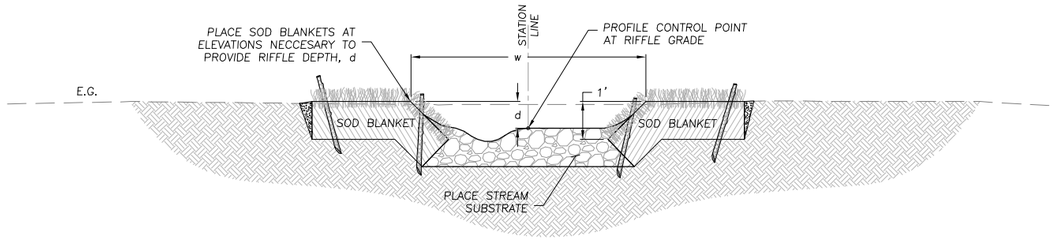
SCALE: 1"=5'

C12,C13,C14

CHANNEL GEOMETRY TABLE

LOCATION	AVE. RIFFLE DEPTH, d (FT)	AVE. RIFFLE WIDTH, w (FT)	AVE. POOL WIDTH, wp (FT)
POWERLINE	1.2	10.0	15.0
MAINSTEM	1.0	9.0	14.0
EAST AND NORTH	0.7	6.0	9.0
EAST FORK	0.5	3.5	5.5
NORTHFORK	0.4	4.0	6.0

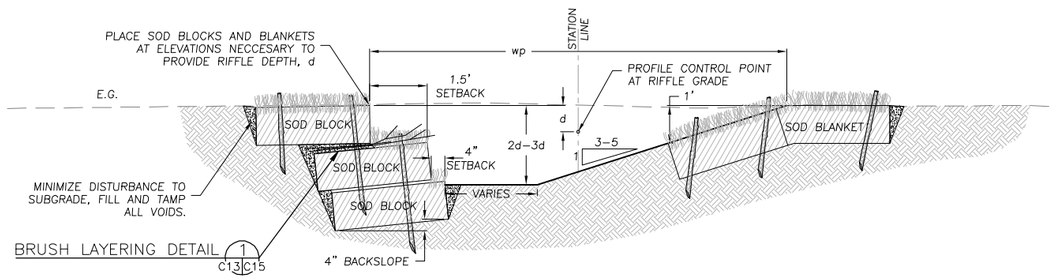
NOTES:
1. POOL DEPTH VARIES FROM 2–3d, WHERE d IS THE AVE. RIFFLE DEPTH
2. CHANNEL DIMENSIONS SHALL VARY +/– 10%



TYPICAL RIFFLE SECTION

SCALE: 1"=2'

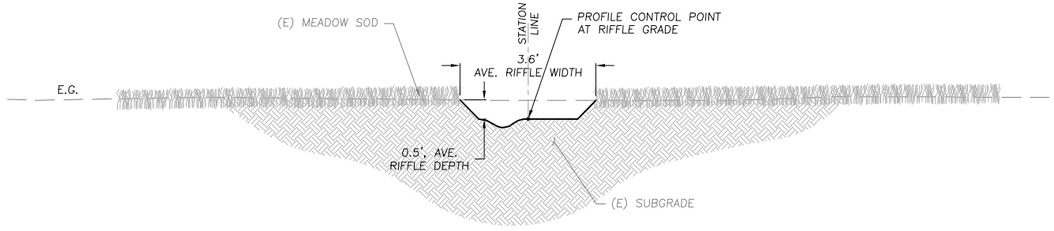
A



TYPICAL POOL SECTION

SCALE: 1"=2'

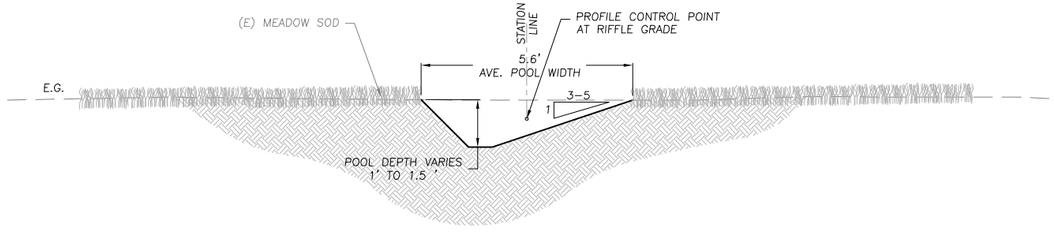
B



TYPICAL EAST FORK RIFFLE SECTION

SCALE: 1"=2'

