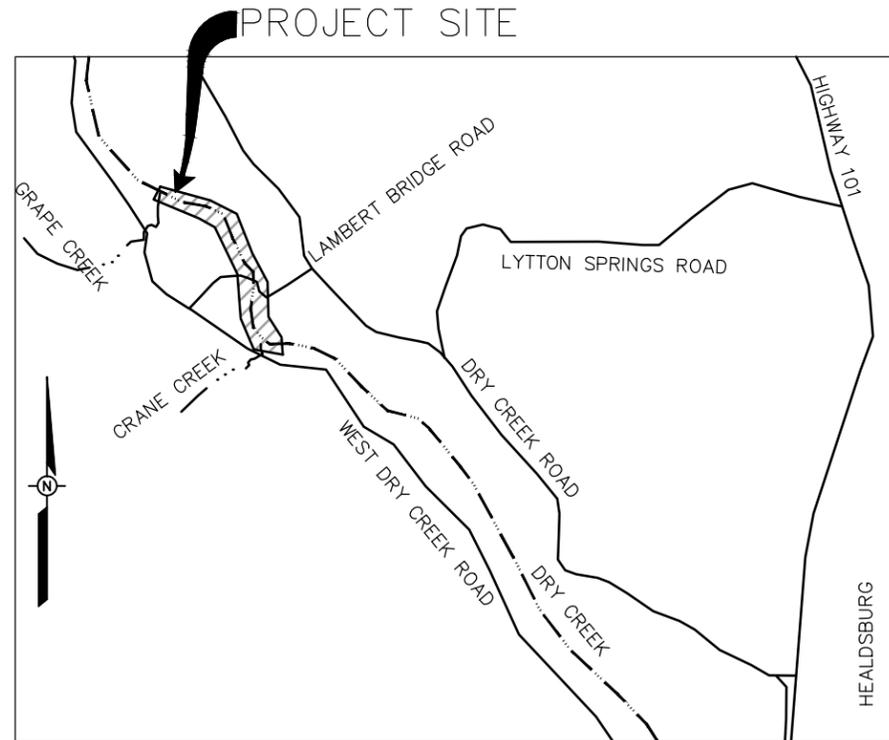
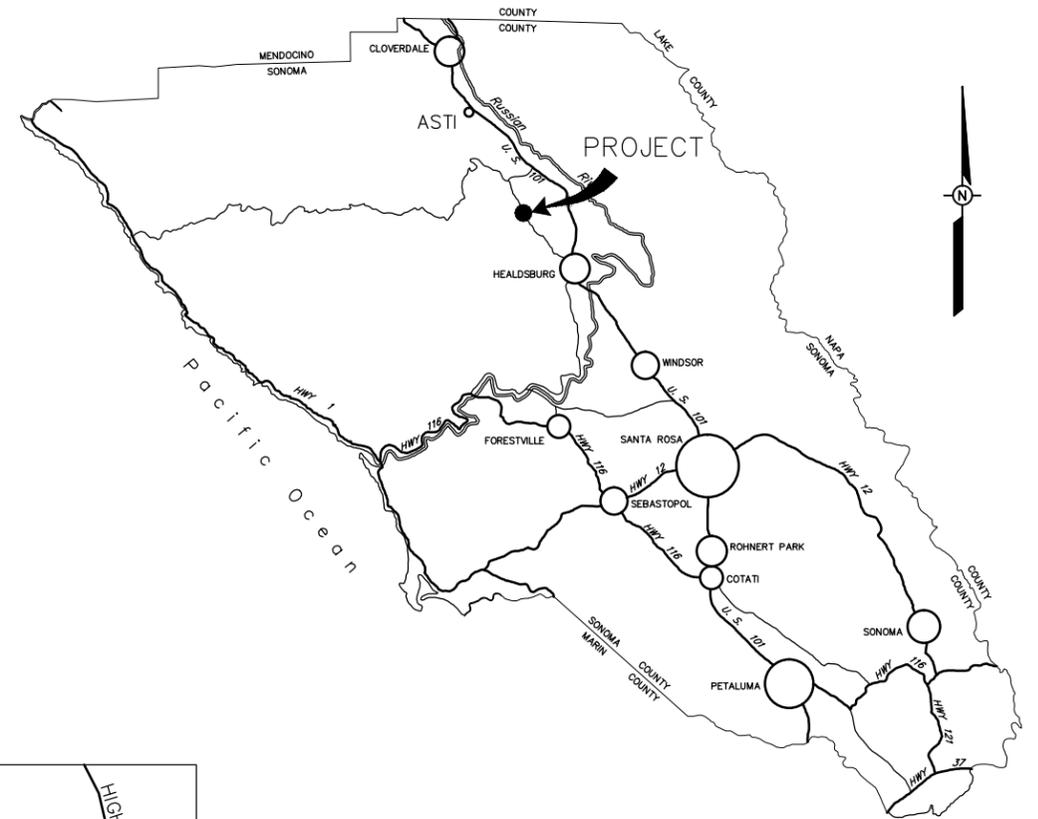


SONOMA COUNTY WATER AGENCY DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT PHASE II

SHEET NO.	TITLE
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- 1 LOCATION MAP AND INDEX TO DRAWINGS
- 2 GENERAL NOTES AND LEGEND
- 3 EXISTING CONDITIONS
- 4 SITE PLAN OVERVIEW AND PLAN SHEET KEY
- 5 ACCESS AND STAGING OVERVIEW
- 6 ACCESS AND STAGING PLAN - UPPER HALF
- 7 ACCESS AND STAGING PLAN - LOWER HALF
- 8 MAIN CHANNEL PLAN AND PROFILE - STA. 324+00 TO 340+00
- 9 MAIN CHANNEL PLAN AND PROFILE - STA. 340+00 TO 346+00
- 10 MAIN CHANNEL PLAN AND PROFILE - STA. 357+00 TO 370+00
- 11 OFF-CHANNEL ENHANCEMENT AREA A - GRADING PLAN
- 12 OFF-CHANNEL ENHANCEMENT AREA A - LWD AND BANK TREATMENT PLAN
- 13 OFF-CHANNEL ENHANCEMENT AREA A - GRADING CROSS SECTIONS
- 14 WALLACE PROPERTY - GRADING PLAN
- 15 WALLACE PROPERTY - LWD AND BANK TREATMENT PLAN
- 16 WALLACE PROPERTY - GRADING CROSS SECTIONS
- 17 OFF-CHANNEL ENHANCEMENT AREA B - GRADING PLAN
- 18 OFF-CHANNEL ENHANCEMENT AREA B - LWD AND BANK TREATMENT PLAN
- 19 OFF-CHANNEL ENHANCEMENT AREA B - GRADING CROSS SECTIONS
- 20 OFF-CHANNEL ENHANCEMENT AREA C - GRADING PLAN
- 21 OFF-CHANNEL ENHANCEMENT AREA C - LWD AND BANK TREATMENT PLAN
- 22 OFF-CHANNEL ENHANCEMENT AREA C - GRADING CROSS SECTIONS
- 23 MASCHERINI PROPERTY - GRADING PLAN
- 24 MASCHERINI PROPERTY - LWD AND BANK TREATMENT PLAN
- 25 MASCHERINI PROPERTY - GRADING CROSS SECTIONS
- 26 SECTIONS - BOULDER FIELD AND RIFFLES
- 27 SECTIONS - LOG JAMS (1 OF 2)
- 28 SECTIONS - LOG JAMS (2 OF 2)
- 29 TYPICAL DETAILS - RIFFLES
- 30 TYPICAL DETAILS - BOULDER CLUSTER AND BOULDER FIELD
- 31 TYPICAL DETAILS - TYPE 1-3 BANK
- 32 TYPICAL DETAILS - TYPE 4 BANK (1 OF 4)
- 33 TYPICAL DETAILS - TYPE 4 BANK (2 OF 4)
- 34 TYPICAL DETAILS - TYPE 4 BANK (3 OF 4)
- 35 TYPICAL DETAILS - TYPE 4 BANK (4 OF 4)
- 36 TYPICAL DETAILS - FABRIC INSTALLATION
- 37 TYPICAL DETAILS - FES LIFT (1 OF 2)
- 38 TYPICAL DETAILS - FES LIFT (2 OF 2)
- 39 LWD DETAILS - LOG JAM AND FLOODPLAIN LWD
- 40 LWD DETAILS - BACKWATER CHANNEL AND POOL ENHANCEMENT
- 41 LWD DETAILS - SLOPE LWD AND LWD SUMMARY TABLE
- 42 TYPICAL SEQUENCE DETAILS - LOG JAM
- 43 TYPICAL SEQUENCE DETAILS - FLOODPLAIN AND POOL ENHANCEMENT LWD
- 44 TYPICAL SEQUENCE DETAILS - BACKWATER LWD
- 45 TYPICAL DETAILS - LWD CABLING AND BALLASTING
- 46 DETAILS - SDO SCOUR PROTECTION



COORDINATION CHECK	ORIG REL	REV	DATE	CIVIL	ELECT	MECH	TECH WR	INSPECTION OPERATIONS	SURVEY



BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY.

RECORD INFORMATION				
NO.	DATE	REVISION	BY	

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	DATE: 1/23/2013	<i>[Signature]</i>
	DRAWN: REP	REVIEWED:
CHECKED: MB	<i>[Signature]</i>	<i>[Signature]</i>

DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT LOCATION MAP AND INDEX TO DRAWINGS		
FILE NAME: 7345	DRAWING NUMBER:	SHEET 1 OF 46
CONTRACT NUMBER: 45-6.1-7#3		

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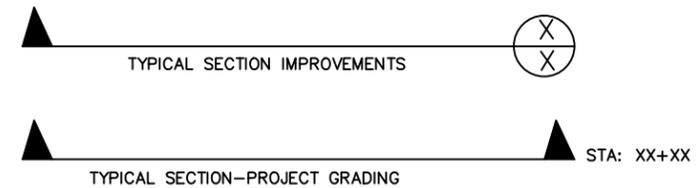
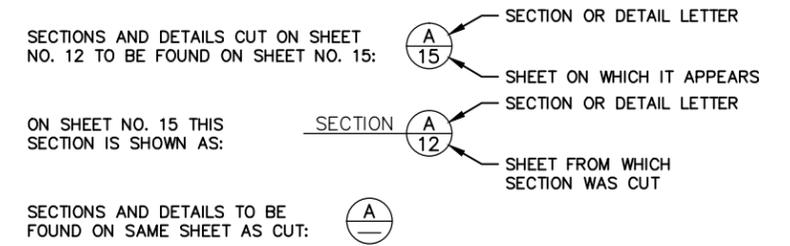
PLAN LEGEND

---	EXISTING GRADE (EG)		EXISTING STRUCTURES
---	EXISTING CONTOURS (1 FT.)		STAGING AREA
---	PROPOSED CONTOURS (1 FT.)		EXISTING ROAD
---	EDGE OF WATER, MAY 2010 (TYP.)		CONSTRUCTED RIFFLE
---	ACCESS CORRIDOR		BOULDER FIELD
---	CONSTRUCTION EASEMENT (TYP.)		BOULDER CLUSTER
OH --- OH	OVERHEAD POWER LINE		WATER SURFACE ELEVATION
---	DRY CREEK ALIGNMENT	---	SLOPE BREAK
233+00	PARCEL BOUNDARY	---	SUBGRADE EXCAVATION
---	SILT FENCE	---	LIMIT OF FINSH GRADE
x126.0	SPOT ELEVATION, FINISH GRADE		TYPE 1 BANK STABILIZATION
o	POWER POLE		TYPE 2 BANK STABILIZATION
	INGRESS/EGRESS		TYPE 3 BANK STABILIZATION
	STORM DRAIN OUTFALL (SDO)		TYPE 4 BANK STABILIZATION
	(E) PUMP		COMPACTED SELECT SOIL
	TEMPORARY DEWATERING WELL		COMPACTED SELECT FILL
	LARGE WOODY DEBRIS (LWD)		BACKFILL NATIVE SUBSTRATE
	LOG JAM		
	POOL LWD		
	SLOPE LWD		
	SLASH		
	BACKWATER CHANNEL LWD		
	FLOODPLAIN LWD		

ABBREVIATIONS

CFS	CUBIC FEET PER SECOND	N.I.C.	NOT IN CONTRACT
CMP	CORRUGATED METAL PIPE	NTS	NOT TO SCALE
D.B.H.	DIAMETER BREAST HEIGHT	O.C.	ON CENTER
EG	EXISTING GRADE	OH	OVERHEAD
(E)	EXISTING	OHW	ORDINARY HIGH WATER
FES	FABRIC ENCAPSULATED SOIL LIFT	PDSCS	PUMP DISCHARGE SEDIMENT CONTROL SYSTEM
FG	FINISHED GRADE	SDO	STORM DRAIN OUTFALL
HDPE	HIGH DENSITY POLYETHYLENE	STA	STATION
I.E.	INVERT ELEVATION	(TYP)	TYPICAL
LWD	LARGE WOODY DEBRIS		
(N)	NEW		

TYPICAL SECTION AND DETAIL LETTERING SYSTEM



GENERAL NOTES

- UNITS FEET
- HORIZONTAL DATUM CALIFORNIA STATE PLANE COORDINATES (NAD83) ZONE 2, US SURVEY FEET
- VERTICAL DATUM : NORTH AMERICAN VERTICAL DATUM (NAVD), 1988 US SURVEY FEET.
- PROJECT BENCHMARKS :

PI	NORTHING	EASTING	ELEVATION	DESCRIPTIONS
DC-03	2001363.832	6296702.537	146.48	2 IN. DIA. BRASS DISK
DC-04	2001308.733	6295880.366	142.712	2 IN. DIA. BRASS DISK
- STATIONING : ALL STATIONING REPRESENTS HORIZONTAL MEASUREMENT AT ALIGNMENT OF CONSTRUCTION.
- ORIENTATION : RIGHT AND LEFT DIRECTIONS ARE FROM CENTERLINE LOOKING DOWNSTREAM.
- UTILITIES : THE OWNER, TO THE BEST OF ITS ABILITY, HAS DELINEATED ON THE DRAWINGS ALL UTILITY INSTALLATIONS TO BE ENCOUNTERED WITHIN THE LIMITS OF WORK. SUCH INFORMATION IS BASED UPON INFORMATION FURNISHED TO OWNER BY THE UTILITY OWNERS, AND THE OWNER DOES NOT EITHER EXPRESSLY OR BY IMPLICATION GUARANTEE THAT UTILITY INSTALLATIONS WILL BE FOUND AT THE LOCATIONS OR DEPTHS INDICATED. THE OWNER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE INFORMATION SHOWN OR THE INADVERTENT OMISSION OF ANY SUCH INFORMATION.
- PARCEL DATA : OBTAINED FROM OWNER ON FEBRUARY 16, 2012.
- TOPOGRAPHY : BASED ON LIDAR MAPPING COLLECTED NOVEMBER 2008 BY PICTOMETRY, INC. SUPPLEMENTED WITH GROUND SURVEY BY INTER-FLUVE, INC. COLLECTED MAY 2010 AND OWNER SEPTEMBER 2012.

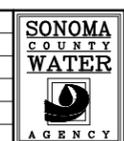
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RECORD INFORMATION	
NO.	DATE

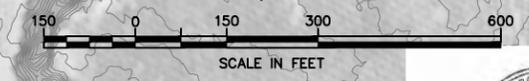


SCALE:	REVIEWED
DATE : 1/23/2013	
DRAWN : REP	REVIEWED
CHECKED : MB	

DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT	
GENERAL NOTES AND LEGEND	
FILE NAME: 7345	DRAWING NUMBER:
CONTRACT NUMBER: 45-6.1-7#3	SHEET 2 OF 46



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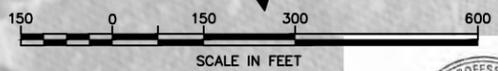


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DRAWN: REP
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REVIEWED: *[Signature]*
REVIEWED: *[Signature]*

DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT
EXISTING CONDITIONS

FILE NAME: 7345
CONTRACT NUMBER: 45-6.1-7#3
DRAWING NUMBER:
SHEET 3 OF 46



BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY

RECORD INFORMATION				
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DATE: 1/23/2013
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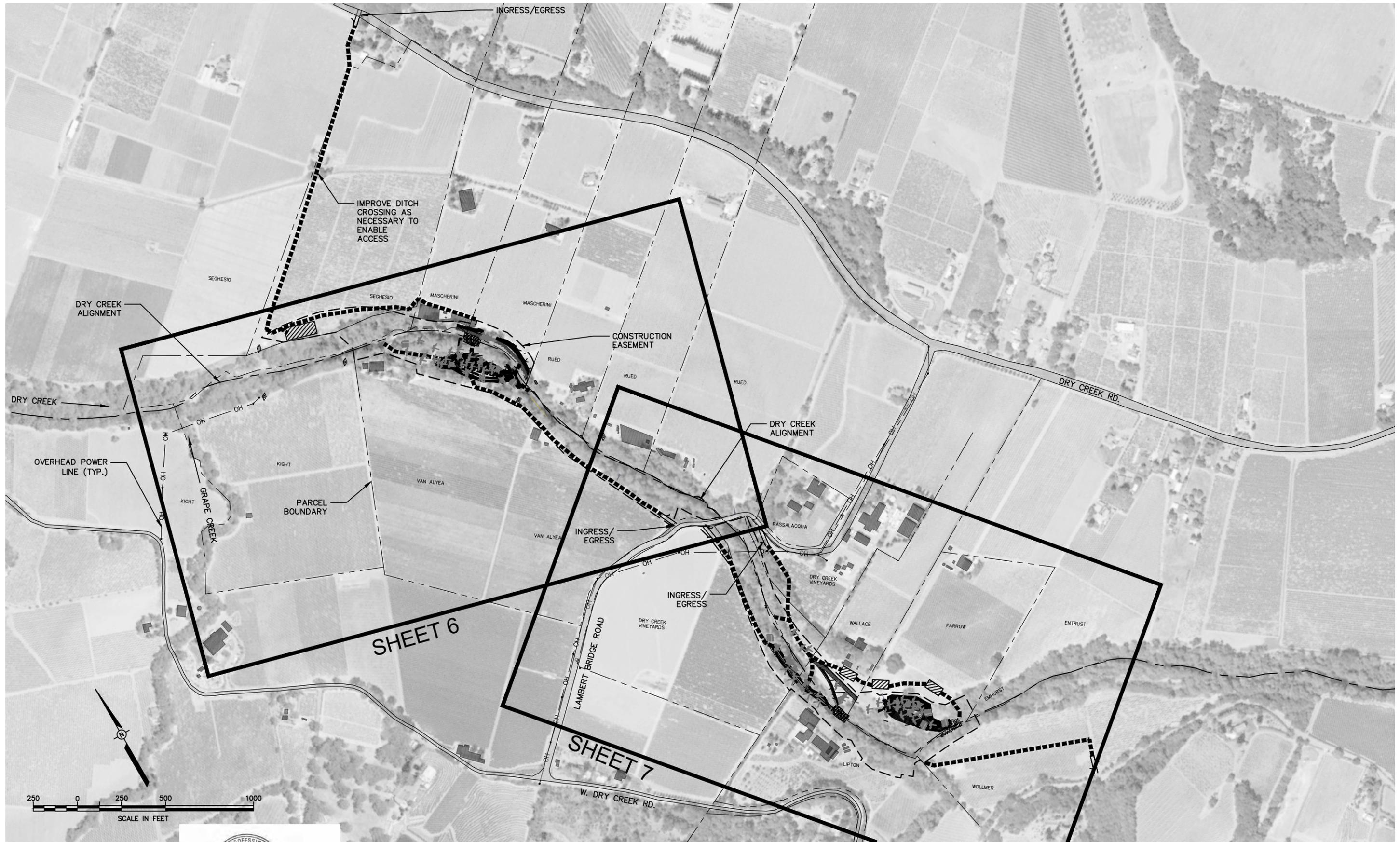
DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT
SITE PLAN OVERVIEW AND PLAN SHEET KEY

FILE NAME: 7345
CONTRACT NUMBER: 45-6.1-7#3
DRAWING NUMBER:
SHEET 4 OF 46

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1000 Bacon Street, Suite 1
Healdsburg, CA 95921
707.238.0033
www.interfluvio.com



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RECORD INFORMATION				
NO.	DATE	REVISION	BY	

SONOMA COUNTY WATER AGENCY

SCALE: _____
 DATE: 1/23/2013
 DRAWN: REP
 CHECKED: MB

REVIEWED: *[Signature]*
 REVIEWED: *[Signature]*

**DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT
ACCESS AND STAGING OVERVIEW**

FILE NAME: 7345
 CONTRACT NUMBER: 45-6.1-7#3

DRAWING NUMBER: _____
 SHEET 5 OF 46



NOTES:
 1. FINAL ALIGNMENT OF ACCESS ROUTES THROUGH VEGETATED CORRIDORS TO BE CONFIRMED AT TIME OF CONSTRUCTION.

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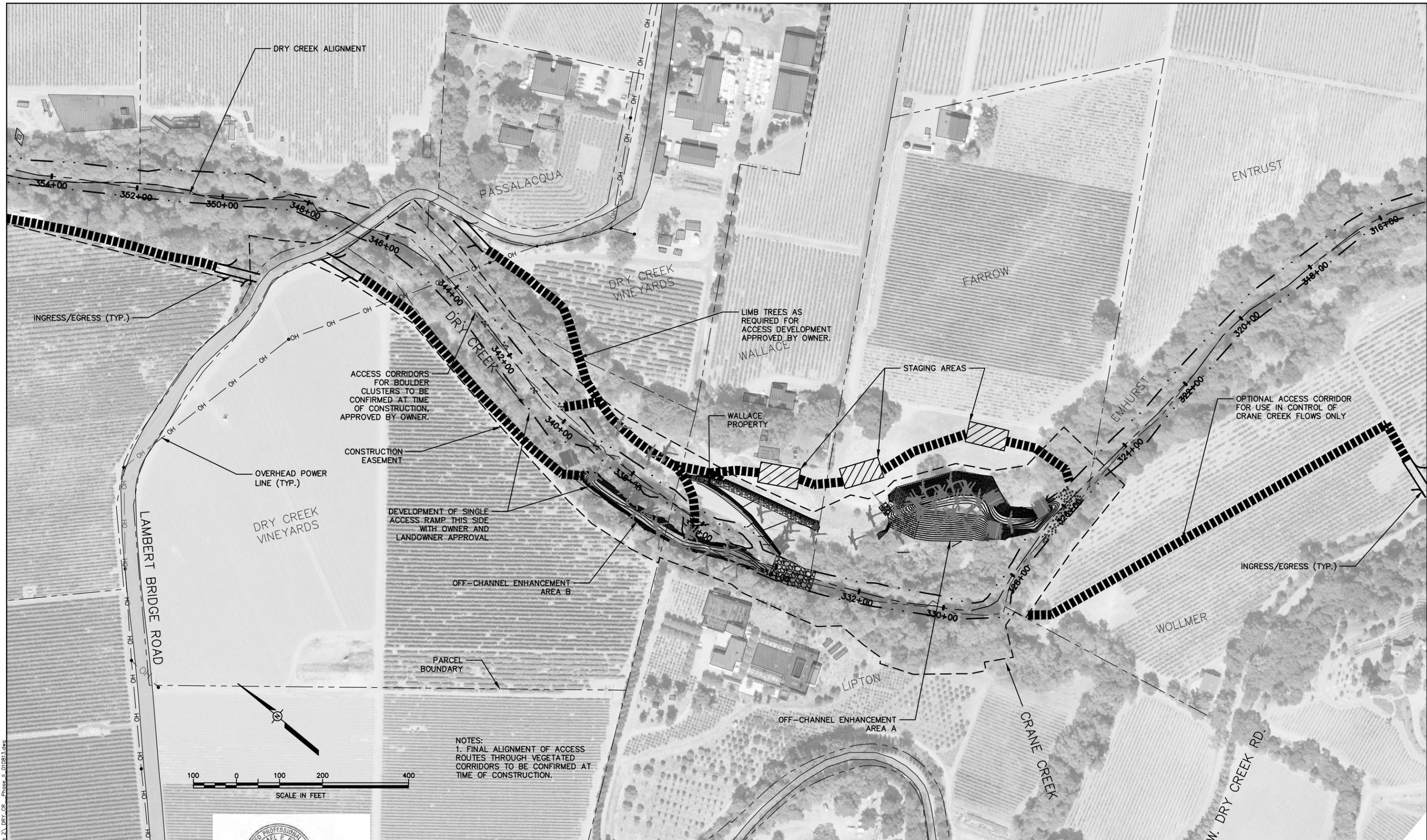
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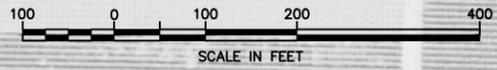


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DATE: 1/23/2013	<i>[Signature]</i>
DRAWN: REP	REVIEWED:
CHECKED: MB	<i>[Signature]</i>

DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT ACCESS AND STAGING PLAN – UPPER HALF		
FILE NAME: 7345	DRAWING NUMBER:	SHEET 6 OF 46
CONTRACT NUMBER: 45-6.1-7#3		



NOTES:
 1. FINAL ALIGNMENT OF ACCESS ROUTES THROUGH VEGETATED CORRIDORS TO BE CONFIRMED AT TIME OF CONSTRUCTION.



BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY

RECORD INFORMATION				
NO.	DATE	REVISION	BY	

SONOMA COUNTY WATER AGENCY

SCALE: _____
 DATE: 1/23/2013
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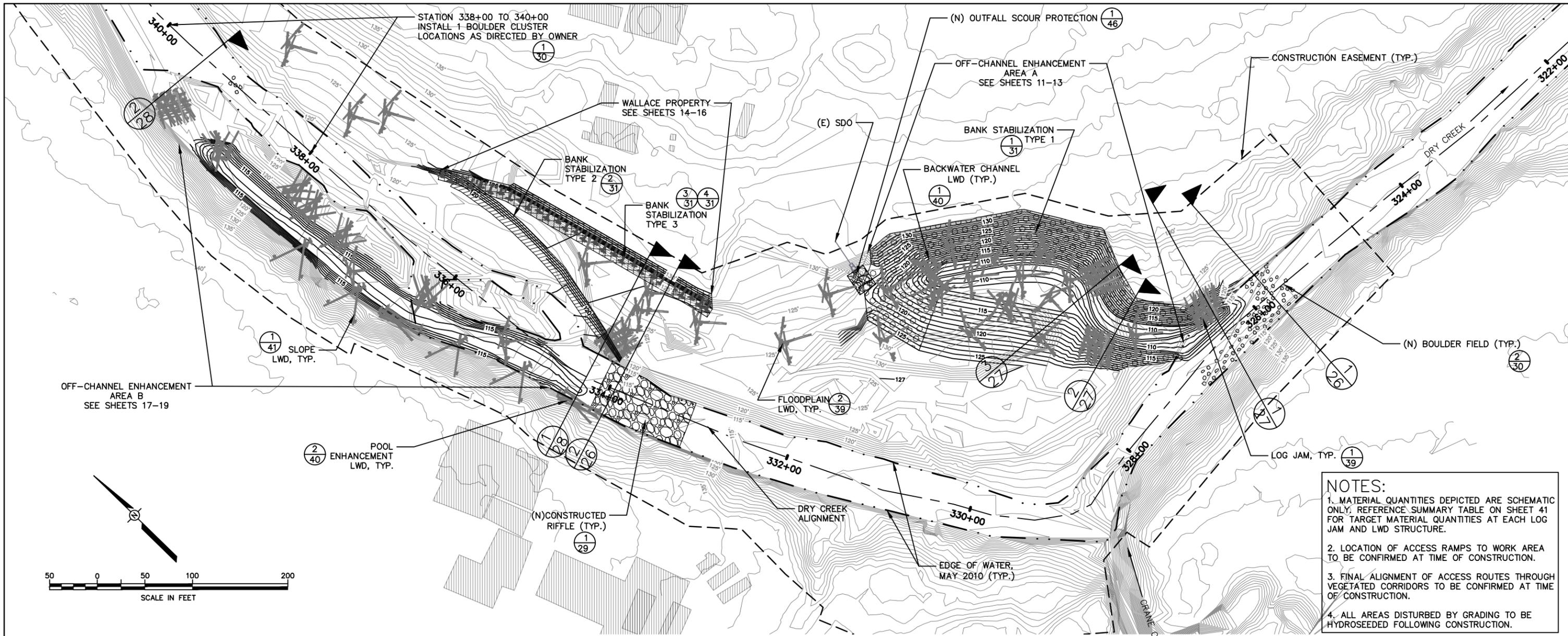
**DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT
 ACCESS AND STAGING PLAN - LOWER HALF**

FILE NAME: 7345
 CONTRACT NUMBER: 45-6.1-7#3

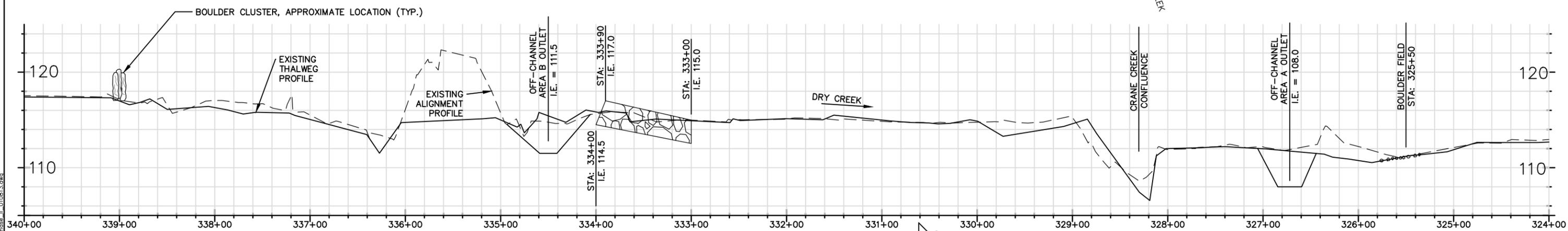
DRAWING NUMBER: _____
 SHEET 7 OF 46

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- NOTES:**
1. MATERIAL QUANTITIES DEPICTED ARE SCHEMATIC ONLY; REFERENCE SUMMARY TABLE ON SHEET 41 FOR TARGET MATERIAL QUANTITIES AT EACH LOG JAM AND LWD STRUCTURE.
 2. LOCATION OF ACCESS RAMPS TO WORK AREA TO BE CONFIRMED AT TIME OF CONSTRUCTION.
 3. FINAL ALIGNMENT OF ACCESS ROUTES THROUGH VEGETATED CORRIDORS TO BE CONFIRMED AT TIME OF CONSTRUCTION.
 4. ALL AREAS DISTURBED BY GRADING TO BE HYDROSEEDING FOLLOWING CONSTRUCTION.



MAIN CHANNEL PROFILE

REGISTERED PROFESSIONAL ENGINEER
MICHAEL P. BURKE
C 62986
EXP. 06/30/14
STATE OF CALIFORNIA

1020 Miway Street, Suite 1
Hood River, OR 97031
541.336.9003
www.interfive.com

interfive

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RECORD INFORMATION			
NO.	DATE	REVISION	BY

SONOMA COUNTY WATER AGENCY

SCALE: _____

DATE: 1/23/2013

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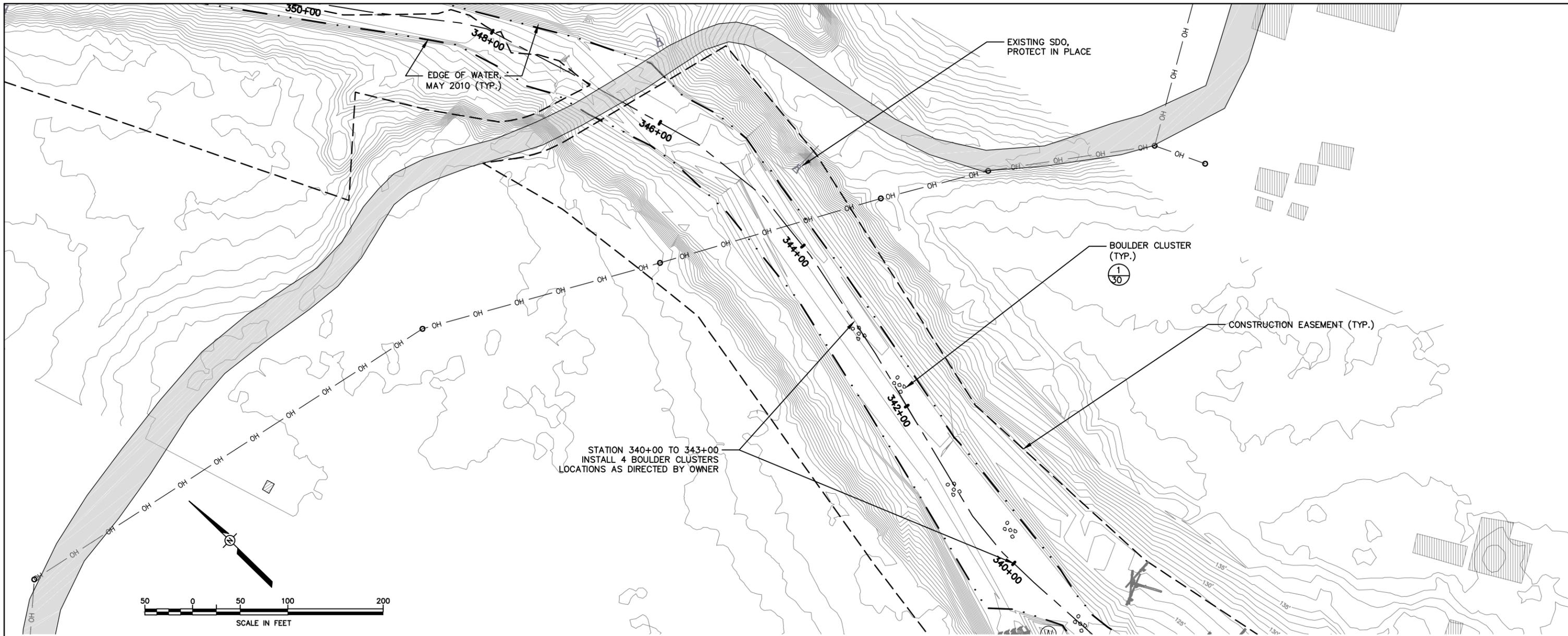
DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT
MAIN CHANNEL PLAN AND PROFILE
- STA. 324+00 TO 340+00

FILE NAME: 7345

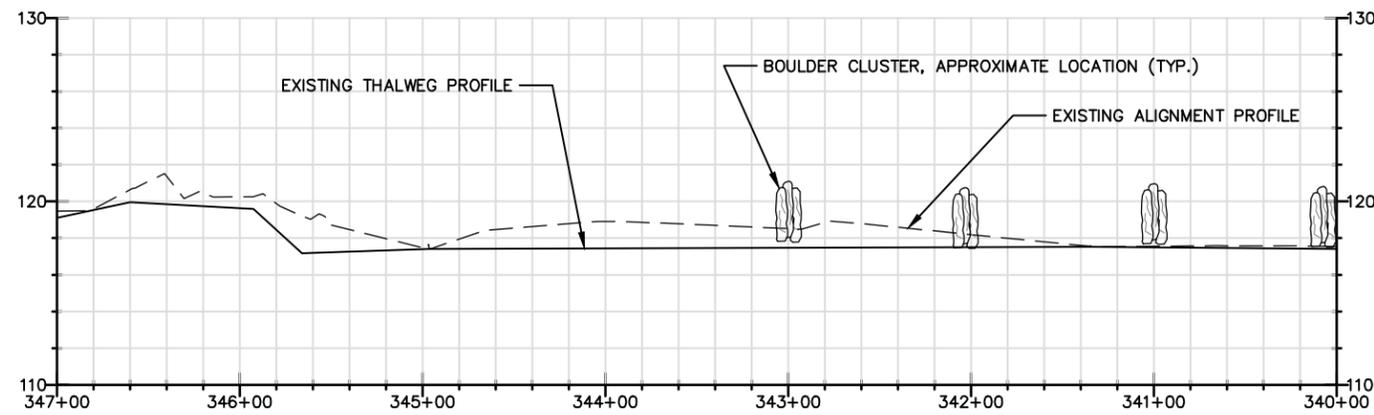
CONTRACT NUMBER: 45-6.1-7#3

DRAWING NUMBER: _____

SHEET 8 OF 46



NOTES:
 1. FINAL ALIGNMENT OF ACCESS ROUTES THROUGH VEGETATED CORRIDORS TO BE DETERMINED AT TIME OF CONSTRUCTION.