C



TYPICAL EAST FORK POOL SECTION

SCALE: 1"=2'

D

REV.	DATE	DESCRIPTION	BY

SH+G ENGINEERING
500 SEABRIGHT AVE., SUITE 202
SANTA CRUZ, CA 95062
(831)–427–0288
A Division of Swanson Hydrology + Geomorphology

DRAFT
NOT FOR CONSTRUCTION

PREPARED AT THE REQUEST OF:
USDA FOREST SERVICE
LAKE TAHOE BASIN
MANAGEMENT UNIT

TYPICAL CHANNEL DETAILS

HIGH MEADOW COMPLEX
RESTORATION PLAN
PHASE 1 60% SUBMITTAL

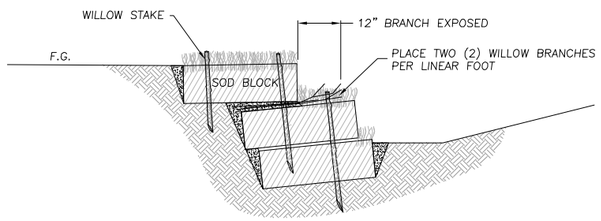
DESIGNED BY: R.T.C.
DRAWN BY: R.T.C.
CHECKED BY: M.W.W.
DATE: 10/09/07
JOB NO.: 04–415

BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

C14

14 OF 16

R:\LAND PROJECTS\04-415_COLD-CREEK\dwg\04-415 C11-C14_SECTIONS.dwg 10/10/2007 12:35:52 PM PDT



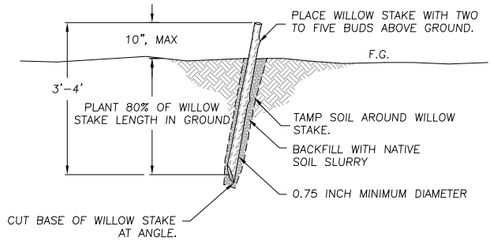
BRUSH LAYERING DETAIL

1 / C13 | C15

N.T.S.

BRUSH LAYERING NOTES

WILLOW MATERIALS FOR BRUSH LAYERING SHALL BE HARVESTED WITHIN 7 DAYS OF INSTALLATION UNLESS OTHERWISE APPROVED BY THE COR. WILLOW MATERIALS SHALL BE HARVESTED FROM HEALTHY, LIVE WILLOWS WITHIN THE COLD CREEK WATERSHED DURING DORMANCY OR AFTER OCTOBER 15, UNLESS OTHERWISE APPROVED BY THE COR. WILLOW MATERIALS WITH FURROWED BARK SHALL NOT BE HARVESTED. ALL CUTS SHALL BE CLEAN, WITHOUT SPLIT OR FRAYED ENDS. WILLOW MATERIALS FOR BRUSH LAYERING SHALL BE BETWEEN 3–6 FEET IN LENGTH WITH A MINIMUM DIAMETER OF 0.75 INCHES AND A MAXIMUM DIAMETER OF 2 INCHES. PRIOR TO INSTALLATION, WILLOW MATERIALS SHALL BE STORED SUBMERGED IN CLEAN, FRESH WATER IN A MOIST, SHADED ENVIRONMENT. BRUSH LAYERS SHALL BE INSTALLED WITH WILLOW MATERIALS BUTT–END INTO THE BANK WITH A MAXIMUM OF 25% OF THE MATERIAL EXTENDING BEYOND THE FACE OF THE SOD REVETMENT.



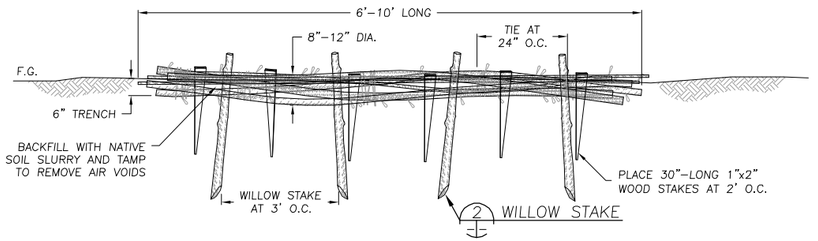
WILLOW STAKE

2 / C15

N.T.S.

WILLOW STAKE NOTES

MATERIALS FOR WILLOW STAKES SHALL BE HARVESTED WITHIN 7 DAYS OF INSTALLATION UNLESS OTHERWISE APPROVED BY THE COR. WILLOW MATERIALS SHALL BE HARVESTED DURING DORMANCY OR AFTER OCTOBER 15 FROM HEALTHY, LIVE WILLOWS WITHIN THE COLD CREEK WATERSHED. ALL CUTS SHALL BE CLEAN, WITHOUT SPLIT OR FRAYED ENDS. WILLOW MATERIALS WITH CROOKED BRANCHES OR FURROWED BARK SHALL NOT BE HARVESTED OR USED FOR WILLOW STAKES. PRIOR TO INSTALLATION, WILLOW MATERIALS SHALL BE STORED SUBMERGED IN CLEAN, FRESH WATER IN A MOIST, SHADED ENVIRONMENT. ALL REMAINING LEAVES SHALL BE REMOVED FROM WILLOW STAKES PRIOR TO INSTALLATION.



LIVE FASCINE

4 / C15

SCALE: 1"=2'

LIVE FASCINE NOTES:

WILLOW MATERIALS FOR LIVE FASCINES SHALL BE HARVESTED WITHIN 7 DAYS OF INSTALLATION UNLESS OTHERWISE APPROVED BY THE COR. WILLOW MATERIALS SHALL BE HARVESTED DURING DORMANCY OR AFTER OCTOBER 15 FROM HEALTHY, LIVE WILLOWS WITHIN THE COLD CREEK WATERSHED. ALL CUTS SHALL BE CLEAN, WITHOUT SPLIT OR FRAYED ENDS. WILLOW MATERIALS WITH FURROWED BARK SHALL NOT BE HARVESTED OR USED FOR LIVE FASCINES. ALL REMAINING LEAVES SHALL BE REMOVED FROM WILLOW STAKES PRIOR TO INSTALLATION. MINIMUM DIAMETER OF WILLOW MATERIAL FOR LIVE FASCINES SHALL BE 0.75 WITH A MAXIMUM DIAMETER OF 2 INCHES. BEFORE INSTALLATION OF LIVE FASCINES ALTERNATE BUTT–ENDS AND TIE SECURELY WITH TWINE.

REVEGETATION NOTES

1. REVEGETATION WORK SHALL CONSIST OF SEED APPLICATION, MULCHING, AND THE HARVEST, HANDLING, AND PLACEMENT OF SOD AND WILLOW MATERIALS AS SHOWN ON THE PLANS AND PER THESE NOTES. REFER TO THE SURFACE TREATMENT TABLE ON THE PHASING AND ACCESS PLANS, SHT'S C4 AND C5.

2. REFER TO "SOD NOTES", THIS SHEET, FOR THE SALVAGE AND PLACEMENT OF WETLAND SOD.

3. WILLOW MATERIALS SHALL BE USED FOR WILLOW STAKES, LIVE FASCINES, AND BRUSH LAYERING, PER DETAILS ON THIS SHEET.

4. MULCH SHALL BE MADE BY PROCESSING SLASH AND WOOD WASTE PRODUCED FROM TIMBER HARVEST AT THE PROJECT SITE. TIMBER HARVEST IS NIC. MULCH SHALL BE PLACED TO A THICKNESS OF 2".

5. REVEGETATED AREAS SHALL BE IRRIGATED PER THE "IRRIGATION NOTES", THIS SHEET.

SOD NOTES

1. HARVESTED SOD SHALL CONSIST OF ABOVE GROUND AND BELOW GROUND PLANT MATERIALS INCLUDING LEAVES, ROOTS, AND THE SOIL BOUND BY THE ROOT MASS. SOIL MASS OF SOD SHALL CONTAIN A UNIFORM DISTRIBUTION OF ROOTS WITH A MINIMUM 50 PERCENT ROOT MASS BY VOLUME TO A DEPTH OF 6 INCHES FROM THE ROOT CROWN. ALL SOD MUST BE COMPOSED OF NATIVE SPECIES, BE WEED FREE, AND BE PRE–APPROVED BY COR.

2. SOD SHALL BE HARVESTED FROM LOCATIONS AS INDICATED ON THE DRAWINGS AND DELINEATED IN THE FIELD BY THE COR. SOD SHALL BE MOISTENED THROUGH THE ROOT ZONE BEFORE HARVEST. THE ABOVE GROUND PORTIONS OF SOD PLANTS SHALL BE MOWED PRIOR TO HARVEST TO A HEIGHT OF 3 TO 4 INCHES AS MEASURED FROM THE ROOT CROWN. MULCH PRODUCED IN MOWING OPERATIONS SHALL BE STOCKPILED IN THE STOCKPILE AREA.