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MAIN CHANNEL PROFILE

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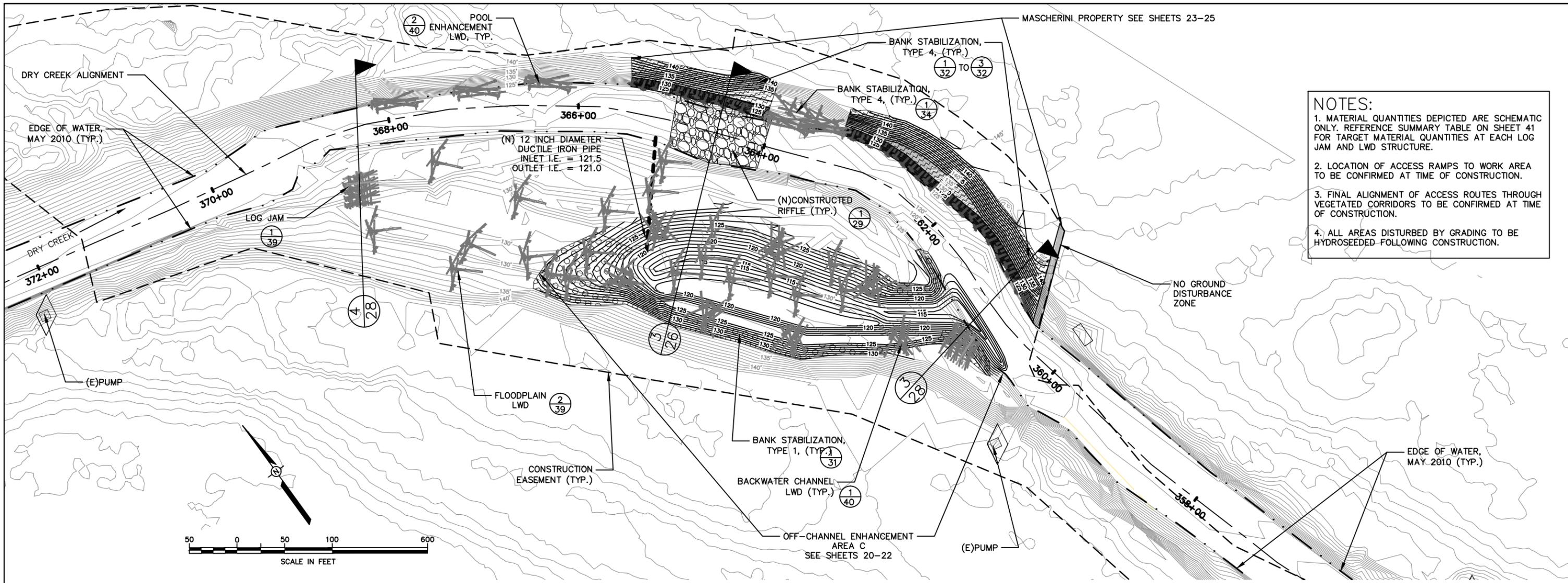


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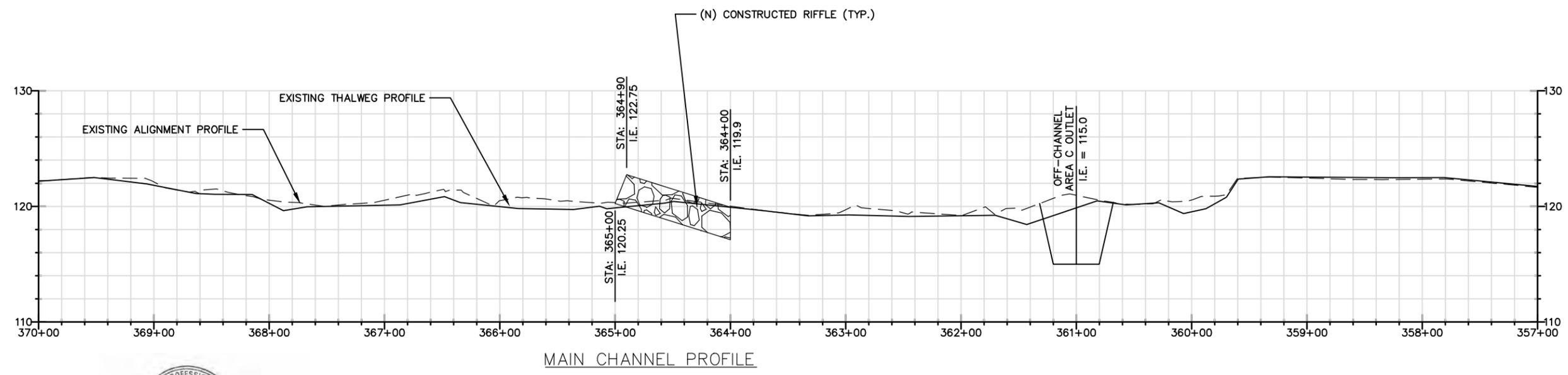
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NO.	DATE	REVISION	BY	

SONOMA COUNTY WATER AGENCY	SCALE:	REVIEWED:
	DATE: 1/23/2013	<i>[Signature]</i>
	DRAWN: REP	REVIEWED:
	CHECKED: MB	<i>[Signature]</i>

DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT MAIN CHANNEL PLAN AND PROFILE - STA. 340+00 TO 346+00		
FILE NAME: 7345	DRAWING NUMBER:	SHEET 9 OF 46
CONTRACT NUMBER: 45-6.1-7#3		



- NOTES:**
1. MATERIAL QUANTITIES DEPICTED ARE SCHEMATIC ONLY. REFERENCE SUMMARY TABLE ON SHEET 41 FOR TARGET MATERIAL QUANTITIES AT EACH LOG JAM AND LWD STRUCTURE.
 2. LOCATION OF ACCESS RAMPS TO WORK AREA TO BE CONFIRMED AT TIME OF CONSTRUCTION.
 3. FINAL ALIGNMENT OF ACCESS ROUTES THROUGH VEGETATED CORRIDORS TO BE CONFIRMED AT TIME OF CONSTRUCTION.
 4. ALL AREAS DISTURBED BY GRADING TO BE HYDROSEEDED FOLLOWING CONSTRUCTION.



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RECORD INFORMATION			
NO.	DATE	REVISION	BY

SONOMA COUNTY WATER AGENCY

SCALE: _____

DATE: 1/23/2013

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DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT
MAIN CHANNEL PLAN AND PROFILE
 - STA. 357+00 TO 370+00

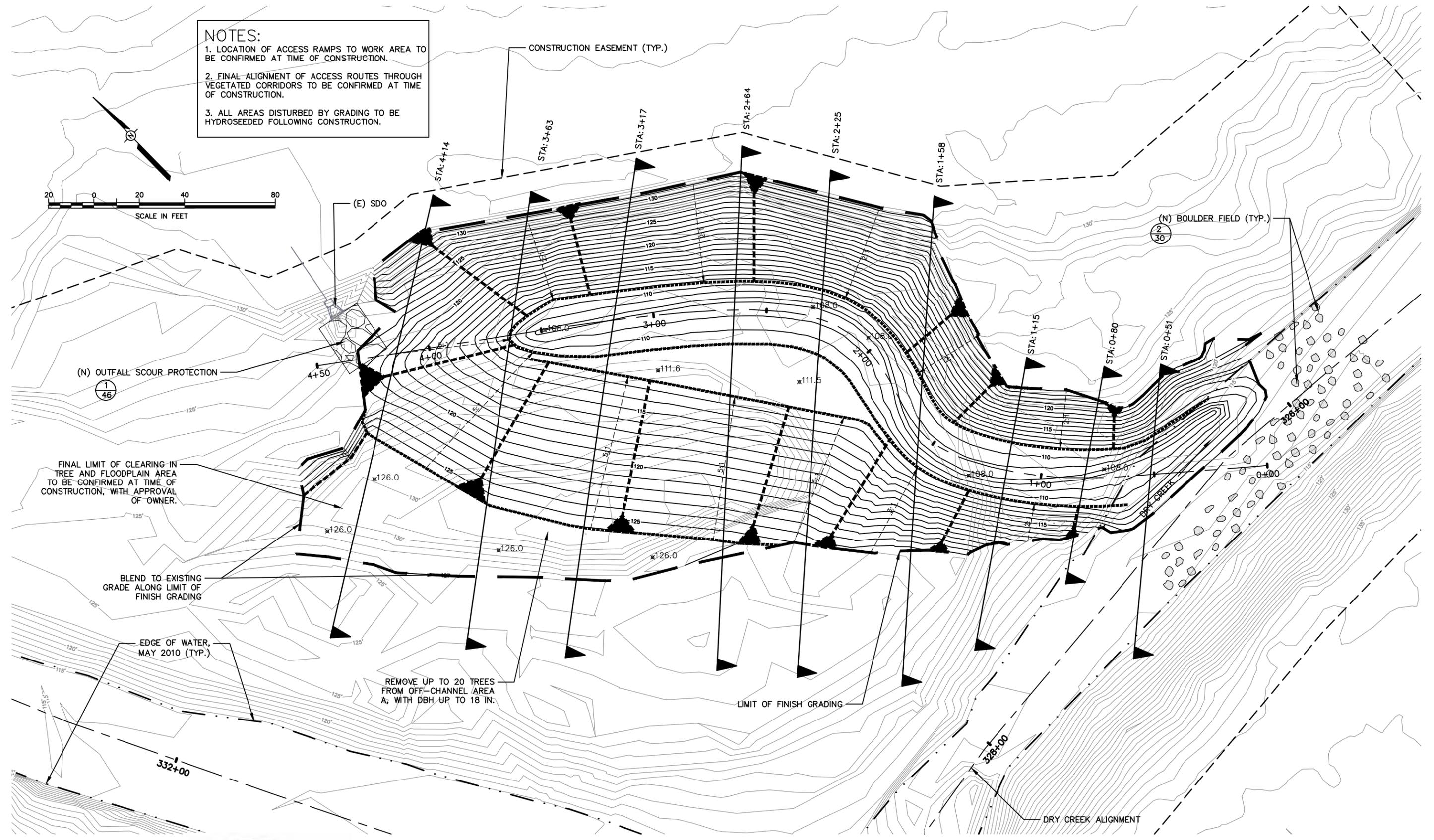
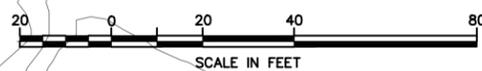
FILE NAME: 7345
 CONTRACT NUMBER: 45-6.1-7#3

DRAWING NUMBER: _____

SHEET 10 OF 46

NOTES:

1. LOCATION OF ACCESS RAMPS TO WORK AREA TO BE CONFIRMED AT TIME OF CONSTRUCTION.
2. FINAL ALIGNMENT OF ACCESS ROUTES THROUGH VEGETATED CORRIDORS TO BE CONFIRMED AT TIME OF CONSTRUCTION.
3. ALL AREAS DISTURBED BY GRADING TO BE HYDROSEEDED FOLLOWING CONSTRUCTION.



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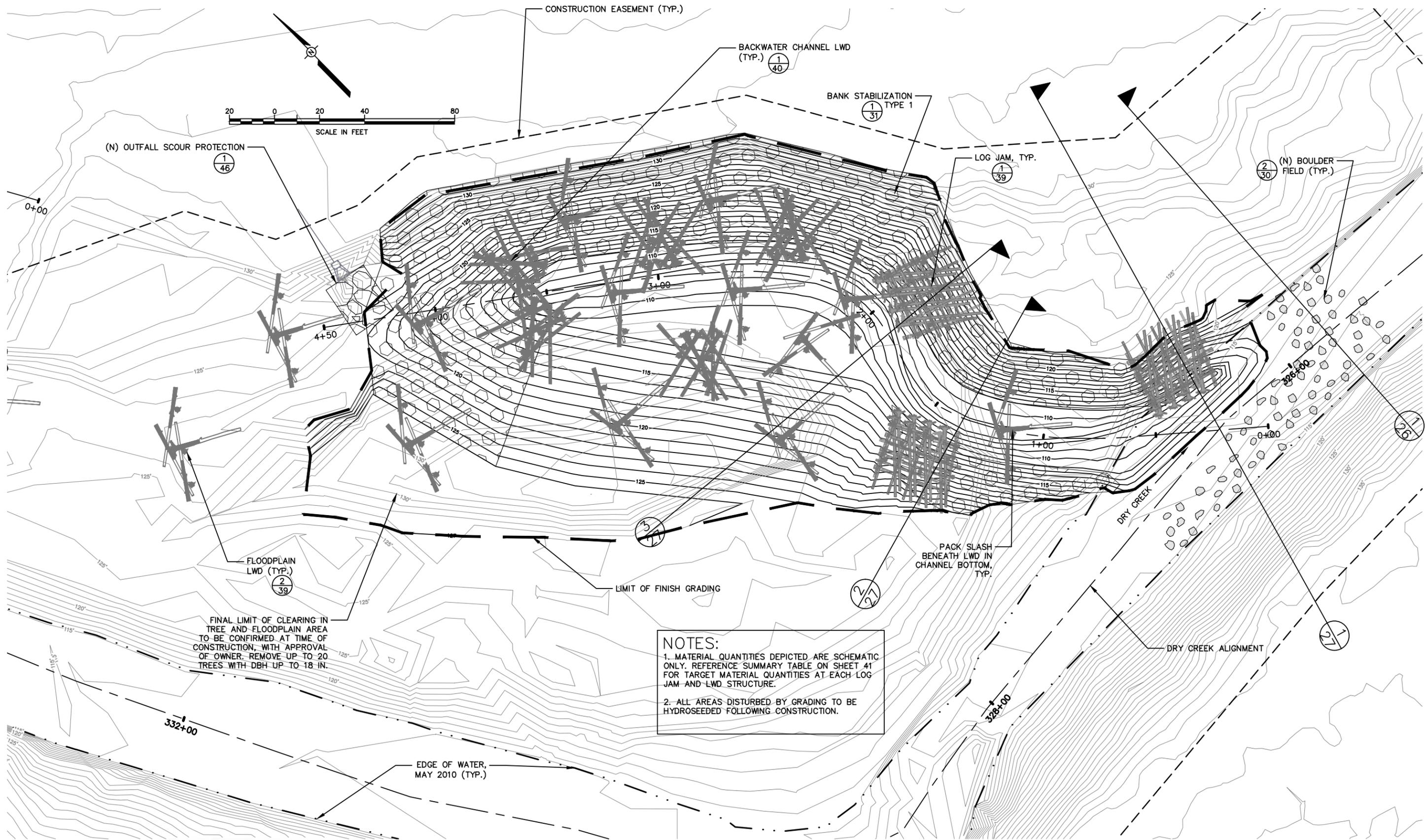
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RECORD INFORMATION				
NO.	DATE	REVISION	BY	



SCALE:	REVIEWED:
DATE: 1/23/2013	<i>[Signature]</i>
DRAWN: REP	REVIEWED:
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DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT OFF-CHANNEL ENHANCEMENT AREA A - GRADING PLAN		
FILE NAME: 7345	DRAWING NUMBER:	SHEET 11 OF 46
CONTRACT NUMBER: 45-6.1-7#3		



FINAL LIMIT OF CLEARING IN TREE AND FLOODPLAIN AREA TO BE CONFIRMED AT TIME OF CONSTRUCTION, WITH APPROVAL OF OWNER. REMOVE UP TO 20 TREES WITH DBH UP TO 18 IN.

NOTES:
 1. MATERIAL QUANTITIES DEPICTED ARE SCHEMATIC ONLY. REFERENCE SUMMARY TABLE ON SHEET 41 FOR TARGET MATERIAL QUANTITIES AT EACH LOG JAM AND LWD STRUCTURE.
 2. ALL AREAS DISTURBED BY GRADING TO BE HYDROSEEDED FOLLOWING CONSTRUCTION.



BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY

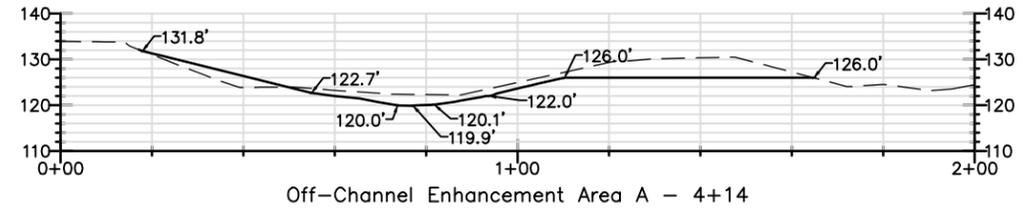
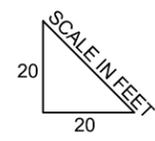
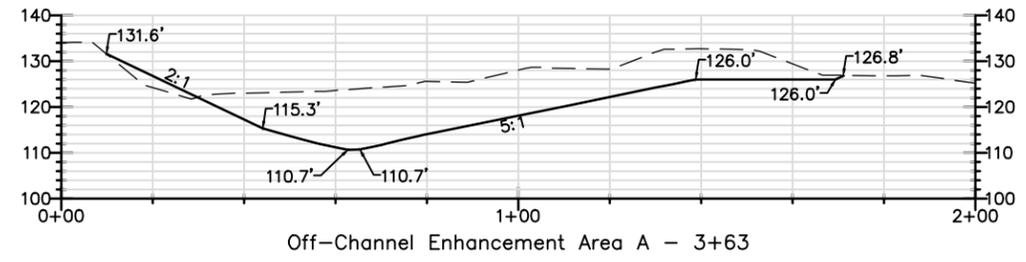
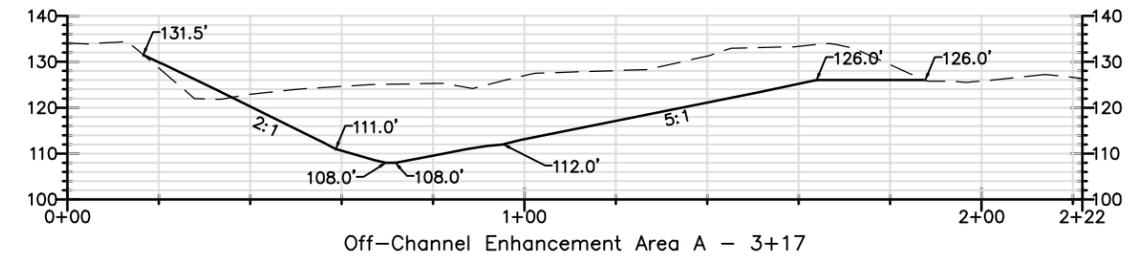
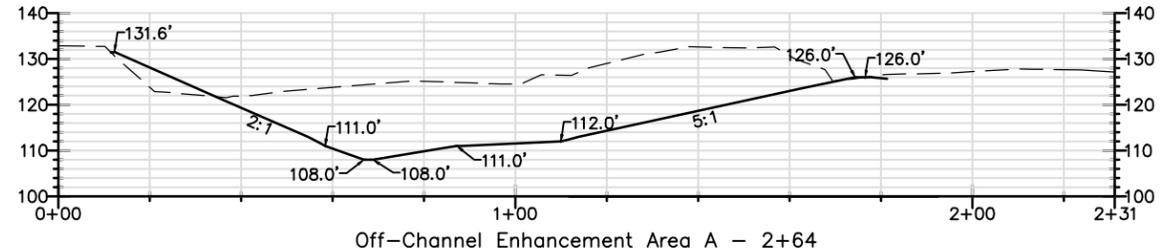
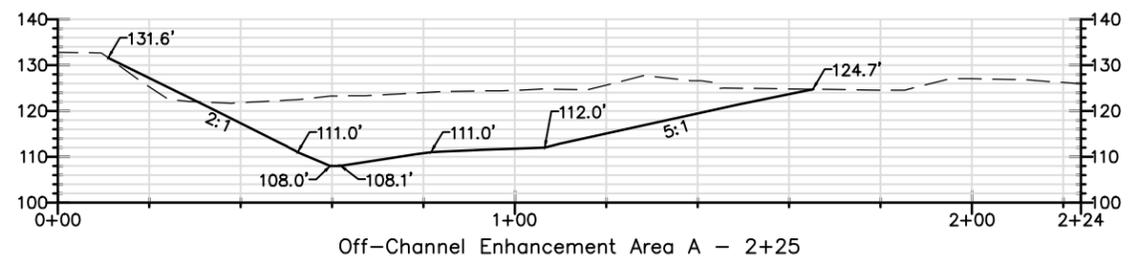
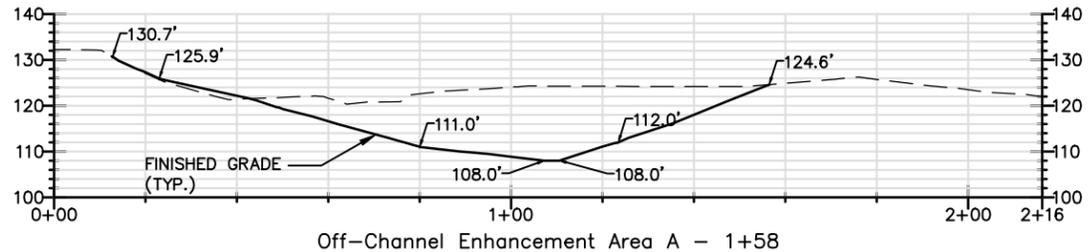
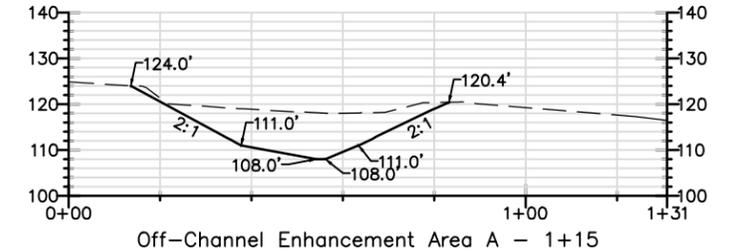
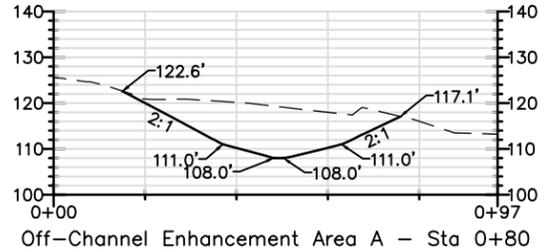
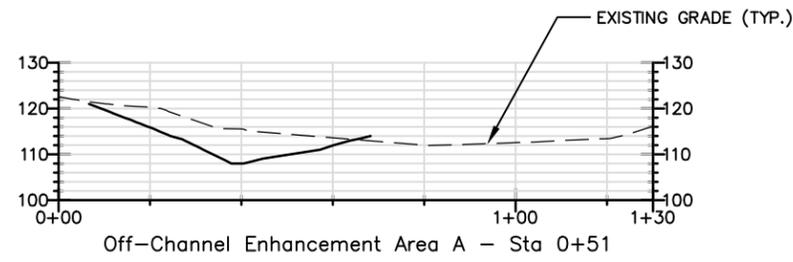
RECORD INFORMATION				
NO.	DATE	REVISION	BY	



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DATE: 1/23/2013	<i>[Signature]</i>
DRAWN: REP	REVIEWED:
CHECKED: MB	<i>[Signature]</i>

DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT OFF-CHANNEL ENHANCEMENT AREA A - LWD AND BANK TREATMENT PLAN	
FILE NAME: 7345	DRAWING NUMBER:
CONTRACT NUMBER: 45-6.1-7#3	SHEET 12 OF 46

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NOTE:
1. GRADING CROSS SECTIONS ARE ORIENTED LOOKING DOWNSTREAM FROM LEFT TO RIGHT. THE STATIONING ORIGIN FOR EACH SECTION IS AT THE EXTREME LEFT END OF THE SECTION CUT LINE.

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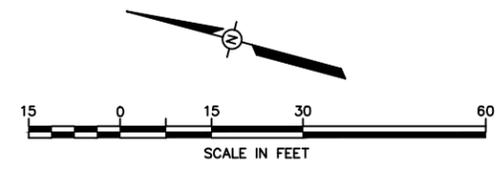
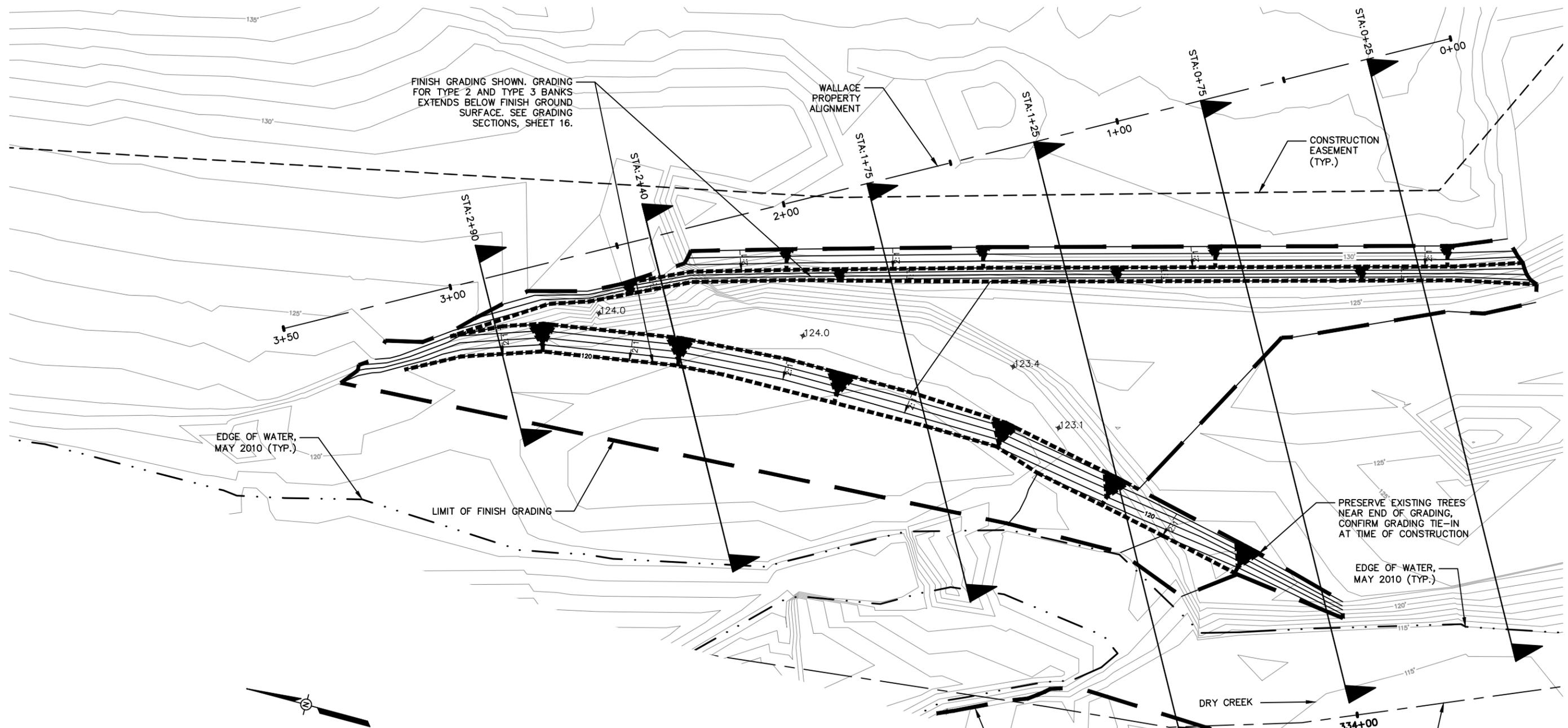
BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY

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DRAWN: REP	REVIEWED:
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DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT OFF-CHANNEL ENHANCEMENT AREA A - GRADING CROSS SECTIONS	
FILE NAME: 7345	DRAWING NUMBER:
CONTRACT NUMBER: 45-6.1-7#3	SHEET 13 OF 46



NOTES:

1. LOCATION OF ACCESS RAMPS TO WORK AREA TO BE CONFIRMED WITH OWNER AND LANDOWNER AT TIME OF CONSTRUCTION.
2. FINAL ALIGNMENT OF ACCESS ROUTES THROUGH VEGETATED CORRIDORS TO BE CONFIRMED AT TIME OF CONSTRUCTION.
3. ALL AREAS DISTURBED BY GRADING TO BE HYDROSEEDING FOLLOWING CONSTRUCTION.

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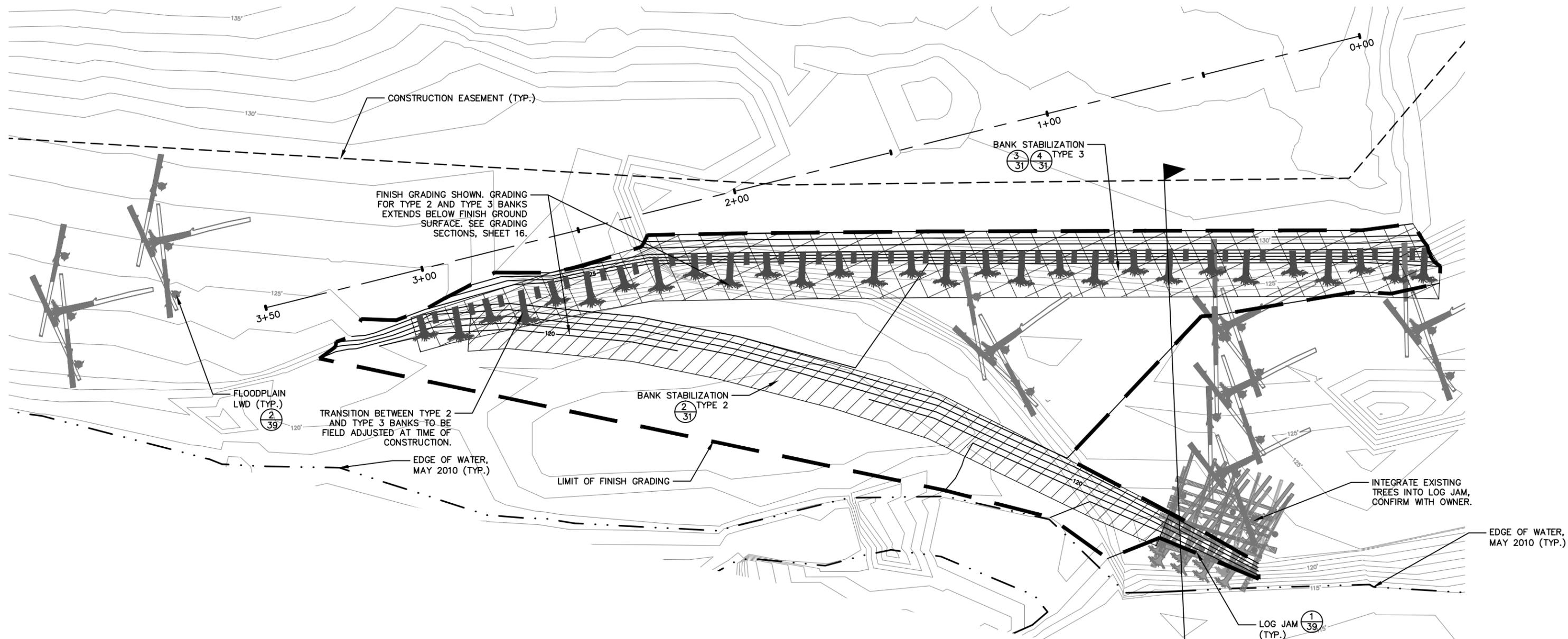


BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY

RECORD INFORMATION				
NO.	DATE	REVISION	BY	

	SCALE:	REVIEWED
	DATE: 1/23/2013	<i>[Signature]</i>
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DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT WALLACE PROPERTY - GRADING PLAN		
FILE NAME: 7345	DRAWING NUMBER:	SHEET 14 OF 46
CONTRACT NUMBER: 45-6.1-7#3		



FINISH GRADING SHOWN. GRADING FOR TYPE 2 AND TYPE 3 BANKS EXTENDS BELOW FINISH GROUND SURFACE. SEE GRADING SECTIONS, SHEET 16.

FLOODPLAIN LWD (TYP.)
2/39

TRANSITION BETWEEN TYPE 2 AND TYPE 3 BANKS TO BE FIELD ADJUSTED AT TIME OF CONSTRUCTION.

EDGE OF WATER, MAY 2010 (TYP.)

BANK STABILIZATION 2/31 TYPE 2

LIMIT OF FINISH GRADING

BANK STABILIZATION 3/31 4/31 TYPE 3

INTEGRATE EXISTING TREES INTO LOG JAM, CONFIRM WITH OWNER.

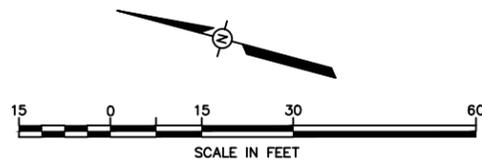
EDGE OF WATER, MAY 2010 (TYP.)

LOG JAM 1/39 (TYP.)

DRY CREEK

334+00

DRY CREEK ALIGNMENT



NOTES:
 1. MATERIAL QUANTITIES DEPICTED ARE SCHEMATIC ONLY. REFERENCE SUMMARY TABLE ON SHEET 41 FOR TARGET MATERIAL QUANTITIES AT EACH LOG JAM AND LWD STRUCTURE.
 2. ALL AREAS DISTURBED BY GRADING TO BE HYDROSEEDDED FOLLOWING CONSTRUCTION.

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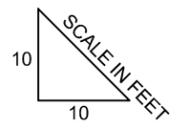
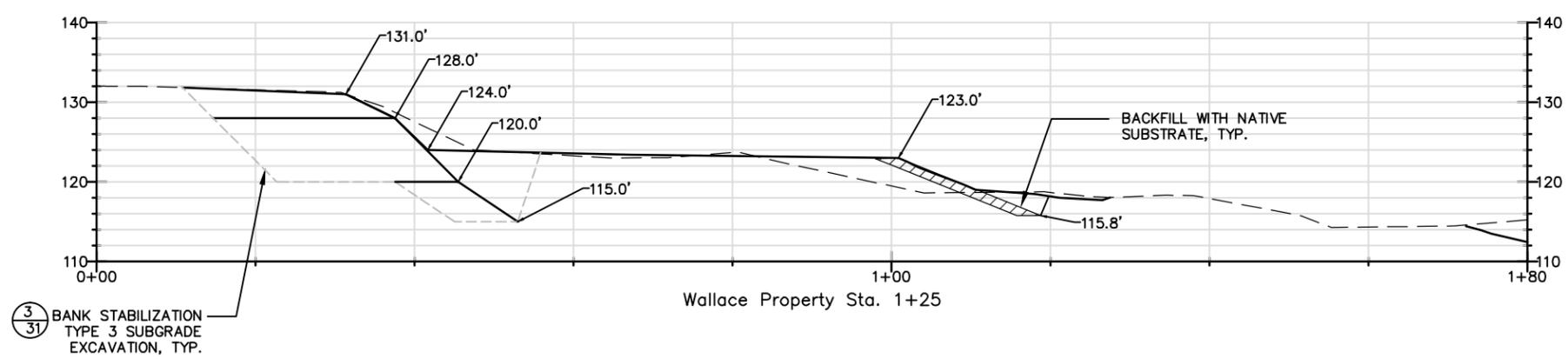
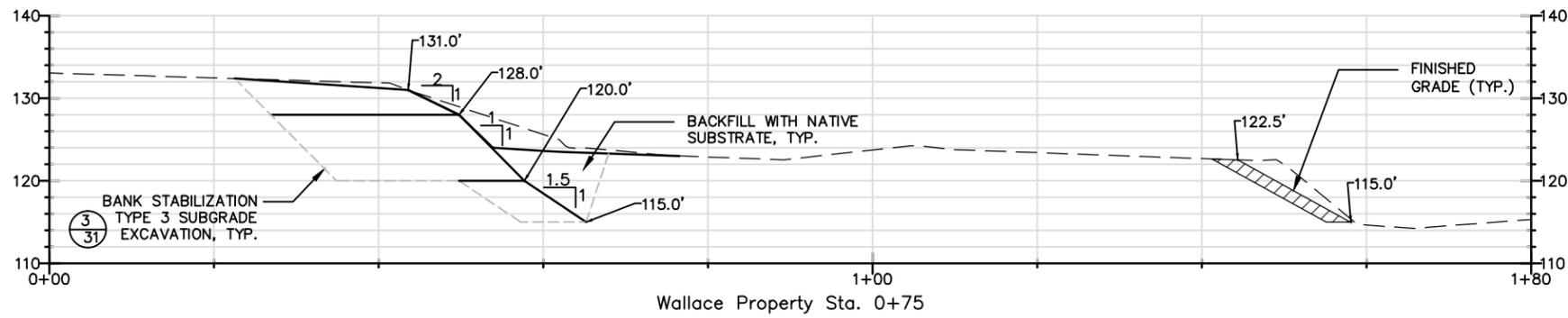
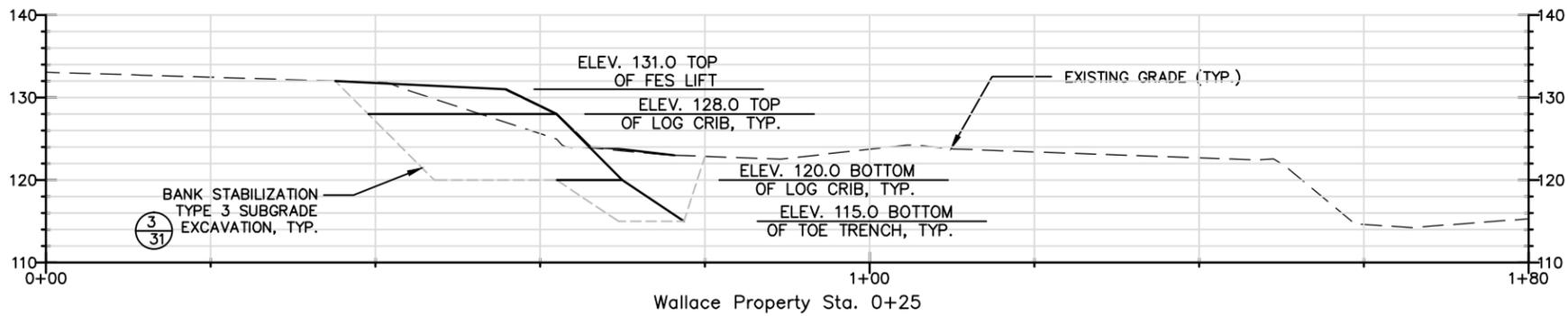
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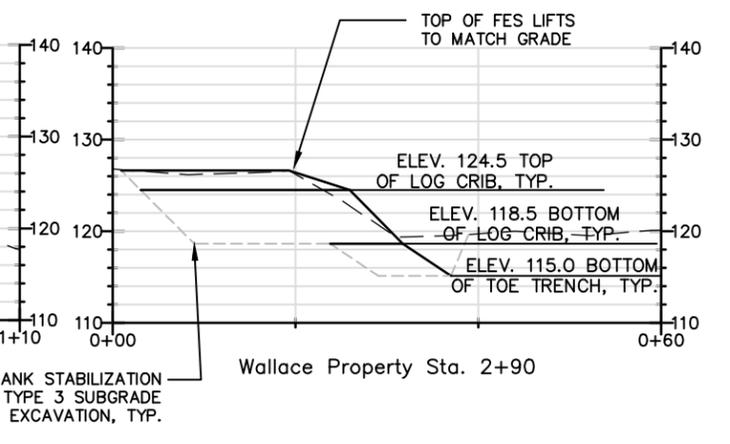
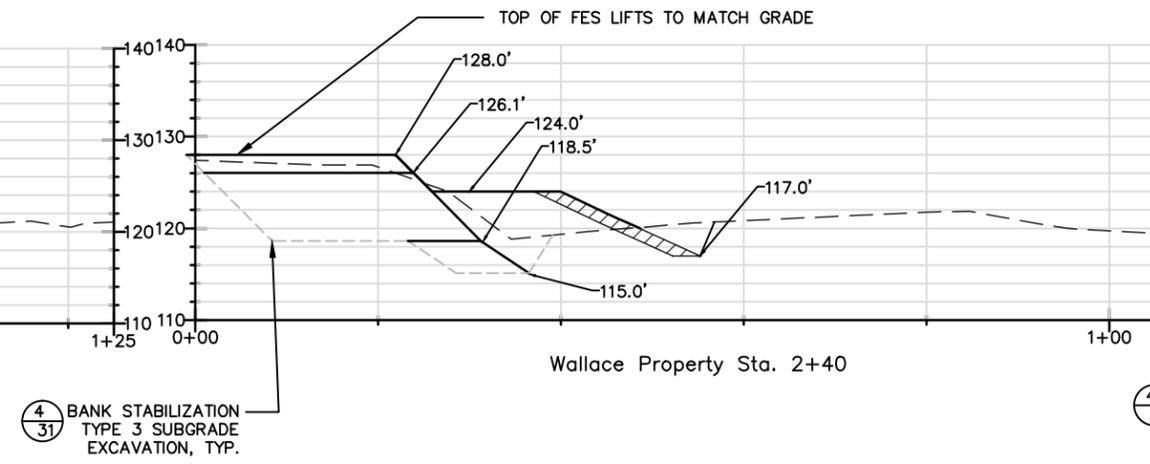
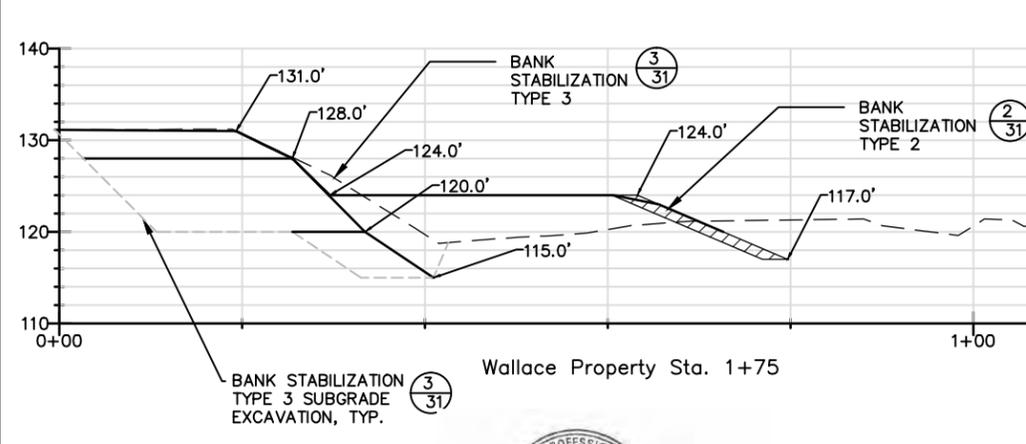


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DATE: 1/23/2013	<i>[Signature]</i>
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DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT WALLACE PROPERTY – LWD AND BANK TREATMENT PLAN		
FILE NAME: 7345	DRAWING NUMBER:	SHEET 15 OF 46
CONTRACT NUMBER: 45-6.1-7#3		



NOTE:
1. GRADING CROSS SECTIONS ARE ORIENTED LOOKING DOWNSTREAM FROM LEFT TO RIGHT. THE STATIONING ORIGIN FOR EACH SECTION IS AT THE EXTREME LEFT END OF THE SECTION CUT LINE.



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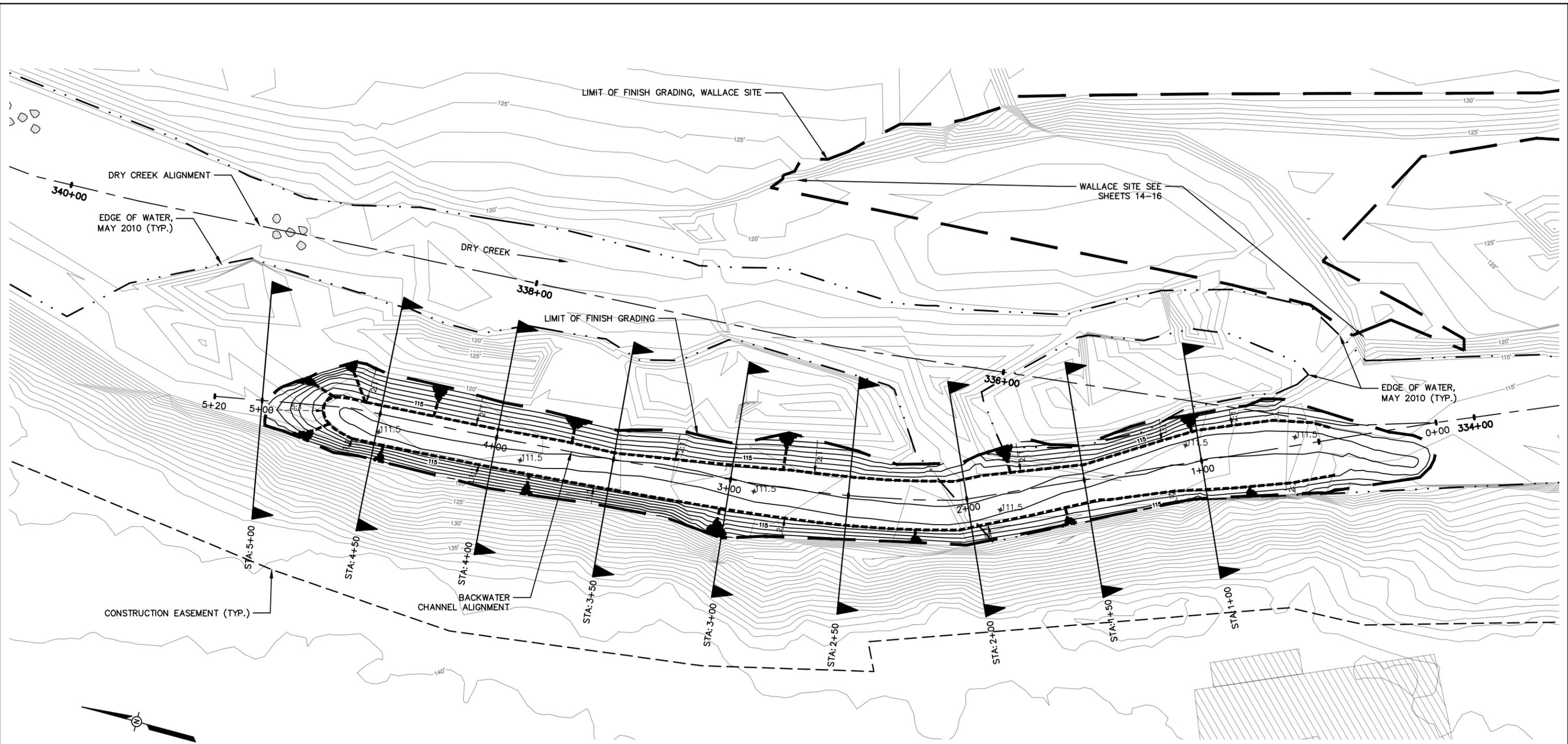


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RECORD INFORMATION				
NO.	DATE	REVISION	BY	

	SCALE:	REVIEWED:
	DATE: 1/23/2013	<i>[Signature]</i>
	DRAWN: REP	REVIEWED:
	CHECKED: MB	<i>[Signature]</i>

DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT WALLACE PROPERTY – GRADING CROSS SECTIONS		
FILE NAME: 7345	DRAWING NUMBER:	SHEET 16 OF 46
CONTRACT NUMBER: 45-6.1-7#3		



NOTES:

1. LOCATION OF ACCESS RAMPS TO WORK AREA TO BE CONFIRMED WITH OWNER AND LANDOWNER AT TIME OF CONSTRUCTION.
2. FINAL ALIGNMENT OF ACCESS ROUTES THROUGH VEGETATED CORRIDORS TO BE CONFIRMED AT TIME OF CONSTRUCTION.
3. ALL AREAS DISTURBED BY GRADING TO BE HYDROSEEDING FOLLOWING CONSTRUCTION.

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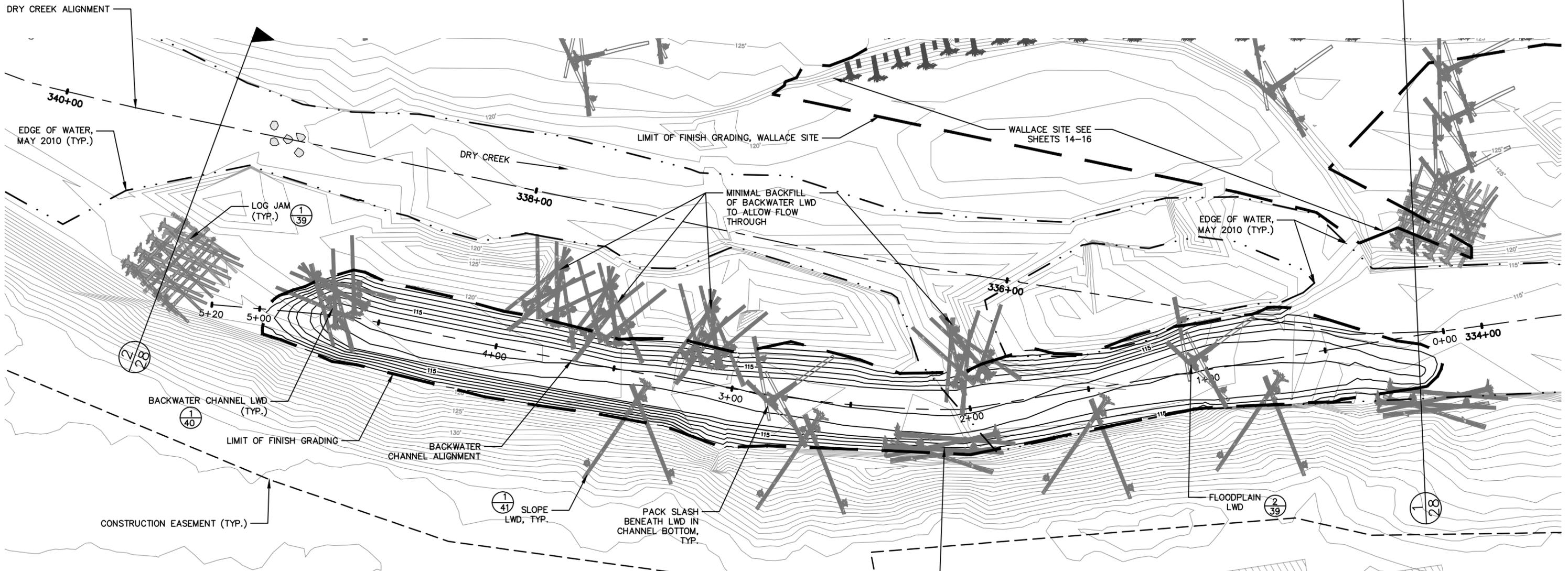
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RECORD INFORMATION				
NO.	DATE	REVISION	BY	



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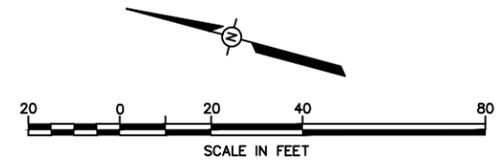
DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT OFF-CHANNEL ENHANCEMENT AREA B - GRADING PLAN	
FILE NAME: 7345	DRAWING NUMBER:
CONTRACT NUMBER: 45-6.1-7#3	SHEET 17 OF 46



NOTES:

1. MATERIAL QUANTITIES DEPICTED ARE SCHEMATIC ONLY. REFERENCE SUMMARY TABLE ON SHEET 41 FOR TARGET MATERIAL QUANTITIES AT EACH LOG JAM AND LWD STRUCTURE.

2. ALL AREAS DISTURBED BY GRADING TO BE HYDROSEEDING FOLLOWING CONSTRUCTION.



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BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY

RECORD INFORMATION				
NO.	DATE	REVISION	BY	

SONOMA COUNTY WATER AGENCY

SCALE: _____

DATE: 1/23/2013

DRAWN: REP

CHECKED: MB

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REVIEWED: *[Signature]*

DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT

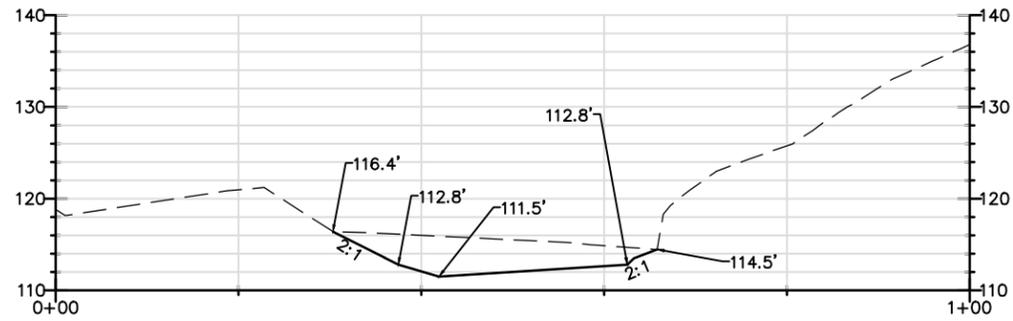
OFF-CHANNEL ENHANCEMENT AREA B - LWD AND BANK TREATMENT PLAN

FILE NAME: 7345

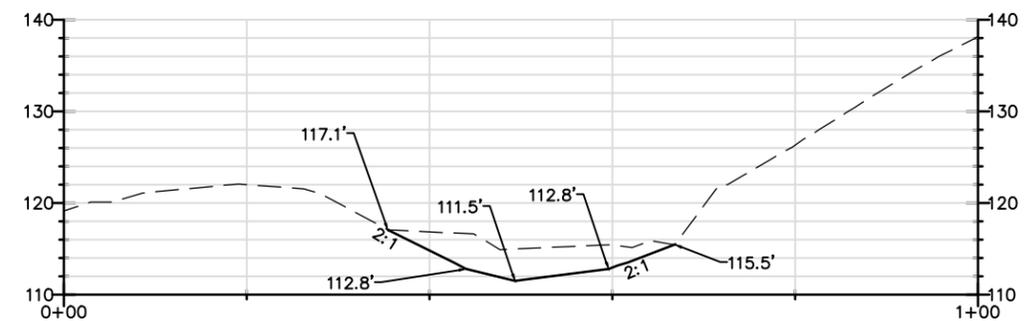
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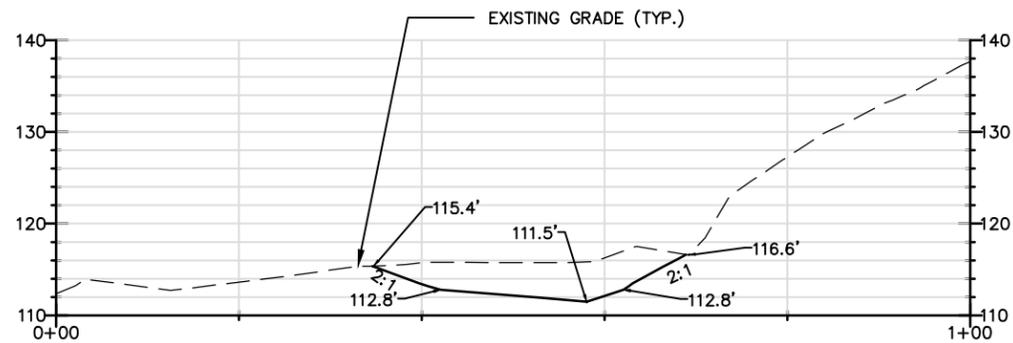
SHEET 18 OF 46



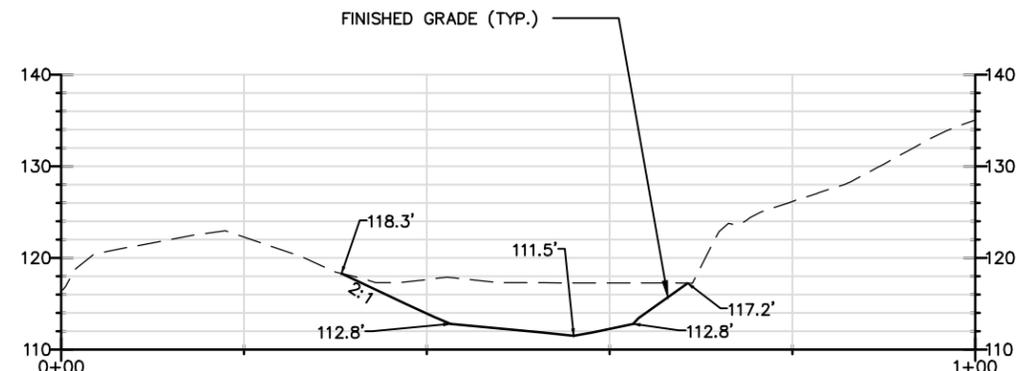
Off-Channel Enhancement Area B - 1+00



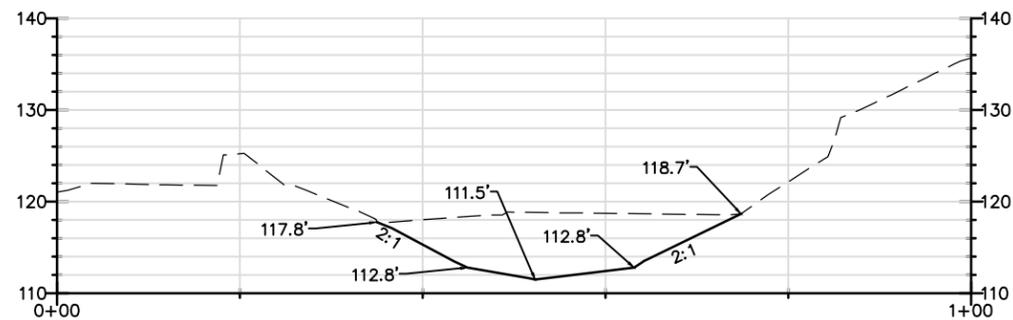
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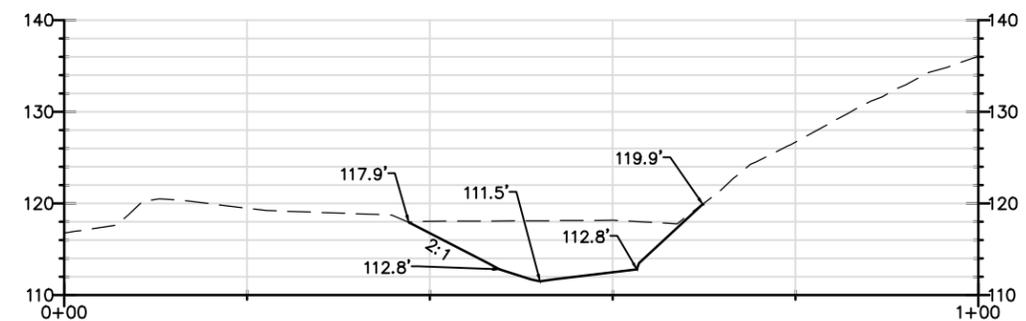
Off-Channel Enhancement Area B - 2+00



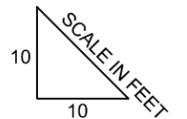
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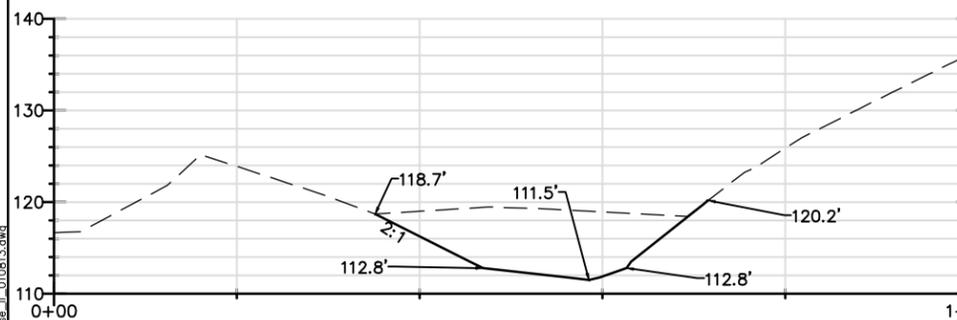
Off-Channel Enhancement Area B - 3+00



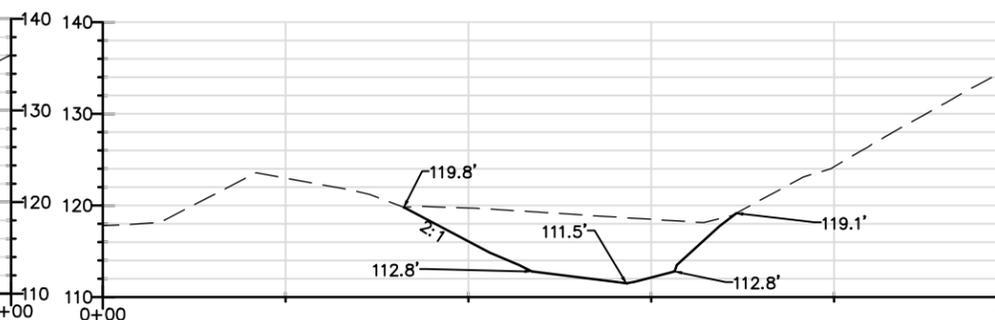
Off-Channel Enhancement Area B - 3+50



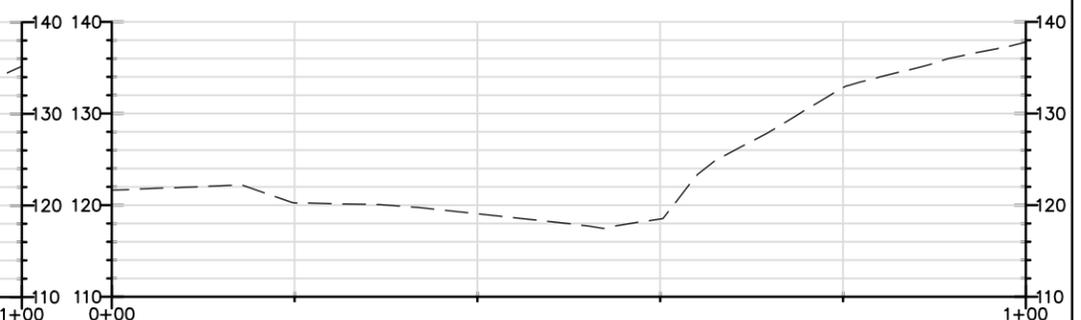
NOTE:
1. GRADING CROSS SECTIONS ARE ORIENTED LOOKING DOWNSTREAM FROM LEFT TO RIGHT. THE STATIONING ORIGIN FOR EACH SECTION IS AT THE EXTREME LEFT END OF THE SECTION CUT LINE.



Off-Channel Enhancement Area B - 4+00



Off-Channel Enhancement Area B - 4+50



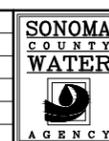
Off-Channel Enhancement Area B - 5+00

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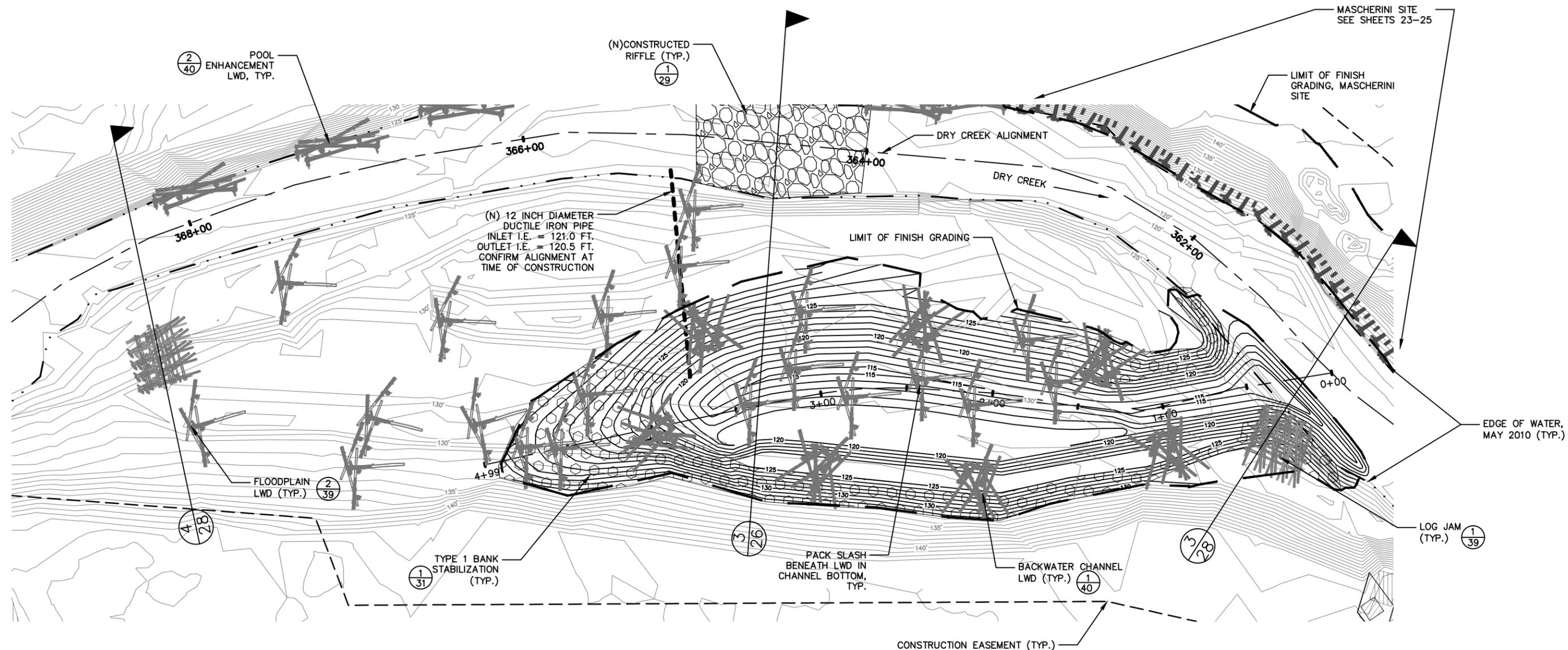
BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY.

RECORD INFORMATION				
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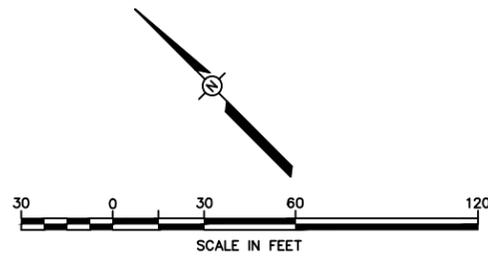
DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT OFF-CHANNEL ENHANCEMENT AREA B - GRADING CROSS SECTIONS		
FILE NAME: 7345	DRAWING NUMBER:	SHEET 19 OF 46
CONTRACT NUMBER: 45-6.1-7#3		



NOTES:

1. MATERIAL QUANTITIES DEPICTED ARE SCHEMATIC ONLY. REFERENCE SUMMARY TABLE ON SHEET 41 FOR TARGET MATERIAL QUANTITIES AT EACH LOG JAM AND LWD STRUCTURE.

2. ALL AREAS DISTURBED BY GRADING TO BE HYDROSEEDING FOLLOWING CONSTRUCTION.



BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY.

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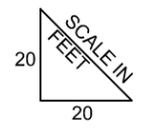
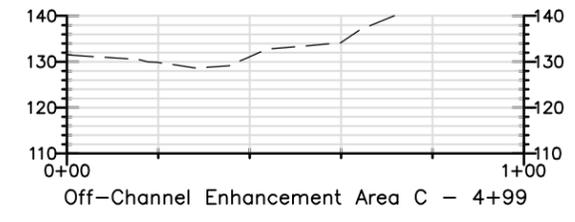
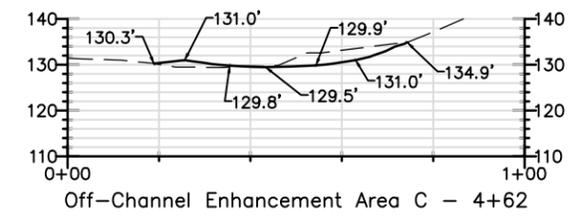
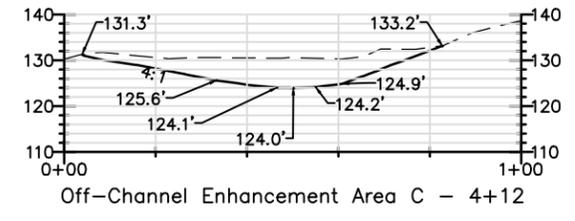
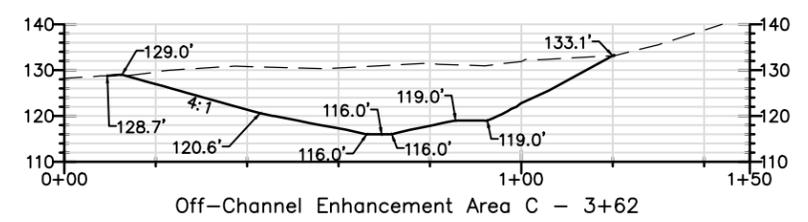
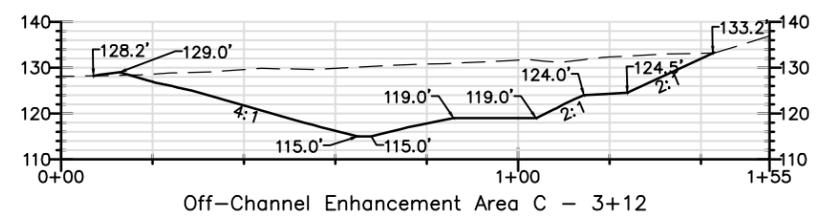
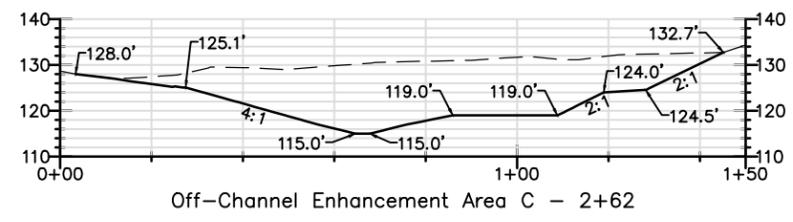
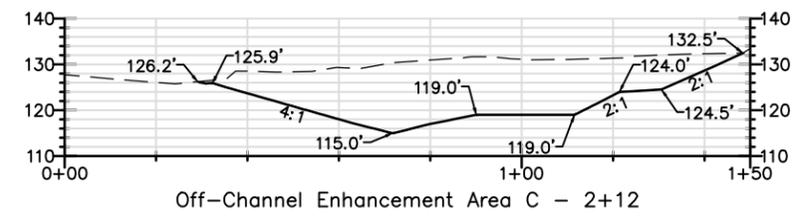
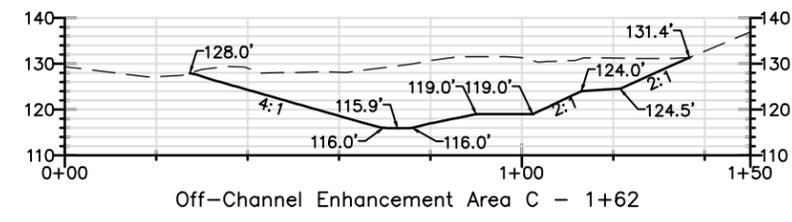
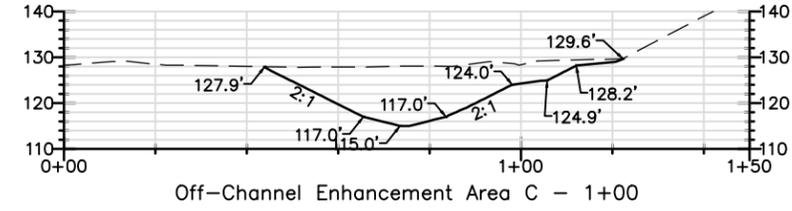
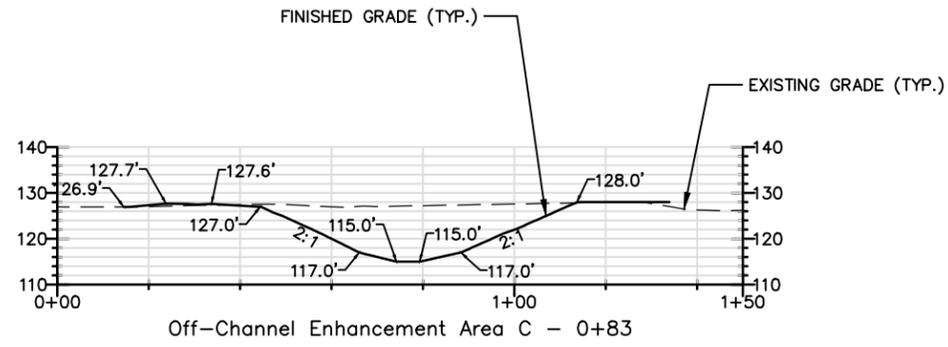


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DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT OFF-CHANNEL ENHANCEMENT AREA C - LWD AND BANK TREATMENT PLAN		
FILE NAME: 7345	DRAWING NUMBER:	SHEET 21 OF 46
CONTRACT NUMBER: 45-6.1-7#3		

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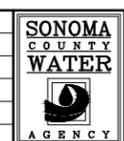
NOTE:
1. GRADING CROSS SECTIONS ARE ORIENTED LOOKING DOWNSTREAM FROM LEFT TO RIGHT. THE STATIONING ORIGIN FOR EACH SECTION IS AT THE EXTREME LEFT END OF THE SECTION CUT LINE.

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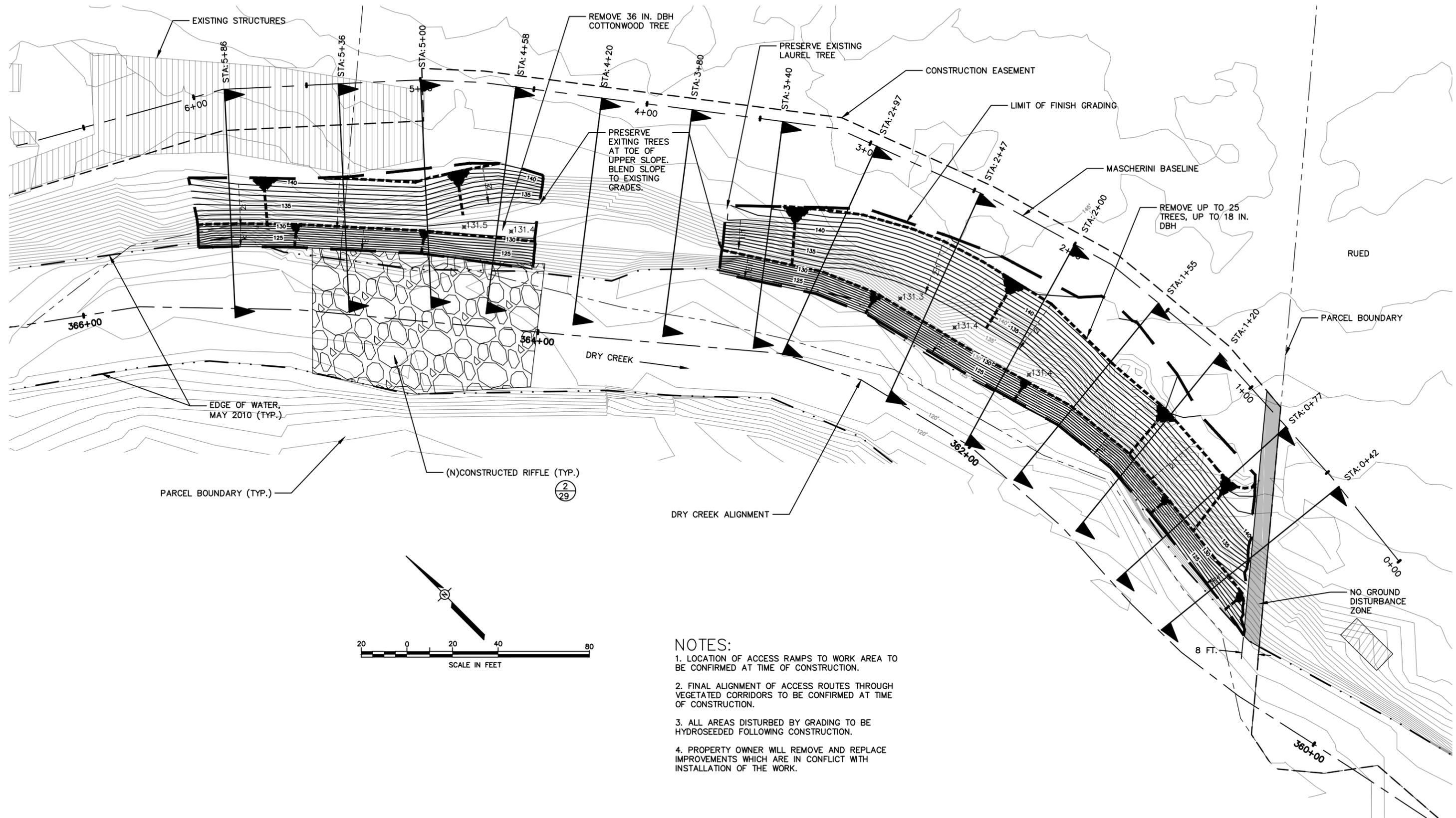
BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY

RECORD INFORMATION			
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SCALE:	REVIEWED:
DATE: 1/23/2013	<i>[Signature]</i>
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DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT OFF-CHANNEL ENHANCEMENT AREA C - GRADING CROSS SECTIONS		
FILE NAME: 7345	DRAWING NUMBER:	SHEET 22 OF 46
CONTRACT NUMBER: 45-6.1-7#3		



- NOTES:**
1. LOCATION OF ACCESS RAMPS TO WORK AREA TO BE CONFIRMED AT TIME OF CONSTRUCTION.
 2. FINAL ALIGNMENT OF ACCESS ROUTES THROUGH VEGETATED CORRIDORS TO BE CONFIRMED AT TIME OF CONSTRUCTION.
 3. ALL AREAS DISTURBED BY GRADING TO BE HYDROSEEDED FOLLOWING CONSTRUCTION.
 4. PROPERTY OWNER WILL REMOVE AND REPLACE IMPROVEMENTS WHICH ARE IN CONFLICT WITH INSTALLATION OF THE WORK.