3. SOD MATERIALS SHALL BE HARVESTED ACCORDING TO THE FOLLOWING SPECIFICATIONS: SOD BLOCKS SHALL BE PRECUT INTO MINIMUM 3–FOOT BY 4–FOOT BY 1–FOOT THICK SECTIONS; SOD BLANKETS SHALL BE CUT INTO MINIMUM 4–FOOT BY 4–FOOT BY 1–FOOT THICK SECTIONS. SOD PLUGS SHALL BE 4" (MIN.) DIAMETER. ALL SOD MATERIALS SHALL BE HARVESTED IN A MANNER RESULTING IN CLEAN, VERTICAL EDGES.

4. SOD SHALL BE LIFTED FROM THE SUBGRADE IN CONTIGUOUS SECTIONS USING MACHINERY EQUIPPED TO HANDLE SOD WITHOUT COMPROMIZING ROOT MASS OR THATCH INTEGRITY. SOD HARVEST SHALL PROGRESS IN SUCH A MANNER AS TO MINIMIZE THE DISTURBANCE OF THE SOIL BOUND BY THE ROOT MASS AND THE INTEGRITY OF THE SOD SECTION. SOD SECTIONS WILL BE REJECTED WHEN, IN THE OPINION OF THE COR, THEY ARE OF INSUFFICIENT ROOT MASS, THEY HAVE BECOME TOO DRY, OR ARE OTHERWISE DAMAGED.

5. LOCATIONS FOR INSTALLATION OF SOD MATERIALS ARE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE COR. THE SUBGRADE FOR SOD INSTALLATION SHALL CONSIST OF NATIVE SOILS GRADED TO A SMOOTH, FRIABLE SURFACE. PRIOR TO PLACEMENT THE SUBGRADE SHALL BE SATURATED TO A MINIMUM DEPTH OF FOUR INCHES. THE SUBGRADE FOR STACKED SOD BLOCK INSTALLATION SHALL BE DEWATERED AS NECESSARY.

6. SOD SHALL BE INSTALLED WITHIN 30 MINUTES OF HARVEST UNLESS STORAGE IS OTHERWISE APPROVED IN WRITING BY THE COR. A SOD STORAGE PLAN MUST BE SUBMITTED AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF SOD STORAGE. UPON APPROVAL OF THE COR, SOD MAY BE STORED AND MAINTAINED ON DESIGNATED MEADOW ACCESS ROADS OR IN STAGING AND STOCKPILE AREAS. STORED SOD SHALL NOT BE STACKED AND SHALL BE PLACED ROOTS DOWN WITH EDGES SNUGLY ADJOINING ADJACENT SECTIONS. SOD ON THE PERIMETER OF THE STORAGE AREA SHALL HAVE THE OUTERMOST EDGES DRAPED WITH SATURATED BURLAP WITHIN 30 MINUTES OF STORAGE TO PROTECT ROOTS AND CONSERVE SOIL MOISTURE. STORED SOD SHALL BE IRRIGATED TO FIELD CAPACITY WITHIN 30 OF STORAGE AND SHALL BE KEPT MOIST DURING THE STORAGE PERIOD OR AS DIRECTED BY THE COR.

7. SOD BLANKETS AND BLOCKS SHALL BE INSTALLED WITH SIDES SNUGLY ADJOINING ADJACENT SECTIONS. VOIDS BETWEEN SOD BLANKETS AND BLOCKS SHALL BE BACK–FILLED WITH NATIVE TOPSOIL AND HAND–TAMPED. SOD BLANKETS AND BLOCKS SHALL BE FIRMLY TAMPED OR ROLLED AFTER PLACEMENT TO MINIMIZE AIR POCKETS BETWEEN THE PREPARED SURFACE AND ROOTS. SOD BLANKETS AND BLOCKS SHALL BE INSTALLED SO THAT THE TOP SURFACE FORMS A CONTINUOUS SHAPE.

8. SOD PLUGS SHALL BE PLANTED THREE FEET O.C. IN AREAS SHOWN ON THE PLANS.

9. ADDITIONAL SOD SHALL BE HARVESTED FROM SOD HARVEST AREAS FOR THE CONSTRUCTION OF BERMS, CHANNEL PLUGS, AND TO SUPPLEMENT PORTIONS OF THE NEW CHANNEL AS DIRECTED BY THE COR. EXCESS SOD SHALL BE INSTALLED IN THE SOD SALVAGE AREA AREA, OR WHERE DIRECTED BY THE COR.