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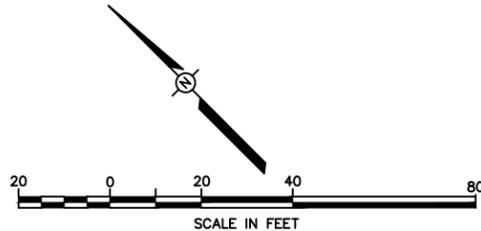
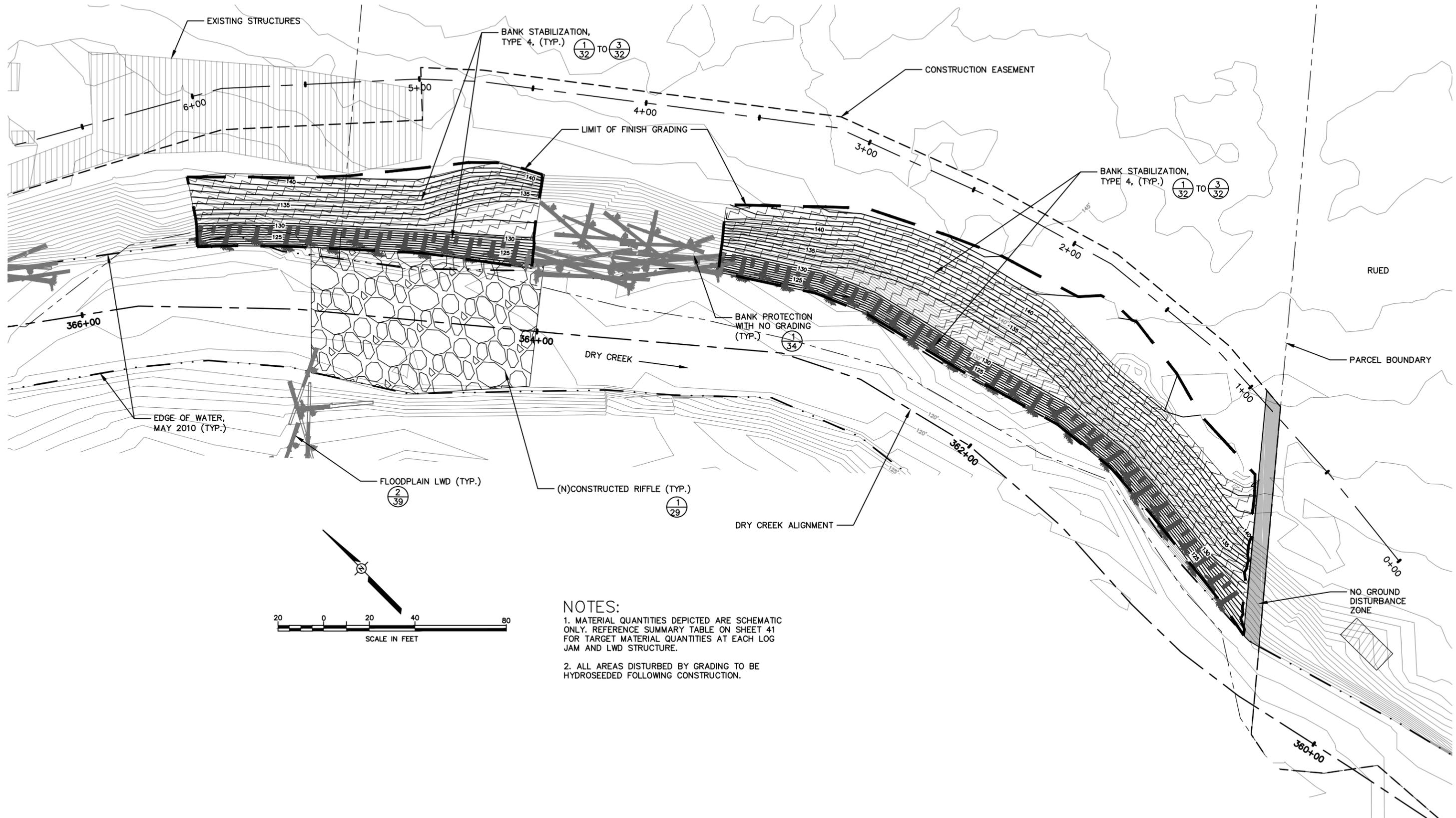


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RECORD INFORMATION				
NO.	DATE	REVISION	BY	

SONOMA COUNTY WATER AGENCY	SCALE:	REVIEWED:
	DATE: 1/23/2013	<i>[Signature]</i>
	DRAWN: REP	REVIEWED:
	CHECKED: MB	<i>[Signature]</i>

DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT MASCHERINI PROPERTY – GRADING PLAN		
FILE NAME: 7345	DRAWING NUMBER:	SHEET 23 OF 46
CONTRACT NUMBER: 45-6.1-7#3		



NOTES:
 1. MATERIAL QUANTITIES DEPICTED ARE SCHEMATIC ONLY. REFERENCE SUMMARY TABLE ON SHEET 41 FOR TARGET MATERIAL QUANTITIES AT EACH LOG JAM AND LWD STRUCTURE.
 2. ALL AREAS DISTURBED BY GRADING TO BE HYDROSEEDDED FOLLOWING CONSTRUCTION.

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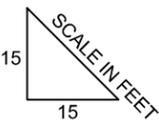
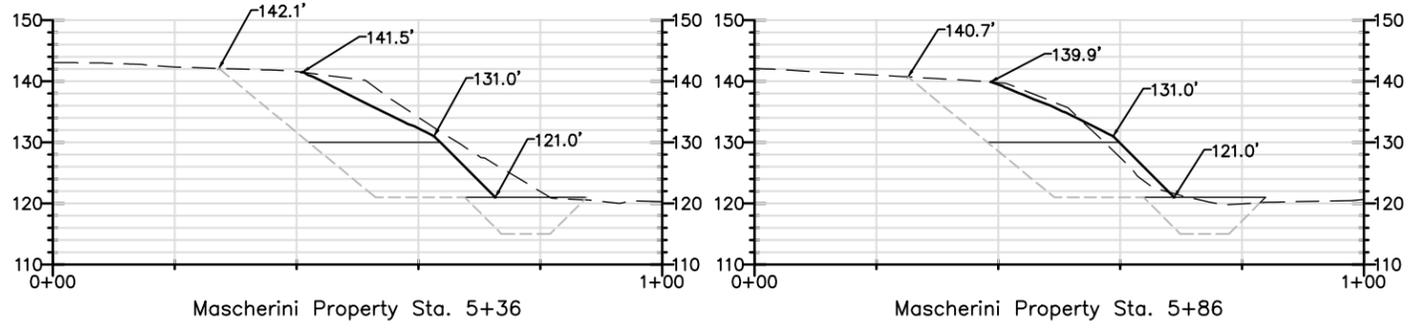
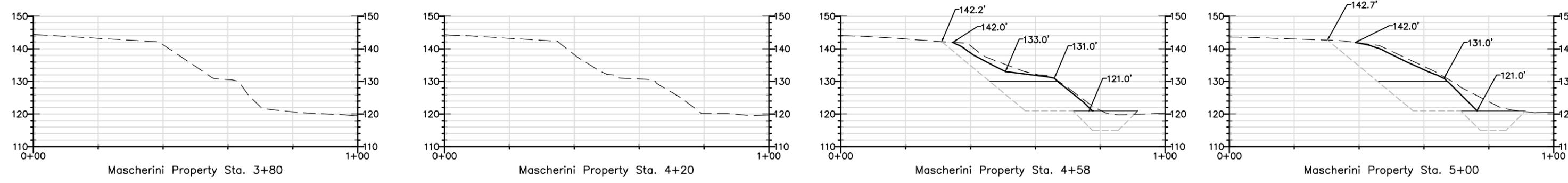
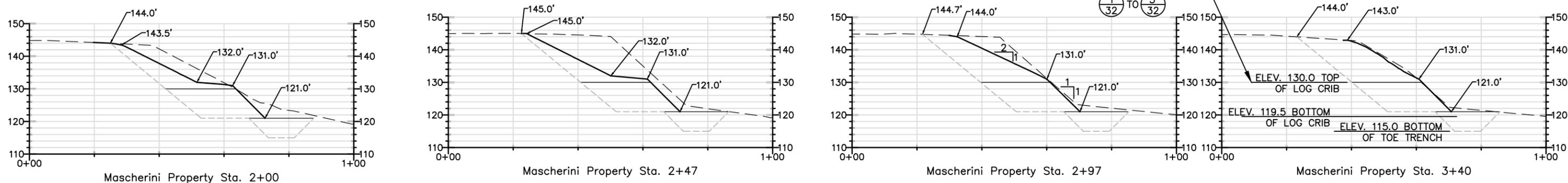
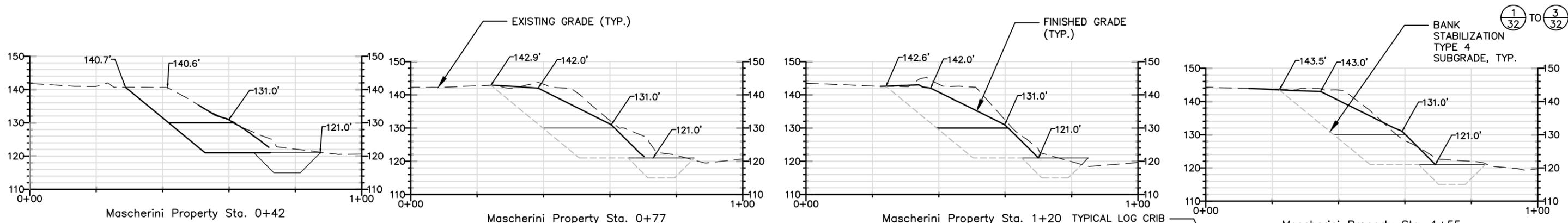


BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY

RECORD INFORMATION				
NO.	DATE	REVISION	BY	AGENCY

SONOMA COUNTY WATER AGENCY	SCALE:	REVIEWED:
	DATE: 1/23/2013	<i>[Signature]</i>
	DRAWN: REP	REVIEWED:
	CHECKED: MB	<i>[Signature]</i>

DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT MASCHERINI PROPERTY – LWD AND BANK TREATMENT PLAN		
FILE NAME: 7345	DRAWING NUMBER:	SHEET 24 OF 46
CONTRACT NUMBER: 45-6.1-7#3		



NOTE:
 1. GRADING CROSS SECTIONS ARE ORIENTED LOOKING DOWNSTREAM FROM LEFT TO RIGHT. THE STATIONING ORIGIN FOR EACH SECTION IS AT THE EXTREME LEFT END OF THE SECTION CUT LINE.

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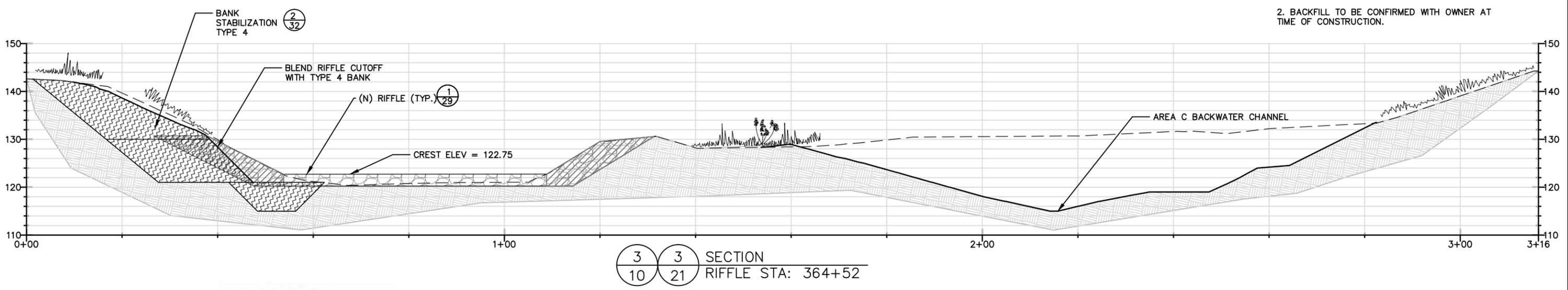
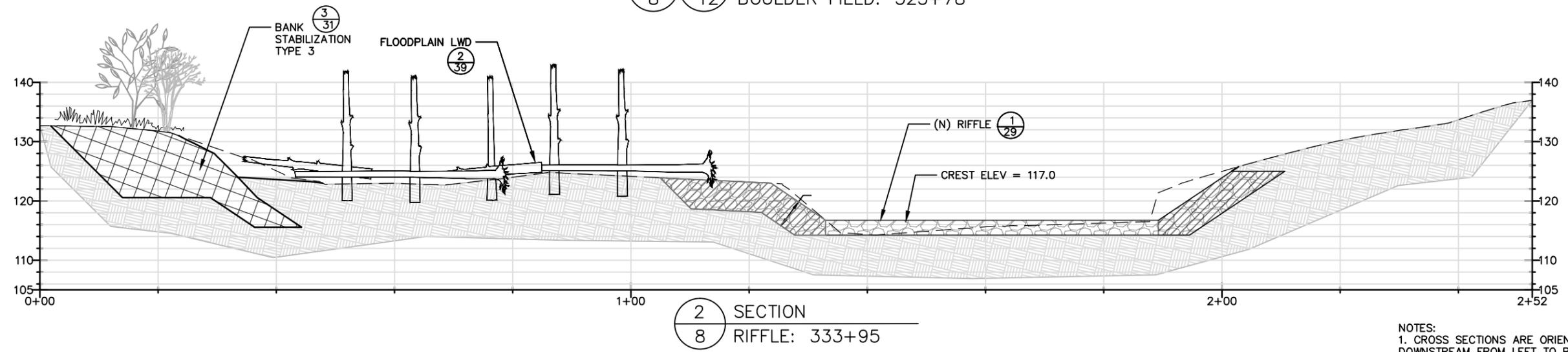
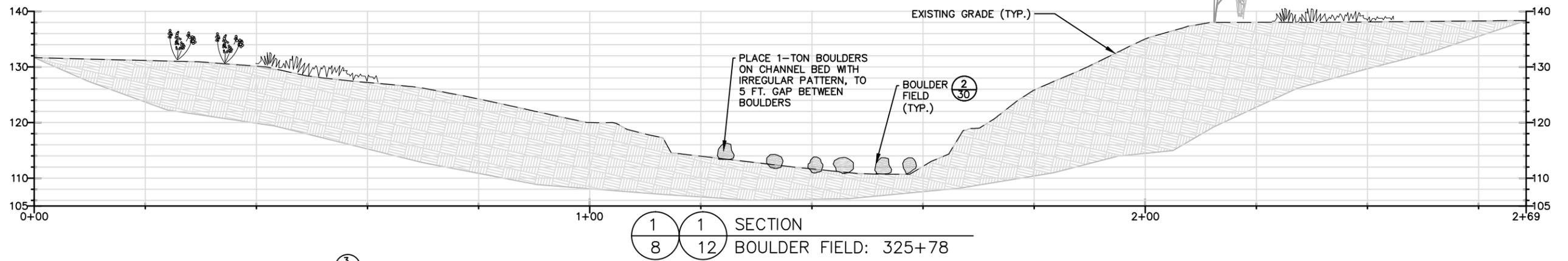
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RECORD INFORMATION				
NO.	DATE	REVISION	BY	



SCALE:	REVIEWED:
DATE: 1/23/2013	<i>[Signature]</i>
DRAWN: REP	REVIEWED:
CHECKED: MB	<i>[Signature]</i>

DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT MASCHERINI PROPERTY – GRADING CROSS SECTIONS		
FILE NAME: 7345	DRAWING NUMBER:	SHEET 25 OF 46
CONTRACT NUMBER: 45-6.1-7#3		



NOTES:
 1. CROSS SECTIONS ARE ORIENTED LOOKING DOWNSTREAM FROM LEFT TO RIGHT. THE STATIONING ORIGIN FOR EACH SECTION IS AT THE EXTREME LEFT END OF THE SECTION CUT LINE.
 2. BACKFILL TO BE CONFIRMED WITH OWNER AT TIME OF CONSTRUCTION.

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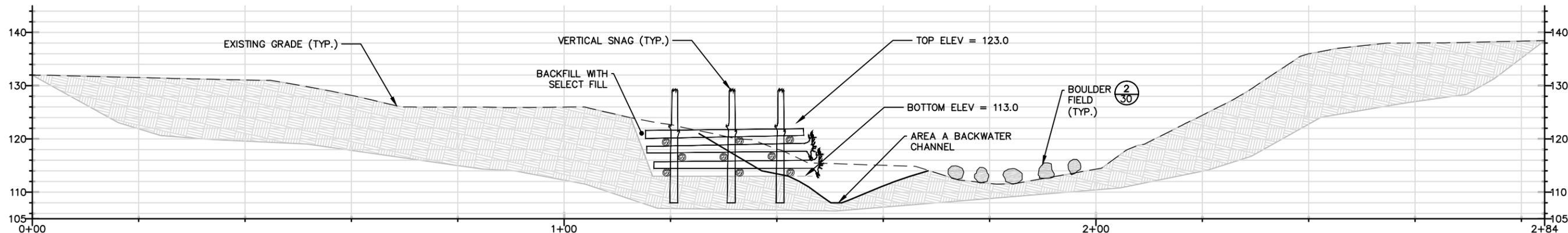


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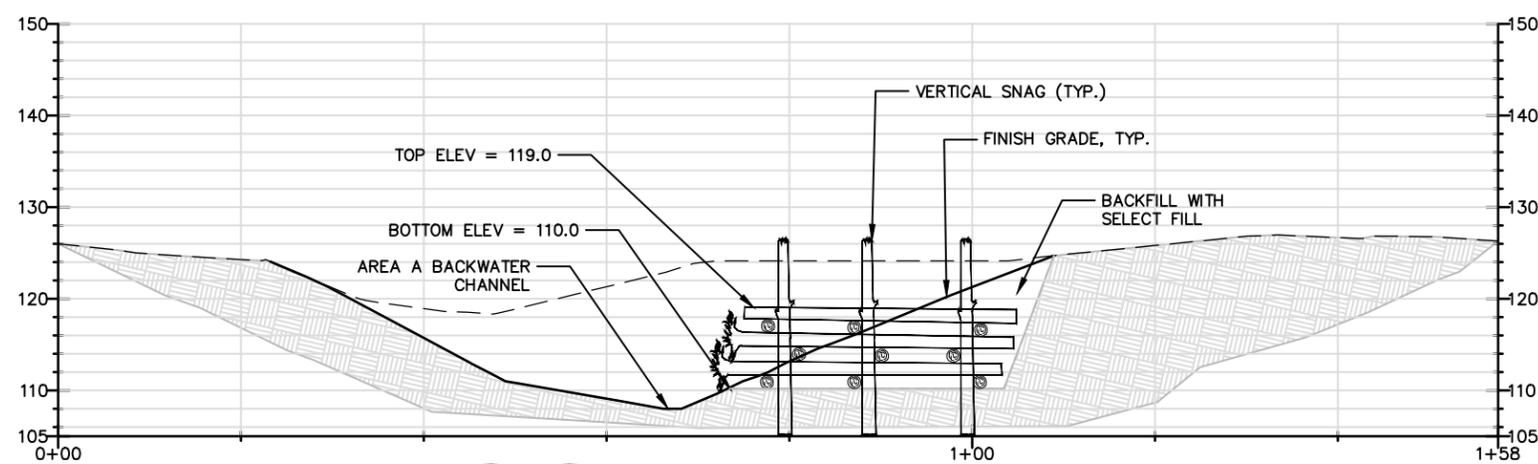
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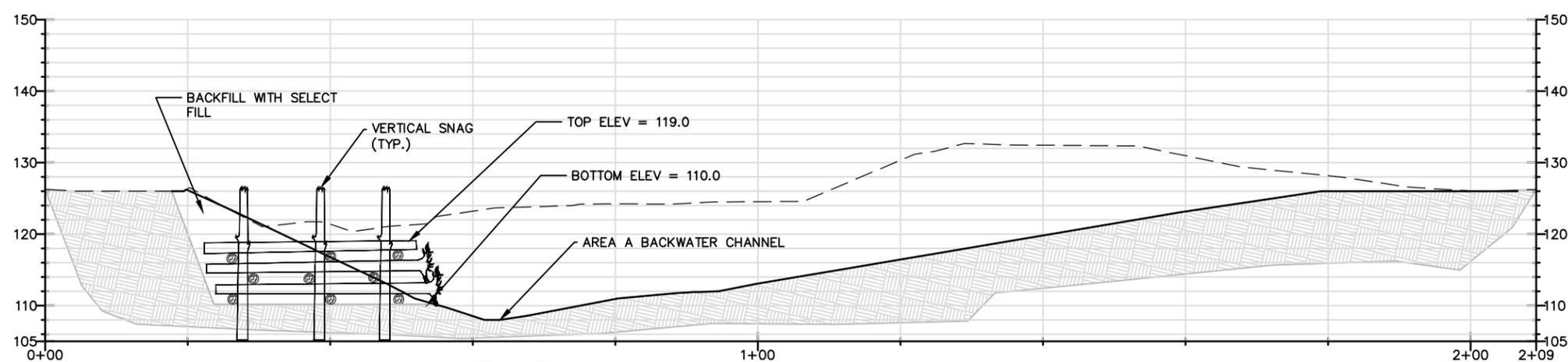
DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT SECTIONS - BOULDER FIELD AND RIFFLES		
FILE NAME: 7345	DRAWING NUMBER:	SHEET 26 OF 46
CONTRACT NUMBER: 45-6.1-7#3		



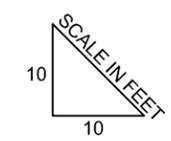
SECTION 1
LOG JAM STA: 326+42



SECTION 2
LOG JAM IN OFF-CHANNEL A, STA: 1+36



SECTION 3
LOG JAM IN OFF-CHANNEL A, STA: 1+86



- NOTES:
- CROSS SECTIONS ARE ORIENTED LOOKING DOWNSTREAM FROM LEFT TO RIGHT. THE STATIONING ORIGIN FOR EACH SECTION IS AT THE EXTREME LEFT END OF THE SECTION CUT LINE.
 - BACKFILL TO BE CONFIRMED WITH OWNER AT TIME OF CONSTRUCTION.
 - SEE SHEET 39 FOR GENERAL LWD INSTALLATION NOTES.

D:\work\Dry Creek\Phase 2\DRY_CR_Phase 2\010813.dwg

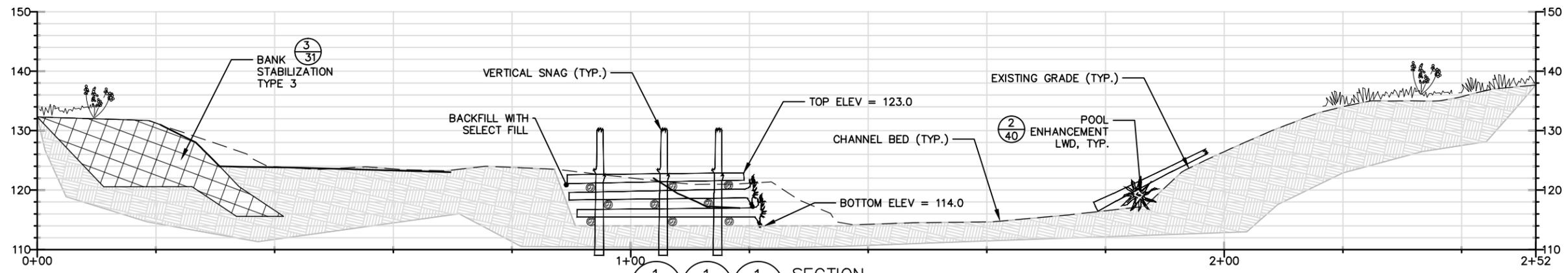


BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY

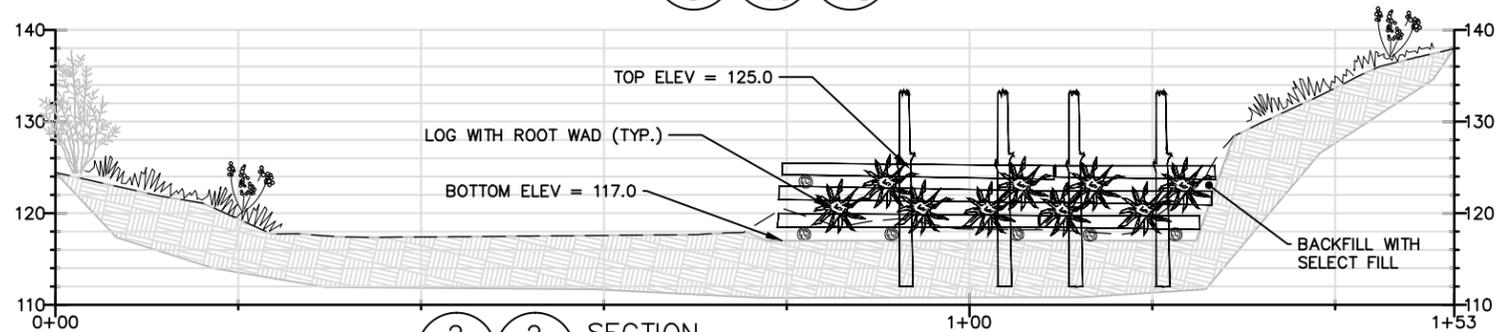
RECORD INFORMATION				
NO.	DATE	REVISION	BY	

	SCALE:	REVIEWED
	DATE: 1/23/2013	<i>[Signature]</i>
	DRAWN: REP	REVIEWED
	CHECKED: MB	<i>[Signature]</i>

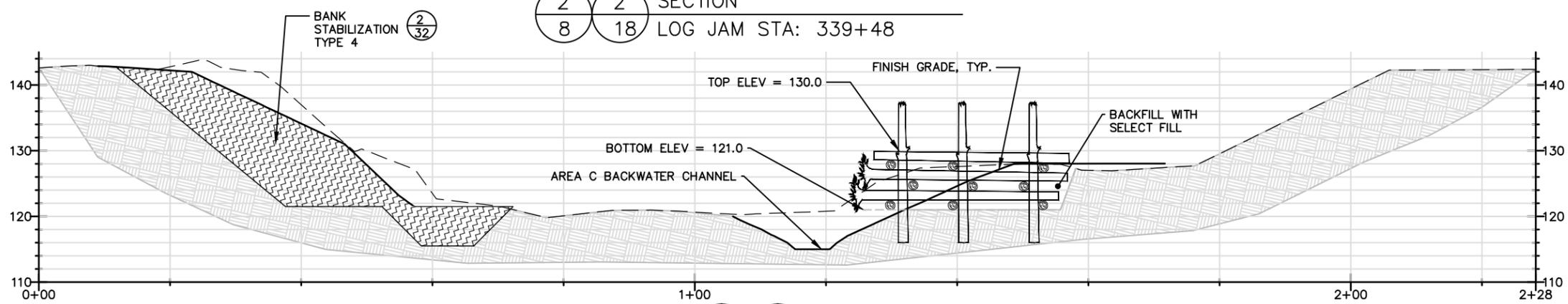
DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT SECTIONS - LOG JAMS (1 OF 2)		
FILE NAME: 7345	DRAWING NUMBER:	SHEET 27 OF 46
CONTRACT NUMBER: 45-6.1-7#3		



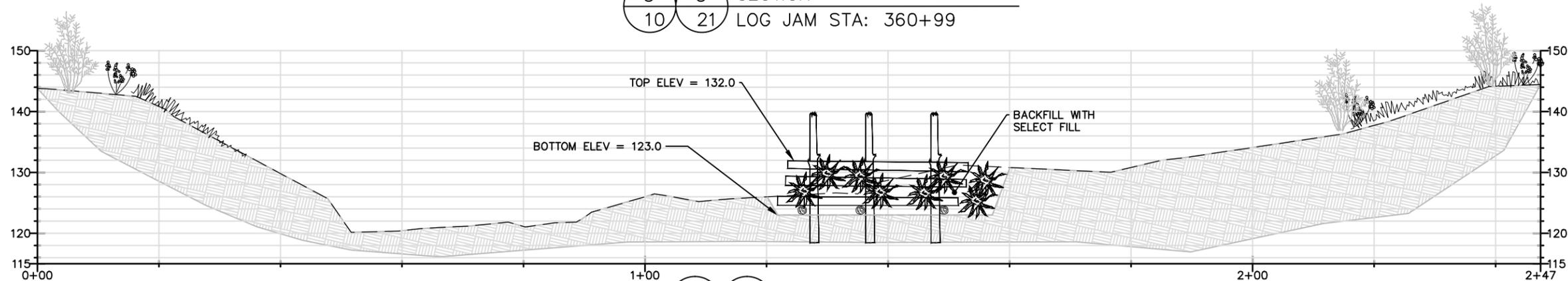
SECTION 1
8 15 18 LOG JAM STA: 334+39



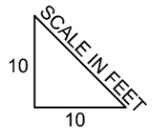
SECTION 2
8 18 LOG JAM STA: 339+48



SECTION 3
10 21 LOG JAM STA: 360+99



SECTION 4
10 21 LOG JAM STA: 368+34



- NOTES:
- CROSS SECTIONS ARE ORIENTED LOOKING DOWNSTREAM FROM LEFT TO RIGHT. THE STATIONING ORIGIN FOR EACH SECTION IS AT THE EXTREME LEFT END OF THE SECTION CUT LINE.
 - BACKFILL TO BE CONFIRMED WITH OWNER AT TIME OF CONSTRUCTION.
 - SEE SHEET 39 FOR GENERAL LWD INSTALLATION NOTES.



BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY

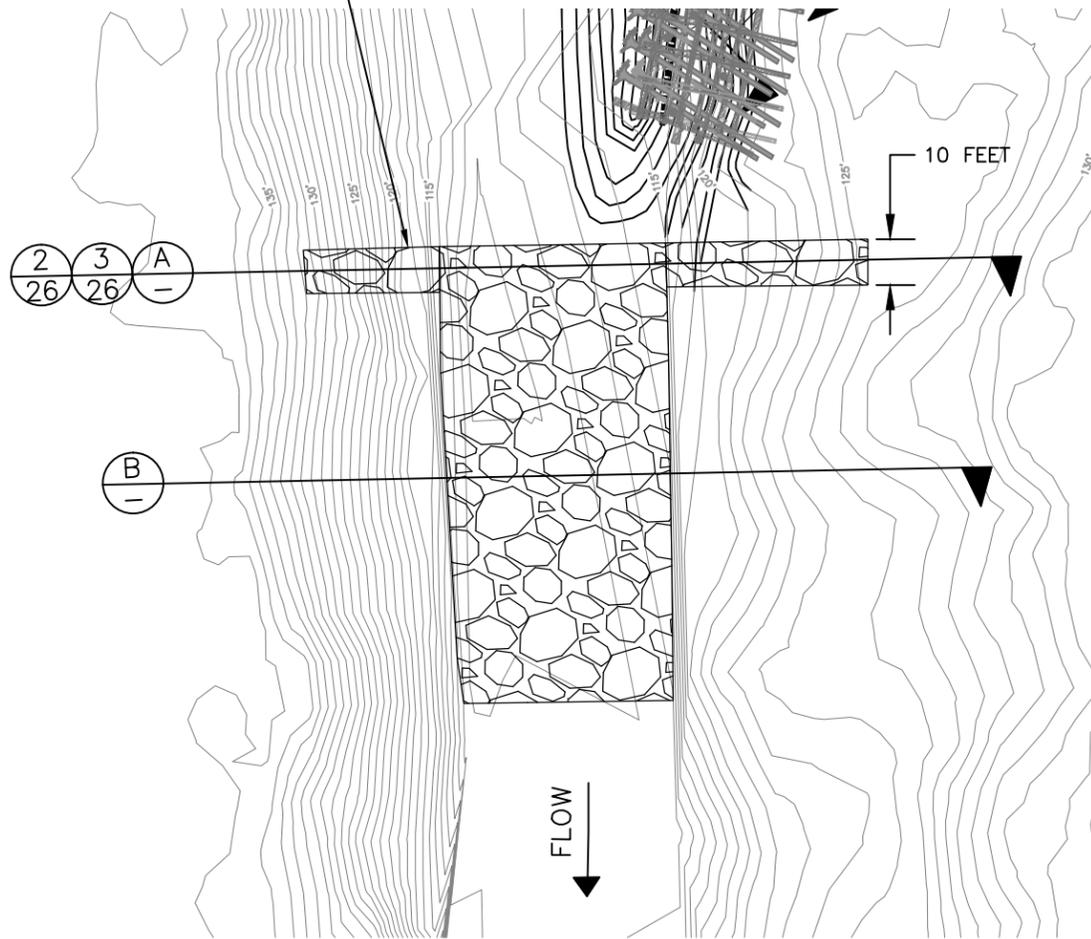
RECORD INFORMATION				
NO.	DATE	REVISION	BY	

	SCALE:	REVIEWED:
	DATE: 1/23/2013	<i>[Signature]</i>
	DRAWN: REP	REVIEWED:
	CHECKED: MB	<i>[Signature]</i>

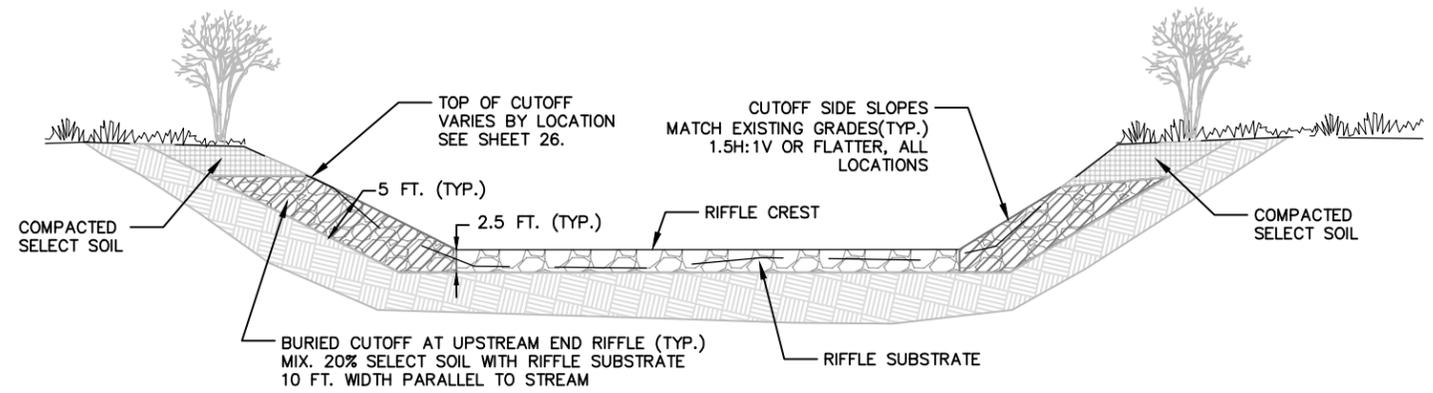
DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT SECTIONS - LOG JAMS (2 OF 2)		
FILE NAME: 7345	DRAWING NUMBER:	SHEET 28 OF 46
CONTRACT NUMBER: 45-6.1-7#3		

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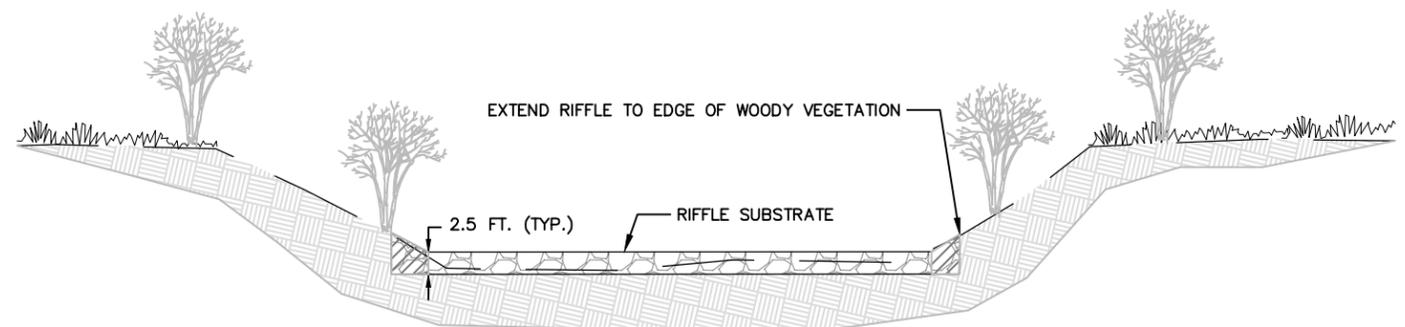
BURIED CUTOFF AT UPSTREAM
END RIFFLE MIX 20% SELECT SOIL
SOIL WITH RIFFLE SUBSTRATE
LENGTH INTO BANK VARIES WITH
LOCATION SEE SHEET 26.



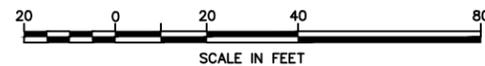
1 1 1 1 1
8 10 23 24 26 TYPICAL PLAN
RIFFLE CONSTRUCTION
SCALE: 1 IN. = 20 FT.



A TYPICAL SECTION
RIFFLE CREST
SCALE: 1 IN. = 10 FT.



B TYPICAL SECTION
RIFFLE (NON-CREST)
SCALE: 1 IN. = 10 FT.



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Hood River, OR 97031
541.336.9001
www.interfluvio.com



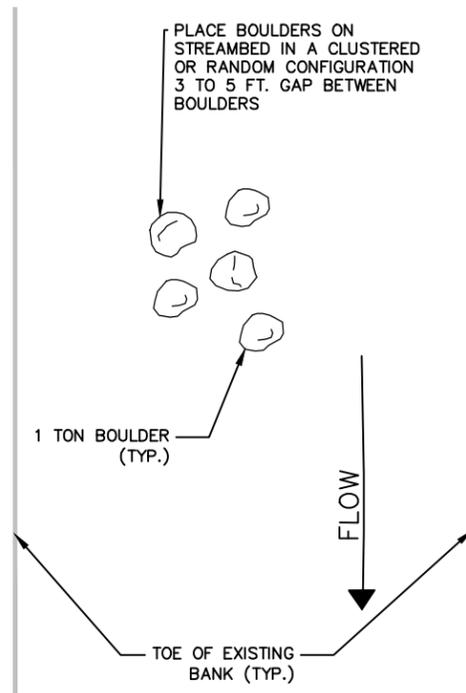
BAR LENGTH ON ORIGINAL
DRAWING EQUALS ONE INCH.
ADJUST SCALE ACCORDINGLY

RECORD INFORMATION				
NO.	DATE	REVISION	BY	AGENCY

SCALE:	REVIEWED:
DATE: 1/23/2013	<i>[Signature]</i>
DRAWN: REP	REVIEWED:
CHECKED: MB	<i>[Signature]</i>

DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT TYPICAL DETAILS - RIFFLES		
FILE NAME: 7345	DRAWING NUMBER:	SHEET 29 OF 46
CONTRACT NUMBER: 45-6.1-7#3		

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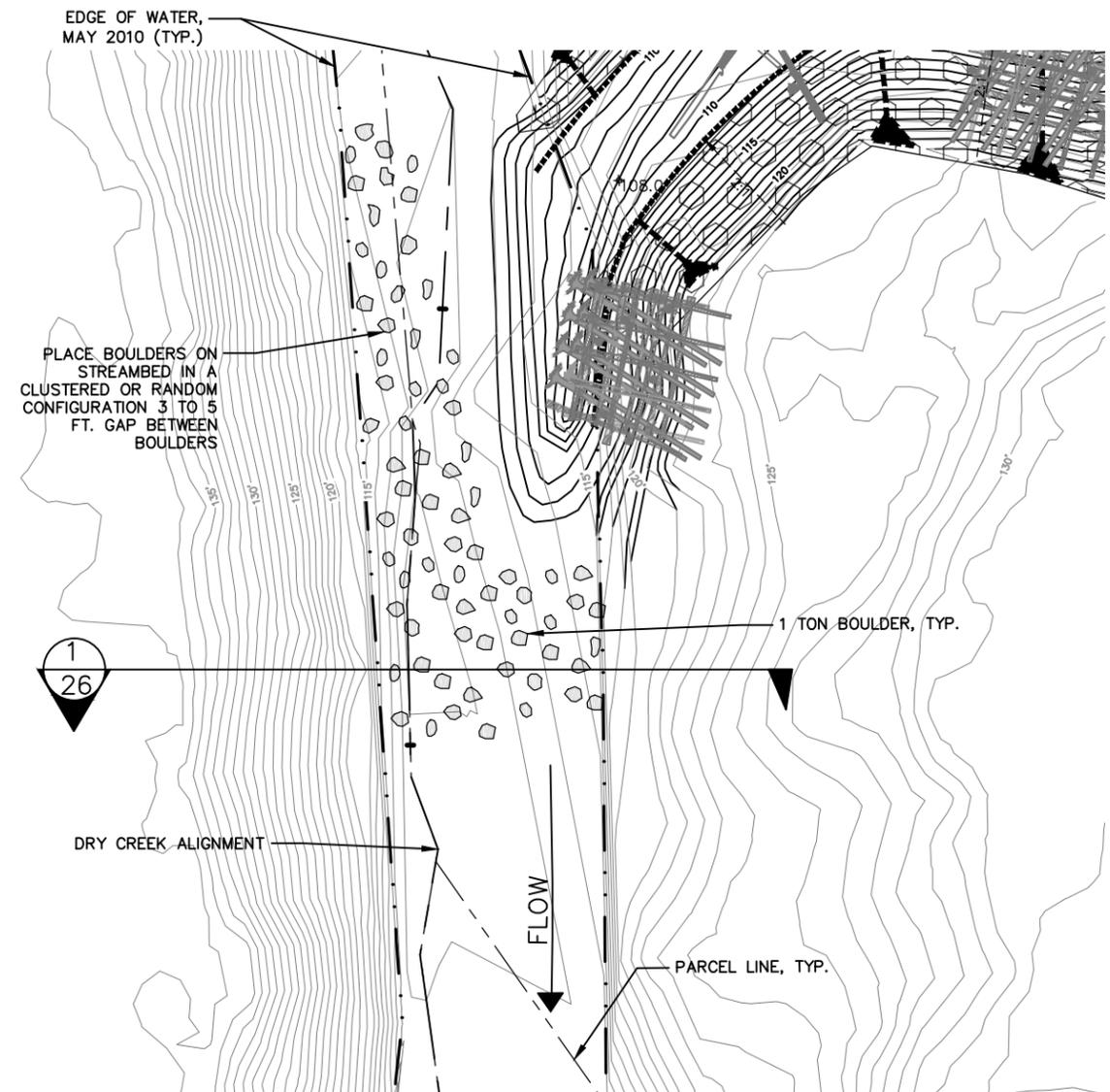


1 1
8 9 TYPICAL PLAN
BOULDER CLUSTER
SCALE: 1 IN. = 10 FT.

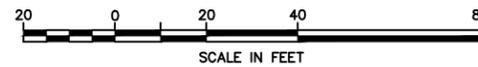


NOTE:

1. FINAL LOCATION, ALIGNMENT AND CONFIGURATION OF BOULDER CLUSTERS TO BE CONFIRMED AT TIME OF CONSTRUCTION, APPROVAL BY OWNER.



2 2 2 2
8 11 12 26 DETAIL PLAN
BOULDER FIELD
SCALE: 1 IN. = 20 FT.



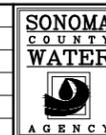
NOTE:

1. FINAL LOCATION, ALIGNMENT AND CONFIGURATION OF BOULDER FIELD TO BE CONFIRMED AT TIME OF CONSTRUCTION, APPROVAL BY OWNER.



BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY

RECORD INFORMATION				
NO.	DATE	REVISION	BY	



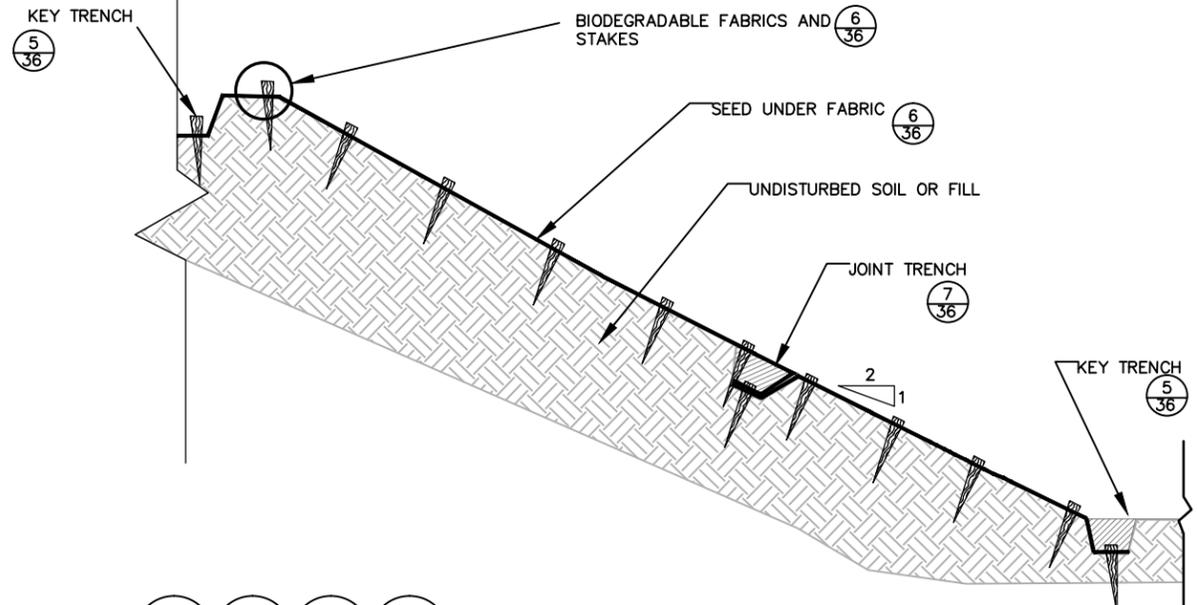
SCALE:
DATE: 1/23/2013
DRAWN: REP
CHECKED: MB

REVIEWED: *[Signature]*
REVIEWED: *[Signature]*

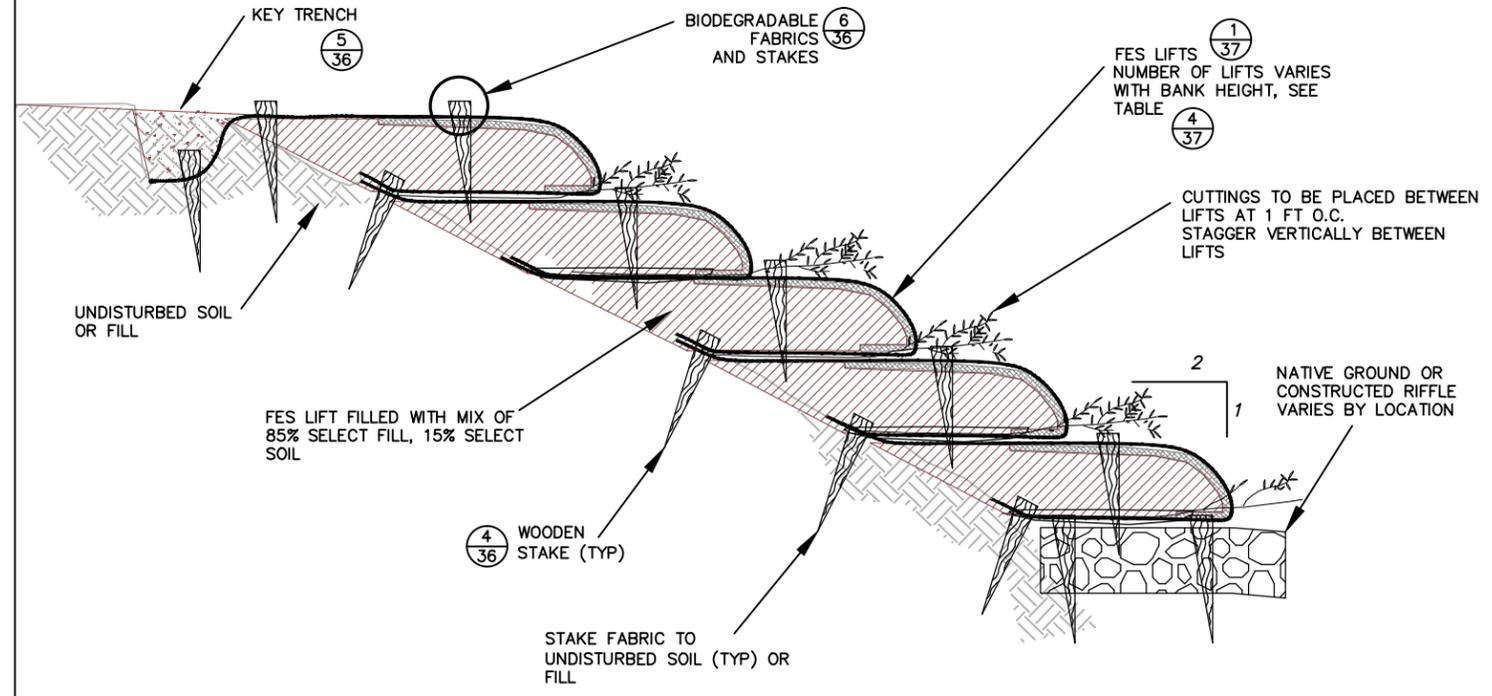
DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT
TYPICAL DETAILS – BOULDER CLUSTER AND BOULDER FIELD

FILE NAME: 7345
CONTRACT NUMBER: 45-6.1-7#3
DRAWING NUMBER:
SHEET 30 OF 46

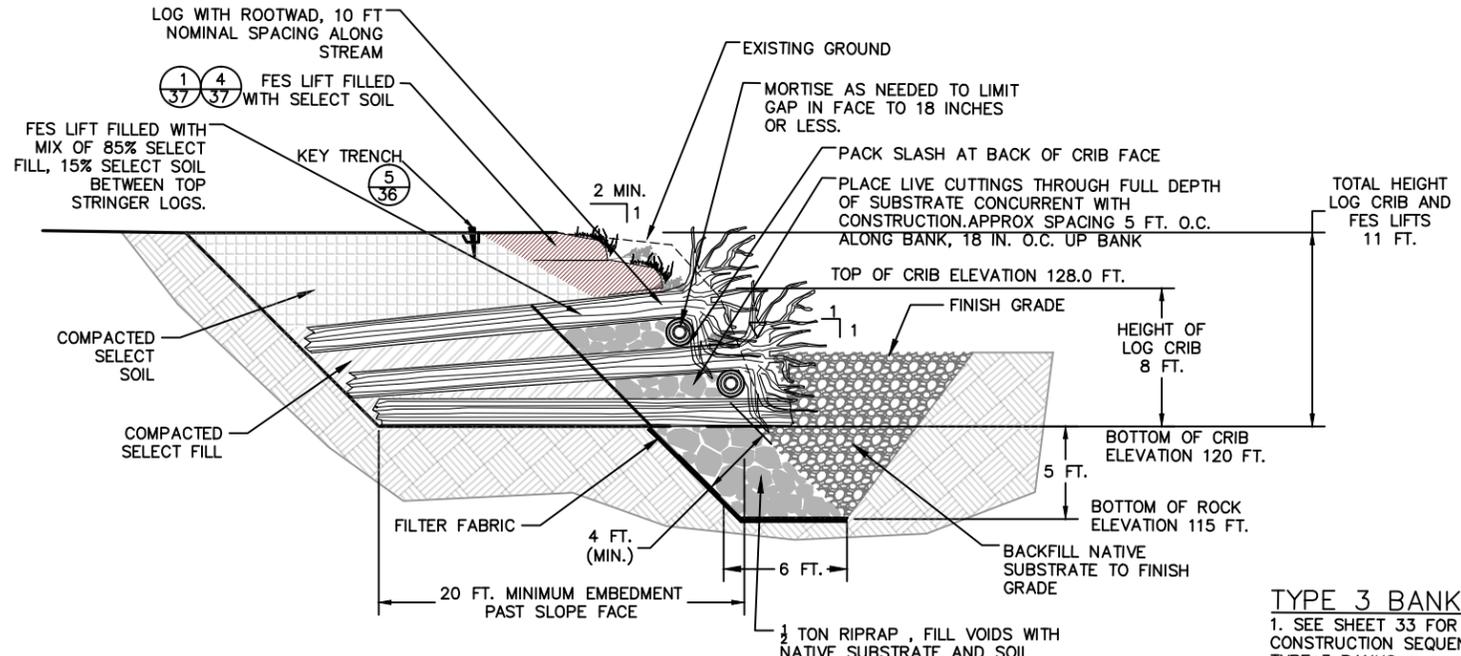
D:\work\Dry Creek\Phase 2\DRY_CR_Phase 2\010813.dwg



1 1 1 1
8 10 12 21
TYPICAL SECTION
BANK CONSTRUCTION, TYPE 1
NTS

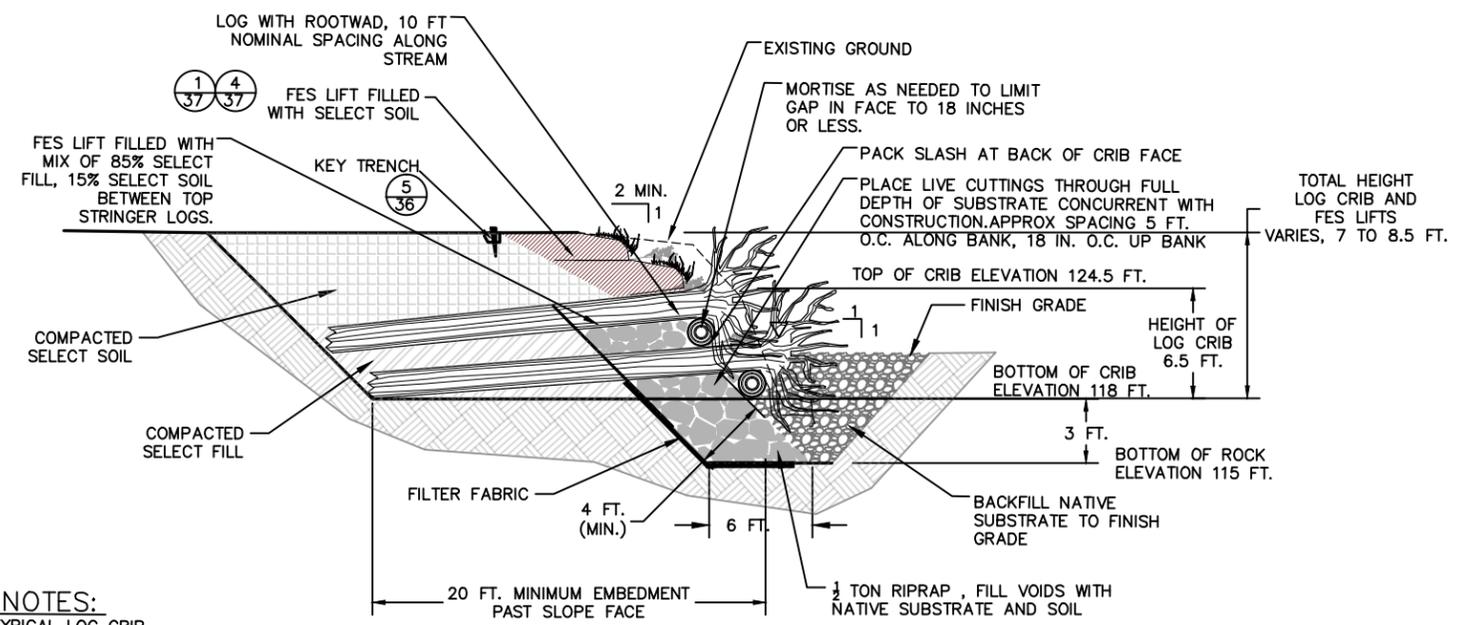


2 2 2
8 15 16
TYPICAL SECTION
BANK CONSTRUCTION, TYPE 2
NTS



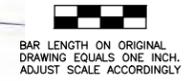
3 3 3 3 3
8 15 16 26 28
TYPICAL SECTION
BANK CONSTRUCTION, TYPE 3
WALLACE PROPERTY STA. 0+00 TO 2+30
SCALE: 1 IN. = 5 FT.

TYPE 3 BANK NOTES:
 1. SEE SHEET 33 FOR TYPICAL LOG CRIB CONSTRUCTION SEQUENCE APPLICABLE TO TYPE 3 BANKS.
 2. SEE SHEET 39 FOR GENERAL LWD INSTALLATION NOTES.
 3. 25% OF LOGS WITH ROOTWADS SHALL PROJECT AT LEAST 8 FT. PAST NEAT LINE OF BANK.
 4. TRANSITION TREATMENT FROM STA. 2+30 TO 2+40.



4 4
15 16
TYPICAL SECTION
BANK CONSTRUCTION, TYPE 3
WALLACE PROPERTY STA. 2+40 TO 3+05
SCALE: 1 IN. = 5 FT.

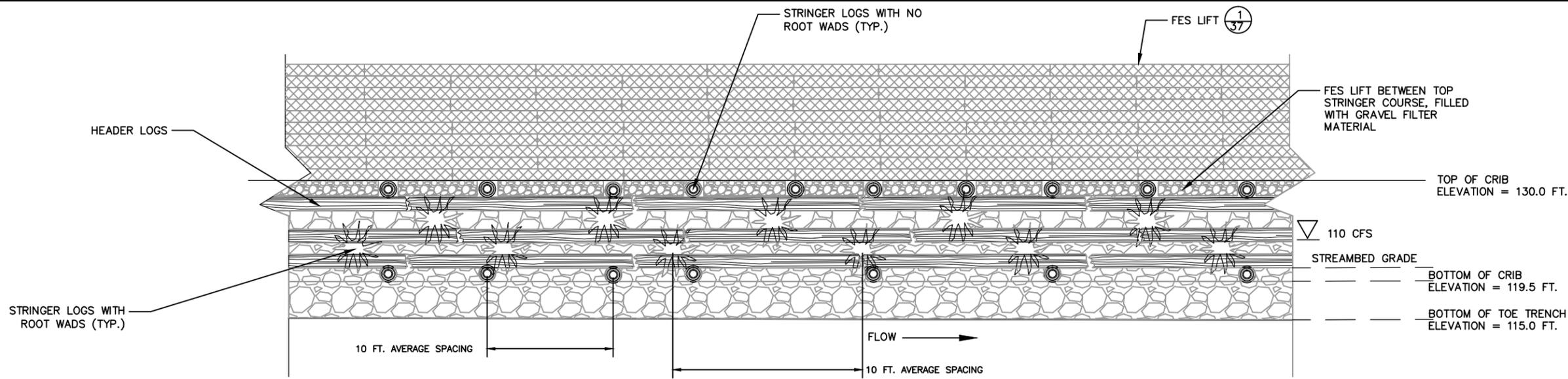
D:\work\Dry Creek\Phase 2\DRY_CR_Phase 2\010813.dwg



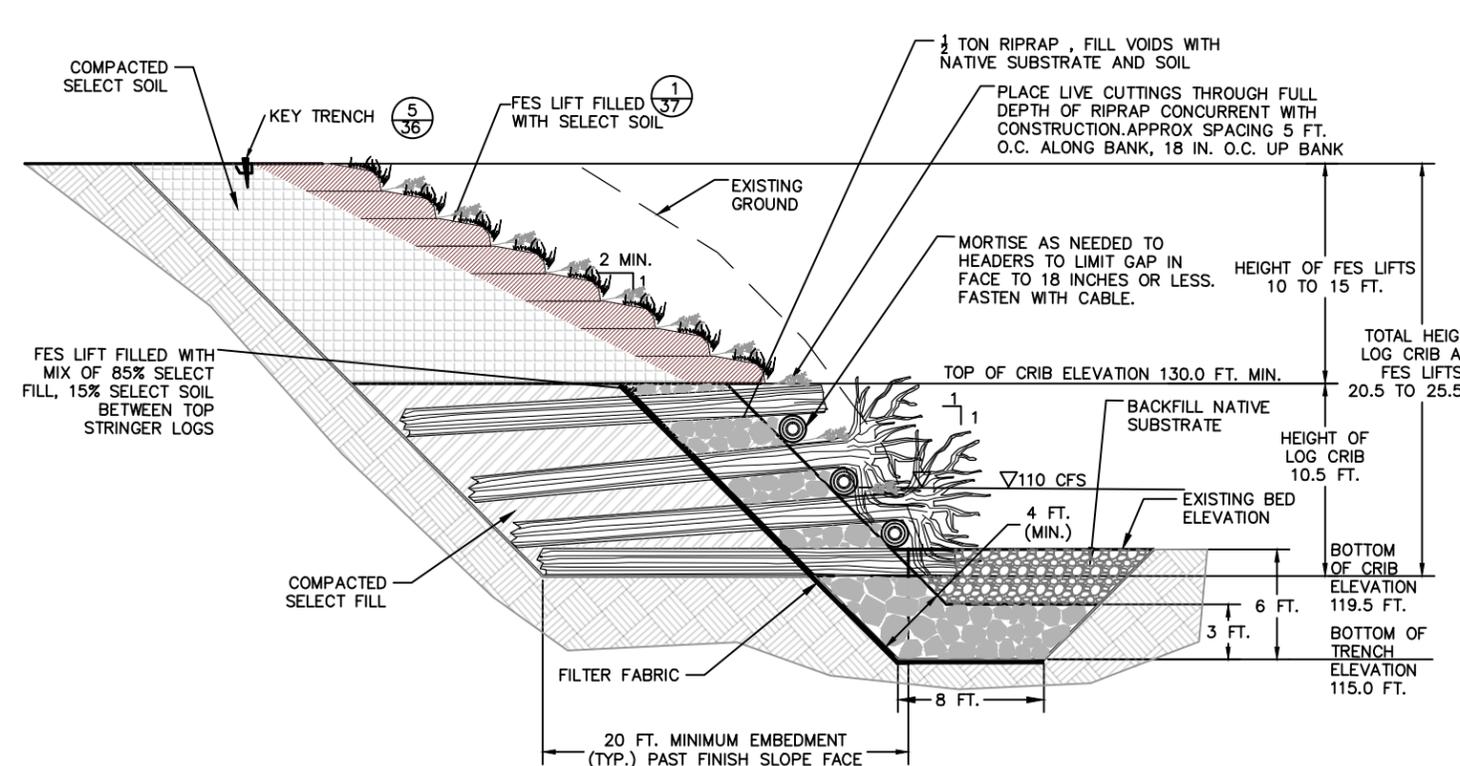
RECORD INFORMATION			
NO.	DATE	REVISION	BY

SONOMA COUNTY WATER AGENCY SCALE: DATE: 1/23/2013 DRAWN: REP CHECKED: MB	REVIEWED: REVIEWED:
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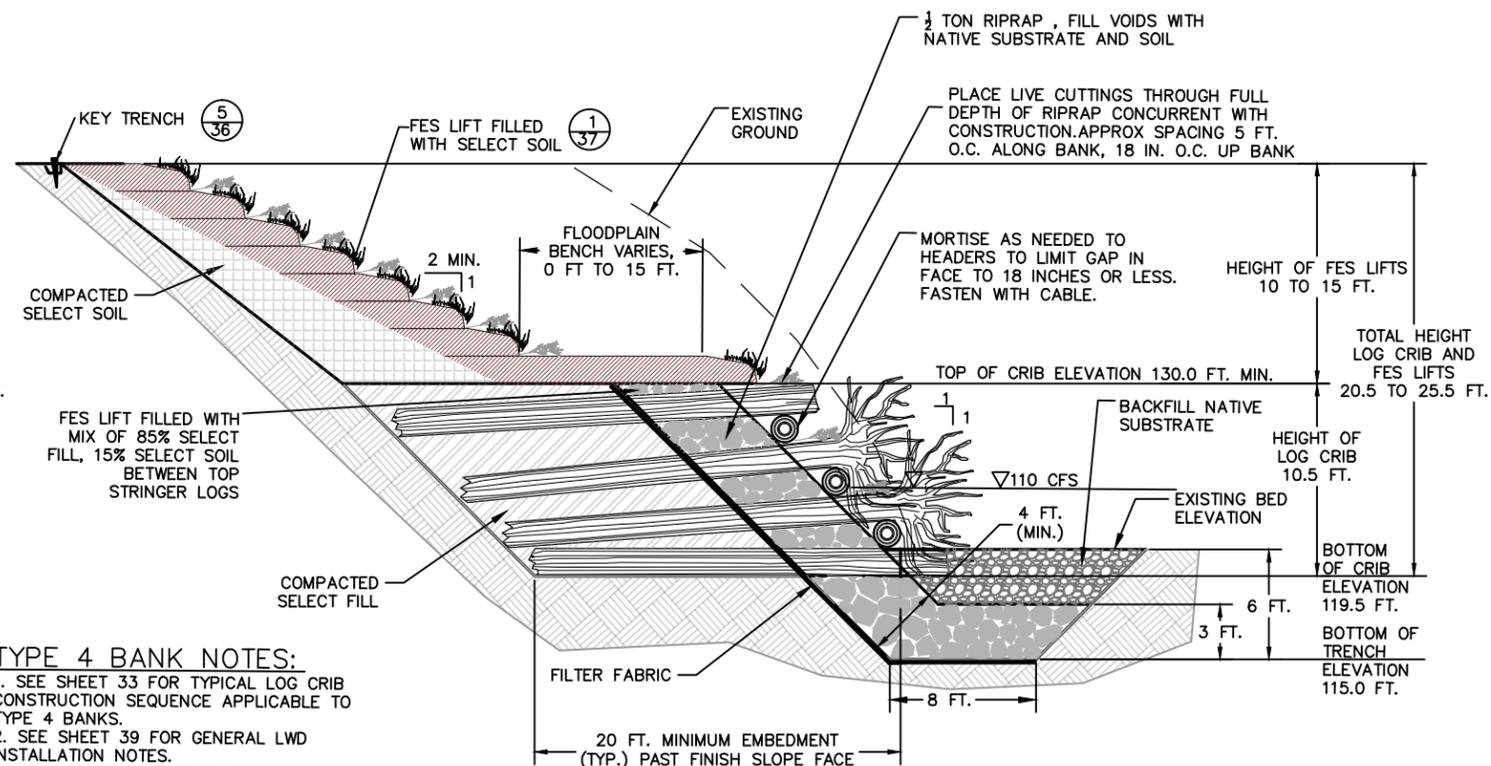
DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT TYPICAL DETAILS - TYPE 1-3 BANK	
FILE NAME: 7345 CONTRACT NUMBER: 45-6.1-7#3	DRAWING NUMBER: SHEET 31 OF 46



1 1 1
10 24 25 TYPICAL ELEVATION VIEW
BANK CONSTRUCTION, TYPE 4
NTS



2 2 2 2
10 24 25 26 TYPICAL SECTION
BANK CONSTRUCTION, TYPE 4 WITH NO BENCH
STA: 0+55 TO 1+55, 3+00 TO 3+60, 5+00 TO 6+15
SCALE: 1 IN. = 5 FT.



3 3 3
10 24 25 TYPICAL SECTION
BANK CONSTRUCTION, TYPE 4 WITH BENCH
STA: 0+20 TO 0+55, 1+55 TO 3+00, 4+40 TO 5+00
SCALE: 1 IN. = 5 FT.

TYPE 4 BANK NOTES:
 1. SEE SHEET 33 FOR TYPICAL LOG CRIB CONSTRUCTION SEQUENCE APPLICABLE TO TYPE 4 BANKS.
 2. SEE SHEET 39 FOR GENERAL LWD INSTALLATION NOTES.
 3. 25% OF LOGS WITH ROOTWADS SHALL PROJECT AT LEAST 8 FT. PAST NEAT LINE OF BANK.

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BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY

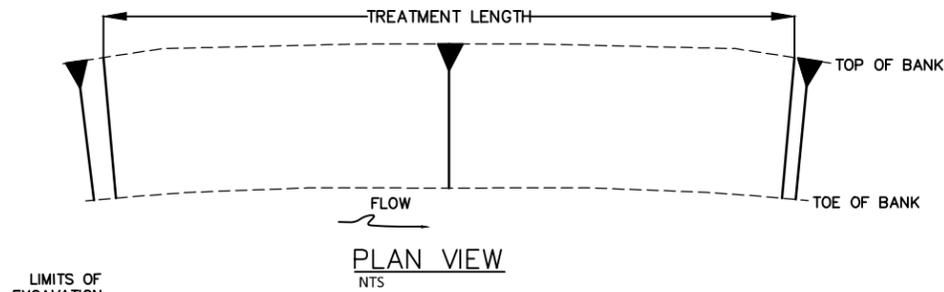
RECORD INFORMATION				
NO.	DATE	REVISION	BY	AGENCY

 SCALE: DATE: 1/23/2013 DRAWN: REP CHECKED: MB	REVIEWED: REVIEWED:
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DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT TYPICAL DETAILS - TYPE 4 BANK (1 OF 4)		
FILE NAME: 7345 CONTRACT NUMBER: 45-6.1-7#3	DRAWING NUMBER:	SHEET 32 OF 46

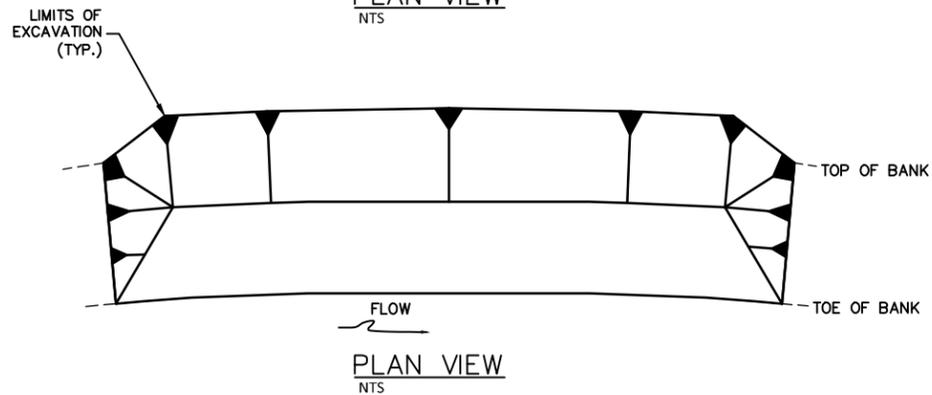
STEP 1.

1. CLEAR SITE WITHIN LIMITS OF TREATMENT. AVOID TREES DESIGNATED FOR PRESERVATION.



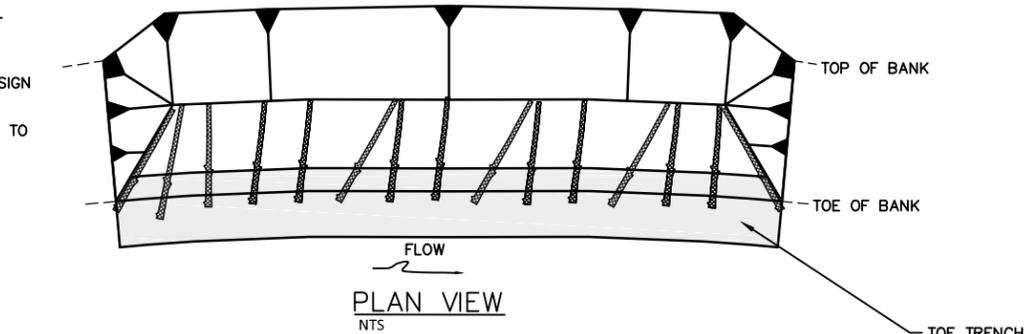
STEP 2.

1. EXCAVATE SUBGRADE TO TOP ELEVATION FOR BOTTOM COURSE OF LOGS.



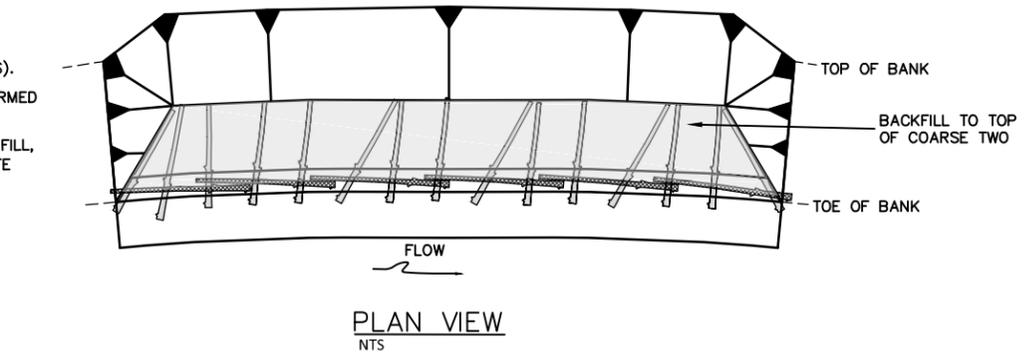
STEP 3.

1. EXCAVATE AND INSTALL TOE TRENCH. BACKFILL TRENCH WITH NATIVE SUBSTRATE.
2. INSTALL LWD COURSE 1 (STRINGERS) BY TRENCHING EACH LOG INTO SUBGRADE TO DESIGN DEPTH.
3. ANGLE LWD AT END TERMINATIONS TO EXTEND TO THE FULL LIMITS OF BANK TREATMENT.



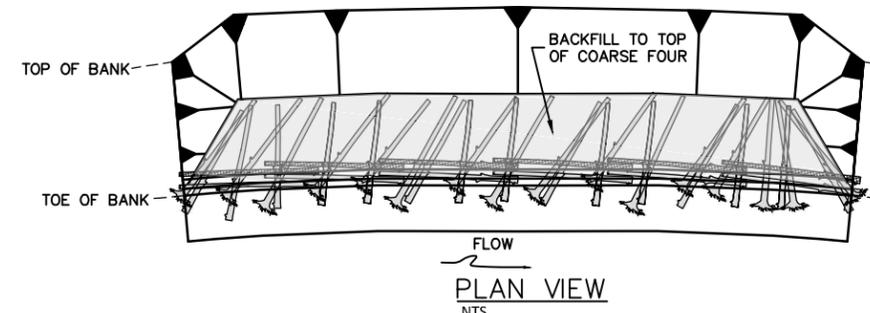
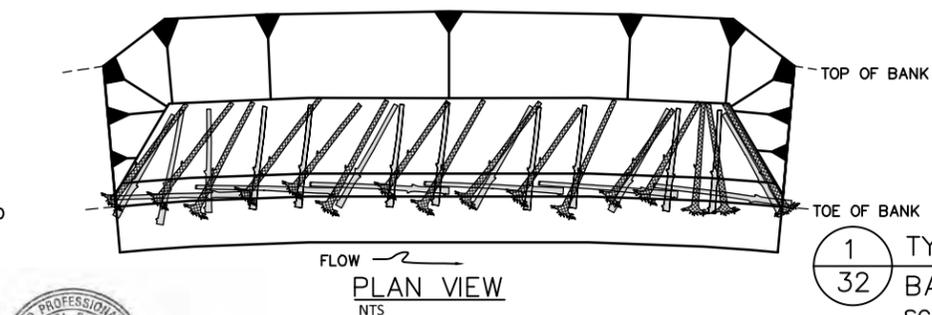
STEP 4.

1. INSTALL AND CABLE LWD COURSE 2 (HEADERS).
2. PACK SLASH AGAINST BANK SIDE OF CRIB FORMED BY LWD COURSES 1 AND 2.
3. ALTERNATELY INSTALL LIVE CUTTINGS, SELECT FILL, FILTER FABRIC, GRAVEL FILTER, AND SUBSTRATE BACKFILL TO TOP OF LWD COURSE 2.



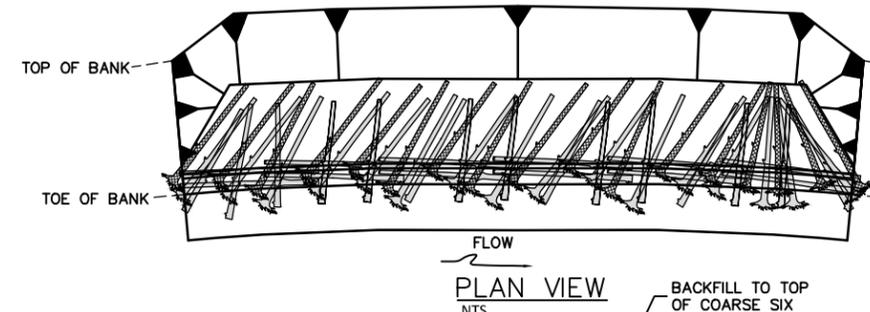
STEP 5.