10. AFTER COMPLETION OF THE SOD HARVEST A 10 FOOT WIDE TOPSOIL WEDGE SHALL BE PLACED AROUND THE PERIMETER OF SOD HARVEST AREAS WITHIN THREE DAYS, OR AS DIRECTED BY THE COR. TOPSOIL WEDGE SHALL BE SLOPED AT 10H:1V SO THAT THE EDGE OF UNDISTURBED GROUND SLOPES GENTLY TOWARD THE CENTER OF THE SALVAGE AREA. THE TOPSOIL SHALL BE COMPACTED TO 85% R.C.1.

11. AREAS REVEGETATED WITH SOD MATERIALS AND SOD HARVEST AREAS SHALL BE IRRIGATED IN ACCORDANCE WITH THE "IRRIGATION NOTES" THIS SHEET.

SEEDING NOTES

1. SEEDING INCLUDES HANDLING OF THE SEED, PREPARATION OF THE SEEDBED, AND HAND BROADCASTING SEED AS SPECIFIED ON THE PLANS AND IN THESE NOTES.

TABLE 1 – SEED MIX

COMMON NAME	BOTANICAL NAME	APPLICATION (LBS/ACRE)
ROUGH BENTGRASS	*Agrostis scabra*	1.00
MEADOW BARLEY	*Hordeum brachyantherum*	5.00
TUFTED HAIRGRASS	*Deschampsia cespitosa*	2.00
COMMON YARROW	*Achellia millefolium*	0.50
NORTHWEST CINQUEFOIL	*Potentilla gracilis*	0.25
BEAKED SEDGE	*Carex utriculata*	0.25
NEBRASKA SEDGE	*Carex nebrascensis*	1.00
COMMON SPIKERUSH	*Eleocharis macrostachya*	0.25
RYDBERG'S PENSTEMON	*Penstemon rydbergii*	0.25
BIG–LEAF AVENS	*Geum macrophyllum*	0.25
TOTAL		10.75

2. SEED MATERIALS SHALL BE STORED IN A COOL DRY ENVIRONMENT PRIOR TO APPLICATION.

3. SEED APPLICATION SHALL BE CONDUCTED IN THE FALL PROIR TO SNOW ACCUMULATION AND GROUND FREEZE BUT FOLLOWING IRRIGATION OF THE SEEDBED TO FIELD CAPACITY.

4. THE SEEDBED SHALL BE PREPARED PRIOR TO SEED APPLICATION. SEEDBED PREPARATION INCLUDES LOSSENING OF COMPACTED SOILS TO A DEPTH OF 2 INCHES, BREAKING DOWN SOILS CLUMPS LARGER THAN 2 INCHES IN DIAMETER, GRADING OF THE SURFACE TO BE NON–UNIFORM, ROUGH AND NATURAL IN APPEARANCE, AND IRRIGATION TO FIELD CAPACITY .

5. SEED APPLICATION SHALL COMMENCE FOLLOWING THE PREPARATION OF THE SEEDBED AND BEFORE APPLICATION OF MULCH. SEED APPLICATION INCLUDES UNIFORMLY BROADCASTING SEED OVER PREPARED AREAS AND LIGHT RAKING TO A DEPTH OF 1/4" TO 1/2". SEED SHALL NOT BE LEFT UNCOVERED FOR MORE THAN 24 HOURS. MULCH SHALL BE APPLIED TO ALL SEEDED ARES FOLLOWING SEED APPLICATION.

IRRIGATION NOTES

TABLE 2 – IRRIGATION SCHEDULE

LOCATION	FREQUENCY (APPROX.)	SCHEDULE	DURATION
NEW CHANNELS	1 HOUR EVERY 3 DAYS	JUNE 1 – NOV. 1	ONE YEAR
NEW TERRACES	1 HOUR EVERY 3 DAYS	JUNE 1 – NOV. 1	TWO YEARS
EXISTING CHANNEL FILLS	1 HOUR EVERY 3 DAYS	JUNE 1 – NOV. 1	TWO YEARS
SOD HARVEST AREAS	1 HOUR EVERY 3 DAYS	JUNE 1 – NOV. 1	TWO YEARS

NEW CHANNEL AREAS ARE WITHIN SIX FEET EACH SIDE OF THE NEW CHANNELS. NEW TERRACE AREAS ARE THE EXCAVATED TERRACE AREAS. PER SHT'S C12 AND C13. EXISTING CHANNEL FILLS AND SOD HARVEST AREAS ARE DEPICTED ON THE PHASING AND ACCESS PLANS, SHT'S C4 AND C5. SURFACE TREATMENTS ARE SHOWN ON THE PHASING AND ACCESS PLANS, SHT'S C4 AND C5.