1. INSTALL AND CABLE LWD COURSE 3 (STRINGERS). 25% OF LWD WITH ROOTWADS SHALL EXTEND AT LEAST 8 FEET PAST THE NEAT LINE OF THE BANK INTO THE CHANNEL.
2. ANGLE LWD AT END TERMINATIONS TO EXTEND TO THE FULL LIMITS OF BANK TREATMENT AND BLEND TO EXISTING GRADE.



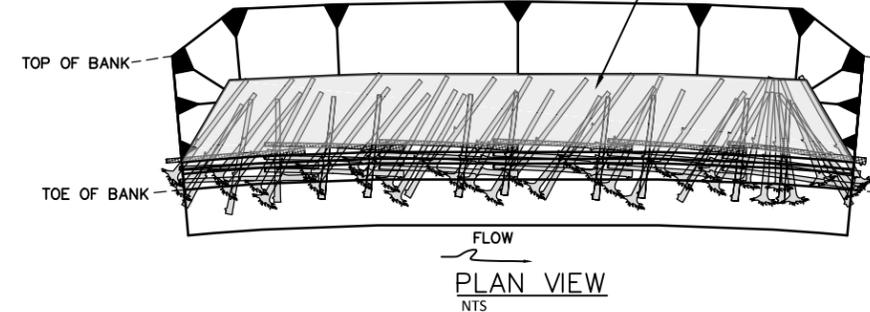
STEP 6.

1. INSTALL AND CABLE LWD COURSE 4 (HEADERS).
2. PACK SLASH AGAINST BANK SIDE OF CRIB FORMED BY LWD COURSES 3 AND 4.
3. ALTERNATELY INSTALL LIVE CUTTINGS, SELECT FILL, FILTER FABRIC, GRAVEL FILTER, AND SUBSTRATE BACKFILL TO TOP OF LWD COURSE 4.



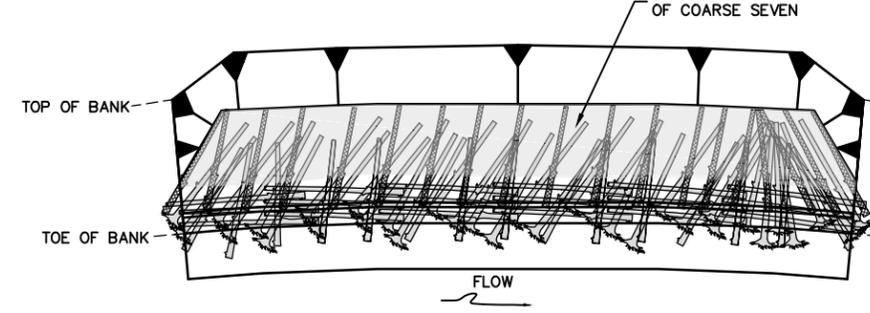
STEP 7.

1. INSTALL AND CABLE LWD COURSE 5 (STRINGERS). 25% OF LWD WITH ROOTWADS SHALL EXTEND AT LEAST 8 FEET PAST THE NEAT LINE OF THE BANK INTO THE CHANNEL.
2. ANGLE LWD AT END TERMINATIONS TO EXTEND TO THE FULL LIMITS OF BANK TREATMENT AND BLEND TO EXISTING GRADE.



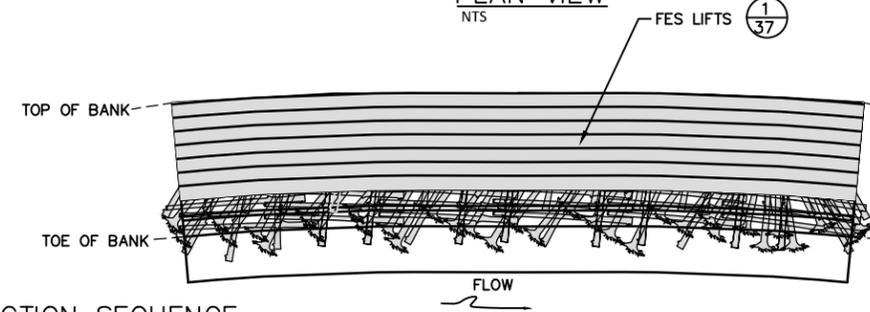
STEP 8.

1. INSTALL AND CABLE LWD COURSE 6 (HEADERS).
2. PACK SLASH AGAINST BANK SIDE OF CRIB FORMED BY LWD COURSES 5 AND 6.
3. ALTERNATELY INSTALL LIVE CUTTINGS, SELECT FILL, FILTER FABRIC, GRAVEL FILTER, AND SUBSTRATE BACKFILL TO TOP OF LWD COURSE 6.



STEP 9.

1. INSTALL AND CABLE LWD COURSE 7 (STRINGERS).
2. ANGLE LWD AT END TERMINATIONS TO EXTEND TO THE FULL LIMITS OF BANK TREATMENT AND BLEND TO EXISTING GRADE.
3. BETWEEN COURSE 7 STRINGERS, PLACE LIVE CUTTINGS ON TOP OF COURSE 6 HEADERS.
4. BETWEEN COURSE 7 STRINGERS, INSTALL GRAVEL FILTER MATERIAL IN FES AT BANK FACE.
5. ALTERNATELY INSTALL SELECT FILL, FILTER FABRIC, AND GRAVEL FILTER IN REMAINING AREA TO TOP OF LWD COURSE 7.



STEP 10.

1. ALTERNATELY INSTALL LIVE CUTTINGS AND FES LIFTS TO FINISH UPPER BANK TREATMENT.

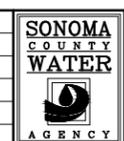
1 TYPICAL CONSTRUCTION SEQUENCE
32 BANK CONSTRUCTION TYPE 4
SCALE: 1 IN. = 20 FT.

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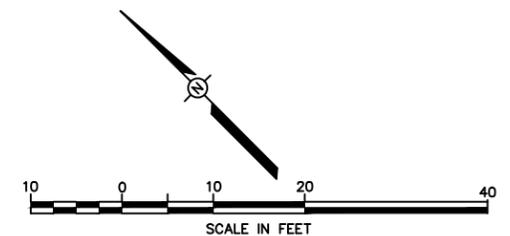
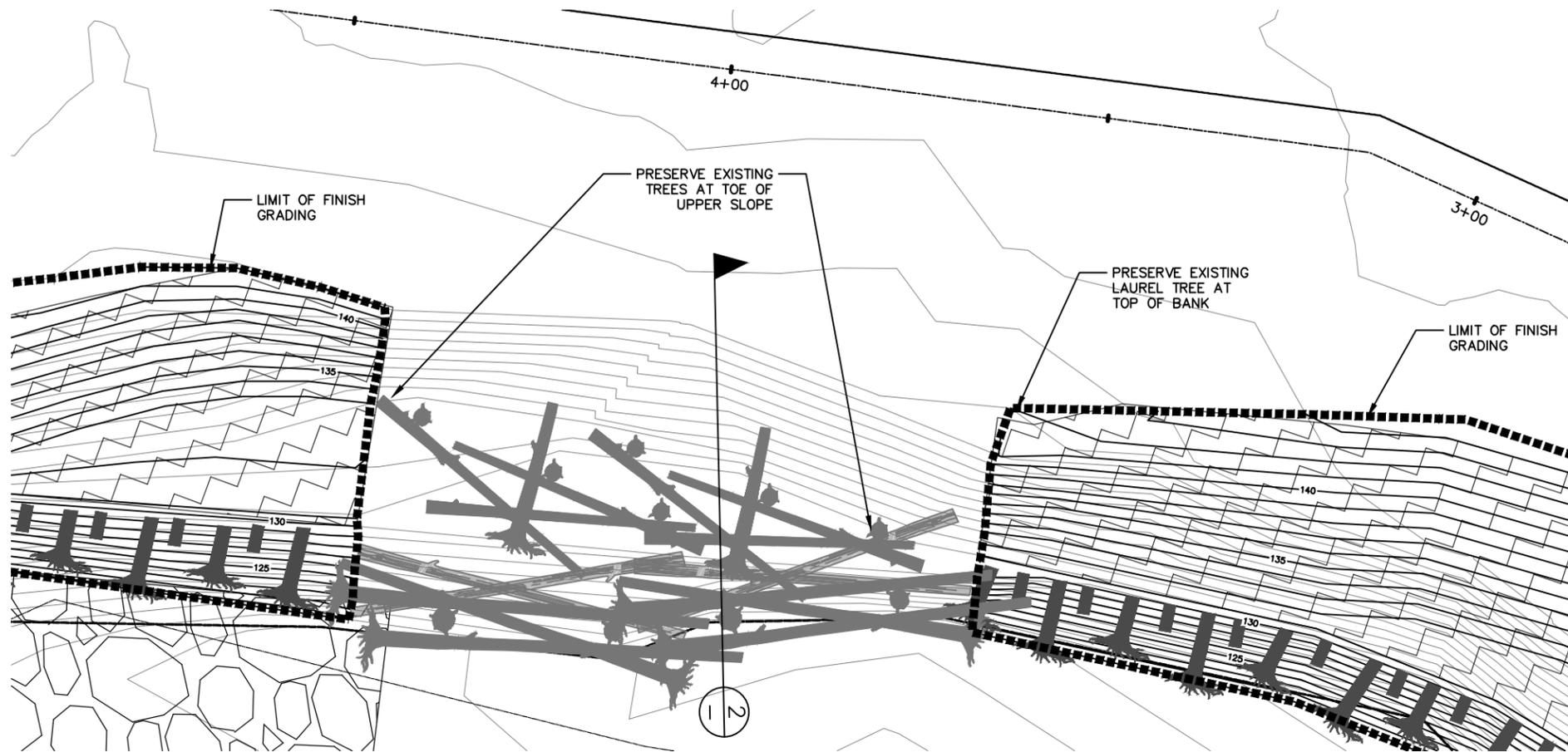
BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY

RECORD INFORMATION				
NO.	DATE	REVISION	BY	

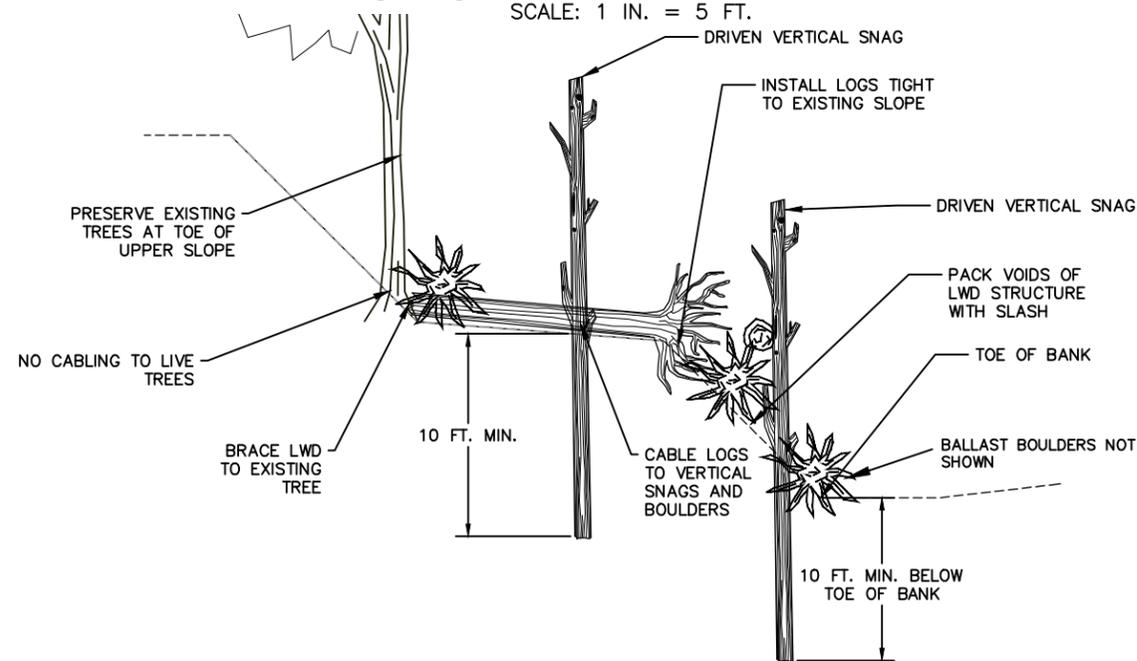


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DATE: 1/23/2013	<i>[Signature]</i>
DRAWN: REP	REVIEWED:
CHECKED: MB	<i>[Signature]</i>

DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT	
TYPICAL DETAILS - TYPE 4 BANK (2 OF 4)	
FILE NAME: 7345	DRAWING NUMBER:
CONTRACT NUMBER: 45-6.1-7#3	SHEET 33 OF 46



1 1 PLAN - STA: 3+60 TO 4+40
 10 24 BANK CONSTRUCTION TYPE 4, NO GRADING
 SCALE: 1 IN. = 5 FT.



2 TYPICAL SECTION STA: 3+60 TO 4+40
 - BANK CONSTRUCTION TYPE 4
 SCALE: 1 IN. = 5 FT.

GENERAL NOTES:
 1. SEE SHEET 39 FOR GENERAL LWD INSTALLATION NOTES.

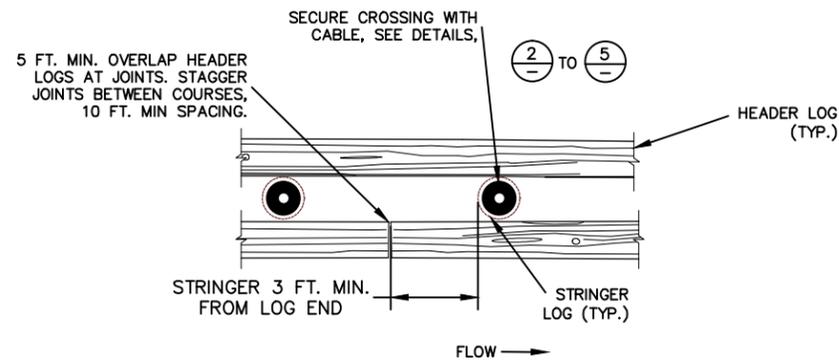


BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY

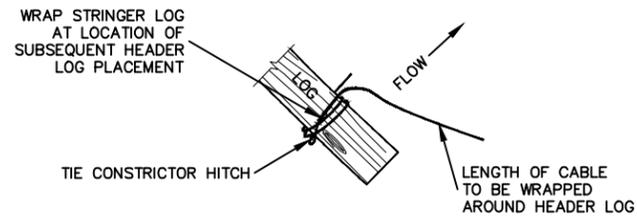
RECORD INFORMATION				
NO.	DATE	REVISION	BY	

SONOMA COUNTY WATER AGENCY	SCALE:	REVIEWED:
	DATE: 1/23/2013	<i>[Signature]</i>
	DRAWN: REP	REVIEWED:
	CHECKED: MB	<i>[Signature]</i>

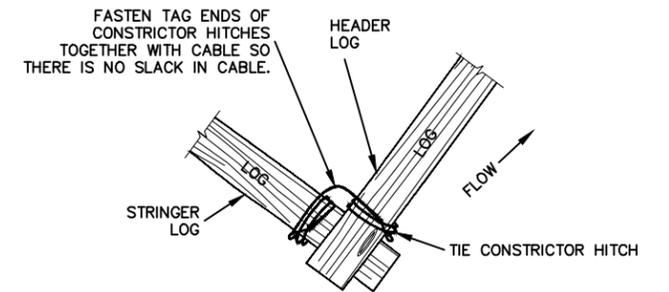
DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT TYPICAL DETAILS - TYPE 4 BANK (3 OF 4)		
FILE NAME: 7345	DRAWING NUMBER:	SHEET 34 OF 46
CONTRACT NUMBER: 45-6.1-7#3		



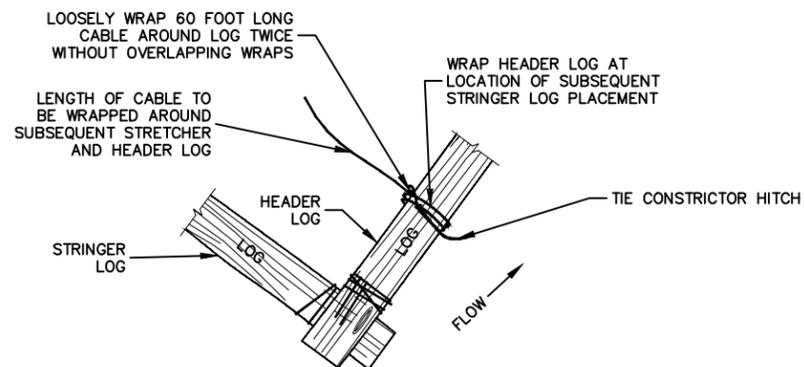
1 TYPICAL ELEVATION DETAIL
- HEADER LOG JOINTS
NTS



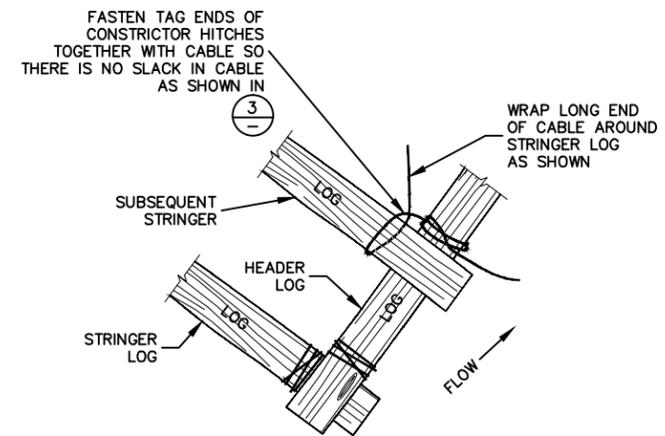
2 TYPICAL DETAIL
- CABLE WRAP SEQUENCE 1
NTS



3 TYPICAL DETAIL
- CABLE WRAP SEQUENCE 2
NTS



4 TYPICAL DETAIL
- CABLE WRAP SEQUENCE 3
NTS



5 TYPICAL DETAIL
- CABLE WRAP SEQUENCE 4
NTS



BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY

RECORD INFORMATION				
NO.	DATE	REVISION	BY	



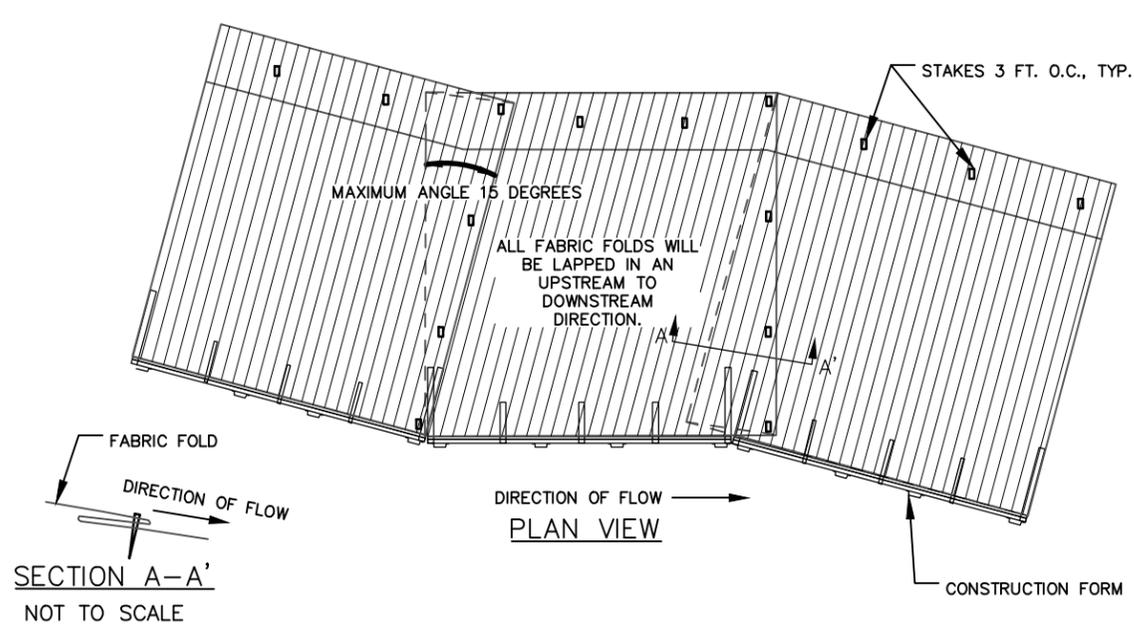
SCALE:
DATE: 1/23/2013
DRAWN: REP
CHECKED: MB

REVIEWED: *[Signature]*
REVIEWED: *[Signature]*

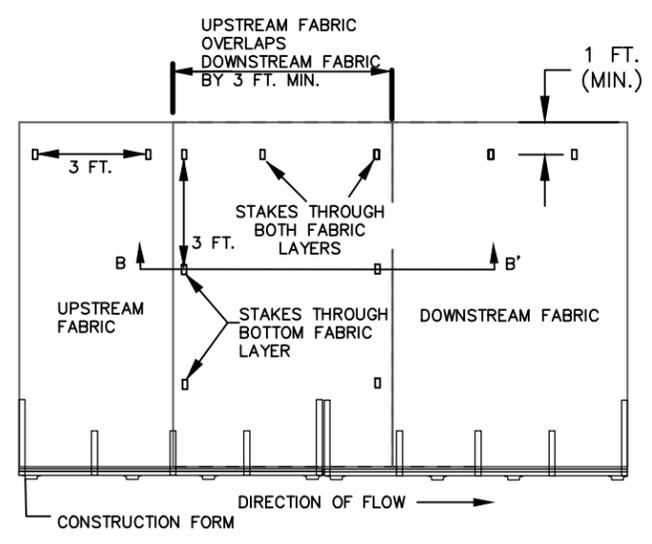
DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT
TYPICAL DETAILS - TYPE 4 BANK (4 OF 4)

FILE NAME: 7345
CONTRACT NUMBER: 45-6.1-7#3
DRAWING NUMBER:
SHEET 35 OF 46

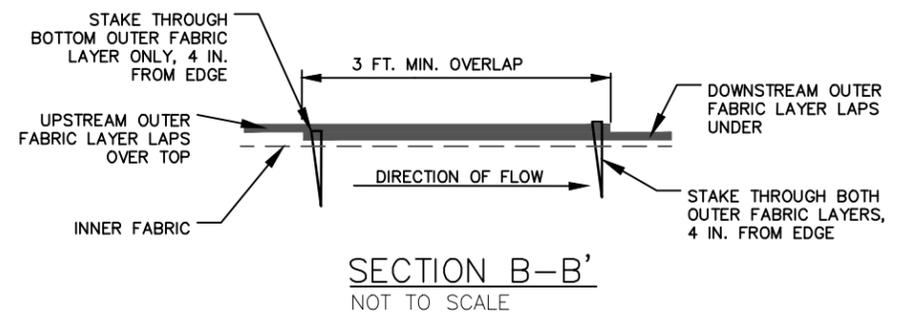
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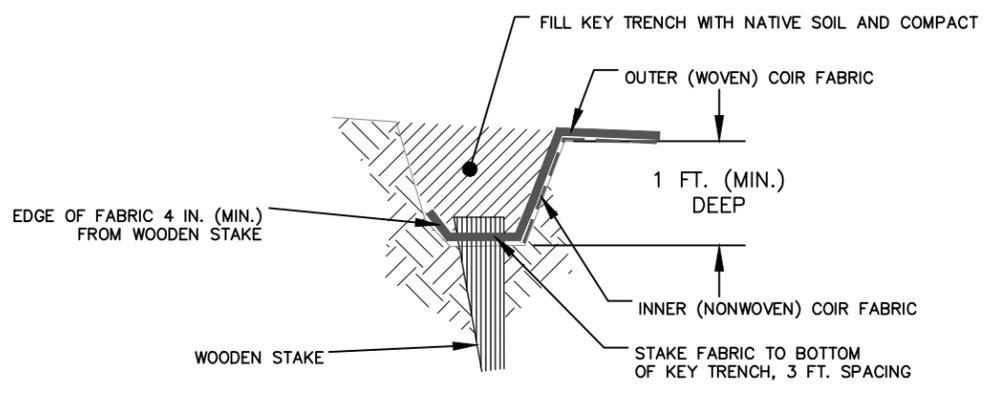
1 TYPICAL PLAN DETAIL
 - FOLDING OF CONTINUOUS OUTER COIR FABRIC AT BENDS
 NTS



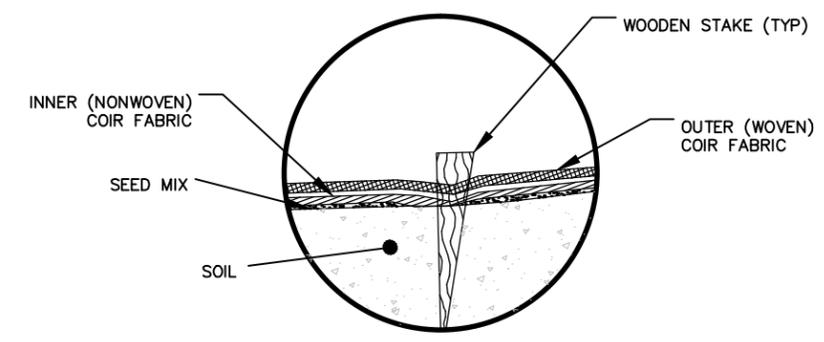
2 TYPICAL PLAN DETAIL
 - OUTER FABRIC JOINING DETAILS
 NTS



4 WOODEN STAKE FABRICATING DETAILS
 31 NTS



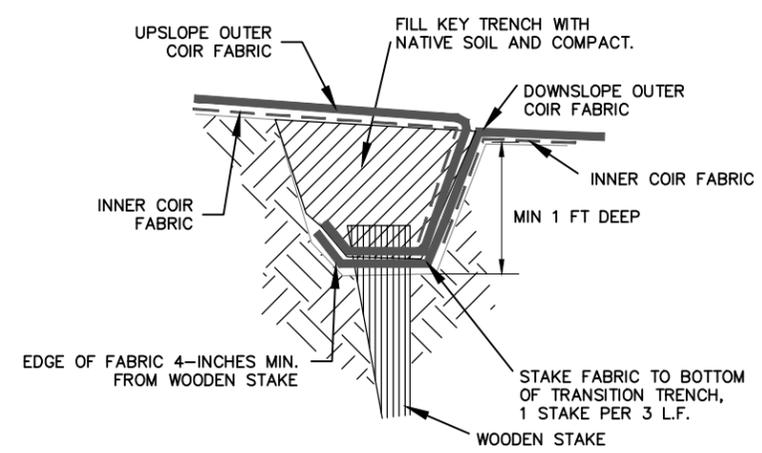
5 KEY TRENCH DETAIL
 31 TRENCH INTO SOIL
 NTS



6 TYPICAL DETAIL
 31 BIODEGRADABLE FABRICS AND STAKES
 NTS

GENERAL NOTES ON SECURING COIR FABRIC

1. THE HOLES FOR STAKES SHALL NOT BE PRECUT. ALLOW THE STAKE TO BREAK THE MINIMUM NUMBER OF STRANDS AS IT IS BEING DRIVEN. DRIVE STAKES SO THAT 3 IN. OF THE TOP OF STAKE IS LEFT EXPOSED.
2. FORMS MAY BE ANGLED TO CREATE BENDS IN THE LIFTS AS NEEDED. FABRIC SHALL BE FOLDED AS SHOWN. NO BEND SHALL EXCEED A 15 DEGREE ANGLE. FOLDS SHALL BE MADE IN AN UPSTREAM TO DOWNSTREAM DIRECTION. STAKE THE FOLDS AS SHOWN.
3. OUTER FABRIC ENDS SHALL BE JOINED BY LAPPING THE UPSTREAM PIECE OF FABRIC OVER THE DOWNSTREAM PIECE AS SHOWN. OVERLAPS SHALL BE A MINIMUM OF 3 FEET. INNER FABRIC ENDS SHALL BE BUTTED TOGETHER, NOT OVERLAPPED. OVERLAPS IN OUTER FABRIC SHALL BE STAGGERED FROM LIFT TO LIFT BY A MINIMUM OF 10 FT.



7 JOINT TRENCH DETAIL
 31 NTS



BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY

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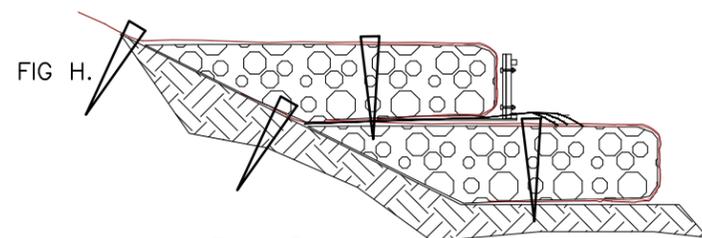
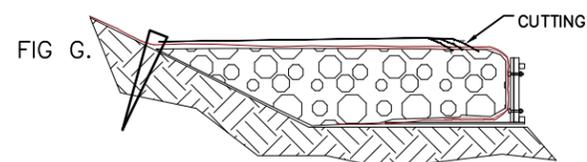
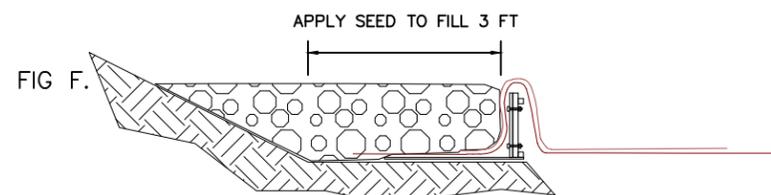
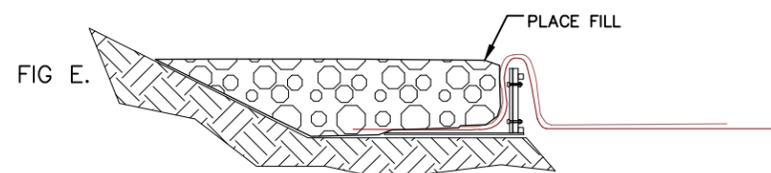
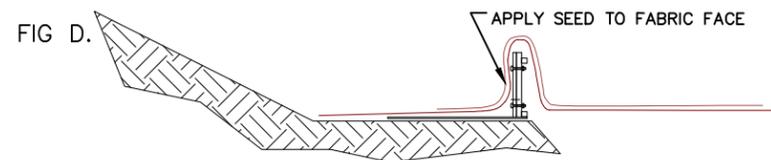
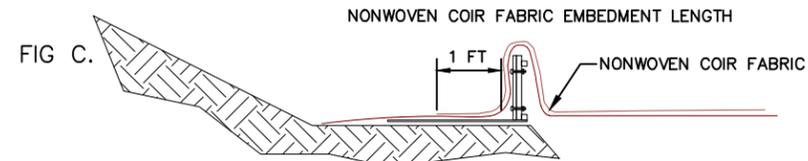
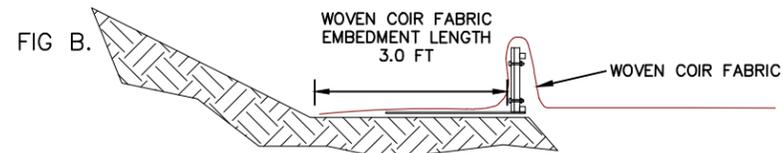
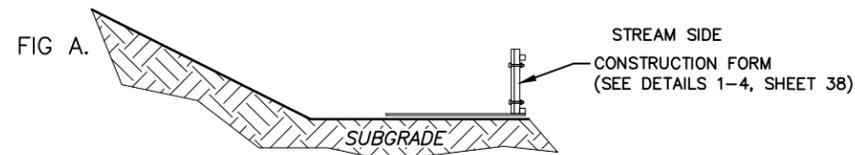
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DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT

TYPICAL DETAILS - FABRIC INSTALLATION

FILE NAME: 7345 CONTRACT NUMBER: 45-6.1-7#3

DRAWING NUMBER: SHEET 36 OF 46



1 TYPICAL SECTION
31
1 TYPICAL CONSTRUCTION SEQUENCE FOR FES LIFTS NTS
32



FIG 1. PLACE A ROW OF CONSTRUCTION FORMS ALONG DESIRED CHANNEL ALIGNMENT FOR FIRST LIFT.

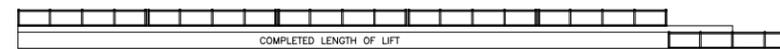


FIG 2. CONSTRUCT FABRIC WRAP LIFTS ALONG LENGTH OF FIRST SET OF FORMS AND THEN BEGIN PLACEMENT OF FORMS AND CONSTRUCTION OF SECOND LIFT.

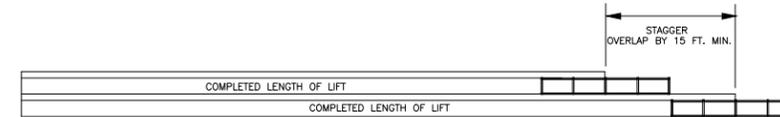


FIG 3. STAGGER FABRIC OVERLAPS A MINIMUM OF 15 IN. BETWEEN LIFTS.

2 TYPICAL ELEVATION VIEW
- CONSTRUCTION SEQUENCE FOR FES LIFTS NTS

- FES LIFTS MAY BE CONSTRUCTED IN EITHER AN UPSTREAM OR DOWNSTREAM DIRECTION, AS LONG AS THE FABRIC IS OVERLAPPED IN THE PROPER DIRECTION.
- EACH LIFT MAY HAVE A UNIQUE FILL COMPOSITION AND VARYING PLACEMENT OF CUTTINGS.
- PLACE A SERIES OF THREE OR MORE FORMS ON THE GROUND SO THAT THE FORMS FOLLOW THE PROPOSED STREAM BANK ALIGNMENT. BUTT THE ENDS OF THE FORMS TIGHTLY TOGETHER.
- UNROLL THE WOVEN COIR FABRIC PARALLEL TO THE LONG AXIS OF THE CHANNEL AND POSITION IT SO THAT 3.0 FEET EXTENDS FOR EMBEDMENT ON THE BANK SIDE OF THE FORMS (FIG B), AND A MINIMUM 3 FEET EXTENDS LENGTHWISE BEYOND THE LAST FORM FOR OVERLAP. DRAPE THE REMAINDER OF THE FABRIC OVER THE TOP OF THE FORMS ON THE STREAM SIDE (FIG B).
- UNROLL THE NONWOVEN COIR FABRIC OVER THE TOP OF THE WOVEN COIR FABRIC AND POSITION IT SO THAT AT LEAST 1 FOOT OF THE INNER FABRIC EXTENDS AS AN EMBEDMENT LENGTH ON THE BANK SIDE OF THE FORMS (FIG C). DRAPE THE REMAINDER OF THE FABRIC OVER THE TOP OF THE FORMS ON THE STREAM SIDE AND ALIGN THE LONG EDGES OF THE COIR FABRICS. STRETCH AND PULL THE FABRIC LAYERS TO REMOVE WRINKLES.
- APPLY NATIVE SEED MIX TO NONWOVEN COIR FABRIC ALONG VERTICAL EDGE OF LIFT (FIG D). PLACE SPECIFIED FILL OVER THE FABRIC ON THE BANK SIDE OF THE FORMS. LEVEL THE FILL AND COMPACT (FIG E).
- APPLY NATIVE SEED MIX TO TOP OF FILL FROM THE FRONT OF THE LIFT TO 3 FT BACK FROM FRONT OF THE LIFT (FIG F).
- FOLD THE LOOSE ENDS OF THE TWO COIR FABRIC LAYERS BACK OVER THE COMPACTED FILL MATERIAL AND STRETCH TIGHTLY TO REMOVE WRINKLES (FIG G). SECURE WITH WOODEN STAKES 1 PER 3 L.F. ALONG THE BACK EDGE AND INTO UNDISTURBED SOIL.
- REMOVE THE FORMS FROM THE FRONT OF THE COMPLETED LIFTS (DETAIL 2 THIS SHEET). LEAVE THE LAST FORM IN PLACE AT THE END OF THE NEWLY CONSTRUCTED LIFT (DETAIL 2 THIS SHEET). PLACE CUTTINGS ON TOP OF THE FINISHED LAYER FOR THE NEXT LIFT (FIG G). PLACE A SMALL AMOUNT OF SOIL OVER THE CUTTINGS. CAREFULLY RESET THE FORMS ON TOP OF THE FINISHED LAYER FOR THE NEXT LIFT (FIG H) TO AVOID DAMAGING THE CUTTING.
- PROCEED WITH A NEW SERIES OF LIFTS BY EXTENDING A NEW ROW OF FORMS. OFFSET FORMS TO ESTABLISH THE DESIGN BANK SLOPE BEGINNING AT THE END FORM THAT WAS LEFT IN PLACE, LAY OUT TWO NEW LAYERS OF FABRIC AS PREVIOUSLY DESCRIBED, MAKING SURE TO OVERLAP THE NEW FABRIC LAYERS WITH THE PREVIOUS LAYERS. STAGGER OVERLAPS, BETWEEN ADJACENT LIFTS BY A MINIMUM OF 15 FEET (FIG 2).
- UPON COMPLETION OF TOP LIFT, INSTALL KEY TRENCH PARALLEL TO THE BANK AT THE LANDWARD EDGE OF THE WOVEN FABRIC. SEED DETAIL 5 SHEET 36.
- BACKFILL THE KEY TRENCH WITH NATIVE SOIL AND SMOOTH TO MERGE WITH EXISTING CONTOURS. APPLY SEED MIX TO KEY TRENCH AREA.

3 TYPICAL SEQUENCE
- CONSTRUCTION OF FES LIFTS NTS

TOTAL VERTICAL BANK HEIGHT (FT)	NUMBER OF LIFTS	TOTAL VERTICAL BANK HEIGHT (FT)	NUMBER OF LIFTS
1.0 TO 1.5	1	9.1 TO 10.5	7
1.6 TO 3.0	2	10.6 TO 12.0	8
3.1 TO 4.5	3	12.1 TO 13.5	9
4.6 TO 6.0	4	13.6 TO 15.0	10
6.1 TO 7.5	5		
7.6 TO 9.0	6		

- FES LIFT NOTES:
- TOP AND BOTTOM LIFTS SHALL USE 13 FOOT WIDE WOVEN COIR FOR THE OUTER FABRIC. MIDDLE LIFTS SHALL USE 10 FOOT WIDE WOVEN COIR FOR THE OUTER FABRIC.
 - MAXIMUM LIFT HEIGHT IS 18 IN.

4 TYPICAL DETAIL TABLE
31 32 NUMBER OF FES LIFTS FOR BANK HEIGHT

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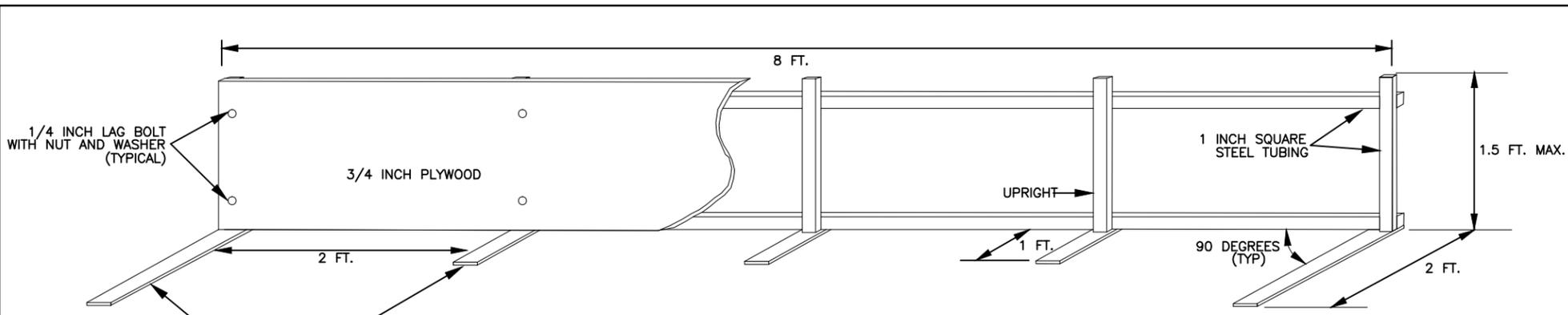
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DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT TYPICAL DETAILS - FES LIFT (1 OF 2)		
FILE NAME: 7345	DRAWING NUMBER:	SHEET 37 OF 46
CONTRACT NUMBER: 45-6.1-7#3		

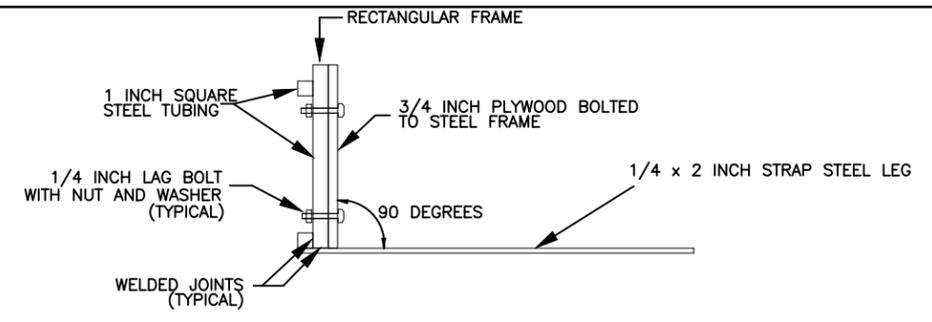
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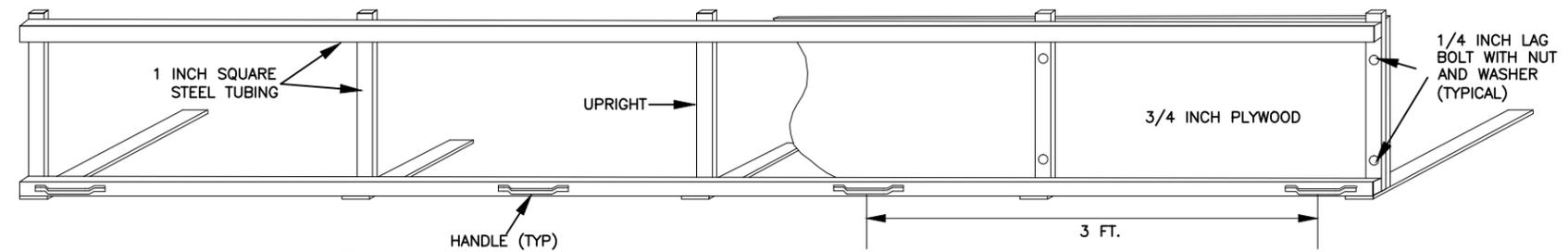
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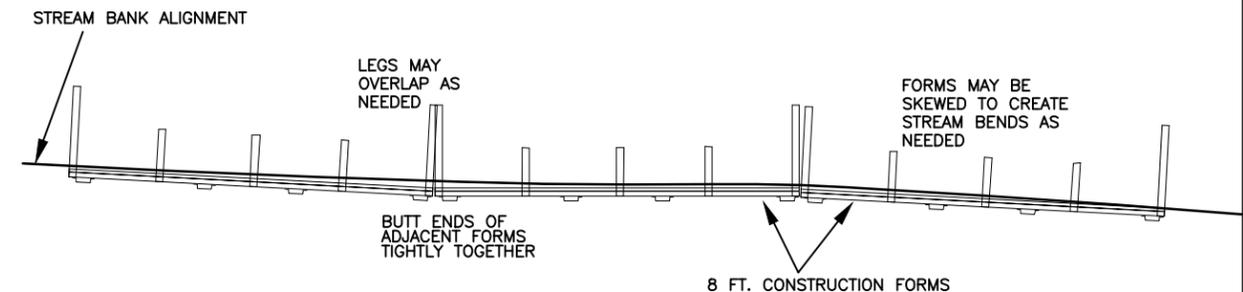
1 TYPICAL DETAIL
FORM FOR FES LIFTS
NTS
ISOMETRIC VIEW FROM REAR



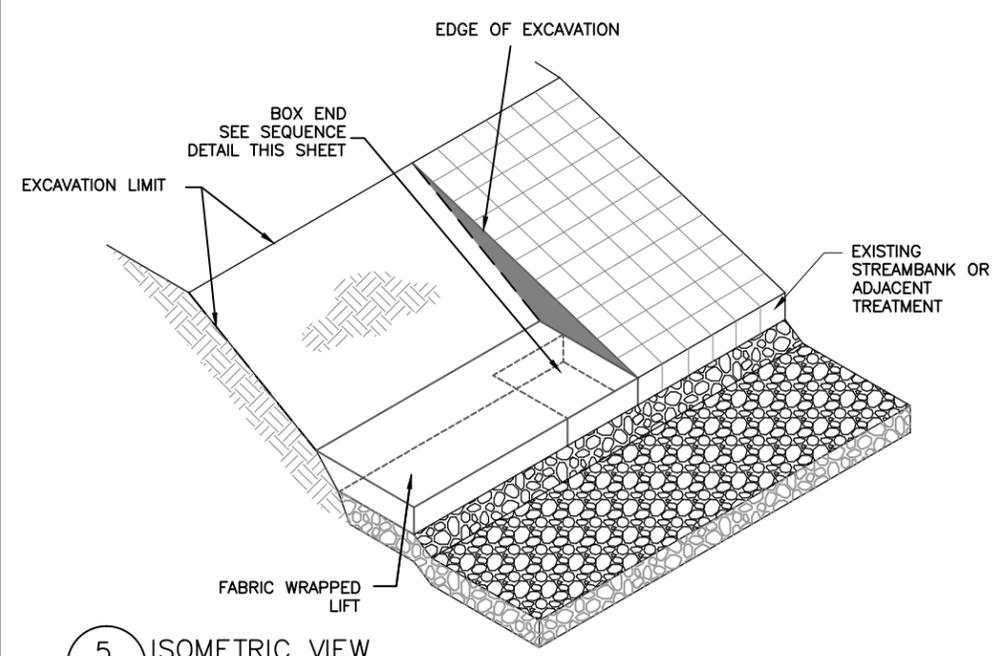
3 TYPICAL SECTION
FORM FOR FES LIFTS
NTS



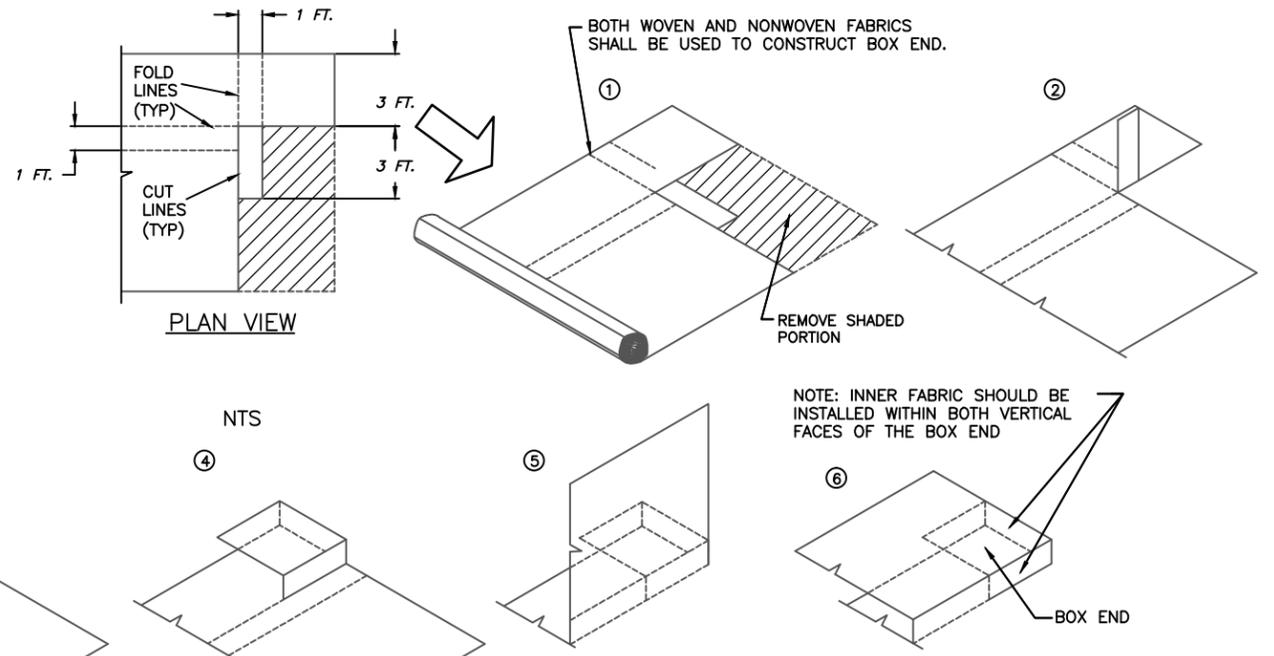
2 TYPICAL ISOMETRIC DETAIL
FABRICATED FORM FOR FES LIFTS
NTS
ISOMETRIC VIEW FROM FRONT



4 TYPICAL PLAN DETAIL
PLACEMENT OF FORMS FOR FES LIFTS
NTS



5 ISOMETRIC VIEW
BOX END AT FES
LIFT TERMINATION
NTS



6 TYPICAL SEQUENCE
BOX END AT FES LIFT TERMINATION
NTS

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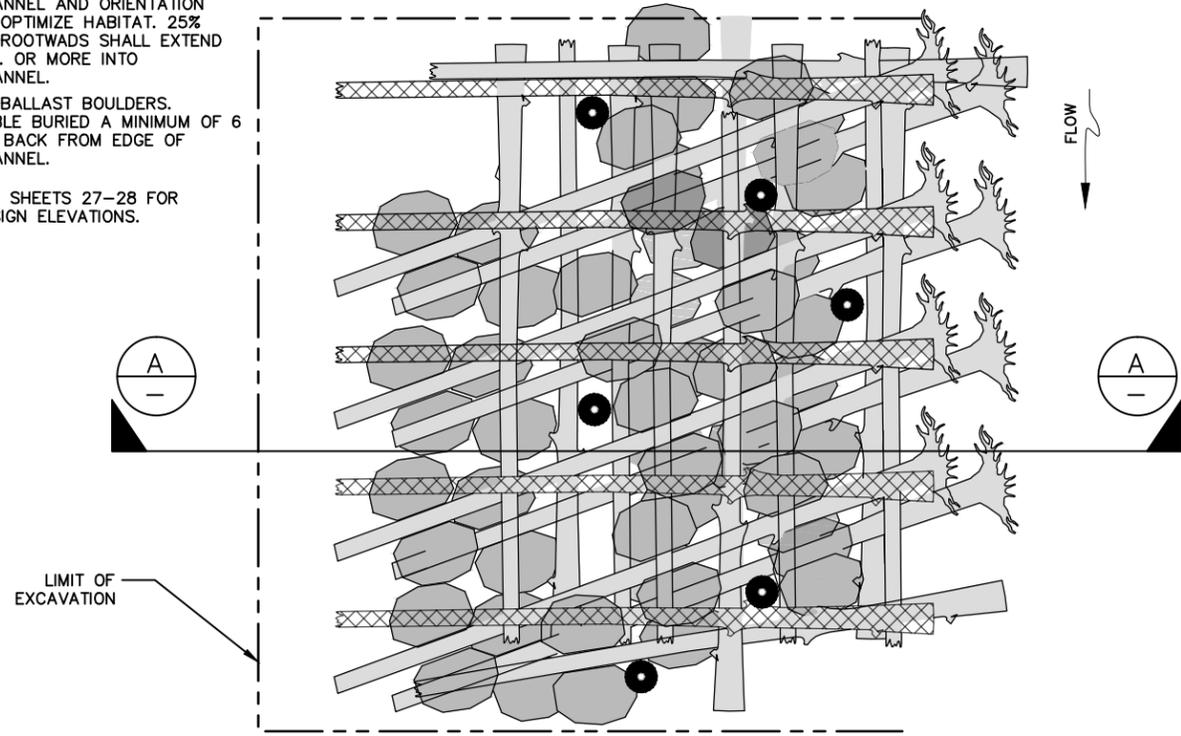
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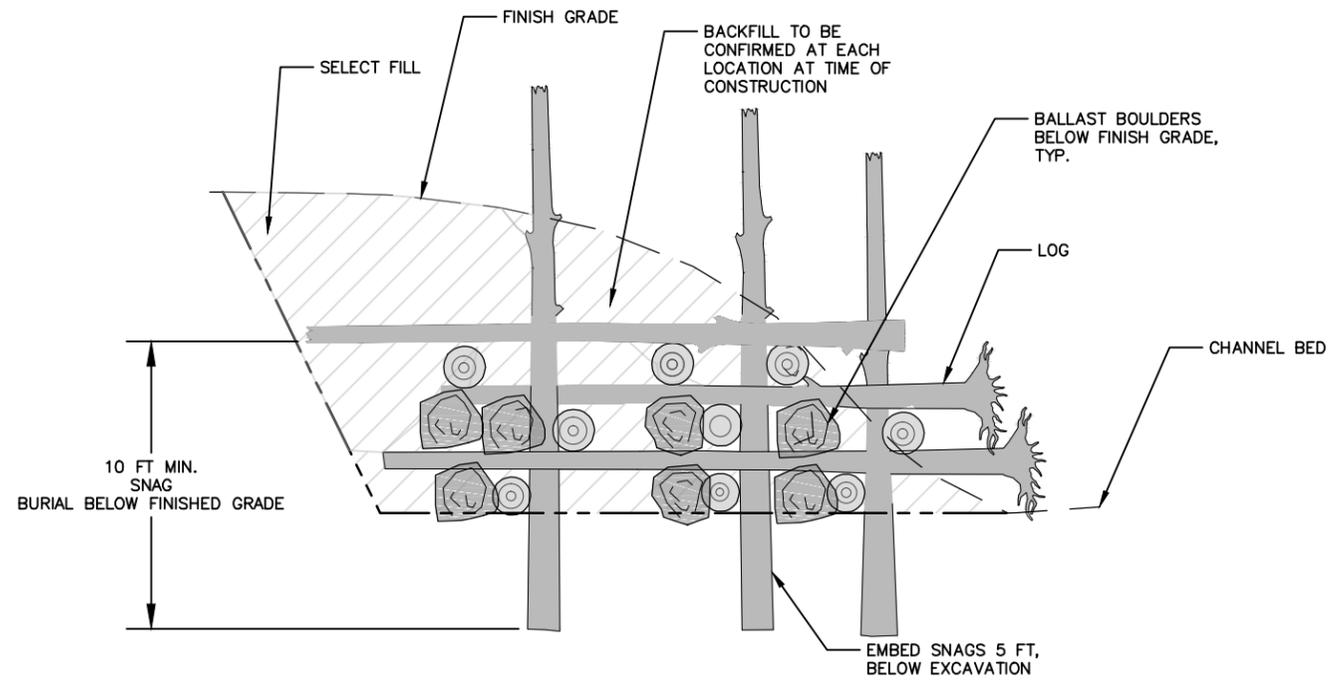
DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT TYPICAL DETAILS - FES LIFT (2 OF 2)		
FILE NAME: 7345	DRAWING NUMBER:	SHEET 38 OF 46
CONTRACT NUMBER: 45-6.1-7#3		

LOG JAM SPECIFIC NOTES:

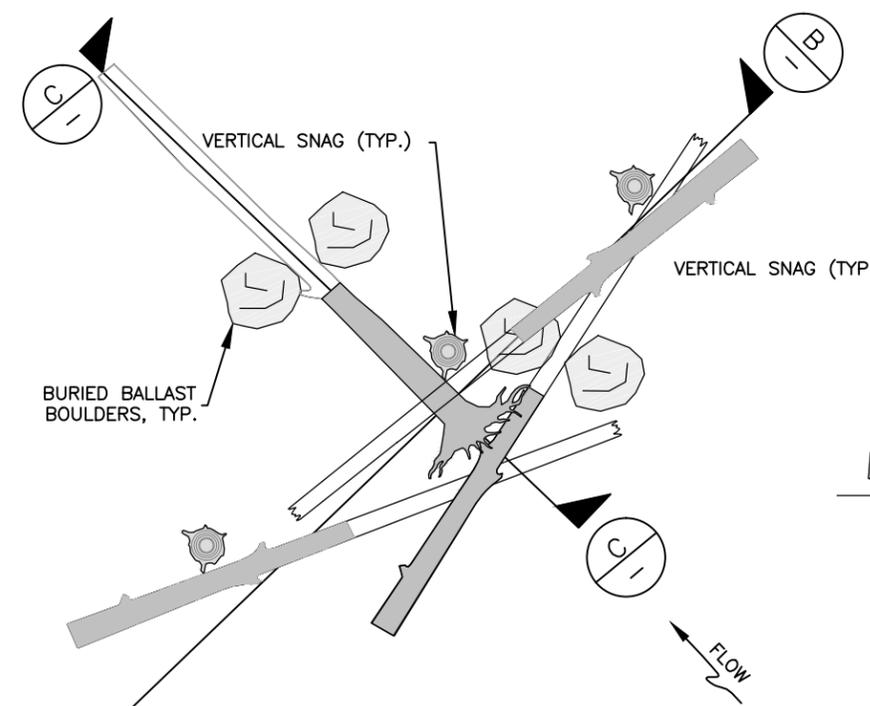
1. VARY LWD PROJECTION INTO CHANNEL AND ORIENTATION TO OPTIMIZE HABITAT. 25% OF ROOTWADS SHALL EXTEND 8FT. OR MORE INTO CHANNEL.
2. TO BALLAST BOULDERS. CABLE BURIED A MINIMUM OF 6 FT. BACK FROM EDGE OF CHANNEL.
3. SEE SHEETS 27-28 FOR DESIGN ELEVATIONS.



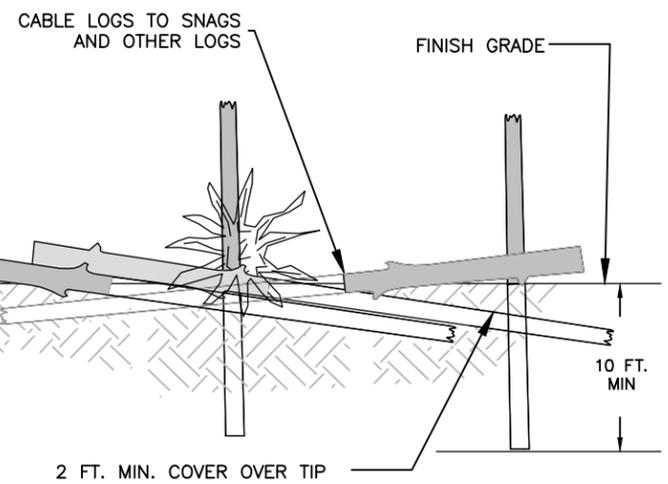
1 1 1 1 1 1
8 10 12 15 18 21
TYPICAL PLAN DETAIL
LOG JAM
NTS



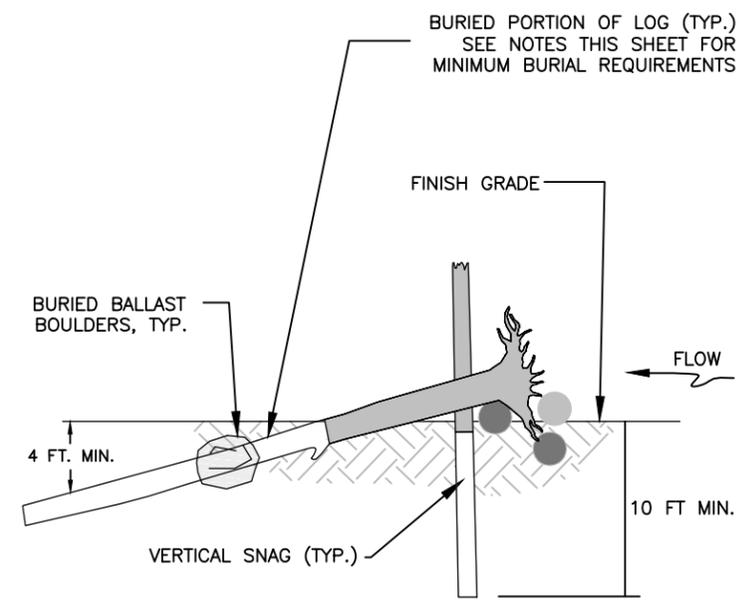
A
-
TYPICAL SECTION
LOG JAM



2 2 2 2 2 2
8 10 12 18 21 24 26
TYPICAL PLAN
FLOODPLAIN LWD
NTS



B
-
TYPICAL ELEVATION VIEW
FLOODPLAIN LWD
NTS



C
-
TYPICAL SECTION
FLOODPLAIN LWD
NTS

GENERAL SHEET NOTES:

1. MATERIAL QUANTITIES DEPICTED ARE SCHEMATIC ONLY. REFERENCE SUMMARY TABLE ON SHEET 41 FOR TARGET MATERIAL QUANTITIES AT EACH LOG JAM AND LWD STRUCTURE.
2. SEE GENERAL LWD INSTALLATION NOTES BELOW
3. SEE SHEET 42 FOR LOGJAM CONSTRUCTION SEQUENCE.
4. SEE SHEET 43 FOR FLOODPLAIN LWD CONSTRUCTION SEQUENCE.
5. SEE SHEET 45 FOR CABLING DETAILS.

GENERAL LWD INSTALLATION NOTES:

1. SPECIFIC ORIENTATION OF LWD AND BALLAST MATERIALS MAY VARY FROM TYPICAL DRAWINGS DEPENDING ON SITE CONDITIONS AND SIZE AND SHAPE OF MATERIALS DELIVERED TO THE SITE.
2. OWNER WILL COORDINATE WITH CONTRACTOR DURING PLACEMENT OF LWD TO CONFIRM PLACEMENT, ORIENTATION AND BALLASTING DURING INSTALLATION.
3. LWD WILL BE BALLASTED TO RESIST BUOYANCY BY PARTIAL BURIAL, CABLING TO OTHER LWD, SECURING TO VERTICAL SNAGS OR BOULDERS, OR OTHER METHODS.
4. EXISTING TREES MAY BE SUBSTITUTED FOR SNAGS IN SELECT LOCATIONS, BUT SHALL NOT BE CABLED. SUBSTITUTION ONLY WITH OWNERS APPROVAL.
5. BALLAST BOULDERS TO BE PLACED BELOW FINISH GRADE ONLY.

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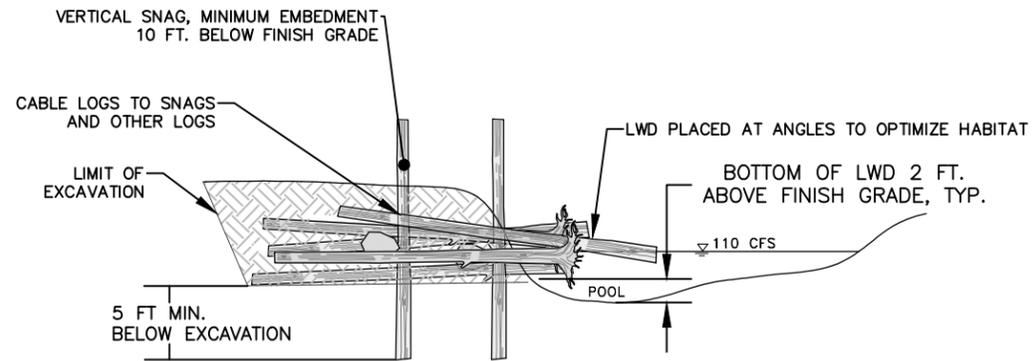
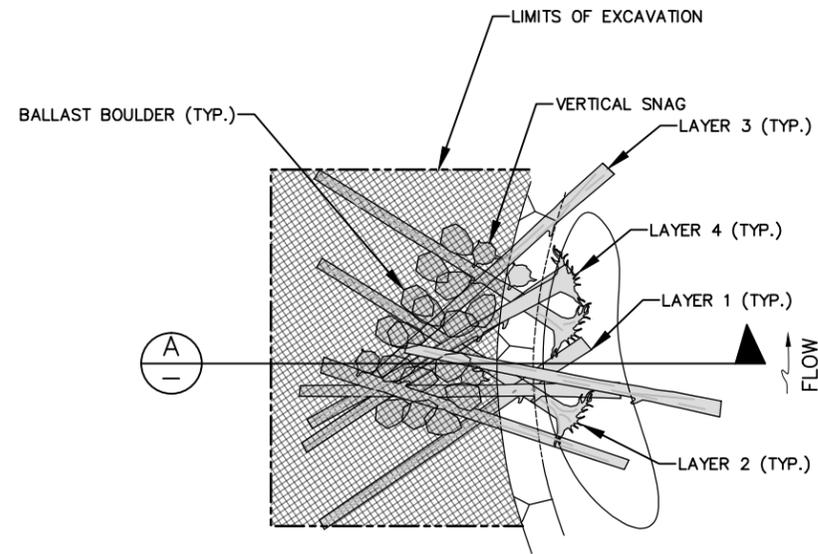
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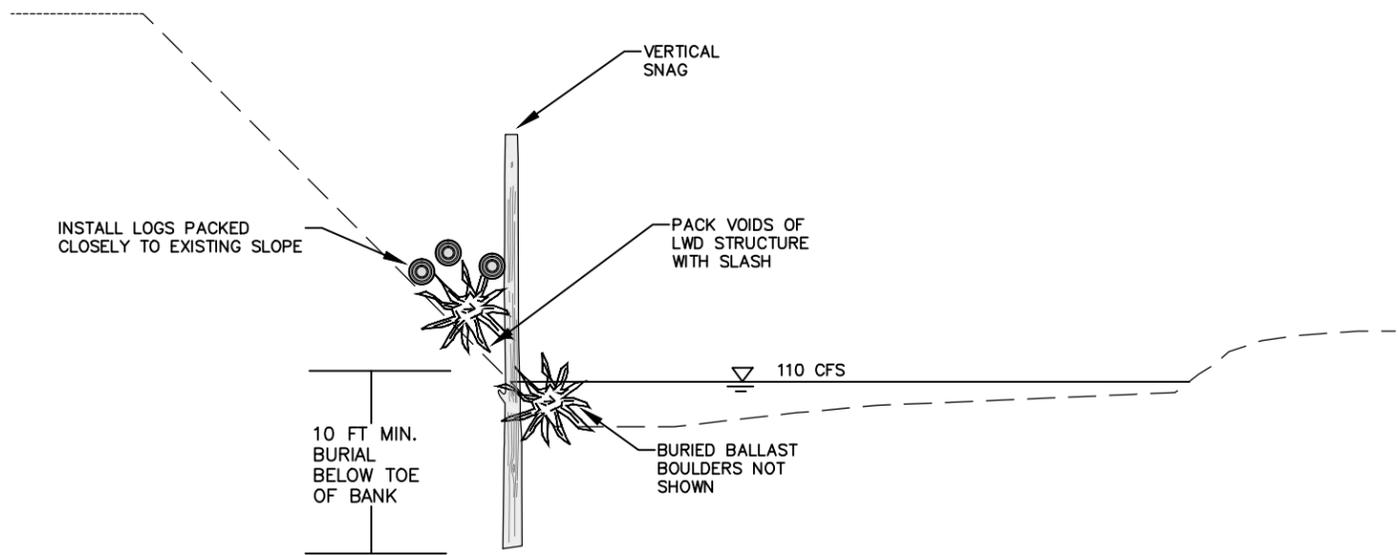
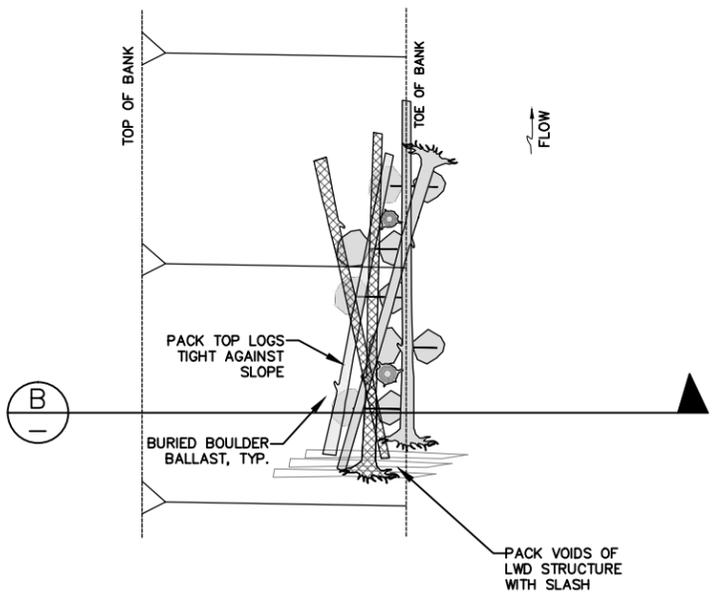
DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT LWD DETAILS - LOG JAM AND FLOODPLAIN LWD	
FILE NAME: 7345	DRAWING NUMBER:
CONTRACT NUMBER: 45-6.1-7#3	SHEET 39 OF 46



- GENERAL SHEET NOTES:**
1. MATERIAL QUANTITIES DEPICTED ARE SCHEMATIC ONLY. REFERENCE SUMMARY TABLE ON SHEET 41 FOR TARGET MATERIAL QUANTITIES AT EACH LOG JAM AND LWD STRUCTURE.
 2. SEE GENERAL LWD INSTALLATION NOTES ON SHEET 39.
 3. SEE SHEET 44 FOR BACKWATER CHANNEL LWD TYPICAL CONSTRUCTION SEQUENCE.
 4. SEE SHEET 43 FOR TYPICAL POOL LWD CONSTRUCTION SEQUENCE.
 5. SEE SHEET 45 FOR TYPICAL CABLING DETAILS.

A
TYPICAL SECTION
BACKWATER CHANNEL LWD
NTS

1 1 1 1 1
8 10 12 18 21
TYPICAL PLAN DETAIL
BACKWATER CHANNEL LWD
NTS



B
TYPICAL SECTION
POOL ENHANCEMENT LWD
NTS

2 2 2 2 2
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TYPICAL PLAN DETAIL
POOL ENHANCEMENT LWD
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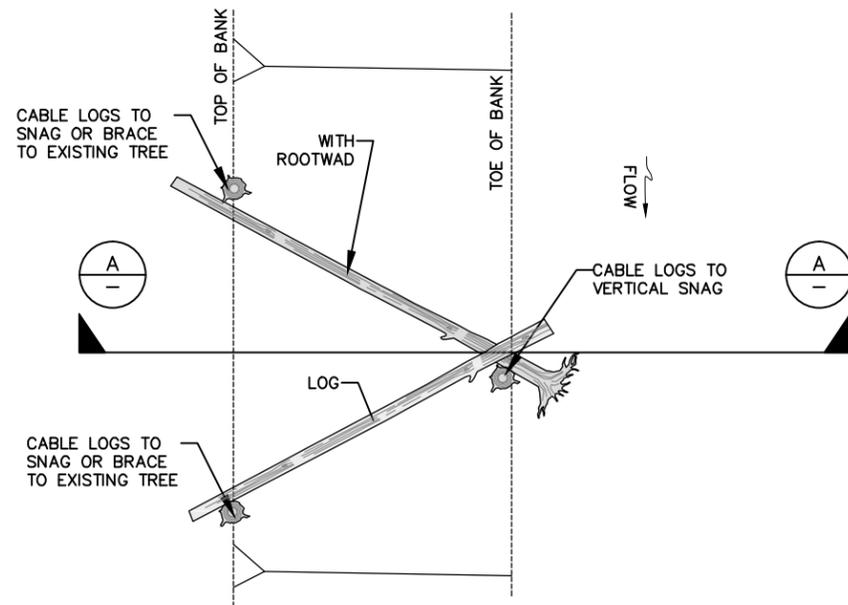


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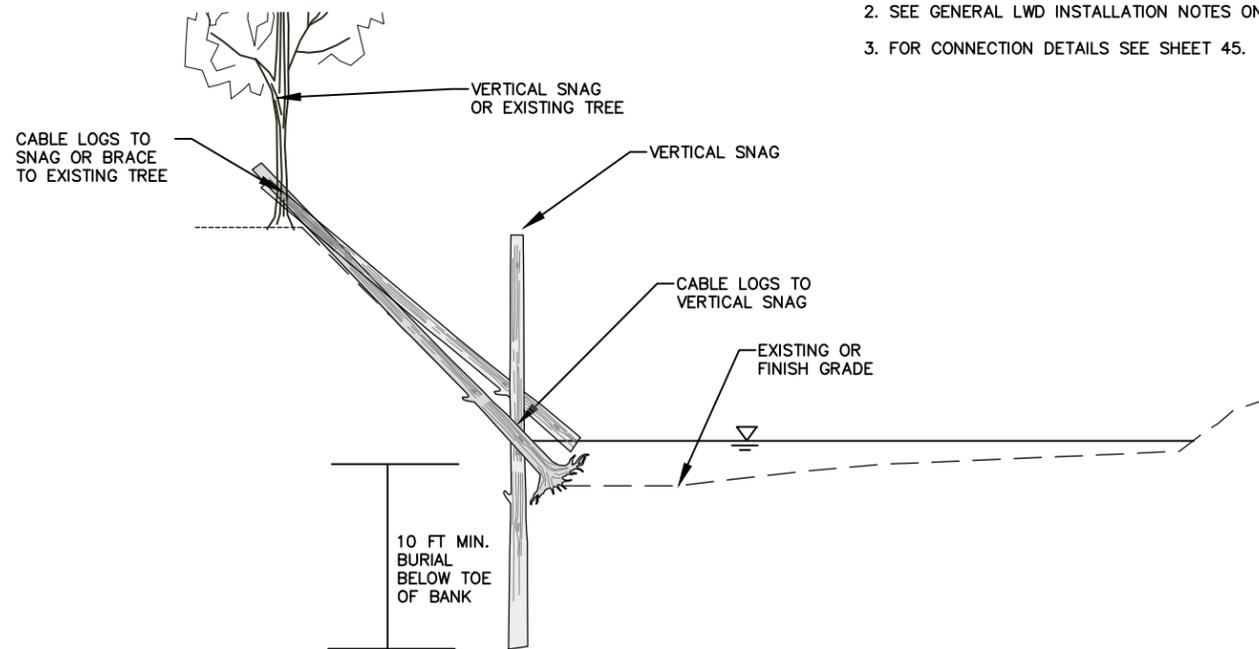
DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT LWD DETAILS – BACKWATER CHANNEL AND POOL ENHANCEMENT		
FILE NAME: 7345	DRAWING NUMBER:	SHEET 40 OF 46
CONTRACT NUMBER: 45-6.1-7#3		



1 1 TYPICAL PLAN DETAIL
8 18 SLOPE LWD

GENERAL SHEET NOTES:

1. MATERIAL QUANTITIES DEPICTED ARE SCHEMATIC ONLY. REFERENCE SUMMARY TABLE ON THIS SHEET FOR TARGET MATERIAL QUANTITIES AT EACH LOG JAM AND LWD STRUCTURE.
2. SEE GENERAL LWD INSTALLATION NOTES ON SHEET 39
3. FOR CONNECTION DETAILS SEE SHEET 45.