1. PRIMARY SOURCE OF WATER SHALL BE FROM COLD CREEK. IRRIGATION SHALL BE PERFORMED USING PUMPS AND HAND–HELD HOSE OR AN EQUIVALENT METHOD APPROVED BY THE COR. IF COLD CREEK FLOW IS INSUFFICIENT FOR IRRIGATION PURPOSES, (AS DETERMINED BY THE COR), WATER SHALL BE SUPPLIED BY A WATER TRUCK. PRIOR TO OCTOBER 15TH OR PLANTING OPERATIONS, UTILIZE ACCESS ROADS TO MINIMIZE DISTURBANCE TO THE MEADOW. ALL TRAVEL OVER THE MEADOW SHALL BE ACCOMPLISHED WITH LOW–GROUND PRESSURE EQUIPMENT. ALL TRAVEL SHALL BE DISPERSED TO THE EXTENT FEASIBLE. RUTTING OR OTHER COMPACTION OF THE MEADOW SHALL NOT BE ALLOWED.

2. IRRIGATION PRACTICES SHALL BE DESIGNED TO MINIMIZE PLANT STRESS WITHOUT CAUSING EROSION BY MEANS OF SLOW WATER DELIVERY WITH LOW IMPACT NOZZLES. WATERING SHALL PROVIDE SUFFICIENT MOISTURE OVER ALL IRRIGATION AREAS. WATERING SHALL BE OF A SUFFICIENT DURATION TO SATURATE THE SOIL TO A DEPTH OF AT LEAST TWO INCHES BELOW THE ROOT ZONE (SIX INCH TOTAL MINIMUM DEPTH).

3. TO ASSURE INITIAL PLANT AND SOD ESTABLISHMENT AND STABILIZATION SUCCESS, IRRIGATION SHALL COMMENCE IMMEDIATELY AFTER INSTALLATION OF PLANT MATERIALS.

4. THE COR SHALL BE RESPONSIBLE FOR ADJUSTING THE FREQUENCY AND RATE OF WATERING BASED UPON WEATHER CONDITIONS TO ASSURE MAINTENANCE OF SOIL MOISTURE FOR PLANT SURVIVAL.

5. CONCENTRATED OVERLAND FLOW FROM IRRIGATED AREAS SHALL BE DISPERSED AND NOT BE ALLOWED TO RETURN DIRECTLY TO THE EXISTING CHANNEL.

6. REMOVE ALL IRRIGATION EQUIPMENT AT COMPLETION OF IRRIGATION SCHEDULE OR AS DIRECTED BY THE COR.

REV.	DATE	DESCRIPTION	BY

SH+G ENGINEERING
500 SEABRIGHT AVE., SUITE 202
SANTA CRUZ, CA 95062
(831)–427–0288
A Division of Swanson Hydrology + Geomorphology

DRAFT
NOT FOR CONSTRUCTION

PREPARED AT THE REQUEST OF:
USDA FOREST SERVICE
LAKE TAHOE BASIN
MANAGEMENT UNIT

REVEGETATION DETAILS

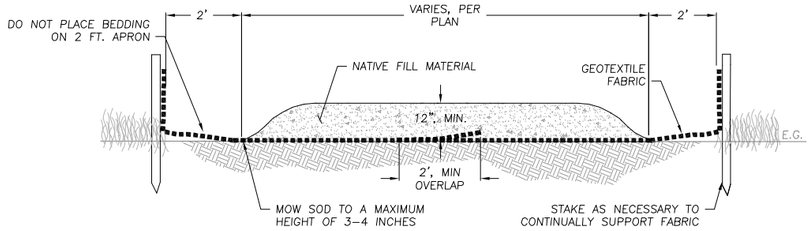
HIGH MEADOW COMPLEX
RESTORATION PLAN
PHASE 1 60% SUBMITTAL

DESIGNED BY:	K.A.W.
DRAWN BY:	B.M.S.
CHECKED BY:	R.T.C.
DATE:	10/09/07
JOB NO.:	04–415

BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

C15 | 15 OF 16

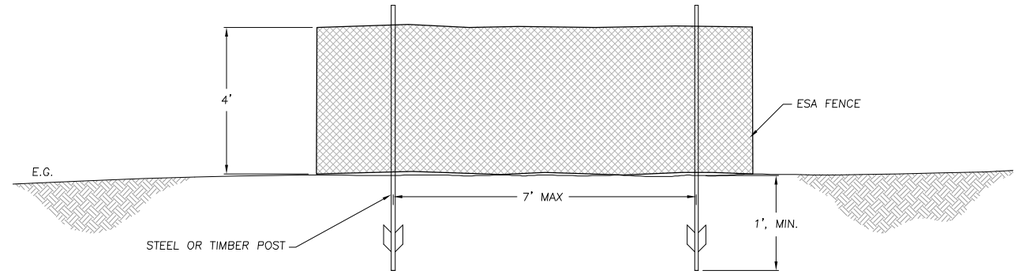
R:\LAND PROJECTS\04-415_COLD_CREEK\dwg\04-415 C15-16_DETAILS.dwg 10/10/2007 12:14:45 PM PDT



TYPICAL WET MEADOW ACCESS ROAD

SCALE: 1"=2'

1 C4,C5,C13



E.S.A. FENCE

SCALE: 1"=2'

2 C13

WET MEADOW ACCESS ROAD NOTES:

1. THE INTENT OF THESE CONSTRUCTED SURFACES IS TO MINIMIZE COMPACTION IMPACTS TO THE MEADOW FROM THE OPERATION OF HEAVY EQUIPMENT. MATERIALS THAT ARE REQUIRED INCLUDE GEOTEXTILE FABRIC, POSTS AND EARTH FILL. ALL ROADS INSTALLED SHALL BE CONSIDERED TEMPORARY AND SHALL BE REMOVED PRIOR TO FINAL ACCEPTANCE OF THE CONTRACT. NATIVE MATERIAL MAY BE USED FOR ROAD CONSTRUCTION. FILL SHALL BE CLEAN AND FREE FROM ORGANIC MATTER AND OTHER DELETERIOUS SUBSTANCES.

2. THE CONTRACTOR SHALL BE RESTRICTED FROM PARKING EQUIPMENT, AND STORING MATERIALS ON THE MEADOW, EXCEPT AS SHOWN ON THE PLANS OR AS DIRECTED BY THE COR.

3. PRIOR TO PLACEMENT OF THE GEOTEXTILE, THE AREA TO BE COVERED SHALL BE MOWED TO A HEIGHT OF 3 TO 4 INCHES AS MEASURED FROM THE ROOT CROWN.

4. ADJACENT BORDERS OF THE FABRIC SHALL BE OVERLAPPED 2 FEET OR STITCHED.

5. SHOULD THE FABRIC BE DAMAGED DURING PLACEMENT, THE TORN OR PUNCTURED SECTION SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC THAT IS LARGE ENOUGH TO COVER THE DAMAGED AREA AND TO MEET THE OVERLAP REQUIREMENT. DAMAGE TO THE FABRIC DURING THE PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE. NO STRAW OR HAY BALE SEDIMENT BARRIERS WILL BE ALLOWED.

6. AFTER THESE ROAD SURFACES ARE NO LONGER NEEDED, ALL SOIL MATERIAL, FABRIC AND POSTS SHALL BE REMOVED IN A MANNER THAT PREVENTS SOIL SPILLAGE ONTO THE EXISTING GROUND SURFACE.