A TYPICAL SECTION
- SLOPE LWD

STATION	TYPE*	NUMBER	LOGS	LOGS WITH ROOTWADS	SNAGS	CABLE ATTACHMENTS	BALLAST BOULDERS
OFF-CHANNEL ENHANCEMENT AREA A							
M326+25**	LJ	1	16	8	6	48	52
A1+50**	LJ	1	16	8	6	48	52
A2+00**	LJ	1	16	8	6	48	52
-	BW	5	30	15	20	90	90
-	FP	13	39	13	39	78	52
-	MISC	-	10	5	10	44	25
TOTAL AREA A			127	57	87	356	323
WALLACE PROPERTY							
M334+00**	LJ	1	16	8	6	48	52
-	TYPE 3***	1	55	65	0	125	0
-	FP	8	24	8	24	48	32
-	MISC	-	15	5	15	50	35
TOTAL WALLACE PROPERTY			110	86	45	271	119
OFF-CHANNEL ENHANCEMENT AREA B							
M340+25**	LJ	1	16	8	6	48	52
-	BW	5	30	15	20	90	90
-	P	1	2	3	2	10	10
-	SL	4	4	4	4	16	0
-	FP	2	6	2	6	12	8
-	MISC	-	10	5	5	30	13
TOTAL AREA B			68	37	43	206	173
OFF-CHANNEL ENHANCEMENT AREA C							
M361+00**	LJ	1	16	8	6	48	52
M368+25**	LJ	1	16	8	6	48	52
-	BW	7	42	21	28	126	126
-	FP	20	60	20	60	120	80
-	MISC	-	15	7	15	50	35
TOTAL AREA C			149	64	115	392	345
MASCHERINI PROPERTY							
-	TYPE 4****	1	165	110	10	330	28
-	MISC	-	10	5	3	30	30
TOTAL MASCHERINI PROPERTY			175	115	13	360	58
MAINSTEM INSTREAM POOL ENHANCEMENTS							
-	P	3	6	9	6	30	30
-	MISC	-	2	3	2	10	10
TOTAL INSTREAM POOL ENHANCEMENTS			8	12	8	40	40
TOTALS			637	371	311	1625	1058

* LJ: LOG JAM
 BW: BACKWATER LWD
 FP: FLOODPLAIN LWD
 P: POOL ENHANCEMENT LWD
 SL: SLOPE PLACEMENT LWD
 MISC: SUPPLEMENTAL LWD ALLOWANCE
 TYPE 3: TYPE 3 BANK
 TYPE 4: TYPE 4 BANK

** TREATMENT LENGTH 40 FT. MEASURED PARALLEL TO LOG JAM FACE
 *** TREATMENT LENGTH 315 FT. MEASURED PARALLEL TO TREATMENT FACE
 **** TREATMENT LENGTH 515 FT. MEASURED PARALLEL TO TREATMENT FACE

2 SUMMARY TABLE
- LOG JAM AND LWD INSTALLATION QUANTITIES

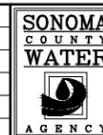


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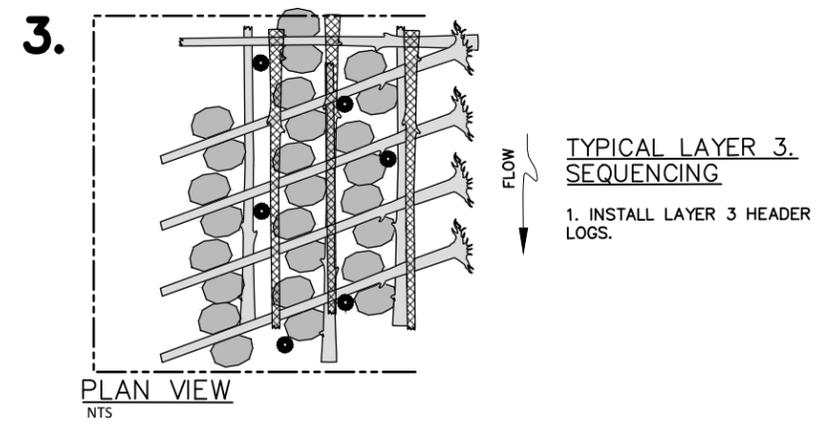
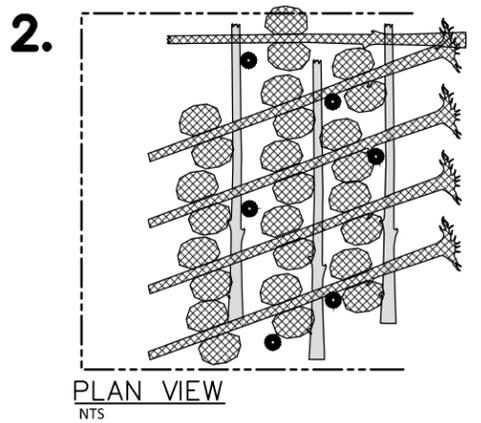
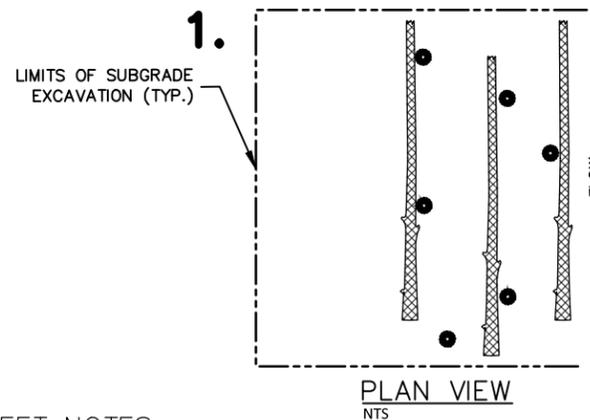


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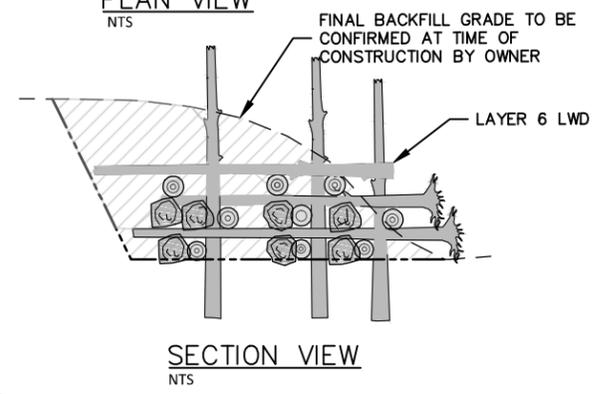
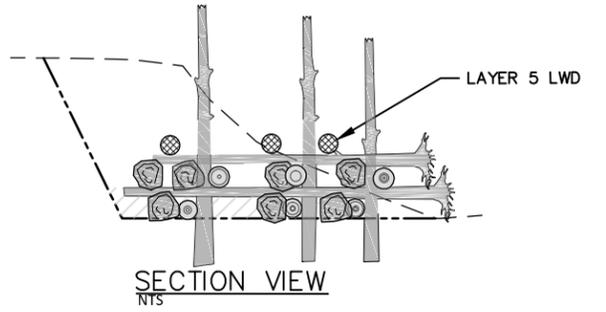
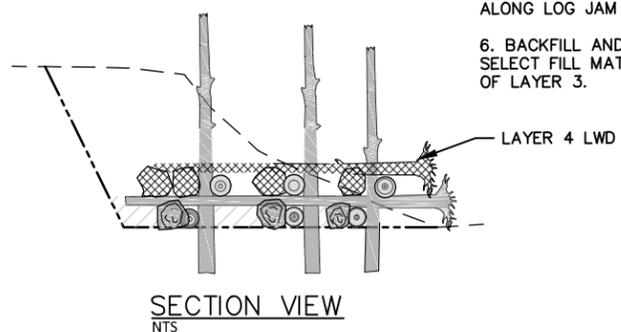
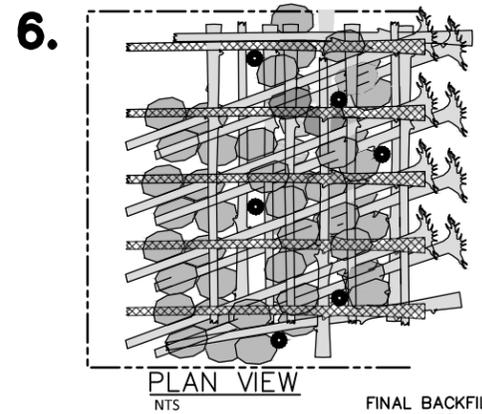
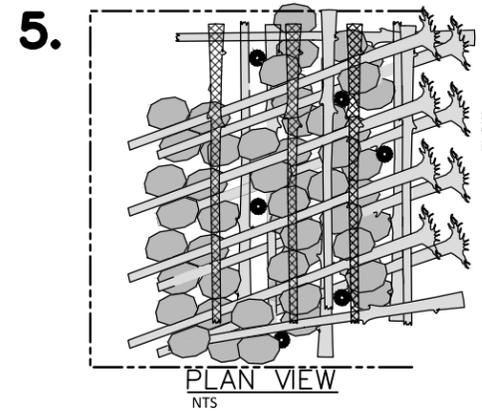
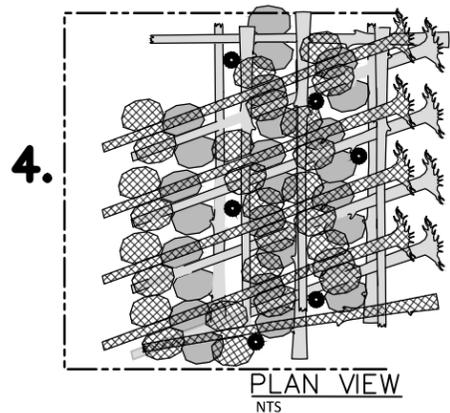
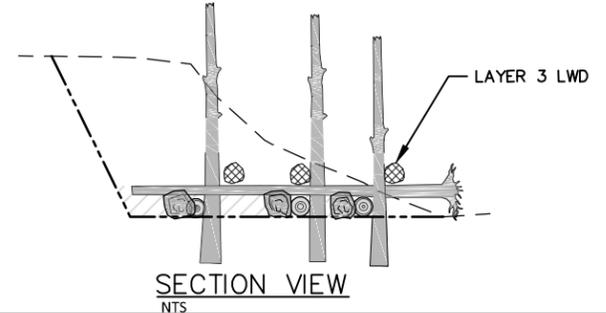
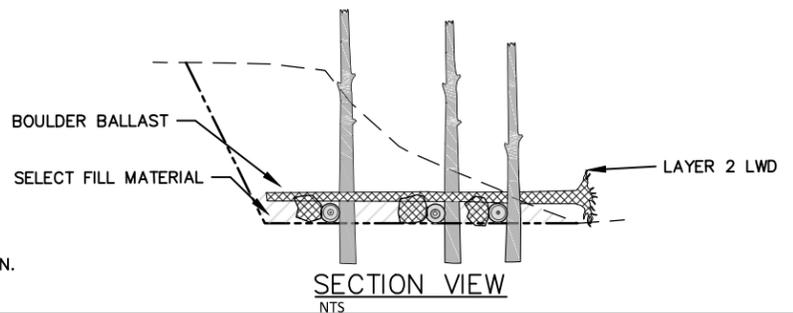
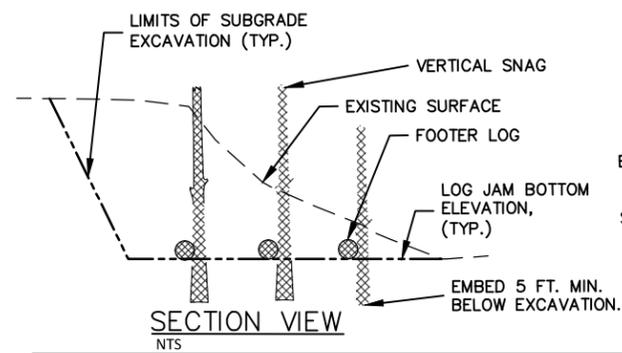
DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT
 LWD DETAILS - SLOPE LWD
 AND LWD SUMMARY TABLE

FILE NAME: 7345
 CONTRACT NUMBER: 45-6.1-7#3
 DRAWING NUMBER:
 SHEET 41 OF 46



GENERAL SHEET NOTES:

1. MATERIAL QUANTITIES DEPICTED ARE SCHEMATIC ONLY. REFERENCE SUMMARY TABLE ON SHEET 41 FOR TARGET MATERIAL QUANTITIES AT EACH LOG JAM AND LWD STRUCTURE.
2. SEQUENCING PROVIDED TO REFLECT GENERAL LEVEL OF EFFORT FOR LOG JAM CONSTRUCTION.
3. SEE GENERAL LWD CONSTRUCTION NOTES ON SHEET 39.
4. SEE SHEETS 27-28 FOR DESIGN ELEVATIONS FOR EACH LOG JAM.
5. FOR CONNECTION DETAILS SEE SHEET 45.
6. EXISTING TREES MAY BE INTEGRATED INTO LOG JAMS AT SELECT LOCATIONS IF DESIGNATED BY OWNER.



1
-
TYPICAL SEQUENCE LOG JAM
NTS

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BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY

RECORD INFORMATION				
NO.	DATE	REVISION	BY	

SONOMA COUNTY WATER AGENCY

SCALE: _____

DATE: 1/23/2013

DRAWN: REP

CHECKED: MB

REVIEWED: *[Signature]*

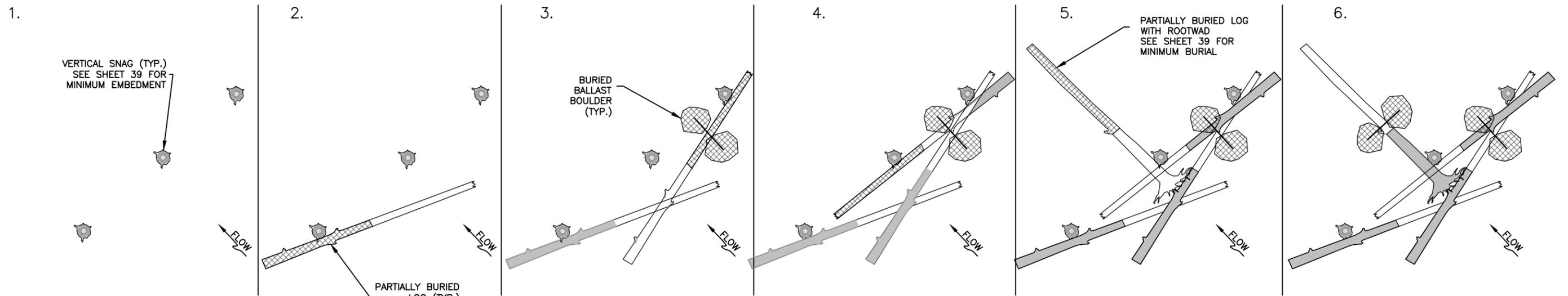
REVIEWED: *[Signature]*

DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT
TYPICAL SEQUENCE DETAILS - LOG JAM

FILE NAME: 7345
CONTRACT NUMBER: 45-6.1-7#3

DRAWING NUMBER: _____

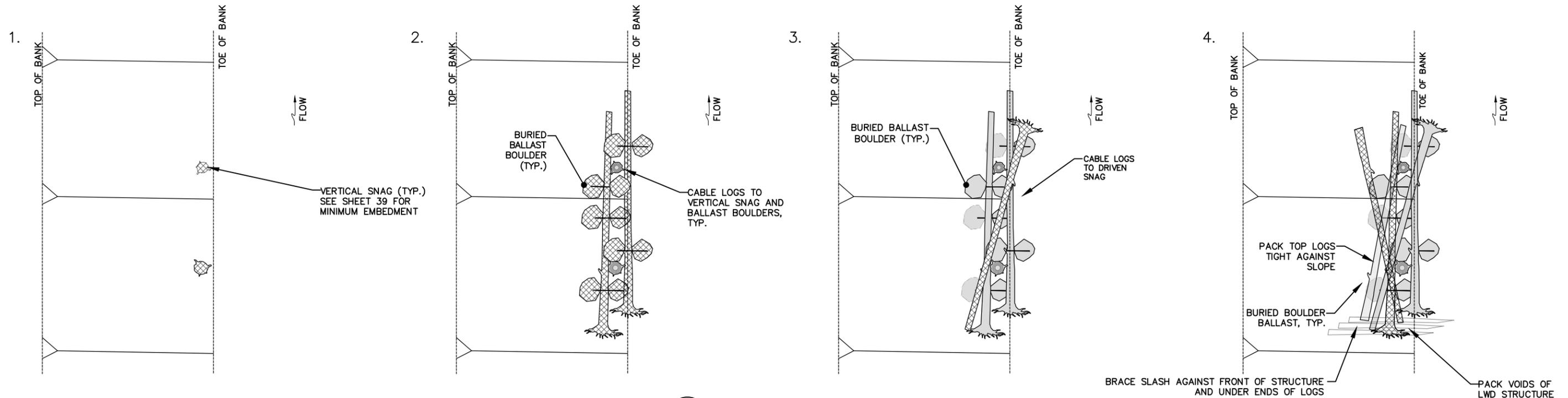
SHEET 42 OF 46



1 TYPICAL SEQUENCE
— FLOODPLAIN LWD

GENERAL SHEET NOTES:

1. MATERIAL QUANTITIES DEPICTED ARE SCHEMATIC ONLY. REFERENCE SUMMARY TABLE ON SHEET 41 FOR TARGET MATERIAL QUANTITIES AT EACH LOG JAM AND LWD STRUCTURE.
2. SEQUENCING PROVIDED TO REFLECT GENERAL LEVEL OF EFFORT FOR LWD CONSTRUCTION.
3. SEE GENERAL LWD INSTALLATION NOTES ON SHEET 39
4. SEE SHEET 45 FOR CABLING DETAILS.



2 TYPICAL SEQUENCE
— POOL ENHANCEMENT LWD



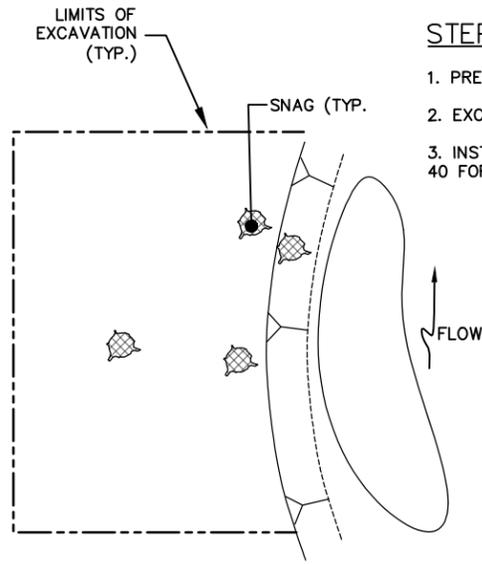
BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY

RECORD INFORMATION			
NO.	DATE	REVISION	BY

	SCALE:	REVIEWED:
	DATE: 1/23/2013	<i>[Signature]</i>
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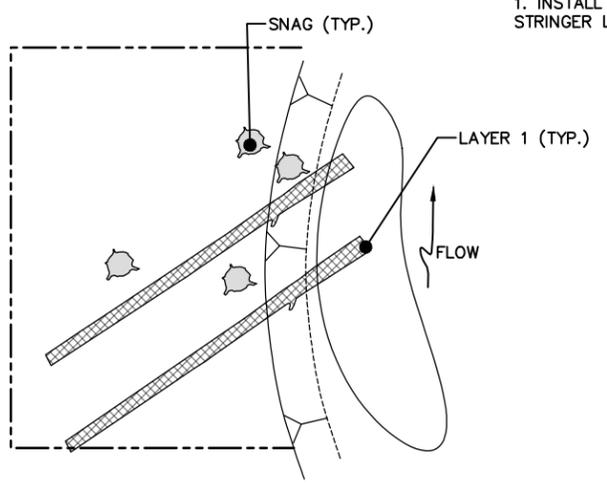
DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT TYPICAL SEQUENCE DETAILS – FLOODPLAIN AND POOL ENHANCEMENT LWD		
FILE NAME: 7345	DRAWING NUMBER:	SHEET 43 OF 46
CONTRACT NUMBER: 45-6.1-7#3		

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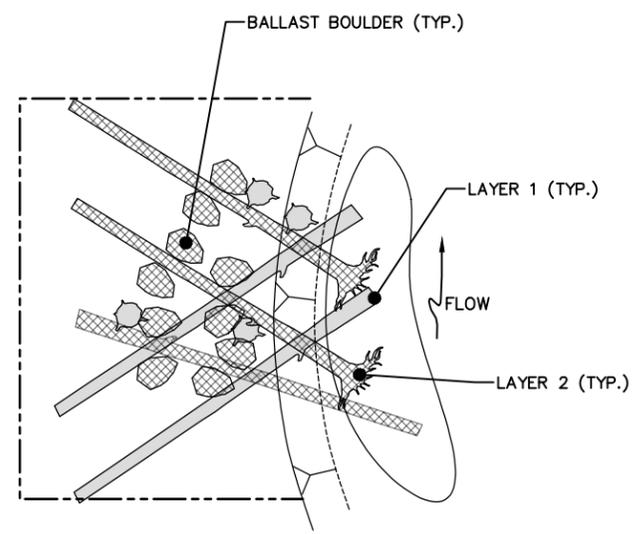
- STEP 1.**
1. PREPARE SITE
 2. EXCAVATE TO SUBGRADE.
 3. INSTALL SNAGS. SEE SHEET 40 FOR MINIMUM EMBEDMENT

PLAN VIEW
NTS



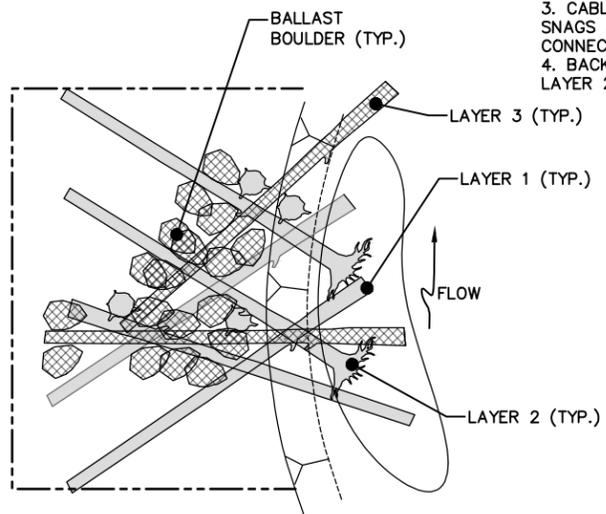
- STEP 2.**
1. INSTALL LAYER 1 STRINGER LOGS

PLAN VIEW
NTS



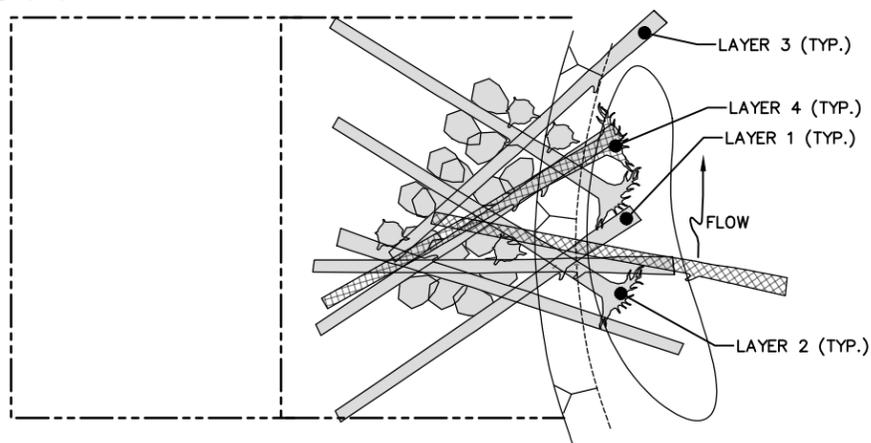
- STEP 3.**
1. INSTALL LAYER 2 LWD.
 2. INSTALL ASSOCIATED BOULDERS.
 3. CABLE LOGS TO LOGS, SNAGS AND BOULDERS. 2 CONNECTIONS PER LOG.
 4. BACKFILL LAYER 1

PLAN VIEW
NTS



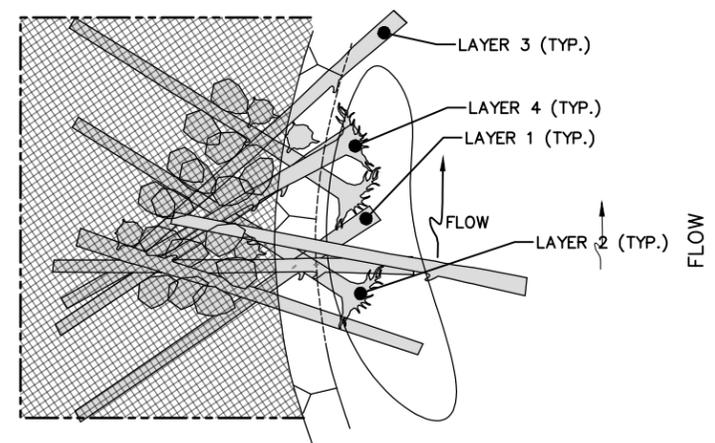
- STEP 4.**
1. INSTALL LAYER 3 LWD.
 2. INSTALL ASSOCIATED BOULDERS.
 3. CABLE LOGS TO LOGS, SNAGS AND BOULDERS. 2 CONNECTIONS PER LWD.
 4. BACKFILL TO TOP OF LAYER 2.

PLAN VIEW
NTS



- STEP 5.**
1. INSTALL LAYER 4 LWD.
 2. CABLE LOGS TO LOGS, SNAGS AND BOULDERS. 2 CONNECTIONS PER LWD.

PLAN VIEW
NTS



- STEP 6.**
1. BACKFILL WITH SELECT FILL. CONFIRM BACKFILL EXTENT WITH OWNER.

PLAN VIEW
NTS

GENERAL SHEET NOTES:

1. MATERIAL QUANTITIES DEPICTED ARE SCHEMATIC ONLY. REFERENCE SUMMARY TABLE ON SHEET 41 FOR TARGET MATERIAL QUANTITIES AT EACH LOG JAM AND LWD STRUCTURE.
2. SEE GENERAL LWD INSTALLATION NOTES ON SHEET 39.
3. SEQUENCING PROVIDED TO REFLECT GENERAL LEVEL OF EFFORT FOR LWD CONSTRUCTION.
4. FOR CONNECTION DETAILS SEE SHEET 45.

1 TYPICAL SEQUENCE BACKWATER LWD
NTS

RECORD INFORMATION				
NO.	DATE	REVISION	BY	

SONOMA COUNTY WATER AGENCY

SCALE: _____
 DATE: 1/23/2013
 DRAWN: REP
 CHECKED: MB

REVIEWED: *[Signature]*
 REVIEWED: *[Signature]*

DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT
TYPICAL SEQUENCE DETAILS –
BACKWATER LWD

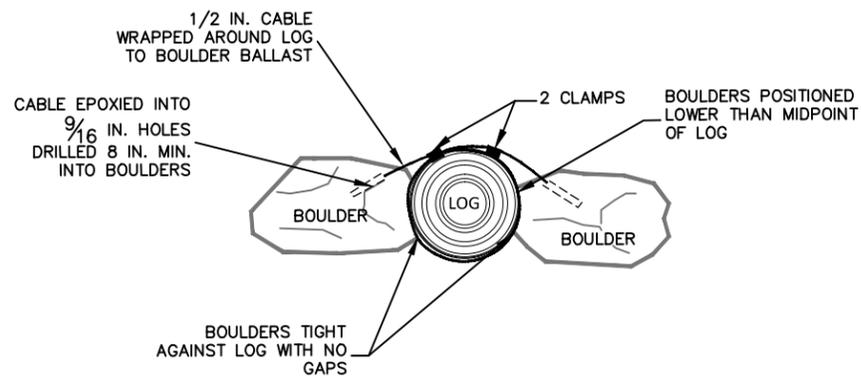
FILE NAME: 7345
 CONTRACT NUMBER: 45-6.1-7#3

DRAWING NUMBER: _____
 SHEET 44 OF 46

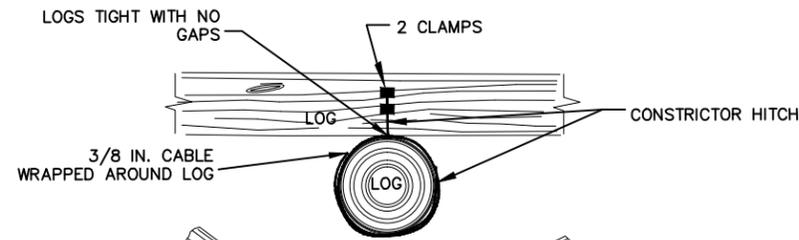
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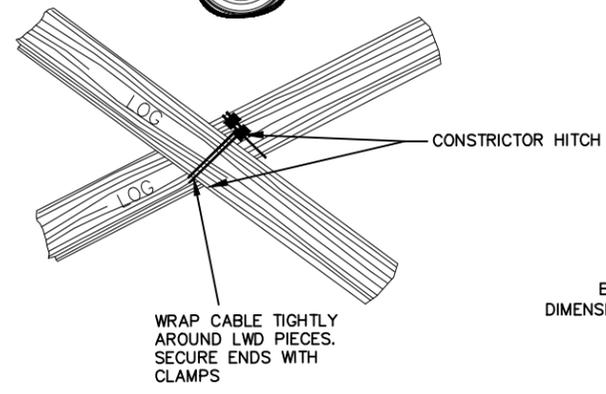
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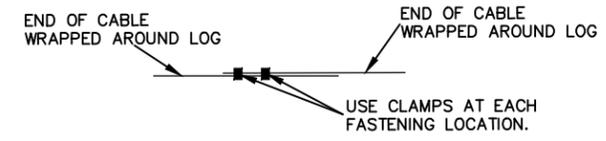
1 TYPICAL DETAIL
LOG CABLED TO BOULDERS
NTS



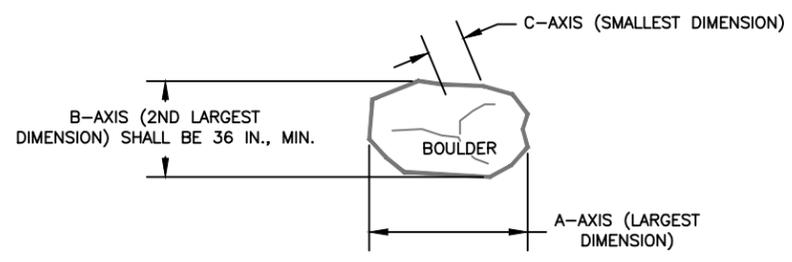
2 TYPICAL DETAIL
LOG CABLED TO LOG
NTS



3 TYPICAL DETAIL
BALLAST BOULDER
NTS



4 TYPICAL DETAIL
CABLE SPLICE
NTS



GENERAL NOTES

1. FINAL POSITIONING OF THE ANCHORED LOG STRUCTURES SHALL BE IN THE APPROXIMATE LOCATION AS SHOWN ON THE PLANS, ADJUSTED TO FIELD CONDITIONS, AND AS APPROVED BY THE BY THE OWNER. CABLING SITES AS APPROVED BY OWNER.
2. NO GAPS SHALL EXIST BETWEEN BOULDERS AND CABLED LWD. NO SLACK SHALL EXIST IN CABLE FOLLOWING EPOXY SET. NO GAPS SHALL EXIST BETWEEN LWD AT LWD TO LWD CONNECTIONS.
3. BOULDER BALLAST AND CABLE CONNECTIONS SHALL BE INSTALLED BELOW FINISH GRADE TO EXTENT PRACTICABLE.

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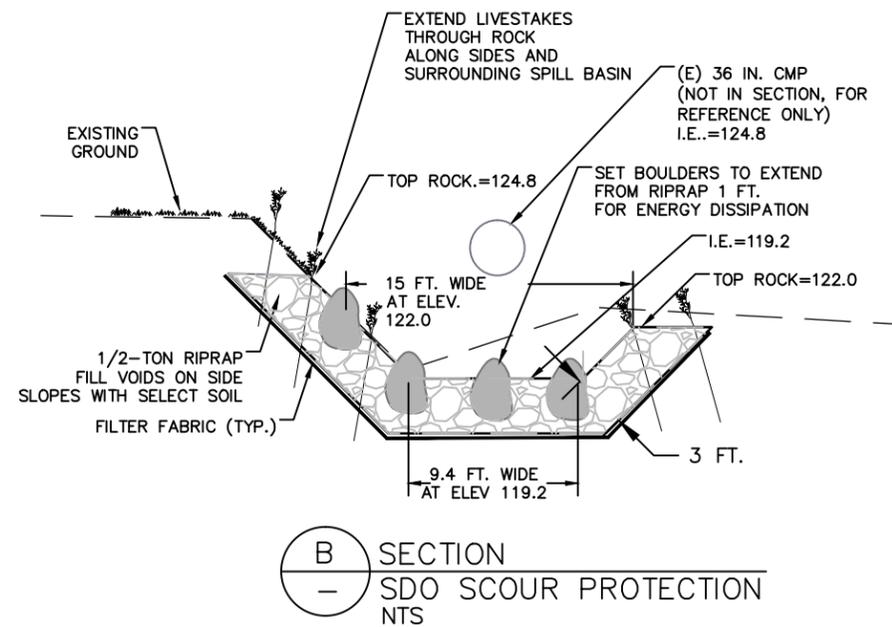
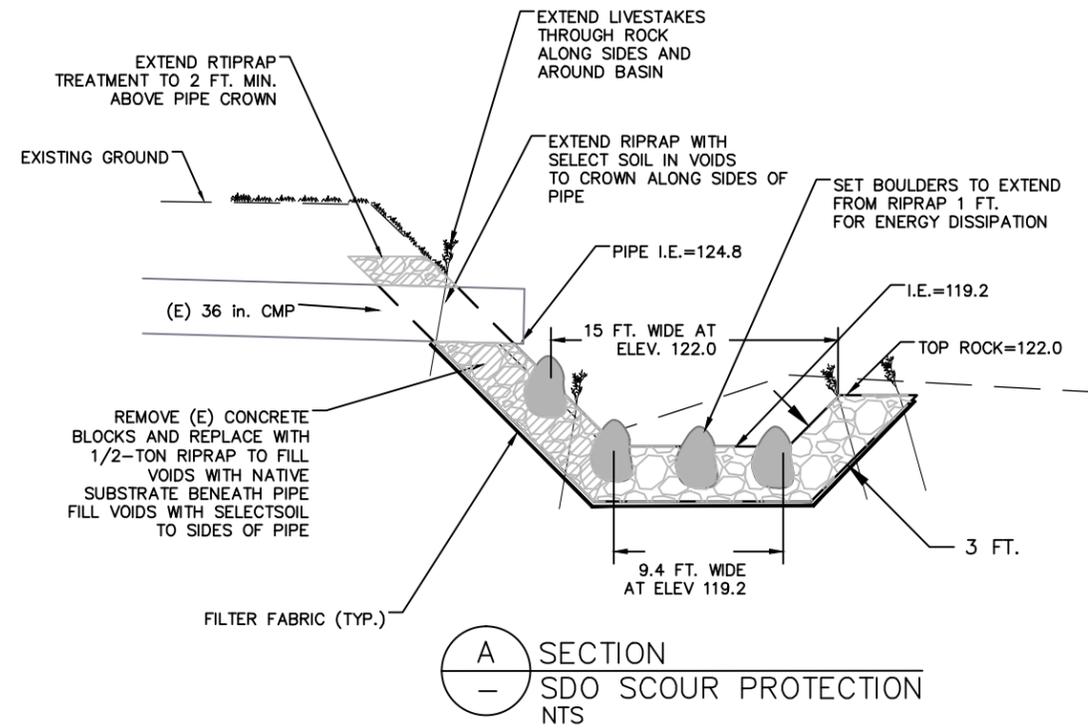
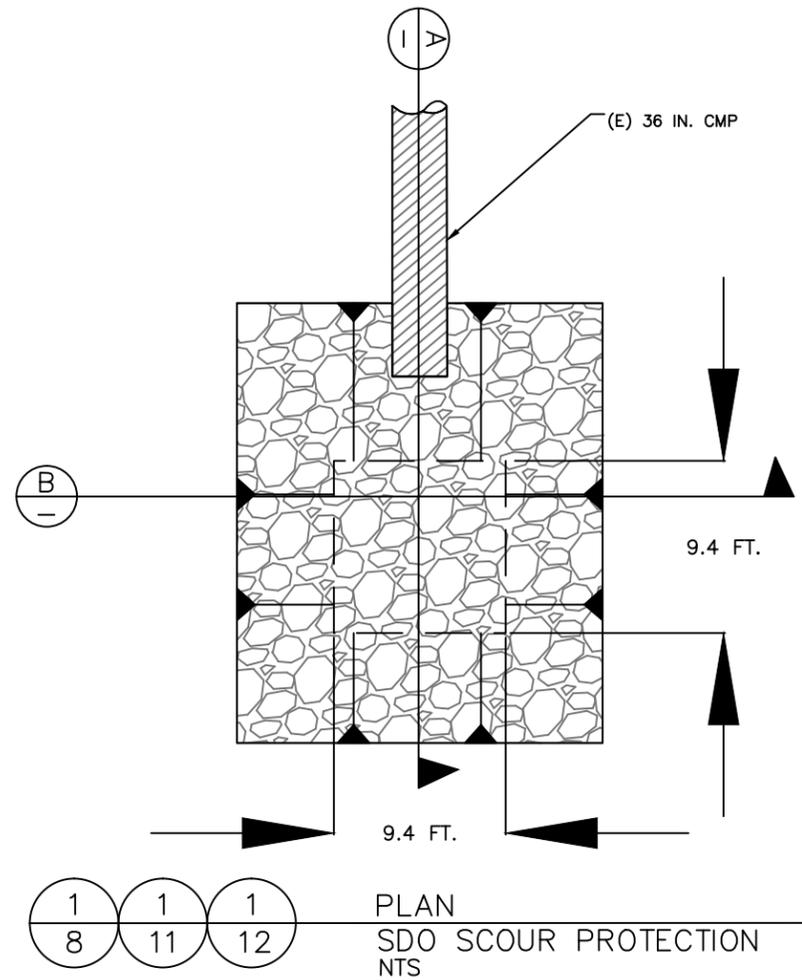


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NO.	DATE	REVISION	BY	AGENCY

	SCALE:	REVIEWED
	DATE: 1/23/2013	<i>[Signature]</i>
	DRAWN: REP	REVIEWED
	CHECKED: MB	<i>[Signature]</i>

DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT TYPICAL DETAILS – LWD CABLING AND BALLASTING		
FILE NAME: 7345	DRAWING NUMBER:	SHEET 45 OF 46
CONTRACT NUMBER: 45-6.1-7#3		



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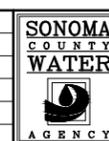


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Hood River, OR 97031
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RECORD INFORMATION				
NO.	DATE	REVISION	BY	



SCALE:	REVIEWED
DATE: 1/23/2013	<i>[Signature]</i>
DRAWN: REP	REVIEWED
CHECKED: MB	<i>[Signature]</i>

DRY CREEK HABITAT ENHANCEMENT DEMONSTRATION PROJECT DETAILS - SDO SCOUR PROTECTION		
FILE NAME: 7345	DRAWING NUMBER:	SHEET 46 OF 46
CONTRACT NUMBER: 45-6.1-7#3		