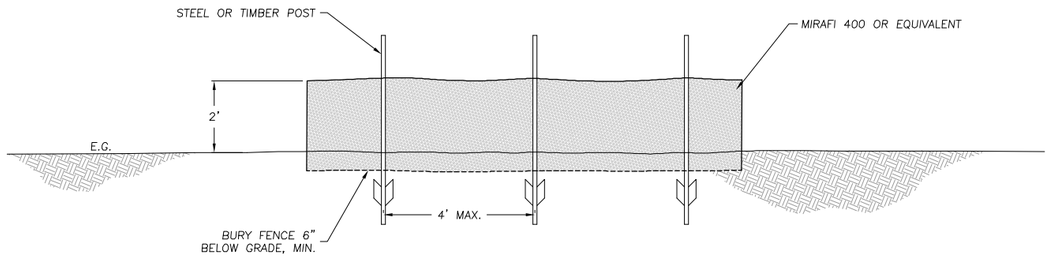
7. THE DESIGNATED CONSTRUCTED TEMPORARY MEADOW ACCESS ROADS SHALL BE USED WHEN POSSIBLE. THE CONSTRUCTION OF MEADOW ACCESS ROADS SHALL BE AS SHOWN ON THE PLANS. ALL OTHER TRAVEL WITHIN THE MEADOW SHALL BE RANDOM AND DISPERSED, WITH EVERY EFFORT MADE TO AVOID REPEATING TRAVEL PATHS. ONLY EQUIPMENT THAT DOES NOT COMPACT THE MEADOW WILL BE ALLOWED OFF THE ACCESS ROADS. TYPE OF EQUIPMENT, DURATION OF THIS ACCESS AND ALLOWABLE CONDITIONS FOR THIS ACCESS WILL BE AT THE DISCRETION OF THE COR. SOIL SHALL NOT BE STORED, STOCKPILED, OR OTHERWISE PLACED ON ANY SURFACE THAT IS NOT DESIGNATED FOR SUCH TREATMENT ON THE DRAWINGS. THE CONTRACTOR MAY STORE MATERIALS ON AREAS DESIGNATED AS TEMPORARY ACCESS ROADS AFTER THE INSTALLATION OF THE GEOTEXTILE FABRIC. THE CONTRACTOR MAY ALSO STORE MATERIALS ON UPLAND STOCKPILE AND STAGING AREAS APPROVED BY THE COR.

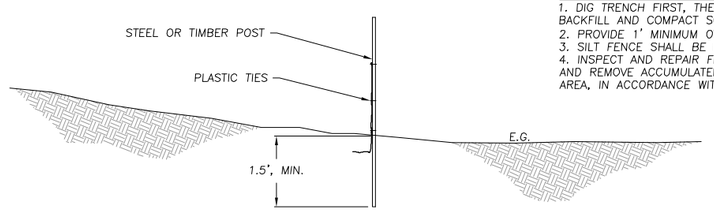
DRY UPLAND ACCESS ROAD NOTES:

1. DRY UPLAND ACCESS ROADS WILL BE USED IN DRY MEADOW AND UPLAND AREAS WHERE SOIL COMPACTION IS LESS LIKELY TO OCCUR, AS SHOWN IN THE PHASING AND ACCESS PLANS, SHT.S C4 AND C5. DRY UPLAND ACCESS ROADS SHALL BE UNIMPROVED ACCESS ROUTES.

2. DRY UPLAND ACCESS ROADS SHALL BE MONITORED FOR EROSION, RUTTING, OR SOIL COMPACTION. DAMAGED AREAS SHALL BE REPAIRED IMMEDIATELY, AT THE DIRECTION OF THE COR.

3. DRY UPLAND ACCESS ROADS SHALL BE RIPPED AND MULCHED AT THE COMPLETION OF WORK, IN ACCORDANCE WITH THE REVEGETATION DETAILS.





SILT FENCE

SCALE: 1"=2'

3 C13

SILT FENCE NOTES

1. DIG TRENCH FIRST, THEN ERECT FENCE IN TRENCH. BACKFILL AND COMPACT SOIL TO SECURE FABRIC.
2. PROVIDE 1' MINIMUM OVERLAP AT FENCE SPLICES.
3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS.
4. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE ACCUMULATED SEDIMENT, TO AN APPROVED AREA, IN ACCORDANCE WITH THE SPECIFICATIONS.

REV.	DATE	DESCRIPTION	BY

SH+G ENGINEERING
500 SEABRIGHT AVE., SUITE 202
SANTA CRUZ, CA 95062
(831)-427-0288
A Division of Swanson Hydrology + Geomorphology

DRAFT
NOT FOR CONSTRUCTION

PREPARED AT THE REQUEST OF:
USDA FOREST SERVICE
LAKE TAHOE BASIN
MANAGEMENT UNIT

EROSION CONTROL DETAILS

HIGH MEADOW COMPLEX
RESTORATION PLAN
PHASE 1 60% SUBMITTAL

DESIGNED BY: R.T.C.
DRAWN BY: B.M.S.
CHECKED BY: M.L.S.
DATE: 10/09/07
JOB NO.: 04-415

BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

C16 | 16 OF 16

R:\LAND PROJECTS\04-415_COLD-CREEK\dwg\04-415 C15-16_DETAILS.dwg 10/10/2007 12:14:45 PM PDT